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Quantity Recipes for School Food Service

Acknowledgments

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Just for You .....

Your Master Set of .....

QUANTITY RECIPES FOR SCHOOL FOOD SERVICE, PA 1371*

These standardized school lunch recipes are the result of several years of development and testing by USDA. The recipes are unique because they are formulated to meet the National School Lunch Meal Pattern Requirements and to incorporate many USDA-donated commodities. If you measure ingredients accurately and follow directions carefully, you will produce high-quality products with consistent yields.

Because food production areas are active environments, even for sturdy recipe pages like these, you will want to protect your new recipes against spills and stains. Managers are encouraged to use this set as the RECIPE MASTER FILE. Select recipes needed for school menus and reproduce by photocopy. Use the copies in food preparation work areas and replace when they become worn or lost. Recipes should always be protected in plastic covers when being used in food preparation areas.

Take care of your new recipes. For safe storage, the tab divider pages are printed on both sides so they can be read if placed in a file drawer. However, if you prefer, the recipes may be placed in a three-ring binder with rings 2 1/2" diameter or larger.

In your hands and with your special skills, these recipes will result in appetizing foods for our Nation's school children.

U.S. Department of Agriculture
Food and Nutrition Service
Nutrition and Technical Services Division

* Quantity Recipes For School Food Service, PA 1371 are provided to schools by the U.S. Department of Agriculture's Food and Nutrition Service and are to remain the property of schools participating in the National School Lunch Program.

General Information

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Introduction

This publication contains quantity recipes and other information useful to food service personnel to prepare meals in schools participating in the National School Lunch Program (NSLP).

Standardized Recipes

All the recipes have been developed and standardized for product quality, consistency, and yield. In addition, most of the recipes are designed to contribute toward meeting the requirements for meat or meat alternate, vegetable or fruit, and bread or bread alternate components of the NSLP. The meal contribution(s), per serving, are included on each recipe as appropriate. (See A-2, "**School Lunch Patterns.**")

The use of standardized recipes is a management tool that can help control food and labor costs. The final step in the standardization process is for each individual school food service to further adapt these recipes to meet its own particular needs. For example, adjustments may need to be made in the recipes to fit a particular school's equipment. It is possible that the amount and types of seasonings used in the recipes may need to be adjusted to local tastes. Portion sizes may need to be adjusted to complement other menu items as well as the meal pattern age/grade groups being served. Schools cooking in high altitude areas will need to make basic adjustments to certain recipes.

The joint recommendation by the Departments of Agriculture and Health and Human Services to moderate fat, sugar, and sodium reflects current dietary concerns as expressed in *Nutrition and Your Health—Dietary Guidelines for Americans* (USDA Home and Garden Bulletin No. 232, second edition, 1985). It is generally agreed that lifelong moderate intake of these constituents is consistent with good health in the general population. Because school food service can play such an important role in the health and nutrition education of children, these recipes are designed to encourage the reduction of fat, sugar, and salt in school meals to the extent that is practical and acceptable. The dietary guidelines were among the many considerations in both the selection and the development of recipes.

The recipes generally contain moderate levels of fat, sugar, and salt, but amounts used are still within the limits of acceptable eating quality. Some recipes that are higher in these components can be included in the day's menu if other food choices are moderate. Herbs and spices are used to enhance flavors in recipes containing lessened amounts of salt. In addition, some whole-grain products and fruits and vegetables are included to contribute fiber as well as essential minerals and vitamins.

(For more ideas on how to moderate fat, sugar, and salt in school meals, refer to Appendix III of *Menu Planning Guide for School Food Service,* Program Aid No. 1260.)

School Lunch Patterns

The school lunch patterns, described in the following chart, provide a simple framework for planning nutritious and well-balanced lunches. The patterns allow broad food choices that take into account local food preferences and cultural, ethnic, and religious food practices. The requirements and recommendations for school lunches are designed to provide approximately one-third of the Recommended Dietary Allowances (RDA's) for various age groups of children as specified by the National Research Council of the National Academy of Sciences. It is not expected that each lunch each day will provide one-third of the RDA's for all nutrients; but that, when averaged over a period of time in which a wide variety of foods are served, the goal will be met.

To meet the requirements of the National School Lunch Program, a school lunch must contain a specified quantity of each of the food components (meat or meat alternate, vegetable or fruit, bread or bread alternate, and milk). The school lunch patterns specify food quantities by age/grade group. Note that Group IV is the one meal pattern that will satisfy all requirements if no portion size adjustments are made. In addition to the food groups specified, larger servings and other foods may be served at meals to improve acceptability, to satisfy students' appetites, to provide additional energy, and, if carefully chosen, to increase the nutritional quality of the lunch.

(For additional information on lunch requirements, recommendations, and policies, refer to Chapter I of *Menu Planning Guide for School Food Service,* Program Aid No. 1260.)

SCHOOL LUNCH PATTERNS FOR VARIOUS AGE/GRADE GROUPS

U.S. Department of Agriculture, National School Lunch Program

USDA recommends, but does not require, that portions be adjusted by age/grade group to better meet the food and nutritional needs of children according to their ages. If portions are adjusted, Groups I-IV are minimum requirements for the age/grade groups specified. If portions are not adjusted, the Group IV portions are the portions to serve all children.

Food Components	Food Items	Minimum Quantities: Preschool ages 1-2 (Group I)	Minimum Quantities: Preschool ages 3-4 (Group II)	Minimum Quantities: Grades K-3 ages 5-8 (Group III)	Minimum Quantities: Grades 4-12 age 9 and over (Group IV)	Recommended Quantities: Grades 7-12 age 12 and over (Group V)	Specific Requirements
MEAT OR MEAT ALTERNATE (quantity of the edible portion as served)	**A serving of one of the following or a combination to give an equivalent quantity:**						• Must be served in the main dish or the main dish and only one other menu item.
	Lean meat, poultry, or fish	1 oz	1½ oz	1½ oz	2 oz	3 oz	• Vegetable protein products, cheese alternate products, and enriched macaroni with fortified protein may be used to meet part of the meat or meat alternate requirement. Food and Nutrition Service fact sheets on each of these alternate foods give detailed instructions for use.
	Cheese	1 oz	1½ oz	1½ oz	2 oz	3 oz	
	Large egg(s)	½	¾	¾	1	1½	
	Cooked dry beans or peas	¼ cup	⅜ cup	⅜ cup	½ cup	¾ cup	
	Peanut butter or other nut or seed butters	2 Tbsp	3 Tbsp	3 Tbsp	4 Tbsp	6 Tbsp	
	Peanuts, soy nuts, tree nuts, or seeds, as listed in program guidance, meet no more than 50% of the requirement and must be combined in the meal with at least 50% of other meat or meat alternates. (1 oz of nuts/seeds = 1 oz of cooked lean meat, poultry, or fish.)	½ oz = 50%	¾ oz = 50%	¾ oz = 50%	1 oz = 50%	1½ oz = 50%	
VEGETABLE OR FRUIT	2 or more servings of vegetables or fruits or both to total	½ cup	½ cup	½ cup	¾ cup	¾ cup	• No more than one-half of the total requirement may be met with full-strength fruit or vegetable juice. • Cooked dry beans or peas may be used as a meat alternate or as a vegetable, but not as both in the same meal.
BREAD OR BREAD ALTERNATE	Servings of bread or bread alternate	5 per week	8 per week	8 per week	8 per week	10 per week	• Enriched macaroni with fortified protein may be used as a meat alternate or as a bread alternate, but not as both in the same meal. NOTE: *Food Buying Guide for Child Nutrition Programs,* Program Aid No. 1331 (1984), provides the information for the minumum weight of a serving.
	Must be enriched or whole-grain. A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or ½ cup of cooked rice, macaroni, noodles, other pasta products or cereal grains, or a combination of any of the above.	minimum of ½ serving per day	minimum of 1 serving per day	minimum of 1 serving per day	minimum of 1 serving per day	minimum of 1 serving per day	
MILK (as a beverage)	Fluid whole milk and fluid unflavored lowfat milk, skim millk, or buttermilk must be offered.	¾ cup (6 fl oz)	¾ cup (6 fl oz)	½ pint (8 fl oz)	½ pint (8 fl oz)	½ pint (8 fl oz)	

What This Publication Includes

This recipe file is arranged in nine sections:

A — **General Information**

B — **Bread and Cereal Products**

C — **Desserts**

D — **Main Dishes**

E — **Salads and Salad Dressings**

F — **Sandwiches**

G — **Sauces, Gravies, and Seasoning Mixes**

H — **Soups**

I — **Vegetables**

Most sections begin with instructional information. In all sections, the recipes are arranged alphabetically and are numbered consecutively.

General Information

The general information section covers a wide variety of general topics, for instance portioning and measuring, conversion charts, and garnishing techniques, to name just a few.

The Recipes

Most of the recipes in sections B through I are designed to help meet the school lunch pattern requirements (See the preceding chart, "**School Lunch Patterns for Various Age/Grade Groups**").

The Recipe Card

The top portion of each recipe contains the following information:

- The name of the recipe in the center.
- The section, such as Main Dishes, and the page number in the upper right corner.
- The kind of contribution made to the school lunch pattern in the upper left corner. The contribution may be Meat/Meat Alternate, Vegetable/Fruit, Bread/Bread Alternate, or any combination of these. (See A-2, "**School Lunch Patterns.**")

Ingredients—The ingredients are listed in the first column in the form in which they are to be used in the recipe and in the order of use. All foods listed can be purchased on the regular commercial market. However, where applicable, the recipes have been standardized with USDA-donated commodities, such as ground beef with no more than 24 percent fat. (See *Food Buying Guide for Child Nutrition Programs,* Program Aid No. 1331, for additional yield information on USDA-donated commodities and foods purchased on the regular commercial market.)

Alternative ingredients—These are sometimes given for use in place of a similar ingredient in the recipe, for example, dehydrated onions instead of fresh onions. Alternative ingredients are always listed on separate lines, divided by the word "**OR**." When preparing a recipe, choose one **OR** the other of the alternative ingredients listed, for example, dehydrated onions **OR** fresh onions.

Optional ingredients—These may be added to enhance the flavor or acceptability of the recipe. These ingredients are immediately followed by the word "(optional)"; for example, Thyme (optional). Optional ingredients, if omitted, will not affect the quality of the recipe or its contribution to the school lunch pattern.

Weights and Measures—In most cases, the quantity of each ingredient is given in both weight and volume measures for both 50 and 100 servings.

For ____ Servings—When adjusting the recipe up or down for a different number of servings, enter the new quantity of each ingredient in this column. (See A-10, "**Recipe Adjustment: Method 1**" or A-13, "**Recipe Adjustment: Method 2.**")

Directions—This column tells how to prepare the recipe. Where appropriate, times and temperatures are given for both convection ovens and conventional ovens (also known as regular or deck ovens) and steamers.

Serving—This describes the amount or size of prepared food that makes one serving. When appropriate, it also indicates the contribution(s) the serving makes to the school lunch meal pattern, such as 3/4 cup (6-ounce ladle) provides 2 ounces of cooked lean meat and 1/4 cup of vegetable and fruit.

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What This Publication Includes (Continued)

Yield—This gives the approximate total yield of the recipe in gallons, loaves, or other appropriate units.

Variations—A variation is a slightly different way of preparing a recipe. It may call for replacing, adding to, or deleting ingredients. In addition, a variation may change the preparation method or cooking time. Variations are given where appropriate. All variations have been standardized.

Marketing Guide for Selected Items—A marketing guide is included for those recipes with ingredients that have a preparation loss or gain before they are ready to be used in recipes. For example, fresh celery and onions have a preparation loss, while rice and macaroni products have a preparation gain. The term "Food as Purchased" refers to the fresh form of the food, unless otherwise indicated.

Nutritive Value of a Serving of Food

The nutritive value of a serving of each recipe has been calculated and provided in a chart, entitled "Nutrients per Serving." Nutrient information can be used to plan or to evaluate meals. To evaluate a meal, add the nutrient values given in a recipe to nutrient information for other foods in the meal, and compare the totals to the Recommended Dietary Allowances (RDA's). The nutrient profile can also be used to share information with students, teachers, and parents.

Nutrients are given for the base recipes only. Nutrients for variations are not shown. The nutrients reported for each base recipe are calories, protein, carbohydrate, fat, cholesterol, vitamin A, vitamin C, thiamin, riboflavin, niacin, iron, calcium, phosphorus, potassium, and sodium. Vitamin A is reported in two different units: International Units (IU), commonly used in the past, and Retinol Equivalents (RE), the units currently used by the Food and Nutrition Board for expressing the RDA's for vitamin A.

Calorie and nutrient contents of the recipes were computed from data for each ingredient as listed in the recipe or as adjusted for cooking losses. All yield factors were taken from *Food Buying Guide for Child Nutrition Programs,* Program Aid No. 1331.

When a choice of ingredients is given in a recipe, the ingredient listed first was used to calculate the nutritive value of a serving of food. The use of alternative or optional ingredients during preparation may not change the quality of the food prepared from the recipes, but often changes the nutrient content from that shown on the recipe. In the calculations, data for chicken and beef stock were based on dehydrated bouillon reconstituted with water. In addition, when a recipe calls for cooking pasta in salted water, it was assumed that one-half of the salt is absorbed.

Calorie and nutrient values are from *USDA Nutrient Data Base for Standard Reference Release No. 4,* which is the tape version of revised Agriculture Handbooks Nos. 8, with supplemental data from Agriculture Handbook No. 456; and from *Nutritive Value of Foods,* Home and Garden Bulletin No. 72, revised 1985. Unpublished data were obtained from the Nutrient Data Research Branch, Human Nutrition Information Service, for those ingredients not included in the other sources.

Keeping Food Safe to Eat

Food handling, sanitation, and safety in school food service are regulated by State, county, and city health department codes. Become familiar with the regulations to prevent foodborne illness.

Handle and Store Food Properly

Be aware of the condition in which perishable foods are delivered. Be sure frozen foods are frozen solid and refrigerated foods feel cold. Certain factors can shorten a food's useful life, such as too much handling or improper temperature control before delivery.

Date incoming food items to help rotate stock properly. Placing oldest food out front will encourage the use of the foods on a "first-in, first-out" basis.

Maintain Strict Cleanliness

- **Employee**—Practice good personal hygiene. Adequately restrain hair. Wash hands frequently and properly with soap and water. Use a separate sink for washing hands. Cough or sneeze into disposable tissues only and wash hands afterwards. Do not sneeze or cough on food. No one with an infected cut or a skin infection should be permitted to work with food.

- **Equipment and Facility**—Keep equipment and facilities clean and sanitized. Use utensils to pick up and handle food. If using hands, wear disposable plastic gloves and throw the gloves away after use. Keep cutting boards, can openers, grinders, slicers, and work surfaces very clean. Sanitize equipment and work surfaces between use with raw and cooked foods. Check local health department codes for a list of sanitizing agents. Bacteria can "loiter" in towels and cloths. Discard disposable towels after use. Launder fabric towels frequently with sanitizing agents.

Keep Hot Foods Above 140 °F

Bacteria grow rapidly between 60 and 125 °F (including room temperature). Avoid holding foods in this temperature zone. If the serving of a hot food must be delayed, keep it at a holding temperature—between 140 and 165 °F. Although steamtables are designed to maintain holding temperatures, do not hold food on a steamtable for more than **2 hours**.

- **Follow directions**—Follow the directions on food labels to ensure that proper cooking methods, time, and temperature are used. Also refer to recipes for specific cooking instructions.

- **Cook thoroughly**—Cook meat and poultry to the "doneness" temperature recommended by the label or recipe. To make sure that meat and poultry are cooked all the way through, use a meat thermometer.

- **Cook completely**—Cook meat and poultry completely at one time. Partial cooking may encourage bacteria to grow before cooking is completed.

Keep Cold Foods Below 40 °F

Check refrigerators and freezers frequently with an appliance thermometer. The refrigerator should register 40 °F or lower. The freezer should read 0 °F or lower. Keep a daily log of temperature readings.

- **Refrigerating**—Since repeated handling can introduce bacteria into meat and poultry, prepackaged meat and poultry should remain in the original wrapping. When not prepackaged, meat should be loosely wrapped.

- **Freezing**—While "freezer burn" will not cause illness, it does make certain food tough and tasteless. To avoid "freezer burn" wrap freezer items in heavy freezer paper. Place new items to the rear of the freezer, and older items to the front. Date freezer packages to keep stock properly rotated.

- **Thawing**—Thaw frozen meat, poultry, and fish in the refrigerator until pliable (easy to separate). Do not thaw foods at room temperature.

Cooking Terms and Abbreviations

Terms Used to Describe Oven Temperatures

	Between
Very slow oven	**250 and 275 °F**
Slow oven	**300 and 325 °F**
Moderate oven	**350 and 375 °F**
Hot oven	**400 and 425 °F**
Very hot oven	**450 and 475 °F**
Extremely hot oven	**500 and 525 °F**

Always preheat the oven to the temperature specified in the recipe.

Note: Calibrate ovens regularly and check them often with an oven thermometer to make sure preset temperatures are being reached.

Abbreviations

tsp	**teaspoon**
Tbsp	**tablespoon**
oz	**ounce**
fl oz	**fluid ounce**
lb or #	**pound**
pt	**pint**
qt	**quart**
gal	**gallon**
wt	**weight**
No.	**number**
pkg	**package**
°F	**degree Fahrenheit**
°C	**degree Celsius**
x	**multiply**
÷	**divide**

Glossary of Terms for Processes and Methods

Bake ..... to cook by dry heat, usually in an oven. A suitable cooking method for meat, bread, and many other foods.

Barbecue ..... to roast or broil a food which is usually brushed with a highly seasoned sauce.

Baste ..... to spoon liquids, sauce, or meat juice over food to keep it moist during cooking and to add flavor.

Beat ..... to vigorously mix by hand or with mixing equipment to make the mixture light, fluffy, or smooth.

Blend ..... to mix two or more ingredients.

Boil ..... to cook rapidly in water or liquid so that bubbles rise and break on the surface.

Braise ..... to cook slowly in a covered container with a small amount of liquid or water. A suitable cooking method for less tender meat cuts.

Bread ..... to coat food with bread crumbs, cracker crumbs, or flour before cooking.

Broil ..... to cook by direct heat from a flame, electric unit, or glowing coals; a suitable cooking method for tender meat cuts.

Brown ..... to cook food, generally meat, until it is uniformly brown on all sides.

Chill ..... to cool a food with ice water or refrigeration.

Chop ..... to cut food into small pieces with a knife or chopping equipment.

Combine ..... to mix two or more ingredients together.

Cream ..... to work foods (such as shortening and sugar) together with a spoon or mixer, until soft and fluffy or until thoroughly blended.

Crumb ..... to cover a food with bread (or cracker) crumbs or to break food, such as bread, into crumbs.

Cut in ..... to mix solid fat, such as butter or margarine, into dry ingredients with a cutting motion so that the fat remains in small particles.

Dice ..... to cut into small cubes with a knife or chopping equipment.

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Cooking Terms and Abbreviations (Continued)

Dredge ..... to coat a food by dipping in crumbs, flour, cornmeal, sugar, or other coatings.

Fold ..... to combine several food ingredients into a mixture by gently turning the mixture, with a minimum of motions, until the ingredients are blended.

Fry ..... to cook in fat over heat in a skillet, pan, or griddle, or in a fryer.

Glaze ..... to coat with a mixture to produce a glossy appearance on the food.

Grill ..... to cook uncovered over direct heat on a griddle or pan, removing fat as it accumulates.

Grind ..... to chop or pulverize food, such as meat, into small particles by using a food chopping device or meat grinder.

Knead ..... to work with dough, such as bread dough, by pressing, folding, and stretching to develop the dough structure.

Leaven ..... to cause food, such as bread, to rise and increase volume by adding a leavening agent, such as yeast or baking powder.

Marinate ..... to soak a food, such as meat or vegetables, for a period of time in a sauce with herbs, spices, and condiments to enrich its flavor and/or to tenderize it.

Melt ..... to turn a solid food into a liquid by heating.

Mince ..... to finely chop food, such as garlic, into very small pieces.

Mix ..... to blend or combine two or more foods or ingredients.

Parboil ..... to boil in water briefly as a preliminary cooking step. May be used with vegetables and meat.

Pare ..... to thinly trim off the outer covering or skin of a food, such as potatoes.

Peel ..... to strip off the outer covering of a food, such as oranges.

Punch down .... to remove air bubbles from risen yeast dough by pushing the dough down with the fists.

Reconstitute .... to bring back a concentrated food, such as a juice concentrate, to the original strength—or a dry food, such as nonfat dry milk, to the original state—by adding liquid.

Rehydrate ..... to add fluids back into a dried food such as dehydrated onions.

Roast ..... to cook by dry heat, uncovered, in an oven. A suitable cooking method for tender meat roasts.

Scald ..... to heat a liquid, such as milk, to a temperature just below the boiling point. Tiny bubbles will appear around the edge of the pan.

Shred ..... to cut or grate foods into narrow strips.

Simmer ..... to cook in liquid that is kept just below the boiling point.

Slice ..... to cut a food with a knife or slicing equipment.

Steam ..... to cook food in steam generated by boiling water or in steam equipment.

Stir ..... to mix ingredients with a circular motion without beating.

Whip ..... to rapidly beat a food, such as eggs or cream, incorporating air to lighten the mixture and to increase its volume. Usually whipping is done with a whisk, fork, or mixing equipment.

Weighing and Measuring Ingredients

Both weight and volume measures are listed for most ingredients on each recipe. (For ingredients in amounts less than 2 ounces, and for liquids, only volume measures are given.) Keep in mind that **weighing** is more accurate than measuring. Whenever possible **weigh the ingredients.** If scales are not available, be sure to use the correct methods of **measuring** ingredients as suggested below:

To Measure Liquid and Dry Ingredients

- Use standard measuring equipment and/or utensils.
- Make measurements level.
- Use the **largest** appropriate measure to save time and to reduce margin of error. (Example: use a 1-gallon measure once rather than a 1-quart measure four times.) **Exception:** To measure flour, use no larger than a 1-quart measure. Otherwise, flour will pack.

Measuring Procedures for Common Foods

Flour (white or whole-grain), or meals:

- Spoon flour lightly into measure and level off with straight-edged knife or spatula. (Recipes were standardized without sifting.)
- Do not shake or tap measure.
- Be sure flour does not pack. (Flour should be measured in nothing larger than quarts.)

Nonfat dry milk:

- Stir lightly. Spoon into measure and level off with a spatula.

Dried whole eggs:

- Spoon lightly into measure and level off with a spatula.

Sugar, granulated, white or brown:

- Spoon into measure and level off with a spatula. If lumpy, sift before measuring.

Brown sugar, packed:

- If lumpy, roll out lumps with rolling pin. Pack regular brown sugar firmly into measure. The sugar should take the shape of the container when turned out.

Baking powder, baking soda, and dry spices:

- Stir lightly. Fill measuring spoons to heaping. Level with spatula.

Butter, margarine, and shortening:

- Press solid fat firmly into measure and level off with spatula.
- When formed in measurable sticks or pounds, simply slice off the amount needed. For easy measuring:

  1 stick (¼ pound) measures about ½ cup.

  4 sticks (1 pound) or 1-pound block measure about 2 cups.

Substitution of Ingredients in Recipes

Ingredients that may be used in place of ingredients listed in a recipe are given below.

In place of	Use
1 teaspoon baking powder	¼ teaspoon baking soda plus ⅝ teaspoon cream of tartar
1 tablespoon double-acting baking powder	¾ teaspoon baking soda plus 1½ cups buttermilk or sour milk (to replace 1½ cups liquid)
1 package active dry yeast (¼ ounce)	2¼ teaspoons active dry yeast
1 ounce active dry yeast	¾ ounce instant yeast (check manufacturer's instructions) **OR** 2 ounces compressed yeast

In place of	Use
1 cup flour (for thickening)	½ cup cornstarch **OR** ⅔ cup granulated tapioca
1 cup cake flour	1 cup all-purpose flour minus 2 tablespoons
1 ounce or 1 square chocolate	3 tablespoons cocoa plus 1 tablespoon fat
1 cup margarine	1 cup butter
1 cup shortening	1 to 1⅛ cups butter and subtract ½ teaspoon salt from the recipe
4 No. 10 cans tomato juice	1 No. 10 can tomato paste plus 3 No. 10 cans water

In place of	Use
2 No. 10 cans tomato puree	1 No. 10 can tomato paste plus 1 No. 10 can water
1 quart lemon juice	1 cup lemon juice concentrate (3 to 1) plus 3 cups water
Whole eggs	See A-16, "**Dried Eggs,**" or A-17, "**Frozen Eggs**"

Can Sizes (Common Weights and Measures)

Can Size[1]	Average Net Weight or Fluid Measure Per Can[2]	Average Volume Per Can in Cups	Cans Per Case	Approximate No. of Cans Equal to No. 10 Can[3]	Common Products Found in Can Size
					Institutional Size:
No. 10	6 lb 2 oz (98 oz) to 7 lb 5 oz (117 oz)	12 to 13⅔	6	1	Fruit and vegetables; some other foods
No. 3 Cyl	51 oz (3 lb 3 oz) or 46 fl oz (1 qt 1⅞ cups)	5¾	12	2	Condensed soups, some vegetables, meat and poultry products, fruit and vegetable juices
					Family Size:
No. 2½	26 oz (1 lb 10 oz) to 30 oz (1 lb 14 oz)	3½	24	3½	Fruits, some vegetables
No. 2 Cyl	24 fl oz (3 cups)	3	24	4	Juices, soups
No. 2	20 oz (1 lb 4 oz) or 18 fl oz (2¼ cups)	2½	24	5	Juices, ready-to-serve soups, some fruits
					Small Cans:
303	16 oz (1 lb) to 17 oz (1 lb 1 oz)	2	24 or 36	6½	Fruits and vegetables, some meats and poultry products, and ready-to-serve soups
No. 300	14 oz to 16 oz (1 lb)	1¾	24	7	Some fruits and meat products
No 2 (Vacuum)	12 oz	1½	24	8 to 9	Vacuum pack corn
No. 1 (Picnic)	10½ oz to 12 oz	1¼	48	10 to 11	Condensed soups, some fruits, vegetables, meats, and fish
8 oz	8 oz	1	48 or 72	12	Ready-to-serve soups, fruits, and vegetables

[1]Can sizes are industry terms and do not necessarily appear on the label.
[2]The net weight on can or jar labels differs according to the density of the contents. For example: A No. 10 can of sauerkraut weighs 6 lb 3 oz; a No. 10 can of cranberry sauce weighs 7 lb 5 oz. Meats, fish, and shellfish are known and sold by weight of contents.
[3]Number of cans to equal a No. 10 can are approximate measures. More exact measures can be made by using exact volume or weight of contents.

Recipe Adjustment—Method 1 (Factor Method)

Most of the recipes are standardized to yield both 50 and 100 servings; for example, 50 and 100 4-ounce (1/2 cup) ladles of Chili Con Carne. A few recipes, such as Barbecue Sauce, are given in quart and gallon measurements. Since few schools serve exactly 50 or 100 portions, it is usually necessary to increase or decrease the number of servings in a recipe. Follow the directions below to adjust a recipe to produce the required number of servings. Use the tables **"Decimal Equivalents for Fractions (of 1 Pound, 1 Cup, or 1 Gallon)"** (see A-11) and **"Common Measures"** (see A-12), in addition to the table below, as aids.

Fraction to Decimal Equivalents

Fraction		Decimal
1/8	=	0.12
1/4	=	0.25
3/8	=	0.38
1/2	=	0.50
5/8	=	0.62
3/4	=	0.75
7/8	=	0.88

To Calculate the Quantities of Food Needed in a Recipe

1. On the front of the recipe, in the column headed "For ____ Servings," write the number of servings needed.

   For example: For 160 Servings

2. Divide this number by 100 to obtain a factor.

   For example: 160 ÷ 100 = 1.6 (factor)

3. Multiply the amount of each ingredient in the 100-servings column (weight or measure) by the factor to obtain the amount to prepare for the adjusted number of servings. Remember to use the weights or measures from the 100-servings column and to choose between alternative ingredients, if given. Adjusting a recipe by weight is recommended; however, if volume measures will be used in preparing the recipe, adjust by volume measures.

4. Convert the amount of each ingredient in the adjusted recipe to the nearest measurable amount.

5. Write the adjusted amount on the line in the "For ____ Servings" column across from each ingredient. See examples below for adjusting by weight or volume.

Adjusting by Weight

Example 1: 14 ounces of an ingredient are specified for 100 servings and the factor obtained by the previous calculation is 1.6. Make the following calculation:

14 ounces	x	1.6	=	22.4 ounces
(amount for 100 servings)		(factor)		(amount in adjusted recipe)

Convert 22.4 ounces into pounds and ounces using A-12, **"Common Measures,"** as a guide (22.4 ounces is 1 lb 6.4 ounces). The decimal .4 will need to be changed to the nearest measurable amount such as 3/8 or 1/2 ounce depending on the sensitivity of the scale used.

Example 2: 1 lb 8 oz of an ingredient is specified for 100 servings and the factor obtained by the previous calculation is 1.6. First, change the ounce measure to the decimal part of a pound. See A-11, **"Decimal Equivalents for Fractions (of 1 Pound, 1 Cup, or 1 Gallon)."**

1 lb 8 oz			=	1.5 lb
(amount for 100 servings)				(decimal equivalent)
1.5 lb	x	1.6	=	2.4 lb
		(factor)		(amount in adjusted recipe)

Convert the decimal part of the pound (.4) to the nearest measurable amount (6 ounces or 1/3 pound). See A-11, **"Decimal Equivalents for Fractions (of 1 Pound, 1 Cup, or 1 Gallon)."**

(Continued on back)

Recipe Adjustment—Method 1 (Continued)

Adjusting by Volume (Measure)

Example 1: 2 cups of an ingredient are specified for 100 servings and the factor obtained by the previous calculation is 1.6. Make the following calculation:

2 cups	x	1.6	=	3.20 cups
(amount for 100 servings)		(factor)		(amount in adjusted recipe)

Increase 3.20 cups to the next higher measurable amount, 3.25 cups (3-1/4 cups). See **"Fraction to Decimal Equivalents"** table, above.

Example 2: 1-1/4 cups are specified for 100 servings and the factor obtained by the previous calculation is 1.6. Change the fraction to the nearest decimal equivalent. See **"Fraction to Decimal Equivalents"** table, above.

1-1/4 cups	=	1.25 cups
(amount for 100 servings)		(decimal equivalent)

1.25 cups	x	1.6	=	2 cups
		(factor)		(amount in adjusted recipe)

To Calculate the Quantities of Food Needed From a Marketing Guide

1. In the Marketing Guide, in the column headed "For ____ Serving Recipe," write the number of servings needed.
2. Use the same factor as was used to adjust the recipe. To calculate the amount of each ingredient to purchase, multiply the factor by the weight or volume measure from the "For 100-Serving Recipe" column.
3. Write the amount to purchase in the "For ____ Serving Recipe" column across from each food item.

NOTE: The weight of the food as purchased should give the amount needed if good quality food is purchased and prepared by methods that result in a minimum of waste. More food may be needed to obtain the amount specified in the recipe if lower quality food is used and preparation losses are above average.

(Continued)

Recipe Adjustment—Method 1 (Continued)

How to Calculate the Quantities of Food Needed

Example: 350 Servings of Barbecued Chicken

Step 1: Write the number of servings needed. For example, "For 350 Servings."

Step 2: Divide the number of servings needed by 100 to obtain a factor. Remember to always use the weights or measures for 100 servings.

Step 3: Change fractions to decimals and ounces to parts of a pound. Then multiply each ingredient amount by the factor.

Step 4: Adjust the amount to the nearest measurable amount.

Ingredients	100 Servings		Step 2 Find a factor (In this example, 350 servings)	Step 3 Change fractions to decimals and to single units	Multiply each ingredient by the factor	Step 4 Adjust to nearest measurable amount
	Weight	Measure				
Chicken broth	.....	2½ cups	350 ÷ 100 = 3.5	2½ cups = 2.5 cups	2.5 x 3.5 = 8.75 cups	2 qt ¾ cup
*Fresh onions, chopped	6 oz	1 cup	.....	.....	6 x 3.5 = 21 oz	1 lb 5 oz
Catsup	7 lb 3 oz	1 No. 10 can	.....	.....	1 x 3.5 = 3.5 No. 10 cans	3½ No. 10 cans
Garlic powder	.....	2 tsp	.....	.....	2 x 3.5 = 7 tsp	2 Tbsp 1 tsp
Brown sugar, packed	1 lb 8 oz	3¼ cups	.....	1 lb 8 oz = 1.5 lb	1.5 x 3.5 = 5.25 lb	5 lb 4 oz
Chicken, cut-up, thawed (USDA-donated, whole, cut-up 8 pieces)	48 lb	.....	.....	.....	48 x 3.5 = 168 lb	168 lb

*See marketing guide.

Marketing Guide for Selected Items

Food as Purchased	For 100-Servings Recipe	For 350 Serving Recipe	Adjust to nearest measurable amount
Mature onions	7 oz	7 x 3.5 = 24.5 oz	1 lb 8.5 oz

Decimal Equivalents for Fractions

(of 1 Pound, 1 Cup, or 1 Gallon)

To use the table, read whole units at the left side and the fraction or part of the unit at the top of the table. If the units are ounces, the decimal equivalents in the table are parts of 1 pound. If the units are tablespoons, the decimal equivalents are parts of 1 cup. If the units are cups, the decimal equivalents are parts of 1 gallon.

Number of units (ounces, tablespoons, or cups)	no fraction	+ ¼ unit	+ ⅓ unit	+ ½ unit	+ ⅔ unit	+ ¾ unit
0	. . . . .	0.02	0.02	0.03	0.04	0.05
1	0.06	.08	.08	.09	.10	.11
2	.12	.14	.15	.16	.17	.17
3	.19	.20	.21	.22	.23	.23
4	.25	.27	.27	.28	.29	.30
5	.31	.33	.33	.34	.35	.36
6	.38	.39	.40	.41	.42	.42
7	.44	.45	.46	.47	.48	.48
8	.50	.52	.52	.53	.54	.55
9	.56	.58	.58	.59	.60	.61
10	.62	.64	.65	.66	.67	.67
11	.69	.70	.71	.72	.73	.73
12	.75	.77	.77	.78	.79	.80
13	.81	.83	.83	.84	.85	.86
14	.88	.89	.90	.91	.92	.92
15	.94	.95	.96	.97	.98	.98

Examples:

Ounces to pounds: To convert 10½ ounces to the corresponding decimal equivalent of a pound, find 10 in the first column on the left. Next, follow right on the same horizontal line to the column headed "+ ½ unit," which shows that 10½ ounces is equal to 0.66 pound.

Pounds to ounces: To convert 0.53 pound to ounces, find 0.53 in the body of the table. Follow left on the same horizontal line to the whole number, i.e., 8. Next, read the fraction of an ounce from the top number of the column in which 0.53 was found, i.e., ½. Thus, 0.53 pound equals 8½ ounces.

Common Measures

The following tables are designed to help convert parts of tablespoons, cups, quarts, gallons, and pounds to accurate measures, weights, or metric units.

Common Measures

Use the common measures tables to change teaspoons to tablespoons, tablespoons to cups, cups to quarts, quarts to gallons, or any combination.

Example: To determine the number of cups in ⅛ gallon:

1. Locate the table that includes gallon measures; move down the gallon column to ⅛ gal. The table shows that ⅛ gal = ½ qt.
2. Locate the table that includes quart and cup measures; move down the quart column to ½ qt. The table shows that ½ qt = 2 cups.

NOTE: The steps can be followed in reverse order to find, for example, the part of a gallon which equals 2 cups.

Teaspoons to Tablespoons		
3 tsp	**=**	**1 Tbsp**
2½ tsp	**=**	**⅞ Tbsp**
2¼ tsp	**=**	**¾ Tbsp**
2 tsp	**=**	**⅔ Tbsp**
1⅞ tsp	**=**	**⅝ Tbsp**
1½ tsp	**=**	**½ Tbsp**
1⅛ tsp	**=**	**⅜ Tbsp**
1 tsp	**=**	**⅓ Tbsp**
¾ tsp	**=**	**¼ Tbsp**

Tablespoons to Cups		
16 Tbsp	**=**	**1 cup**
14 Tbsp	**=**	**⅞ cup**
12 Tbsp	**=**	**¾ cup**
10⅔ Tbsp	**=**	**⅔ cup**
10 Tbsp	**=**	**⅝ cup**
8 Tbsp	**=**	**½ cup**
6 Tbsp	**=**	**⅜ cup**
5⅓ Tbsp	**=**	**⅓ cup**
4 Tbsp	**=**	**¼ cup**
2 Tbsp	**=**	**⅛ cup**
1 Tbsp	**=**	**1/16 cup**

Cups to Quarts		
4 cups	**=**	**1 qt**
3½ cups	**=**	**⅞ qt**
3 cup	**=**	**¾ qt**
2⅔ cups	**=**	**⅔ qt**
2½ cups	**=**	**⅝ qt**
2 cups	**=**	**½ qt**
1½ cups	**=**	**⅜ qt**
1⅓ cups	**=**	**⅓ qt**
1 cup	**=**	**¼ qt**
½ cup	**=**	**⅛ qt**
¼ cup	**=**	**1/16 qt**

Quarts to Gallons		
4 qt	**=**	**1 gal**
3½ qt	**=**	**⅞ gal**
3 qt	**=**	**¾ gal**
2⅔ qt	**=**	**⅔ gal**
2½ qt	**=**	**⅝ gal**
2 qt	**=**	**½ gal**
1½ qt	**=**	**⅜ gal**
1⅓ qt	**=**	**⅓ gal**
1 qt	**=**	**¼ gal**
½ qt	**=**	**⅛ gal**
¼ qt	**=**	**1/16 gal**

(Continued on back)

Common Measures (Continued)

Common Weights

Use the common weights table to change ounces to parts of pounds or parts of pounds to ounces.

Example: To determine what part of a pound 8 ounces is:

Move down the table to 8 ounces. The table shows that 8 oz = ½ lb.

Ounces to Pounds	
16 oz	**= 1 lb**
14 oz	**= ⅞ lb**
12 oz	**= ¾ lb**
10⅔ oz	**= ⅔ lb**
10 oz	**= ⅝ lb**
8 oz	**= ½ lb**
6 oz	**= ⅜ lb**
5⅓ oz	**= ⅓ lb**
4 oz	**= ¼ lb**
2 oz	**= ⅛ lb**
1 oz	**= 1/16 lb**

Metric Equivalents

Common to Metric	
2.2 lb	**= 1 kilogram (kg)**
2 lb	**= 907 grams (g)**
1 lb	**= 454 g**
8 oz	**= 227 g**
4 oz	**= 113 g**
1 oz	**= 28 g**

Common to Metric	
1.05 qt	**= 1 liter (L)**
1 quart	**= 946 milliliters (mL)**
1 cup	**= 237 mL**

Recipe Adjustment—Method 2 (Conversion Chart)

Using the following conversion charts (Ounce Chart, Pound and Ounce Chart, and Volume Measures Chart), it is simple to adjust ingredient weight and volume measures in recipes for the number of servings needed.

To Use the Conversion Charts for Changing the Number of Servings in a Quantity Recipe by Weight or Volume

1. Determine how many servings are needed. Use the conversion charts if the number of servings needed is evenly divisible by 25 (i.e., 50, 75, 100, etc.). Otherwise, use A-10, "**Recipe Adjustment — Method 1 (Factor Method)**" to determine amounts needed.
2. Find the column headed "Base 100 servings" and move down the column to the weight or volume listed in the 100-serving recipe.
3. On the same horizontal line, move across to the right to the appropriate column for the new number of servings in the **hundreds**, such as 100, 200, 300, etc. Write this figure down.
4. Next, move across to the left on the same horizontal line to the appropriate column for the new number of servings needed **under 100**, that is, 25, 50, or 75. Write this figure down.
5. Add the amounts found in the two columns to determine the amount of the ingredient needed for the adjusted recipe.

Conversion Charts for Changing the Number of Servings in a Quantity Recipe by Weight

Example: A 100-serving recipe calls for 4 ounces of a particular ingredient. 325 servings are needed. Find the column headed "Base 100 servings" and move down to the space marked "4 oz." Then, move across horizontally to the right to the column headed "300 servings," which shows that "12 oz" is the quantity needed for 300 servings. Next, move across to the left on the same horizontal line to the column headed "25 servings," which shows that "1 oz" is the quantity needed for 25 servings. The 1 oz plus the 12 oz = 13 oz, which is the amount of the ingredient needed for 325 servings.

Conversion Chart for Changing the Size of a Quantity Recipe by Volume (Measure)

Example: A 100-serving recipe calls for 1/3 cup of a particular ingredient. 325 servings are needed. Find the column headed "Base 100 servings" and move down to the space marked "1/3 cup." Then, move across horizontally to the right to the column headed "300 servings," which shows that 1 cup is the quantity needed for 300 servings. Next, move across on the same horizontal line to the left to the column headed "25 servings," which shows that 1⅓ Tbsp is the quantity needed for 25 servings. The 1⅓ Tbsp plus the 1 cup = 1 cup 1⅓ Tbsp, which is the amount of the ingredient needed for 325 servings.

(Continued on back)

Recipe Adjustment—Method 2 (Continued)

Ounce Chart

25 servings	50 servings	75 servings	Base 100 servings	200 servings	300 servings	400 servings	500 servings	600 servings	700 servings	800 servings
.....	.....	¼ oz	¼ oz	½ oz	¾ oz	1 oz	1¼ oz	1½ oz	1¾ oz	2 oz
.....	¼ oz	⅜ oz	½ oz	1 oz	1½ oz	2 oz	2½ oz	3 oz	3½ oz	4 oz
.....	⅜ oz	⅝ oz	¾ oz	1½ oz	2¼ oz	3 oz	3¾ oz	4½ oz	5¼ oz	6 oz
¼ oz	½ oz	¾ oz	1 oz	2 oz	3 oz	4 oz	5 oz	6 oz	7 oz	8 oz
½ oz	1 oz	1½ oz	2 oz	4 oz	6 oz	8 oz	10 oz	12 oz	14 oz	1 lb
¾ oz	1½ oz	2¼ oz	3 oz	6 oz	9 oz	12 oz	15 oz	1 lb 2 oz	1 lb 5 oz	1 lb 8 oz
1 oz	2 oz	3 oz	4 oz	8 oz	12 oz	1 lb	1 lb 4 oz	1 lb 8 oz	1 lb 12 oz	2 lb
1¼ oz	2½ oz	3¾ oz	5 oz	10 oz	15 oz	1 lb 4 oz	1 lb 9 oz	1 lb 14 oz	2 lb 3 oz	2 lb 8 oz
1½ oz	3 oz	4½ oz	6 oz	12 oz	1 lb 2 oz	1 lb 8 oz	1 lb 14 oz	2 lb 4 oz	2 lb 10 oz	3 lb
1¾ oz	3½ oz	5¼ oz	7 oz	14 oz	1 lb 5 oz	1 lb 12 oz	2 lb 3 oz	2 lb 10 oz	3 lb 1 oz	3 lb 8 oz
2 oz	4 oz	6 oz	8 oz	1 lb	1 lb 8 oz	2 lb	2 lb 8 oz	3 lb	3 lb 8 oz	4 lb
2¼ oz	4½ oz	6¾ oz	9 oz	1 lb 2 oz	1 lb 11 oz	2 lb 4 oz	2 lb 13 oz	3 lb 6 oz	3 lb 15 oz	4 lb 8 oz
2½ oz	5 oz	7½ oz	10 oz	1 lb 4 oz	1 lb 14 oz	2 lb 8 oz	3 lb 2 oz	3 lb 12 oz	4 lb 6 oz	5 lb
2¾ oz	5½ oz	8¼ oz	11 oz	1 lb 6 oz	2 lb 1 oz	2 lb 12 oz	3 lb 7 oz	4 lb 2 oz	4 lb 13 oz	5 lb 8 oz
3 oz	6 oz	9 oz	12 oz	1 lb 8 oz	2 lb 4 oz	3 lb	3 lb 12 oz	4 lb 8 oz	5 lb 4 oz	6 lb
3¼ oz	6½ oz	9¾ oz	13 oz	1 lb 10 oz	2 lb 7 oz	3 lb 4 oz	4 lb 1 oz	4 lb 14 oz	5 lb 11 oz	6 lb 8 oz
3½ oz	7 oz	10½ oz	14 oz	1 lb 12 oz	2 lb 10 oz	3 lb 8 oz	4 lb 6 oz	5 lb 4 oz	6 lb 2 oz	7 lb
3¾ oz	7½ oz	11¼ oz	15 oz	1 lb 14 oz	2 lb 13 oz	3 lb 12 oz	4 lb 11 oz	5 lb 10 oz	6 lb 9 oz	7 lb 8 oz

(Continued)

Recipe Adjustment—Method 2 (Continued)

Pound and Ounce Chart

25 servings	50 servings	75 servings	Base 100 servings	200 servings	300 servings	400 servings	500 servings	600 servings	700 servings	800 servings
4 oz	8 oz	12 oz	1 lb	2 lb	3 lb	4 lb	5 lb	6 lb	7 lb	8 lb
5 oz	10 oz	15 oz	1 lb 4 oz	2 lb 8 oz	3 lb 12 oz	5 lb	6 lb 4 oz	7 lb 8 oz	8 lb 12 oz	10 lb
6 oz	12 oz	1 lb 2 oz	1 lb 8 oz	3 lb	4 lb 8 oz	6 lb	7 lb 8 oz	9 lb	10 lb 8 oz	12 lb
7 oz	14 oz	1 lb 5 oz	1 lb 12 oz	3 lb 8 oz	5 lb 4 oz	7 lb	8 lb 12 oz	10 lb 8 oz	12 lb 4 oz	14 lb
8 oz	1 lb	1 lb 8 oz	2 lb	4 lb	6 lb	8 lb	10 lb	12 lb	14 lb	16 lb
9 oz	1 lb 2 oz	1 lb 11 oz	2 lb 4 oz	4 lb 8 oz	6 lb 12 oz	9 lb	11 lb 4 oz	13 lb 8 oz	15 lb 12 oz	18 lb
10 oz	1 lb 4 oz	1 lb 14 oz	2 lb 8 oz	5 lb	7 lb 8 oz	10 lb	12 lb 8 oz	15 lb	17 lb 8 oz	20 lb
11 oz	1 lb 6 oz	2 lb 1 oz	2 lb 12 oz	5 lb 8 oz	8 lb 4 oz	11 lb	13 lb 12 oz	16 lb 8 oz	19 lb 4 oz	22 lb
12 oz	1 lb 8 oz	2 lb 4 oz	3 lb	6 lb	9 lb	12 lb	15 lb	18 lb	21 lb	24 lb
13 oz	1 lb 10 oz	2 lb 7 oz	3 lb 4 oz	6 lb 8 oz	9 lb 12 oz	13 lb	16 lb 4 oz	19 lb 8 oz	22 lb 12 oz	26 lb
14 oz	1 lb 12 oz	2 lb 10 oz	3 lb 8 oz	7 lb	10 lb 8 oz	14 lb	17 lb 8 oz	21 lb	24 lb 8 oz	28 lb
15 oz	1 lb 14 oz	2 lb 13 oz	3 lb 12 oz	7 lb 8 oz	11 lb 4 oz	15 lb	18 lb 12 oz	22 lb 8 oz	26 lb 4 oz	30 lb
1 lb	2 lb	3 lb	4 lb	8 lb	12 lb	16 lb	20 lb	24 lb	28 lb	32 lb
1 lb 1 oz	2 lb 2 oz	3 lb 3 oz	4 lb 4 oz	8 lb 8 oz	12 lb 12 oz	17 lb	21 lb 4 oz	25 lb 8 oz	29 lb 12 oz	34 lb
1 lb 2 oz	2 lb 4 oz	3 lb 6 oz	4 lb 8 oz	9 lb	13 lb 8 oz	18 lb	22 lb 8 oz	27 lb	31 lb 8 oz	36 lb
1 lb 3 oz	2 lb 6 oz	3 lb 9 oz	4 lb 12 oz	9 lb 8 oz	14 lb 4 oz	19 lb	23 lb 12 oz	28 lb 8 oz	33 lb 4 oz	38 lb
1 lb 4 oz	2 lb 8 oz	3 lb 12 oz	5 lb	10 lb	15 lb	20 lb	25 lb	30 lb	35 lb	40 lb
1 lb 5 oz	2 lb 10 oz	3 lb 15 oz	5 lb 4 oz	10 lb 8 oz	15 lb 12 oz	21 lb	26 lb 4 oz	31 lb 8 oz	36 lb 12 oz	42 lb
1 lb 6 oz	2 lb 12 oz	4 lb 2 oz	5 lb 8 oz	11 lb	16 lb 8 oz	22 lb	27 lb 8 oz	33 lb	38 lb 8 oz	44 lb
1 lb 7 oz	2 lb 14 oz	4 lb 5 oz	5 lb 12 oz	11 lb 8 oz	17 lb 4 oz	23 lb	28 lb 12 oz	34 lb 8 oz	40 lb 4 oz	46 lb
1 lb 8 oz	3 lb	4 lb 8 oz	6 lb	12 lb	18 lb	24 lb	30 lb	36 lb	42 lb	48 lb
1 lb 12 oz	3 lb 8 oz	5 lb 4 oz	7 lb	14 lb	21 lb	28 lb	35 lb	42 lb	49 lb	56 lb
2 lb	4 lb	6 lb	8 lb	16 lb	24 lb	32 lb	40 lb	48 lb	56 lb	64 lb
2 lb 4 oz	4 lb 8 oz	6 lb 12 oz	9 lb	18 lb	27 lb	36 lb	45 lb	54 lb	63 lb	72 lb
2 lb 8 oz	5 lb	7 lb 8 oz	10 lb	20 lb	30 lb	40 lb	50 lb	60 lb	70 lb	80 lb
3 lb	6 lb	9 lb	12 lb	24 lb	36 lb	48 lb	60 lb	72 lb	84 lb	96 lb
3 lb 12 oz	7 lb 8 oz	11 lb 4 oz	15 lb	30 lb	45 lb	60 lb	75 lb	90 lb	105 lb	120 lb
5 lb	10 lb	15 lb	20 lb	40 lb	60 lb	80 lb	100 lb	120 lb	140 lb	160 lb

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Recipe Adjustment—Method 2 (Continued)

Volume Measures Chart

25 servings	50 servings	75 servings	Base 100 servings	200 servings	300 servings	400 servings
¼ tsp	½ tsp	¾ tsp	1 tsp	2 tsp	1 Tbsp	1⅓ Tbsp
(¼ tsp)	⅝ tsp	(1 tsp)	1¼ tsp	2½ tsp	1 Tbsp ¾ tsp	1⅔ Tbsp
⅜ tsp	¾ tsp	1⅛ tsp	1½ tsp	1 Tbsp	1½ Tbsp	2 Tbsp
(½ tsp)	⅞ tsp	(1¼ tsp)	1¾ tsp	1 Tbsp ½ tsp	1 Tbsp 2¼ tsp	2⅓ Tbsp
½ tsp	1 tsp	1½ tsp	2 tsp	1⅓ Tbsp	2 Tbsp	2⅔ Tbsp
(½ tsp)	1⅛ tsp	(1¾ tsp)	2¼ tsp	1½ Tbsp	2⅓ Tbsp	3 Tbsp
⅝ tsp	1¼ tsp	1⅞ tsp	2½ tsp	1⅔ Tbsp	2½ Tbsp	3⅓ Tbsp
(¾ tsp)	1⅜ tsp	(2 tsp)	2¾ tsp	1 Tbsp 2½ tsp	2⅔ Tbsp	3⅔ Tbsp
¾ tsp	1½ tsp	2¼ tsp	1 Tbsp	2 Tbsp	3 Tbsp	¼ cup
1½ tsp	1 Tbsp	1½ Tbsp	2 Tbsp	¼ cup	¼ cup 2 Tbsp	½ cup
2¼ tsp	1½ Tbsp	2 Tbsp ¾ tsp	3 Tbsp	¼ cup 2 Tbsp	½ cup 1 Tbsp	¾ cup
1 Tbsp	2 Tbsp	3 Tbsp	¼ cup	½ cup	¾ cup	1 cup
1⅓ Tbsp	2⅔ Tbsp	¼ cup	⅓ cup	⅔ cup	1 cup	1⅓ cups
2 Tbsp	¼ cup	¼ cup 2 Tbsp	½ cup	1 cup	1½ cups	2 cups
2⅔ Tbsp	⅓ cup	½ cup	⅔ cup	1⅓ cups	2 cups	2⅔ cups
3 Tbsp	¼ cup 2 Tbsp	½ cup 1 Tbsp	¾ cup	1½ cups	2¼ cups	3 cups
¼ cup	½ cup	¾ cup	1 cup	2 cups	3 cups	1 qt
½ cup	1 cup	1½ cups	2 cups	1 qt	1½ qt	2 qt
¾ cup	1½ cups	2¼ cups	3 cups	1½ qt	2¼ qt	3 qt
1 cup	2 cups	3 cups	1 qt	2 qt	3 qt	1 gal
2 cups	1 qt	1½ qt	2 qt	1 gal	1½ gal	2 gal
3 cups	1½ qt	2¼ qt	3 qt	1½ gal	2¼ gal	3 gal
1 qt	2 qt	3 qt	1 gal	2 gal	3 gal	4 gal
2 qt	1 gal	1½ gal	2 gal	4 gal	6 gal	8 gal
3 qt	1½ gal	2¼ gal	3 gal	6 gal	9 gal	12 gal
1 gal	2 gal	3 gal	4 gal	8 gal	12 gal	16 gal
1¼ gal	2½ gal	3¾ gal	5 gal	10 gal	15 gal	20 gal
1½ gal	3 gal	4½ gal	6 gal	12 gal	18 gal	24 gal

NOTE: Amounts in parentheses are approximate.

Nonfat Dry Milk (Noninstant and Instant)

The weight and volume measures for both noninstant nonfat dry milk and instant nonfat dry milk are given in the recipes. However, for best results, dry milk should be weighed rather than measured. All of the recipes are standardized using noninstant nonfat dry milk. Where possible, to save preparation steps, dry milk is combined with other dry ingredients in the recipes and the required amount of water is added along with other liquid ingredients. If desired, fluid milk may be used in place of reconstituted nonfat dry milk in the recipes. Directions for using nonfat dry milk to prepare fluid skim milk and sour milk are given below.

To Prepare Fluid Skim Milk and Sour Milk*

Ingredients	1 Gallon Reconstituted		Directions
	Weight	Measure	
FLUID SKIM MILK			
Noninstant, nonfat dry milk	14 oz	3 cups	1. **For noninstant nonfat dry milk:** Sprinkle noninstant nonfat dry milk on top of water and beat with mixer, rotary beater, or wire whip until smooth.
OR	**OR**	**OR**	
Instant nonfat dry milk	14 oz	1 qt 1⅓ cups	**For instant nonfat dry milk:** Mix instant nonfat dry milk and water in a gallon jar with a tight lid, or in a large pitcher. Shake or stir to mix.
Water, room temperature		3¾ qt	
			2. If not used immediately, cover and refrigerate.

*To prepare 1 gallon sour milk, use 1 cup vinegar in place of 1 cup of the water in fluid skim milk recipe.

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Nonfat Dry Milk (Continued)

Reconstituting Nonfat Dry Milk
(Fluid Skim Milk = Nonfat Dry Milk + Water)

Fluid Skim Milk	Nonfat Dry Milk			Water
	Weight	Measures		
		Noninstant	Instant	
1 quart	3½ oz	¾ cup	1⅓ cups	3¾ cups
2 quarts	7 oz	1½ cups	2⅔ cups	1 qt 3½ cups
3 quarts	10½ oz	2¼ cups	1 qt	2¾ qt
1 gallon	14 oz	3 cups	1 qt 1⅓ cups	3¾ qt
2 gallons	1 lb 12 oz	1½ qt	2 qt 2⅔ cups	1 gal 3½ qt
3 gallons	2 lb 10 oz	2¼ qt	1 gal	2 gal 3¼ qt
4 gallons	3 lb 8 oz	3 qt	1 gal 1¼ qt	3¾ gal
5 gallons	4 lb 6 oz	3¾ qt	1 gal 2¾ qt	4¾ gal
6 gallons	5 lb 4 oz	1 gal 2 cups	2 gal	5 gal 2½ qt

NOTE: To determine the volume measure of instant nonfat dry milk to use in place of noninstant nonfat dry milk, multiply the volume of noninstant nonfat dry milk given in the recipe by the factor 1.8.

From 3.2 to 3.5 ounces of nonfat dry milk, both instant and noninstant, can be used to make 1 quart of fluid milk. For convenience in measuring, 3.5 ounces (3½ oz) nonfat dry milk is used to make 1 quart in this chart.

Shell Eggs

Using Fresh Shell Eggs

Purchase only refrigerated, fresh, clean, unbroken, and odor-free eggs. While the size and grade are marked on the carton or case, the weight is not. The following table shows weight of different sizes of shell eggs and the number to fill a quart. The table can be used to determine the correct number of shell eggs to use in a recipe when a weight or volume measure is specified.

Refrigerate promptly upon delivery to help maintain quality. Store away from foods with a strong odor, such as onions, cabbage, or broccoli.

CAUTION

Cracked or soiled eggs may contain harmful bacteria that can be spread by food handlers. Cracked or soiled eggs should be used **only** in foods that are **thoroughly** cooked or baked, such as breads, cakes, long-cooked casseroles, and baked custards.

Do not use uncooked eggs in uncooked foods; milk drinks (such as eggnog or milkshakes); uncooked salad dressings; or uncooked puddings.

Weight of Different Sizes of Shell Eggs and Number per Quart

Size (see note)	Minimum Weight in Shell		Approximate Number per Quart (2 lb 2 oz)		
	1 Dozen (Carton)	30 Dozen (Case)	Whole Eggs	Egg Yolks	Egg Whites
Extra-large	27 oz (1 lb 11 oz)	50 lb 8 oz	17	49	26
*Large	24 oz (1 lb 8 oz)	45 lb	19	55	29
Medium	21 oz (1 lb 5 oz)	39 lb 8 oz	22	63	33
Small	18 oz (1 lb 2 oz)	34 lb	25	74	39

NOTE: Size and grade are marked on the carton or case but weight is not.

*All shell eggs used in the recipes are large size.

Dried Eggs (Storing, Preparing, and Using)

Store unopened packages of dried eggs in the refrigerator (35 to 40 °F) or in a cool dry place (32 to 50 °F). After opening, tightly cover the containers and store in the refrigerator.

Preparing Dried Eggs

Reconstitute only the amount of eggs needed. **RECONSTITUTED DRIED EGGS ARE HIGHLY PERISHABLE.** Do not store overnight. To reconstitute dried eggs for use in place of shell eggs, follow the directions on the package or use the directions given below.

Using Dried Eggs

Dried eggs may be used in place of shell eggs only in **thoroughly cooked products** or in **cooked** salad dressings. Thoroughly cooked foods include: baked breads, cakes, long-cooked casseroles, and baked custards.

Dried eggs may be added to the dry ingredients in a recipe for some baked products. Weigh the dried eggs or measure as below. Blend thoroughly with the dry ingredients. Add the water needed to reconstitute the dried eggs with the other liquids in the recipe.

When using dried eggs follow the recipe directions carefully. Use the guidelines below as safeguards against bacterial contamination:

- Bake foods in pans of the size, number, and depth specified in the recipe.
- If other pan sizes are used, fill them to a depth of not more than 2½″—with the exception of baked or steamed scrambled eggs, which should be no more than 1″ in depth—to ensure adequate heat penetration.
- Deeper layers of food than specified might not be thoroughly cooked during the recommended cooking time.

Number of Eggs (Large Size)	Dried Eggs		Water	Directions
	Weight	Measure		
	WHOLE EGGS (see note)			
10	5 oz	1⅔ cups	1⅔ cups	1. Weigh the dried eggs or place lightly in measuring spoon or cup and level top. Do not pack the eggs. Use exact weights or level measurements. 2. Sprinkle dried eggs over the required amount of water. 3. Blend by using a mixer, rotary beater, or wire whip. 4. Use reconstituted eggs immediately.
12	6 oz	2 cups	2 cups	
25	12½ oz	1 qt ¼ cup	1 qt ¼ cup	
32	1 lb	1 qt 1⅓ cups	1 qt 1⅓ cups	
	YOLKS			
10	3 oz	1¼ cups	6⅔ Tbsp	
12	3½ oz	1½ cups	½ cup	
54	1 lb	1 qt 2¾ cups	2¼ cups	
	WHITES			
10	1½ oz	6⅔ Tbsp	1¼ cups	
12	2 oz	½ cup	1½ cups	
100	1 lb	1 qt ¼ cup	3 qt ½ cup	

NOTE: Quantities are for dried whole eggs. For blends and specialty egg products (containing less than 100 percent whole egg), follow manufacturer's directions.

Frozen Eggs (Storing, Thawing, and Using)

Storing and Thawing Frozen Eggs

Store frozen eggs at 0 °F or below in the freezer.

Thaw in the refrigerator (35 to 40 °F) in an air-tight container and thaw only the amount needed. **USE THAWED EGGS WITHIN 24 HOURS.** Thawed frozen eggs are highly perishable.

Using Frozen Eggs

Frozen eggs may be used in place of shell eggs only in **thoroughly cooked products** or in cooked salad dressings for which short cooking is safe because of high acidity. Thoroughly cooked foods include: baked breads, cakes, long-cooked casseroles, and baked custards. Weight and volume measures are given below for using frozen eggs in place of shell eggs in recipes.

CAUTION: Do not use frozen eggs in uncooked or slightly heated foods such as milk drinks, ice cream, uncooked salad dressings, cream puddings, soft custards, omelets, or scrambled eggs cooked on top of the range.

When using frozen eggs, follow the recipe directions carefully. Use the guidelines below as safeguards against bacterial contamination:

- Bake foods in pans of the size, number, and depth specified in the recipe.
- If other pan sizes are used, fill them to a depth of not more than 2½″—with the exception of baked or steamed scrambled eggs, which should be no more than 1″ in depth—to ensure adequate heat penetration.
- Deeper layers of food than specified might not be thoroughly cooked during the recommended cooking time.

FROZEN EGGS*						
Number of eggs (Large Size)	WHOLE EGGS		YOLKS		WHITES	
	Weight	Measure	Weight	Measure	Weight	Measure
9	1 lb	2 cups less 2 Tbsp				
10	1 lb 1¾ oz	2 cups	6¼ oz	¾ cups	11½ oz	1¼ cups 2 Tbsp
12	1 lb 5½ oz	2½ cups	7½ oz	¾ cups 2 Tbsp	14 oz	1½ cups 2 Tbsp
14					1 lb	2 cups less 2 Tbsp
25	2 lb 13 oz	1 qt 1¼ cups				
26			1 lb	2 cups less 2 Tbsp		

*The same weight and volume measures may be used for shelled fresh eggs.

Steamtable Pan Capacity

The steamtable pan capacity chart shows the approximate capacity in volume measure of common sizes of steamtable pans, and the approximate number of servings that can be obtained from various sizes of portioning utensils. The information in the chart is based on a full-size 12″x20″, straight-sided steamtable pan filled to the brim. Pan depths are for 2½″, 4″, and 6″ steamtable pans.

Measures given in the chart are approximate and may vary according to manufacturer's specifications, pan fill, and type of food. Pans made by different companies may have slightly different total capacities. If used for transporting foods, the steamtable pans will have lids and might not be filled to the brim. The number of servings may vary according to the type of food being served. Some foods cling to the bottom and sides of the pan, reducing the number of servings.

Use the chart as a guide to help estimate the number of steamtable pans needed for the serving period, and to approximate the yield of a full steamtable pan.

Pan Size (Inches)	Approximate Capacity (Gallons)	Serving Size (Cups)	Ladle (Fluid Ounces)	Scoop No.	Approximate Number of Servings
12″x20″x2½″	2	½ cup	4 oz	8	64
		⅜ cup		10	85
		⅓ cup	3 oz	12	96
		¼ cup	2 oz	16	128
12″x20″x4″	3½	½ cup	4 oz	8	112
		⅜ cup		10	149
		⅓ cup	3 oz	12	168
		¼ cup	2 oz	16	224
12″x20″x6″	5	½ cup	4 oz	8	160
		⅜ cup		10	213
		⅓ cup	3 oz	12	240
		¼ cup	2 oz	16	320

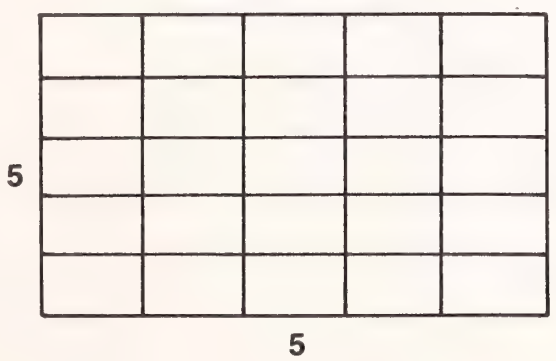
Portioning Diagrams

Approximate Dimensions of Serving Sizes From Different Pan Sizes

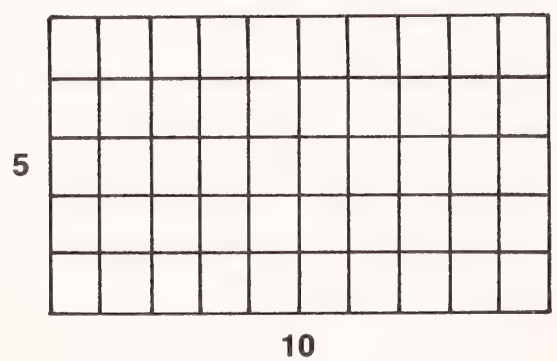
Pan	Approximate Pan Size	Number and Approximate Size of Servings Per Pan		
		25	50	100
Baking or steamtable	12″x20″x2½″	2″x3¾″	2″x2″	. . . . .
Sheet or bun	18″x26″x1″ . .	3¼″x5″	3¼″x2½″ . .	1¾″x2½″ . .

Cutting Diagrams for Portioning

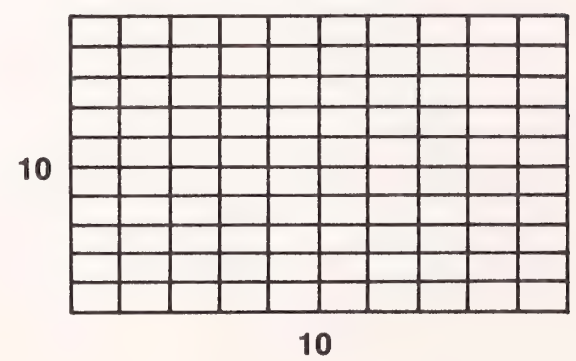
For 25 servings
cut 5x5



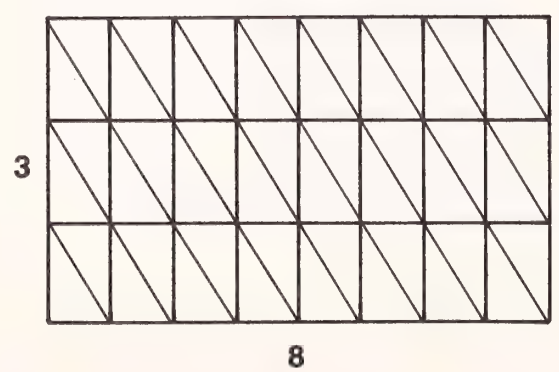
For 50 servings
cut 5x10



For 100 servings
cut 10x10



For 48 servings
cut 3x8
then diagonally



Portion Control

The recipes are standardized to yield a certain number of servings of the size specified in the recipe. To obtain that number of servings, follow the specified serving size as closely as possible. Scoops, ladles, or spoons of standard sizes help in serving equal-size portions.

Ladles

The following sizes of ladles will help in obtaining equal-size servings of soups, sauces, creamed foods, and other similar foods. Perforated ladles are available for accurate portioning of foods that need draining.

Ladle Size	Approximate Measure
1 oz	⅛ cup
2 oz	¼ cup
4 oz	½ cup
6 oz	¾ cup
8 oz	1 cup

Scoop (or Disher) Number

The number of the scoop or disher indicates the number of **level** scoopfuls it takes to make 1 quart. The following table gives an approximate measure for each scoop:

Scoop or Disher Number	Approximate measure
6	⅔ cup
8	½ cup
10	⅜ cup
12	⅓ cup
16	¼ cup
20	3⅓ Tbsp
24	2⅔ Tbsp
30	2 Tbsp
40	1⅔ Tbsp
50	3¾ tsp
60	3¼ tsp
70	2¾ tsp
100	2 tsp

Serving Spoons

A serving spoon (solid or slotted) may be used instead of a scoop. Since these spoons are not identified by number, it is necessary to measure or weigh the quantity of food from the spoons used. This will help ensure that the proper portion size is served.

Garnishing Techniques

A garnish is a food item or part of a food item featured in such a way as to enhance the food being served; for example, a dash of cinnamon over applesauce, shredded cheese sprinkled over Chili Con Carne, or celery tops placed around a steamtable pan of Sloppy Joe filling.

Garnishes help to merchandise (sell) the food items offered. Students often choose food on how good it looks. Therefore, special attention to eye-catching garnishes on the serving line and students' trays can encourage good menu selection.

Considerations in Garnishing

1. A garnish should generally be edible and should be handled carefully to prevent spoilage and food poisoning. (**NOTE:** Always wash a vegetable or fruit before preparing it as a garnish.)

2. Position the garnish closest to the student (customer). The customer should be able to see the entire garnish. Place the garnish in the corner or center of a pan to allow the server to serve most of the food without moving or reaching over the garnish.

3. Garnishes need not require a lot of time or money to prepare. Attractive garnishes can be made from foods on hand. The following foods may be sliced, diced, or used as is, as appropriate, for a quick garnish.

Apples	Croutons	Paprika
Bean sprouts	Cucumber	Parsley
Bread crumbs	Grapes	Parsley flakes
Celery	Lettuce	Peaches
Cheese	Nuts	Raisins
Coconut	Onion	Tomato

4. Garnishes need not require special equipment. Only simple tools are needed; for example, a sharp pointed knife for paring, a serrated knife for bread and tomatoes, and a vegetable peeler for paring fruits and vegetables. Special garnishing tools, such as a V-cutter for zigzag finish or a garnishing knife for making "crinkle or waffle" cuts, may be purchased, if desired.

Choosing a Garnish

A garnish should be appropriate for the food being served. Use combinations of colors that blend well. Be sure the flavor of the garnish accents or is compatible with the flavor of the menu item being served. In addition, be sure the size of the garnish is appropriate. For example, too heavy a garnish for beef stew will sink to the bottom of the pan and too small a garnish will fail to stand out.

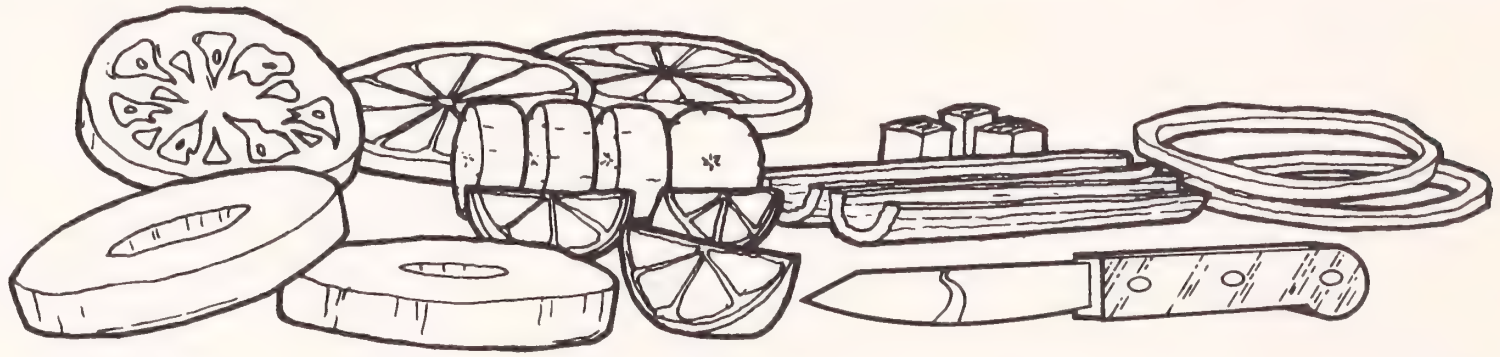
Some foods with their own vivid color and texture need no garnish, while other foods do need garnishing. For example, pizza with its bright variety of colors needs little or no extra garnish, whereas a steamtable pan of hamburger patties lacks color and could benefit from a garnish for better appeal. A creative arrangement of food in a steamtable pan can also be appealing. For example, sandwiches and preportioned meats can be displayed in an overlapping or shingled arrangement.

(Continued on back)

Garnishing Techniques (Continued)

Garnishes

Apple rings,* apple slices,* banana chunks,* carrot coins, green pepper strips, onion rings, orange slices, lemon wedges, tomato slices, and tomato wedges can be used effectively as garnishes. The following are ideas and instructions for creating more unusual garnishes from fruits and vegetables.



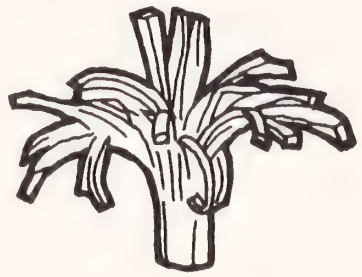
Carrot Ribbons or Curls

1. Slice carrot in half lengthwise.
2. With a peeler, peel a single strip from the cut surface.
3. Drop in ice water and the strip will curl by itself.
4. Remove from ice water. Drain.

*To delay the browning effect, place apples and bananas in citrus or pineapple juice, or in a lemon juice and water mixture. When ready to use, remove the fruit from the solution. Drain.

Celery Fans

1. Cut celery stalk into 2 or 3 equal lengths.
2. Make 1¼″ slashes into one end or both ends of stalk.
3. Fan one end or both ends of stalk.
4. Drop in ice water.
5. Remove from ice water. Drain.



Radish Rose

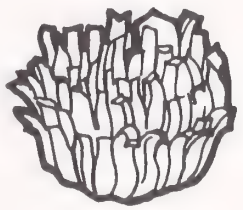
1. Cut a thin slice off the bottom and top of the radish.
2. Make 4 cuts across the radish horizontally almost to the bottom and then make 4 cuts across the radish vertically.
3. Place in ice water until open (overnight if possible). Remove from ice water. Drain.

(Continued)

Garnishing Techniques (Continued)

Onion Mum

1. Select a medium-sized, well-rounded white onion.
2. Peel the outer skin of the onion. Leave the root end intact but cut off any roots.
3. Using a sharp knife, start at the top of the onion and make a cut downward toward the root end. Be careful not to go all the way to the root end but stop the cut about ½″ from it. Make this cut deep into the center of the vegetable. Make additional cuts until you have gone completely around the onion.
4. When cutting is completed, place onion in a bowl of hot water. This will start the petals spreading and remove the onion smell.
5. Let soak for 5 minutes, then replace the hot water with ice water to allow the flower to bloom further.
6. Color the onion mum by placing food coloring in the ice water. Let soak until the desired tint is obtained.



Radish Tulip

1. Cut a thin slice off the bottom and top of the radish.
2. Make 3 cuts from the top of the radish almost to the base, making 6 equal segments.
3. Place in ice water until open (overnight if possible). Remove from ice water. Drain.

Lemon or Orange Twists

1. Cut fruit into ¼″ horizontal slices.
2. Slit each slice and twist.

Tomato Rose

1. Use a sharp paring knife. With the stem end of the tomato down, begin peeling on the smooth end. Cut around the tomato in a spiral, making a continuous strip about ¾″ wide. Do not be concerned if the peel breaks.
2. To form the rose, roll one end of the peel tightly to make the center. Loosely roll the remaining peel around the center.
3. Use a pick to secure rose base. Cut off excess pick. **CAUTION:** Be sure pick is firmly secured in the rose, so pick will not fall into the food during service.

NOTE: Storing tomato garnishes is not recommended.

Bread and Cereal Products

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Using Master Mix for Baked Products

Master Mix is a mixture of dry ingredients and shortening blended in advance for use in baked products without yeast, such as quick breads and pancakes.

Use Master Mix to save preparation time. Prepare mix according to the recipe on the back of this page in batches larger than are needed at one time. Store the mix and use later, as needed, in a variety of baked products.

In this publication, there are four recipe variations using Master Mix: Baking Powder Biscuits (B-4a), Banana Bread Squares (B-5a), Muffin Squares (B-12a) and Pancakes (B-13a). These are variations of base recipes for the same product. The amounts of flour, milk, baking powder, salt, and shortening in the Master Mix are approximately the same as in the base recipe.

To use Master Mix, weigh or measure the amount of mix specified in the recipe variation. Do not pack or sift. Measure mix lightly and level off with a spatula or the straight edge of a knife. Add remaining ingredients and bake according to recipe directions.

For convenience, the Master Mix recipe has been standardized in batches of 12 and 36 quarts. These batches can be prepared in a 20-quart and 60-quart mixer, respectively. The following chart gives an estimate of the number of servings from one batch of master mix.

Baked Product	Approximate Number of Servings from 12 Quarts of Master Mix	Approximate Number of Servings from 36 Quarts of Master Mix
Banana Bread Squares	300	900
Baking Powder Biscuits	200	600
Muffin Squares	300	900
Pancakes	266	800

When determining the amount (how many batches) of Master Mix to prepare, consider storage space available, equipment capacity, and the frequency with which the baked items are prepared.

Store the prepared Master Mix in a large, clean container with a tight-fitting lid. For best results, store Master Mix in refrigerator and use within 3 months.

(See recipe on back)

Using Master Mix for Baked Products (Continued)

Ingredients	12 Quarts		36 Quarts		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	10 lb 8 oz	9½ qt	31 lb 8 oz	28 qt		1. Place flour, baking powder, salt, cream of tartar, and dry milk in mixer. Blend for 3 minutes on low speed.
Baking powder	9¾ oz	1½ cups	1 lb 13½ oz	1 qt ¾ cup		
Salt	2½ oz	¼ cup	7½ oz	¾ cup		
Cream of tartar		3 Tbsp	4½ oz	½ cup 1 Tbsp		
Noninstant, nonfat dry milk	12 oz	2½ cups	2 lb 4 oz	1 qt 3½ cups		
OR	**OR**	**OR**	**OR**	**OR**		
Instant nonfat dry milk	12 oz	1¼ qt	2 lb 4 oz	3¾ qt		
Shortening	2 lb 10 oz	1 qt 2¼ cups	7 lb 14 oz	1 gal 3 cups		2. Add shortening to dry ingredients and mix for 5 minutes on low speed, or until evenly distributed. Mixture will be crumbly.
						3. Use Master Mix in Banana Bread Squares recipe (see B-5a), Muffin Squares recipe (see B-12a), Baking Powder Biscuits recipe (see B-4a), and Pancakes recipe (see B-13a).

NOTE: A 20-qt mixer may be used to produce 12 qt of Master Mix.
A 60-qt mixer may be used to produce 36 qt of Master Mix.

YIELD: **12 quarts:** 14 lb 12 oz
36 quarts: 44 lb 4 oz

Cooking Macaroni, Noodles, and Spaghetti

Bread and Cereal Products B-2

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Boiling water	.....	3 gal	.....	6 gal	.....	1. Add salt to boiling water.
Salt	.....	2⅔ Tbsp	3½ oz	⅓ cup	.....	
Macaroni	2 lb 10 0z ..	.....	5 lb 4 oz ...	.....	.....	2. Slowly stir in macaroni, noodles, or spaghetti until water boils again.
OR	**OR**		**OR**			
Noodles	2 lb 8 oz ...	.....	5 lb	.....	.....	
OR	**OR**		**OR**			
Spaghetti	3 lb 1 oz ...	.....	6 lb 2 oz ...	.....	.....	
						3. Cook uncovered until tender-firm, about 8 minutes for macaroni, 6 minutes for noodles, and 10 minutes for spaghetti. DO NOT OVERCOOK.
						4. Drain well.

SERVING: ½ cup provides 1 serving of bread alternate.

YIELD: **50 servings:** about 1½ gallons
100 servings: about 3 gallons

Cooking Rice (Oven or Steamer)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						1. Do not rinse enriched rice.
White Rice ..... Long Grain (regular or parboiled) Medium Grain	2 lb 13 oz..	1¾ qt	5 lb 10 oz..	3½ qt	.....	2. Place rice in steamtable pans (12″x20″x2½″), no more than 3 lb per pan.
Salt	.....	2 tsp	.....	1⅓ Tbsp	.....	3. Add salt to boiling water; pour over rice, 1 qt per lb of rice.
Boiling water	.....	2¾ qt	.....	1 gal 1½ qt ..	.....	
						4. Cover pans tightly.
						5. Bake at 350 °F or steam at 5 lb pressure for 25 minutes.
						6. Remove from oven or steamer and let stand covered 5 minutes.

SERVING: ½ cup provides 1 serving of bread alternate.

YIELD: **50 servings:** about 1 gallon 1½ quarts
100 servings: about 2 gallons 3¼ quarts

Cooking Brown Rice

For 50 servings, use 2 lb 10 oz brown rice and 2 qt 2½ cups boiling water. Cover and bake at 350 °F or steam at 5 lb pressure for 50 minutes.

For 100 servings, use 5 lb 4 oz brown rice and 1 gal 1¾ qt boiling water. Cover and bake at 350 °F or steam at 5 lb pressure for 50 minutes.

Baking Powder Biscuits

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	3 lb	2¾ qt	6 lb	5½ qt		1. Blend flour, dry milk, baking powder, and salt in mixer for 1 minute at low speed.
Noninstant, nonfat dry milk	3 oz	½ cup 2 Tbsp	6 oz	1¼ cups		
OR	OR	OR	OR			
Instant nonfat dry milk	3 oz	1¼ cups	6 oz	2½ cups		
Baking powder	2¾ oz	¼ cup 3 Tbsp	5½ oz	¾ cup 2 Tbsp		
Salt		1 Tbsp		2 Tbsp		
Shortening	11½ oz	1¾ cups	1 lb 6½ oz	3½ cups		2. Add shortening and blend into dry ingredients for 2 minutes at low speed. Mixture will be crumbly.
Cold water		3¾ cups		1 qt 3½ cups		3. Add water and mix on low speed for approximately 1 minute to form soft dough. Scrape bowl as necessary during mixing.
						4. Turn out onto lightly floured surface. For 50 servings, knead ball of dough lightly for 1 minute. For 100 servings, divide dough in half and knead each half lightly for 1 minute.
						5. Roll or pat out each ball of dough to ½″ thickness. Cut with floured 2½″ biscuit cutter and place on sheet pan (18″x26″x1″) in rows of 10 down and 5 across. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.
						6. Bake until lightly browned: Conventional oven: 450 °F for 12-14 minutes Convection oven: 400 °F for 8-10 minutes

SERVING: 1 biscuit provides 1½ servings of bread.

YIELD: **50 servings:** 50 2½-inch biscuits
100 servings: 100 2½-inch biscuits

(Continued on back)

Variations

a. Baking Powder Biscuits (Using Master Mix)

50 servings: Omit steps 1 and 2. Use 3 lb 12 oz (3 qt) Master Mix. Continue with steps 3-6.

100 servings: Omit steps 1 and 2. Use 7 lb 8 oz (6 qt) Master Mix. Continue with steps 3-6.

b. Cheese Biscuits

50 servings: Follow steps 1 and 2. In step 3, add 12 oz (3½ cups) shredded cheddar cheese to soft dough. Mix lightly to distribute cheese. Continue with steps 4-6.

100 servings: Follow steps 1 and 2. In step 3, add 1 lb 8 oz (1¾ qt) shredded cheddar cheese to soft dough. Mix lightly to distribute cheese. Continue with steps 4-6.

c. Drop Biscuits

50 servings: Follow steps 1 and 2. In step 3, use 1 qt ¾ cup cold water. Omit step 4. In step 5, portion with level No. 16 scoop (¼ cup) onto 1 sheet pan (18″x26″x1″) in rows of 10 down and 5 across. Continue with step 6.

100 servings: Follow steps 1 and 2. In step 3, use 2 qt 1½ cups cold water. Omit step 4. In step 5, portion with level No. 16 scoop (¼ cup) onto 2 sheet pans (18″x26″1″) in rows of 10 down and 5 across. Continue with step 6.

d. Wheat Biscuits

50 servings: In step 1, use 2 lb 4 oz (2 qt) all-purpose flour and 12 oz (2¾ cups) whole-wheat flour. Continue with steps 2-6.

100 servings: In step 1, use 4 lb 8 oz (4 qt) all-purpose flour and 1 lb 8 oz (1 qt 1¾ cups) whole-wheat flour. Continue with steps 2-6.

Nutrients Per Serving

Calories	164	Vitamin A	0 RE/1 IU	Iron	0.8 mg
Protein	3 g	Vitamin C	0.1 mg	Calcium	57 mg
Carbohydrate	22 g	Thiamin	0.17 mg	Phosphorus	86 mg
Fat	7 g	Riboflavin	0.12 mg	Potassium	59 mg
Cholesterol	Tr	Niacin	1.45 mg	Sodium	322 mg

Banana Bread Squares

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 12 oz	1 qt 2¼ cups	3 lb 8 oz	3 qt ½ cup		1. Blend flour, sugar, dry milk, baking powder, baking soda, and salt for 1 minute in mixer on low speed.
Sugar	1 lb 1 oz	2½ cups	2 lb 2 oz	1¼ qt		
Noninstant, nonfat dry milk		2 Tbsp		¼ cup		
OR		**OR**		**OR**		
Instant nonfat dry milk		¼ cup		½ cup		
Baking powder		2 Tbsp		¼ cup		
Baking soda		1 tsp		2 tsp		
Salt		1 tsp		2 tsp		
Large eggs (see note)	7 oz	4	14 oz	8		2. Combine eggs and water. Add shortening and liquid mixture to dry ingredients. Blend for 30 seconds on low speed. Beat for 1 minute on medium speed.
Water		1¼ cups		2½ cups		
Shortening	6½ oz	1 cup	13 oz	2 cups		
*Bananas, mashed	1 lb 10 oz	3¼ cups	3 lb 4 oz	1 qt 2½ cups		3. Add mashed bananas and nuts (optional). Blend for 30 seconds on low speed. Beat for 1 minute on medium speed. DO NOT OVERMIX. Batter will be lumpy.
Chopped walnuts (optional)	6½ oz	1½ cups	13 oz	3 cups		
						4. Pour 5 lb 10 oz (2½ qt) batter into each steamtable pan (12″x20″x2½″), which has been lightly greased. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
						5. Bake until browned: Conventional oven: 350 °F for 35-45 minutes Convection oven: 300 °F for 25-35 minutes

*See marketing guide on back.

(Continued on back)

Banana Bread Squares (Continued)

Bread

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						6. Cool. Cut each pan 5x10 (50 pieces per pan).
						For Loaf Pans: Pour 1 lb 14 oz (3 cups) batter into each loaf pan (4″x10″x4″), which has been lightly greased. For 50 servings, use 3 loaf pans. For 100 servings, use 6 loaf pans. Bake until browned: Conventional oven: 350 °F for 50-60 minutes Convection oven: 300 °F for 40-50 minutes Remove from pans. Cool completely. Cut each loaf into 17 slices, about ½″ thick.

SERVING: 1 piece provides 1 serving of bread.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

NOTE:

50 servings: Use 2 oz (⅔ cup) dried whole eggs and ⅔ cup water in place of shell eggs.

100 servings: Use 4 oz (1⅓ cups) dried whole eggs and 1⅓ cups water in place of shell eggs.

Variation

a. Banana Bread Squares (Using Master Mix)

50 servings: Omit step 1. Blend 2 lb 7½ oz (2 qt) Master Mix with 1 lb 1 oz (2½ cups) sugar. In step 2, omit shortening. Continue with steps 3-6.

100 servings: Omit step 1. Blend 4 lb 15 oz (4 qt) Master Mix with 2 lb 2 oz (1¼ qt) sugar. In step 2, omit shortening. Continue with steps 3-6.

Nutrients Per Serving

Calories	149	Vitamin A	7 RE/30 IU	Iron	0.6 mg
Protein	2 g	Vitamin C	1.1 mg	Calcium	19 mg
Carbohydrate	26 g	Thiamin	0.11 mg	Phosphorus	40 mg
Fat	4 g	Riboflavin	0.09 mg	Potassium	86 mg
Cholesterol	22 mg	Niacin	0.90 mg	Sodium	127 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Bananas	2 lb 8 oz	5 lb	. . . . .

Bread Stuffing

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Bread cubes, soft	4 lb 11 oz	3¼ gal	9 lb 6 oz	6¾ gal		1. Combine bread cubes, celery, onions, raisins (optional), poultry seasoning, pepper, garlic powder, thyme (optional) and butter or margarine. Mix lightly until well blended.
*Fresh celery, chopped	1 lb	3¾ cups	2 lb	1 qt 3½ cups		
Dehydrated onions		½ cup	3½ oz	1 cup		
OR		OR	OR	OR		
*Fresh onions, chopped	12 oz	2 cups	1 lb 8 oz	1 qt		
†Raisins, plumped (optional)	6½ oz	1 cup	13 oz	2 cups		
Poultry seasoning		1 Tbsp		2 Tbsp		
Black pepper		1½ tsp		1 Tbsp		
Garlic powder		1 Tbsp		2 Tbsp		
Flaked thyme (optional)		2 Tbsp		¼ cup		
Butter or margarine, melted	10½ oz	1⅓ cups	1 lb 5 oz	2¾ cups		
Chicken stock		3 qt		1½ gal		2. Add chicken stock to bread mixture. Mix gently to moisten.
						3. Spread 6 lb 7 oz (3¾ qt) of stuffing evenly into each steamtable pan (12″x20″x2½″), which has been lightly greased. For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans.
						4. Bake until lightly browned: Conventional oven: 350 °F for 30-40 minutes Convection oven: 300 °F for 20-30 minutes
						5. Portion with No. 12 scoop (⅓ cup).
						6. If desired, serve with Chicken or Turkey Gravy (see G-3a).

SERVING: ⅓ cup (No. 12 scoop) provides 1½ servings of bread.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

***See marketing guide on back.**

†To plump raisins, cover the fruit with very hot tap water. Soak 2-5 minutes. DO NOT OVERSOAK. Drain well before using.

(Continued on back)

Variation

a. Cornbread Stuffing

50 servings: In step 1, use 2 lb 5½ oz (1 gal 2¾ qt) bread cubes and 2 lb 5½ oz (2 qt 2½ cups) crumbled cornbread. Omit raisins. Continue with steps 2-6.

100 servings: In step 1, use 4 lb 11 oz (3¼ gal) bread cubes and 4 lb 11 oz (1 gal 1¼ qt) crumbled cornbread. Omit raisins. Continue with steps 2-6.

Nutrients Per Serving

Calories	179	Vitamin A	46 RE/203 IU	Iron	1.3 mg
Protein	4 g	Vitamin C	1.1 mg	Calcium	50 mg
Carbohydrate	26 g	Thiamin	0.18 mg	Phosphorus	55 mg
Fat	6 g	Riboflavin	0.12 mg	Potassium	125 mg
Cholesterol	14 mg	Niacin	1.50 mg	Sodium	630 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Celery	1 lb 3½ oz	2 lb 7 oz	
Mature onions	14 oz	1 lb 11½ oz	

Brown Bread

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	8 oz	1¾ cups	1 lb	3½ cups		1. Blend flour, whole-wheat flour, cornmeal, baking soda, and salt for 1 minute in mixer on low speed.
Whole-wheat flour	8 oz	1¾ cups				
		2 Tbsp	1 lb	3¾ cups		
Cornmeal	12 oz	2¼ cups	1 lb 8 oz	1 qt ½ cup		
Baking soda		1 Tbsp		2 Tbsp		
Salt		1 tsp		2 tsp		
Reconstituted nonfat dry milk		1 qt		2 qt		2. Combine milk and lemon juice or vinegar (to sour the milk). Let stand for 5 minutes.
Reconstituted frozen lemon juice concentrate, or vinegar		¼ cup		½ cup		
Molasses	1 lb	1½ cups	2 lb	3 cups		3. Add molasses and vegetable oil to milk mixture. Blend well.
Vegetable oil		2 Tbsp		¼ cup		
†Raisins, plumped (optional)	8 oz	1¼ cups	1 lb	2½ cups		4. Add liquid mixture and raisins (optional) to dry ingredients. Blend for 3 minutes on low speed. DO NOT OVERMIX. Batter will be lumpy.
						5. Pour 5 lb (2 qt ½ cup) batter into each steamtable pan (12″x20″2½″), which has been lightly oiled. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
						6. Bake or steam until a knife inserted near center comes out clean: Conventional oven: 375 °F for 40-50 minutes Convection oven: 325 °F for 25-35 minutes Steamer: 5 lb pressure for 55-65 minutes
						7. Cool. Cut each pan 5x10 (50 pieces per pan).

†To plump raisins, cover the fruit with very hot tap water. Soak 2 to 5 minutes. DO NOT OVERSOAK. Drain well before using.

(Continued on back)

Brown Bread (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						For Loaf Pans: Pour 1 lb 8 oz (1 qt) batter into each loaf pan (4″x10″x4″), which has been lightly oiled. For 50 servings, use 3 loaf pans. For 100 servings, use 6 loaf pans. Bake or steam until a knife inserted near center comes out clean: Conventional ovens: 375 °F for 60 minutes Convection oven: 325 °F for 45 minutes Steamer: 5 lb pressure for 1 hour 10 minutes Remove from pans. Cool completely. Cut each loaf into 17 slices, about ½″ thick.

SERVING: 1 piece provides 1 serving of bread.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

Nutrients Per Serving

Calories	90	Vitamin A	1 RE/23 IU	Iron	1.0 mg
Protein	2 g	Vitamin C	0.4 mg	Calcium	55 mg
Carbohydrate	19 g	Thiamin	0.10 mg	Phosphorus	53 mg
Fat	1 g	Riboflavin	0.08 mg	Potassium	162 mg
Cholesterol	Tr	Niacin	0.80 mg	Sodium	133 mg

Cinnamon Rolls

Bread

Bread and Cereal Products B-8

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						For best results, have all ingredients and utensils at room temperature.
Active dry yeast (see note)	.....	⅓ cup.....	3¼ oz.....	½ cup 2 Tbsp	.....	1. Dissolve dry yeast in warm water. Let stand for 4-5 minutes.
Water, warm (110 °F)	.....	1½ cups.....	.....	3 cups	.....	
All-purpose or bread flour	3 lb 10 oz..	3¼ qt	7 lb 4 oz...	6½ qt	.....	2. Place all dry ingredients (flour, dry milk, sugar, and salt) in mixer bowl. Using a dough hook, blend on low speed for approximately 2 minutes.
Noninstant, nonfat dry milk	3¼ oz.....	⅔ cup.....	6½ oz.....	1⅓ cups.....	.....	
OR	**OR**	**OR**	**OR**	**OR**		
Instant nonfat dry milk ...	3¼ oz.....	1⅓ cups.....	6½ oz.....	2¾ cups.....	.....	
Sugar.....	5¾ oz.....	¾ cup 2 Tbsp	11½ oz....	1½ cups 2 Tbsp.....	.....	
Salt	.....	2 Tbsp	2½ oz.....	¼ cup.....	.....	
Vegetable oil.....	.....	¾ cup 2 Tbsp	.....	1⅔ cups.....	.....	3. Add oil and blend on low speed for approximately 2 minutes.
Water (68 °F)	.....	2½ cups.....	.....	1¼ qt	.....	4. Add water. Mix on low speed for 1 minute.
						5. Add dissolved yeast and mix on low speed for 2 minutes.
						6. Knead dough on medium speed for 8 minutes, or until dough is smooth and elastic.
						7. Place in warm area (about 90 °F) for 45-60 minutes.
						8. Place dough on lightly floured surface. Divide into balls, 3 lb 6 oz each. For 50 servings divide into 2 balls. For 100 servings divide into 4 balls.
Cinnamon	.....	¼ cup.....	.....	½ cup.....	.....	9. Combine cinnamon and sugar. Mix well. Set aside for step 11.
Sugar.....	5¼ oz.....	¾ cup.....	10½ oz....	1½ cups.....	.....	
						10. Roll each ball of dough into a rectangle 25"x10", ¼" thick.
Vegetable oil.....	.....	1 Tbsp	.....	2 Tbsp	.....	11. Lightly brush each rectangle with oil. Sprinkle approximately ½ cup cinnamon-sugar mixture over each rectangle.

(Continued on back)

Cinnamon Rolls (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Raisins	10 oz	2 cups	1 lb 4½ oz .	1 qt	.....	12. Sprinkle 1 cup raisins over cinnamon-sugar mixture on each rectangle.
						13. Roll each rectangle on the long side to form a long slender roll. Cut each roll into 25 uniform pieces 1″ thick.
						14. Place on lightly oiled sheet pan (18″x26″x1″) in rows of 10 down and 5 across. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.
						15. Place in a warm area (about 90 °F) until double in size, 30-50 minutes.
						16. Bake until lightly browned: Conventional oven: 400 °F for 18-20 minutes. Convection oven: 350 °F for 12-14 minutes.
Butter or margarine, melted (optional)	.....	1 Tbsp	.....	2 Tbsp	.....	17. Optional: Brush lightly with melted butter or margarine (approximately 1 Tbsp per pan) while warm.

SERVING: 1 2-ounce roll provides 2 servings of bread.

YIELD: **50 servings:** about 50 2-ounce rolls
100 servings: about 100 2-ounce rolls

NOTE: To use high-activity (instant) yeast, follow directions below or manufacturer's instructions.

50 servings: Omit step 1. In step 2, add ¼ cup high-activity (instant) yeast. Continue with step 3. In step 4, add 1 qt water (110 °F). Omit step 5. In step 6, knead for 10 minutes. Continue with steps 7-17.

100 servings: Omit step 1. In step 2, add 2½ oz (¼ cup 3 Tbsp 2 tsp) high-activity (instant) yeast. Continue with step 3. In step 4, add 2 qt water (110 °F). Omit step 5. In step 6, knead for 10 minutes. Continue with steps 7-17.

Nutrients Per Serving

Calories	206	Vitamin A	0 RE/2 IU	Iron	1.4 mg
Protein	5 g	Vitamin C	0.4 mg	Calcium	40 mg
Carbohydrate	38 g	Thiamin	0.24 mg	Phosphorus	65 mg
Fat	4 g	Riboflavin	0.20 mg	Potassium	129 mg
Cholesterol	Tr	Niacin	2.13 mg	Sodium	287 mg

Cornbread

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb	3½ cups	2 lb	1 qt 3¼ cups		1. Blend flour, cornmeal or corn grits, sugar, baking powder, and salt in mixer for 1 minute on low speed.
Cornmeal	1 lb	3 cups	2 lb	1½ qt		
OR	OR	OR	OR	OR		
Corn grits	1 lb	2¾ cups	2 lb	1 qt 1½ cups		
Sugar	5¼ oz	¾ cup	10½ oz	1½ cups		
Baking powder		2 Tbsp 2 tsp	2 oz	⅓ cup		
Salt		1¼ tsp		2½ tsp		
Large eggs (see note)	5¼ oz	3	10½ oz	6		2. Mix eggs, milk, oil, cheese (optional), and chili peppers (optional). Add to dry ingredients and blend for 30 seconds on low speed. Beat on medium speed only until dry ingredients are moistened, 2-3 minutes. DO NOT OVERMIX. Batter will be lumpy.
Reconstituted nonfat dry milk		3¾ cups		1 qt 3½ cups		
Vegetable oil		½ cup		1 cup		
Cheddar cheese, shredded (optional)	12 oz	3½ cups	1 lb 8 oz	1¾ qt		
Green chili peppers, chopped (optional)	4 oz	½ cup	8 oz	1 cup		
						3. For 50 servings, pour 4 lb 14 oz (2½ qt) batter into 1 half-sheet pan (18″x13″x1″), which has been lightly oiled. For 100 servings, pour 9 lb 13 oz (1¼ gal) batter into 1 sheet pan (18″x26″x1″), which has been lightly oiled.
						4. Bake until lightly browned: Conventional oven: 400 °F for 30-35 minutes Convection oven: 350 °F for 20-25 minutes
						5. For 50 servings, cut half-sheet pan 5x10 (50 pieces per pan). For 100 servings, cut sheet pan 10x10 (100 pieces per pan).

SERVING: 1 piece provides 1 serving of bread.

YIELD: **50 servings:** 1 half-sheet pan
100 servings: 1 sheet pan

(Continued on back)

Cornbread (Continued)

NOTE:

50 servings: Use 1½ oz (½ cup) dried whole eggs and ½ cup water in place of shell eggs.

100 servings: Use 3 oz (1 cup) dried whole eggs and 1 cup water in place of shell eggs.

Nutrients Per Serving

Calories	103	Vitamin A	5 RE/52 IU	Iron	0.6 mg
Protein	2 g	Vitamin C	Tr	Calcium	19 mg
Carbohydrate	17 g	Thiamin	0.10 mg	Phosphorus	42 mg
Fat	3 g	Riboflavin	0.07 mg	Potassium	31 mg
Cholesterol	16 mg	Niacin	0.80 mg	Sodium	127 mg

Fried Rice

Meat Alternate-Vegetable-Bread Alternate

Bread and Cereal Products B-10

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Vegetable oil		¼ cup		½ cup		1. Heat oil. Add onions and celery. Cook for 5 minutes.
*Fresh onions, chopped	1 lb	2¾ cups	2 lb	1 qt 1¼ cups		
OR		OR	OR	OR		
Dehydrated onions		½ cup	3½ oz	1 cup		
*Celery, chopped	1 lb	3¾ cups	2 lb	1 qt 3½ cups		
Large eggs, beaten	2 lb 12 oz	25	5 lb 8 oz	50		2. Add beaten eggs. Cook over medium heat, stirring frequently, for 10-15 minutes or until set.
*Cooked white rice, chilled	10 lb 2 oz	1 gal 3¼ qt	20 lb 4 oz	3½ gal		3. Add rice, peas, and soy sauce. Stir to combine.
Frozen peas	1 lb	3¼ cups	2 lb	1 qt 2½ cups		
Soy sauce		1⅓ cups		2⅔ cups		
						4. Cover. Cook over low heat until heated through, 8-10 minutes.
						5. Place in serving pans.
						6. Portion with No. 6 scoop (⅔ cup).

SERVING: ⅔ cup (No. 6 scoop) provides ½ large egg, ⅛ cup of vegetable, and 1 serving of bread alternate.

YIELD: **50 servings:** about 2¼ gallons
100 servings: about 4½ gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	166	Vitamin A	47 RE/205 IU	Iron	2.4 mg
Protein	6 g	Vitamin C	2.2 mg	Calcium	37 mg
Carbohydrate	26 g	Thiamin	0.14 mg	Phosphorus	91 mg
Fat	4 g	Riboflavin	0.11 mg	Potassium	140 mg
Cholesterol	138 mg	Niacin	1.09 mg	Sodium	622 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 2½ oz	2 lb 5 oz	
Celery	1 lb 3½ oz	2 lb 7 oz	
White rice	3 lb 4 oz	6 lb 8 oz	

Italian Bread

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						For best results, have all ingredients and utensils at room temperature.
Active dry yeast (see note)	.....	2 Tbsp 2 tsp .	.....	⅓ cup	.....	1. Dissolve dry yeast in warm water. Let stand for 4-5 minutes.
Water, warm (110 °F)	.....	1 cup	.....	2 cups	.....	
All-purpose or bread flour	3 lb 12 oz..	3 qt 1½ cups.	7 lb 8 oz...	6¾ qt	.....	2. Place all dry ingredients (flour, dry milk, sugar, and salt) in mixer bowl. Using a dough hook, blend on low speed for approximately 2 minutes.
Noninstant, nonfat dry milk	3 oz	½ cup 2 Tbsp	6 oz	1¼ cups.....	.....	
OR		**OR**	**OR**	**OR**		
Instant nonfat dry milk ...	3 oz	1¼ cups.....	6 oz	2½ cups.....	.....	
Sugar.....	.....	¼ cup.....	3½ oz.....	½ cup.....	.....	
Salt	.....	1 Tbsp	.....	2 Tbsp	.....	
Water (70-75 °F).....	.....	3 cups	.....	1½ qt	.....	3. Add water and mix on low speed for 1 minute.
						4. Add dissolved yeast and mix on low speed for 2 minutes.
Shortening	.....	¼ cup.....	3¼ oz.....	½ cup.....	.....	5. Add shortening and mix on low speed for 2 minutes.
						6. Knead dough on medium speed for 8 minutes, or until dough is smooth and elastic.
						7. Place dough in warm area (about 90 °F) for 45-60 minutes.
						8. Punch down dough to remove air bubbles and let rest 15 minutes.
Cornmeal.....	.....	2 Tbsp	.....	¼ cup.....	.....	9. Divide dough into pieces, 3 lb 6 oz each. For 50 servings, divide into 2 pieces. For 100 servings, divide into 4 pieces. Shape each piece into a smooth roll 24″ long.

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Italian Bread (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						10. Place lengthwise on lightly greased sheet pans (18″x26″x1″) which have been sprinkled with cornmeal, approximately 2 Tbsp per pan. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.
						11. Place sheet pans in a warm area (about 90 °F) until double in size, 30-50 minutes.
Water, as needed	.....	.....	.....	.....	.....	12. Brush top of each loaf with water. Using scissors or a very sharp knife cut 5 or 6 diagonal slits ¼″ deep on top of each loaf.
						13. Bake until brown: Conventional oven: 400 °F for 25 minutes Convection oven: 350 °F for 20 minutes
						14. Cool. Cut each loaf into 25 slices, ⅞″ thick.

SERVING: 1 slice provides 2 servings of bread.

YIELD: **50 servings:** 2 loaves
100 servings: 4 loaves

NOTE: To use high-activity (instant) yeast, follow directions below or manufacturer's instructions.

50 servings: Omit step 1. In step 2, add 2 Tbsp high-activity (instant) yeast. In step 3, add 1 qt water (110 °F). Omit step 4. Continue with step 5. In step 6, knead for 10 minutes. Continue with steps 7-13.

100 servings: Omit step 1. In step 2, add ¼ cup high-activity (instant) yeast. In step 3, add 2 qt water (110 °F). Omit step 4. Continue with step 5. In step 6, knead for 10 minutes. Continue with steps 7-13.

Nutrients Per Serving

Calories	143	Vitamin A	0 RE/Tr IU	Iron	1.1 mg
Protein	4 g	Vitamin C	0.1 mg	Calcium	28 mg
Carbohydrate	28 g	Thiamin	0.22 mg	Phosphorus	52 mg
Fat	1 g	Riboflavin	0.17 mg	Potassium	72 mg
Cholesterol	Tr	Niacin	1.98 mg	Sodium	151 mg

Muffin Squares

Bread

Bread and Cereal Products B-12

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 12 oz	1 qt 2¼ cups	3 lb 8 oz	3 qt ½ cup		1. Blend flour, dry milk, baking powder, sugar, and salt for 5 minutes in mixer on low speed. Add raisins (optional).
Noninstant, nonfat dry milk		¼ cup 2 Tbsp	3½ oz	¾ cup		
OR		**OR**	**OR**	**OR**		
Instant nonfat dry milk		¾ cup	3½ oz	1½ cups		
Baking powder		¼ cup	3 oz	½ cup less 1 tsp		
Sugar	7 oz	1 cup	14 oz	2 cups		
Salt		2 tsp		1 Tbsp 1 tsp		
†Raisins, plumped (optional)	8 oz	1¼ cups	1 lb	2½ cups		
Large eggs (see note)	5¼ oz	3	10½ oz	6		2. Combine eggs and water. Add slowly to dry ingredients while mixing on low speed. Mix only until dry ingredients are moistened, 15-20 seconds.
Water		2¾ cups		1 qt 1½ cups		
Vegetable oil		¾ cup		1½ cups		3. Add oil slowly while mixing on low speed approximately 40 seconds. DO NOT OVERMIX. Batter will be lumpy.
						4. Pour 4 lb 7 oz (2½ qt) batter into each steamtable pan (12″x20″x2½″), which has been lightly oiled. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
						5. Bake until lightly browned: Conventional oven: 425 °F for 25 minutes Convection oven: 350 °F for 15 minutes
						6. Cut each pan 5x10 (50 portions per pan).

†To plump raisins, cover the fruit with very hot tap water. Soak 2-5 minutes. DO NOT OVERSOAK. Drain well before using.

(Continued on back)

Muffin Squares (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						For Muffin Pans: Portion batter into oiled muffin pans with No. 24 scoop (2⅔ Tbsp). Fill no more than ⅔ full. Bake until lightly browned: Conventional oven: 400 °F for 18-20 minutes Convection oven: 350 °F for 12-15 minutes To cool, remove muffins from pans immediately and place on cooling racks.

SERVING: 1 piece provides 1 serving of bread.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

NOTE:

50 servings: Use 1½ oz (½ cup) dried whole eggs and ½ cup water in place of shell eggs.

100 servings: Use 3 oz (1 cup) dried whole eggs and 1 cup water in place of shell eggs.

Variations

a. Muffin Squares (Using Master Mix)

50 servings: Omit step 1. Blend 2 lb 7½ oz (2 qt) Master Mix with 7 oz (1 cup) sugar. Continue with step 2. Omit step 3. Continue with steps 4-6.

100 servings: Omit step 1. Blend 4 lb 15 oz (4 qt) Master Mix with 14 oz (2 cups) sugar. Continue with step 2. Omit step 3. Continue with steps 4-6.

b. Wheat Muffin Squares

50 servings: In step 1, use 1 lb 5 oz (1 qt ¾ cup) all-purpose flour and 7 oz (1½ cups 2 Tbsp) whole-wheat flour. Continue with steps 2-6.

100 servings: In step 1, use 2 lb 10 oz (2 qt 1½ cups) all-purpose flour and 14 oz (3¼ cups) whole-wheat flour. Continue with steps 2-6.

Nutrients Per Serving

Calories	110	Vitamin A	5 RE/16 IU	Iron	0.5 mg
Protein	2 g	Vitamin C	0.1 mg	Calcium	34 mg
Carbohydrate	16 g	Thiamin	0.10 mg	Phosphorus	54 mg
Fat	4 g	Riboflavin	0.08 mg	Potassium	38 mg
Cholesterol	16 mg	Niacin	0.85 mg	Sodium	197 mg

Pancakes

Bread Alternate

Bread and Cereal Products B-13

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	2 lb	1 qt 3¼ cups	4 lb	3 qt 2½ cups		1. Blend flour, baking powder, salt, dry milk, and sugar in mixer for 3 minutes on low speed.
Baking powder		¼ cup	3¼ oz	½ cup		
Salt		1½ tsp		1 Tbsp		
Noninstant, nonfat dry milk	2½ oz	½ cup	5 oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2½ oz	1 cup	5 oz	2 cups		
Sugar	2¼ oz	⅓ cup	4½ oz	⅔ cup		
Large eggs (see note)	14 oz	8	1 lb 12½ oz	16		2. Combine eggs, water, and oil. Add to dry ingredients.
Water		1 qt 1¼ cups		2 qt 2½ cups		
Vegetable oil		1 cup		2 cups		
						3. Blend for 2 minutes on low speed. Batter will be lumpy. DO NOT OVERMIX.
						4. Portion batter with level No. 20 scoop (3⅕ Tbsp) onto griddle, which has been heated to 375 °F. If desired, lightly oil griddle surface.
						5. Cook until surface of pancakes is covered with bubbles and bottom side is lightly browned, approximately 2 minutes. Turn and cook until lightly browned on other side, approximately 1 minute.
						6. Serve immediately or reheat in covered steamtable pans (12″ x20″x2½″): Conventional oven: 350 °F for 10-15 minutes Convection oven: 300 °F for 8-10 minutes

SERVING: 1 pancake provides 1 serving of bread alternate.

YIELD: **50 servings:** 50 4-inch pancakes
100 servings: 100 4-inch pancakes

(Continued on back)

Pancakes (Continued)

Variation

a. Pancakes (Using Master Mix)

50 servings: Omit step 1. Use 2 lb 13 oz (2¼ qt) Master Mix and 2¼ oz (⅓ cup) sugar. In step 2, omit oil. In step 3, blend for 3 minutes on medium speed. Continue with steps 4-6.

100 servings: Omit step 1. Use 5 lb 10 oz (4½ qt) Master Mix and 4½ oz (⅔ cup) sugar. In step 2, omit oil. In step 3, blend for 3 minutes on medium speed. Continue with steps 4-6.

Nutrients Per Serving

Calories	129	Vitamin A	13 RE/42 IU	Iron	0.7 mg
Protein	3 g	Vitamin C	0.1 mg	Calcium	44 mg
Carbohydrate	16 g	Thiamin	0.12 mg	Phosphorus	71 mg
Fat	5 g	Riboflavin	0.11 mg	Potassium	55 mg
Cholesterol	45 mg	Niacin	0.98 mg	Sodium	191 mg

Pizza Crust

Ingredients			100 Servings		For ____ Servings	Directions
			Weight	Measure		
						For best results, have all ingredients and utensils at room temperature.
Active dry yeast (see note)			2 oz	⅓ cup 1 Tbsp		1. Dissolve dry yeast in warm water. Let stand for 4-5 minutes.
Water, warm (110 °F)				2 qt ½ cup		
All-purpose or bread flour			7 lb	6¼ qt		2. Place flour in large mixer bowl. Make well in the center.
Vegetable oil				⅔ cup		3. Pour in dissolved yeast, oil, salt, and sugar. Gradually work into the flour using dough hook on low speed. Knead for 15 minutes at medium speed.
Salt				2½ tsp		
Sugar			2 oz	¼ cup 2 tsp		
						4. Divide and shape dough into 5 balls, 2 lb 4 oz each. Let rest for 20 minutes.
Cornmeal			5 oz	1 cup		5. Lightly oil 5 sheet pans (18″ x 26″ x 1″). Sprinkle each pan with 1 oz (3 Tbsp) cornmeal.
						6. Place 1 dough ball in center of each pan. Flatten dough by rolling or spreading dough ⅛″ thick to rim of pans. Keep edges thicker than center.
						7. For topping, baking, and portioning directions, see Pizza With Ground Beef Topping recipe (see D-31) or Pizza With Cheese Topping recipe (see D-30).

SERVING: 1 portion provides 2 servings of bread.

YIELD: 100 servings: 5 sheet pans

NOTE: To use high-activity (instant) yeast, follow directions below, or manufacturer's instructions.

100 servings: Omit step 1. Continue with step 2. In step 3, add ¼ cup 2 tsp high-activity (instant) yeast and 2 qt ½ cup water (110 °F). Continue with steps 4-7.

(Continued on back)

Nutrients Per Serving

Calories	137	Vitamin A	0 RE/6 IU	Iron	1.1 mg
Protein	4 g	Vitamin C	0 mg	Calcium	6 mg
Carbohydrate	26 g	Thiamin	0.21 mg	Phosphorus	36 mg
Fat	2 g	Riboflavin	0.15 mg	Potassium	43 mg
Cholesterol	0 mg	Niacin	1.94 mg	Sodium	60 mg

Pourable Pizza Crust

Ingredients			100 Servings Weight	100 Servings Measure	For ____ Servings	Directions
						For best results, have all ingredients and utensils at room temperature.
Active dry yeast (see note)	.....	.....	2½ oz	½ cup	.....	1. Dissolve dry yeast in warm water. Let stand 4-5 minutes.
Warm water (110 °F)	.....	.....	.....	1 gal	.....	
All-purpose or bread flour	.....	.....	7 lb	6¼ qt	.....	2. Place flour, milk, sugar, and salt in mixer bowl. Using a whip, blend on low speed for 4 minutes.
Noninstant, nonfat dry milk	.....	.....	1 lb 2½ oz .	1 qt	.....	
OR			OR	OR		
Instant nonfat dry milk ...	.....	.....	1 lb 2½ oz .	1 qt 3¾ cups .	.....	
Sugar	.....	.....	8¾ oz	1¼ cups	.....	
Salt	.....	.....	.....	2½ tsp	.....	
Vegetable oil	.....	.....	.....	¼ cup	.....	3. Add dissolved yeast and oil. Blend on medium speed for 10 minutes. Batter will be lumpy.
Cornmeal	.....	.....	5 oz	1 cup	.....	4. Oil five sheet pans (18″x26″x1″). Sprinkle each pan with 1 oz (approximately 3 Tbsp) cornmeal.
						5. Pour or spread 3 lb 6 oz (1½ qt) batter into each pan. Let stand for 20 minutes.
						6. Prebake until crust is set: Conventional oven: 475 °F for 10 minutes Convection oven: 425 °F for 7 minutes
						7. Top each prebaked crust with desired topping or use Pizza With Ground Beef Topping recipe (see D-31), or Pizza With Cheese Topping recipe (see D-30).

(Continued on back)

Pourable Pizza Crust (Continued)

Ingredients			100 Servings		For ___ Servings	Directions
			Weight	Measure		
						8. Bake until heated through and cheese is melted: Conventional oven: 475 °F for 10-15 minutes. Convection oven: 425 °F for 5 minutes.
						9. Portion by cutting each sheet pan 4x5 (20 pieces per pan).

SERVING: 1 piece provides 2 servings of bread.

YIELD: **100 servings:** 5 sheet pans

NOTE: To use high-activity (instant) yeast, follow directions below or manufacturer's instructions.

100 servings: Omit step 1. In step 2, add 3 Tbsp high-activity (instant) yeast. In step 3, add warm water (110 °F). Continue with steps 4-9.

Nutrients Per Serving

Calories	155	Vitamin A	0 RE/8 IU	Iron	1.1 mg
Protein	6 g	Vitamin C	0.3 mg	Calcium	72 mg
Carbohydrate	31 g	Thiamin	0.24 mg	Phosphorus	89 mg
Fat	1 g	Riboflavin	0.24 mg	Potassium	140 mg
Cholesterol	1 mg	Niacin	2.03 mg	Sodium	88 mg

Rolls (Yeast)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						For best results, have all ingredients and utensils at room temperature.
Active dry yeast (see note)	.....	⅓ cup	3¼ oz	½ cup 2 Tbsp	.....	1. Dissolve dry yeast in warm water. Let stand for 4-5 minutes.
Water, warm (110 °F)	.....	1½ cups	.....	3 cups	.....	
All-purpose or bread flour	3 lb 10 oz ..	3¼ qt	7 lb 4 oz ...	6½ qt	.....	2. Place all dry ingredients (flour, dry milk, sugar, and salt) in mixer bowl. Using a dough hook, blend on low speed for approximately 2 minutes.
Noninstant, nonfat dry milk	3¼ oz	⅔ cup	6½ oz	1⅓ cups	.....	
OR	OR	OR	OR	OR		
Instant nonfat dry milk ...	3¼ oz	1⅓ cups	6½ oz	2¾ cups	.....	
Sugar	5¾ oz	¾ cup 2 Tbsp	11½ oz	1½ cups 2 Tbsp	.....	
Salt	.....	2 Tbsp	2½ oz	¼ cup	.....	
Vegetable oil	.....	¾ cup 2 Tbsp	.....	1⅔ cups	.....	3. Add oil and blend on low speed for approximately 2 minutes.
Water (68 °F)	.....	2½ cups	.....	1¼ qt	.....	4. Add water. Mix on low speed for 1 minute.
						5. Add dissolved yeast and mix on low speed for 2 minutes.
						6. Knead dough on medium speed for 8 minutes, or until dough is smooth and elastic.
						7. Place dough in warm area (about 90 °F) for 45-60 minutes.
						8. Punch down dough to remove air bubbles.
						9. Form rolls from dough by pinching off 2-oz pieces and shaping. Place rolls on lightly oiled sheet pans (18″ x 26″ x 1″) in rows of 10 down and 5 across. For 50 servings, use 1 pan. For 100 servings, use 2 pans.
						10. Place in a warm area (about 90 °F) until double in size, 30-50 minutes.

(Continued on back)

Rolls (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						11. Bake until lightly browned: Conventional oven: 400 °F for 18-20 minutes. Convection oven: 350 °F for 12-14 minutes.
Butter or margarine, melted (optional)	.....	1 Tbsp.....	.....	2 Tbsp	.....	12. Optional: Brush lightly with melted butter or margarine (approximately 1 Tbsp per pan) while warm.

SERVING: 1 2-ounce roll provides 2 servings of bread.

YIELD: **50 servings:** about 50 2-ounce rolls
100 servings: about 100 2-ounce rolls

NOTE: To use high-activity (instant) yeast, follow directions below or manufacturer's instructions.

50 servings: Omit step 1. In step 2, add ¼ cup high-activity (instant) yeast. Continue with step 3. In step 4, add 1 qt water (110 °F). Omit step 5. In step 6, knead for 10 minutes. Continue with steps 7-12.

100 servings: Omit step 1. In step 2, add 2½ oz (½ cup) high-activity (instant) yeast. Continue with step 3. In step 4, add 2 qt water (110 °F). Omit step 5. In step 6, knead for 10 minutes. Continue with steps 7-12.

Variations

a. Frankfurter Rolls

50 and 100 servings: Follow steps 1-8. In step 9, shape 2-oz pieces of dough to approximately 2½" x 6½". Place rolls on lightly oiled sheet pans in rows of 8 down and 4 across. Continue with steps 10-12.

b. Hamburger Rolls

50 and 100 servings: Follow steps 1-8. In step 9, shape and flatten 2-oz pieces of dough to approximately 4" in diameter. Place rolls on lightly oiled sheet pans in rows of 6 down and 4 across. Continue with steps 10-12.

c. Wheat Rolls

50 servings: Follow step 1. In step 2, use 1 lb 13 oz (1 qt 2½ cups) all-purpose or bread flour and 1 lb 13 oz (1 qt 2¾ cups) whole-wheat flour. Continue with steps 3-12.

100 servings: Follow step 1. In step 2, use 3 lb 10 oz (3¼ qt) all-purpose or bread flour and 3 lb 10 oz (3 qt 1½ cups) whole-wheat flour. Continue with steps 3-12.

Nutrients Per Serving

Calories	174	Vitamin A	0 RE/1 IU	Iron	1.1 mg
Protein	4 g	Vitamin C	0.1 mg	Calcium	31 mg
Carbohydrate	30 g	Thiamin	0.23 mg	Phosphorus	59 mg
Fat	4 g	Riboflavin	0.20 mg	Potassium	83 mg
Cholesterol	Tr	Niacin	2.09 mg	Sodium	283 mg

Spanish Rice

Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Vegetable oil	.....	2 Tbsp	.....	¼ cup	.....	1. Heat oil. Add onions and green pepper. Cook for 5 minutes.
Dehydrated onions	.....	¼ cup	.....	½ cup	.....	
OR		OR		OR		
*Fresh onions, chopped	7½ oz	1¼ cups	15 oz	2½ cups	.....	
*Green pepper, chopped	5¼ oz	1 cup	10½ oz	2 cups	.....	
Beef stock or water	.....	1 qt 3½ cups	.....	3¾ qt	.....	2. Add beef stock or water, tomatoes, tomato paste, and seasonings. Bring to boil.
Canned tomatoes, with liquid, chopped	1 lb 3 oz	2¼ cups	2 lb 6½ oz	1 qt ½ cup	.....	
Tomato paste	7 oz	¾ cup	14 oz	1½ cups	.....	
†Seasonings						
Chili powder	.....	1 Tbsp	.....	2 Tbsp	.....	
Ground cumin	.....	2¼ tsp	.....	1 Tbsp 1½ tsp	.....	
Paprika	.....	¾ tsp	.....	1½ tsp	.....	
Onion powder	.....	¾ tsp	.....	1½ tsp	.....	
White rice	1 lb 7½ oz	3½ cups	2 lb 15 oz	1¾ qt	.....	3. Stir in rice. Return to boil. Reduce heat and cover tightly. Cook over low heat for 20-30 minutes or until rice is tender.
						4. Pour into serving pans.
						5. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ⅛ cup of vegetable and ½ serving of bread alternate.

YIELD: **50 servings:** about 3 quarts
100 servings: about 1½ gallons

***See marketing guide below.**

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use 2 Tbsp 1 tsp Mexican Seasoning Mix. For 100 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix.

Nutrients Per Serving

Calories	62	Vitamin A	84 RE/246 IU	Iron	0.9 mg
Protein	1 g	Vitamin C	6.4 mg	Calcium	12 mg
Carbohydrate	12 g	Thiamin	0.06 mg	Phosphorus	24 mg
Fat	1 g	Riboflavin	0.02 mg	Potassium	98 mg
Cholesterol	0 mg	Niacin	0.69 mg	Sodium	226 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	8¾ oz	1 lb 1½ oz	.....
Green pepper	6¾ oz	13½ oz	.....

Sweet Potato-Prune Bread Squares

Vegetable/Fruit-Bread

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned sweet potatoes, drained	2 lb 3½ oz	½ No. 10 can	4 lb 7 oz	1 No. 10 can		1. Mash drained sweet potatoes. Set aside for step 4.
All-purpose flour	1 lb 12 oz	1 qt 2¼ cups	3 lb 8 oz	3 qt ½ cup		2. Blend flour, sugar, dry milk, baking powder, baking soda, salt, allspice, nutmeg (optional), and cloves for 1 minute in mixer on low speed.
Sugar	1 lb 1 oz	2½ cups	2 lb 2 oz	1¼ qt		
Noninstant, nonfat dry milk		2 Tbsp		¼ cup		
OR		**OR**		**OR**		
Instant nonfat dry milk		¼ cup		½ cup		
Baking powder		2 Tbsp		¼ cup		
Baking soda		1 tsp		2 tsp		
Salt		1 tsp		2 tsp		
Allspice		1 tsp		2 tsp		
Ground nutmeg (optional)		1 tsp		2 tsp		
Ground cloves		1 tsp		2 tsp		
Large eggs (see note)	7 oz	4	14 oz	3		3. Combine eggs and water. Add shortening and liquid mixture to dry ingredients. Blend for 1 minute on low speed. Beat for 1 minute on medium speed.
Water		1¼ cups		2½ cups		
Shortening	6½ oz	1 cup	13 oz	2 cups		
Uncooked prunes, chopped	6½ oz	1¼ cups	13 oz	2½ cups		4. Add mashed sweet potatoes, prunes or raisins, and nuts (optional). Blend for 30 seconds on low speed. Beat for 1 minute on medium speed. DO NOT OVERMIX. Batter will be lumpy.
OR	**OR**	**OR**	**OR**	**OR**		
†Raisins, plumped	4¾ oz	¾ cup	9½ oz	1½ cups		
Chopped walnuts (optional)	6½ oz	1½ cups	13 oz	3 cups		
						5. Pour 6 lb 14 oz (3¼ qt) batter into each steamtable pan (12″x20″x2½″), which has been lightly greased. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.

†To plump raisins, cover the fruit with very hot tap water. Soak 2-5 minutes. DO NOT OVERSOAK. Drain well before using.

(Continued on back)

Sweet Potato-Prune Bread Squares (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						6. Bake: Conventional oven: 350 °F for 55-65 minutes Convection oven: 300 °F for 35-45 minutes
						7. Cool. Cut each pan 5x10 (50 pieces per pan).
						For Loaf Pans: Pour 2 lb 4 oz (1½ qt) batter into each loaf pan (4″x10″x4″), which has been lightly greased. For 50 servings, use 3 loaf pans. For 100 servings, use 6 loaf pans. Bake: Conventional oven: 350 °F for 1¼-1½ hours Convection oven: 300 °F for 40-50 minutes Remove from pans. Cool completely. Cut each loaf into 17 slices, about ½″ thick.

SERVING: 1 piece provides ⅛ cup of vegetable and fruit and 1 serving of bread.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

NOTE:
50 servings: Use 2 oz (⅔ cup) dried whole eggs and ⅔ cup water in place of shell eggs.

100 servings: Use 4 oz (1⅓ cups) dried whole eggs and 1⅓ cups water in place of shell eggs.

Nutrients Per Serving

Calories	162	Vitamin A	152 RE/1,116 IU	Iron	0.8 mg
Protein	3 g	Vitamin C	2.0 mg	Calcium	23 mg
Carbohydrate	28 g	Thiamin	0.11 mg	Phosphorus	44 mg
Fat	4 g	Riboflavin	0.08 mg	Potassium	80 mg
Cholesterol	22 mg	Niacin	0.92 mg	Sodium	135 mg

White Bread

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						For best results, have all ingredients and utensils at room temperature.
Active dry yeast (see note)	.....	2 Tbsp 2 tsp	.....	⅓ cup	.....	1. Dissolve dry yeast in warm water. Let stand for 4-5 minutes.
Water, warm (110 °F)	.....	½ cup	.....	1 cup	.....	
All-purpose or bread flour	2 lb 3 oz	2 qt	4 lb 6 oz	4 qt	.....	2. Place all dry ingredients (flour, dry milk, sugar, and salt) in mixer bowl. Using a dough hook, blend on low speed for approximately 2 minutes.
Noninstant, nonfat dry milk	.....	⅓ cup	3 oz	⅔ cup	.....	
OR		**OR**	**OR**	**OR**		
Instant nonfat dry milk	.....	½ cup 2 Tbsp	3 oz	1¼ cups	.....	
Sugar	2¼ oz	⅓ cup	4½ oz	⅔ cup	.....	
Salt	.....	1 Tbsp	.....	2 Tbsp	.....	
Water (70-75 °F)	.....	2 cups	.....	1 qt	.....	3. Add water and mix on low speed for 1 minute.
						4. Add dissolved yeast and mix on low speed for 2 minutes.
Shortening	2¼ oz	⅓ cup	4½ oz	⅔ cup	.....	5. Add shortening and mix on low speed for 2 minutes.
						6. Knead dough on medium speed for 8 minutes, or until dough is smooth and elastic.
						7. Place dough in warm area (about 90 °F) for 45-60 minutes.

(Continued on back)

White Bread (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						8. Divide dough into pieces, 1 lb 15 oz each. For 50 servings, divide into 2 pieces. For 100 servings, divide into 4 pieces. Shape each piece into a loaf and place in loaf pan (16½"x4½"x4"), which has been lightly greased. For 50 servings, use 2 loaf pans. For 100 servings, use 4 loaf pans.
						9. Place pans in a warm area (about 90 °F) until double in size, 45-55 minutes.
						10. Bake until lightly browned: Conventional oven: 400 °F for 20-25 minutes Convection oven: 375 °F for 18-22 minutes
						11. Cool. Cut each loaf into 27 slices, ⅝" thick.
Butter or margarine, melted (optional)	.....	1 Tbsp	.....	2 Tbsp	.....	12. Optional: Brush top of each loaf lightly with melted butter or margarine (approximately 1½ tsp per loaf) while warm.

SERVING: 1 piece provides 1 serving of bread.

YIELD: **50 servings:** 2 loaf pans
100 servings: 4 loaf pans

NOTE: To use high-activity (instant) yeast, follow directions below or manufacturer's instructions.

50 servings: Omit step 1. In step 2, add 2 Tbsp high-activity (instant) yeast. In step 3, add 2½ cups water (110 °F). Omit step 4. Continue with step 5. In step 6, knead for 10 minutes. Continue with steps 7-12.

100 servings: Omit step 1. In step 2, add ¼ cup high-activity (instant) yeast. In step 3, add 1¼ qt water (110 °F). Omit step 4. Continue with step 5. In step 6, knead for 10 minutes. Continue with steps 7-12.

(Continued)

White Bread (Continued)

Variations

a. Oat Bread

50 servings: Follow step 1. In step 2, use 1 lb 13 oz (1 qt 2½ cups) all-purpose flour and 7 oz (2¾ cups) rolled oats. Continue with steps 3-12.

100 servings: Follow step 1. In step 2, use 3 lb 10 oz (3 qt 1 cup) all-purpose flour and 14 oz (1 qt 1½ cups) rolled oats. Continue with steps 3-12.

b. Oat Bread With Honey

50 servings: Follow step 1. In step 2, use 1 lb 13 oz (1 qt 2½ cups) all-purpose flour and 7 oz (2¾ cups) rolled oats. Omit sugar. In step 3, combine 3¾ oz (⅓ cup) honey with water. Continue with steps 4-12.

100 servings: Follow step 1. In step 2, use 3 lb 10 oz (3 qt 1 cup) all-purpose flour and 14 oz (1 qt 1½ cups) rolled oats. Omit sugar. In step 3, combine 7½ oz (⅔ cup) honey with water. Continue with steps 4-12.

c. Raisin Bread

50 servings: Follow step 1. In step 2, add 1½ tsp ground cinnamon. Continue with steps 3-5. In step 6, add 13 oz (2 cups) †plumped raisins during last 2 minutes of mixing. Continue with steps 7-12.

100 servings: Follow step 1. In step 2, add 1 Tbsp ground cinnamon. Continue with steps 3-5. In step 6, add 1 lb 10 oz (1 qt) †plumped raisins during last 2 minutes of mixing. Continue with steps 7-12.

†To plump raisins, cover the fruit with very hot tap water. Soak 2-5 minutes. DO NOT OVERSOAK. Drain well before using.

d. Wheat Bread

50 servings: Follow step 1. In step 2, use 1 lb 10 oz (1 qt 1¾ cups) all-purpose flour and 9 oz (2¼ cups) whole-wheat flour. Continue with steps 3-12.

100 servings: Follow step 1. In step 2, use 3 lb 4 oz (2 qt 3½ cups) all-purpose flour and 1 lb 2 oz (1 qt ¼ cup) whole-wheat flour. Continue with steps 3-12.

e. Wheat Bread With Honey

50 servings: Follow step 1. In step 2, use 1 lb 10 oz (1 qt 1¾ cups) all-purpose flour and 9 oz (2¼ cups) whole-wheat flour. Omit sugar. In step 3, mix 3¾ oz (⅓ cup) honey with water. Continue with steps 4-12.

100 servings: Follow step 1. In step 2, use 3 lb 4 oz (2 qt 3½ cups) all-purpose flour and 1 lb 2 oz (1 qt ¼ cup) whole-wheat flour. Omit sugar. In step 3, mix 7½ oz (⅔ cup) honey with water. Continue with steps 4-12.

Nutrients Per Serving

Calories	**93**	**Vitamin A**	**0 RE/Tr IU**	**Iron**	**0.7 mg**
Protein	**3 g**	**Vitamin C**	**0 mg**	**Calcium**	**15 mg**
Carbohydrate	**17 g**	**Thiamin**	**0.14 mg**	**Phosphorus**	**32 mg**
Fat	**2 g**	**Riboflavin**	**0.11 mg**	**Potassium**	**44 mg**
Cholesterol	**Tr**	**Niacin**	**1.23 mg**	**Sodium**	**147 mg**

Desserts

Contents

Desserts

Contents

Apple Cobbler

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour Salt Shortening	1 lb 2 oz ..... 10 oz	1 qt 1 tsp 1½ cups	2 lb 4 oz ..... 1 lb 4 oz	2 qt 2 tsp 3 cups	....	1. For pastry topping: Combine flour and salt. Mix in shortening until size of small peas.
Cold water	.....	⅔ cup	.....	1⅓ cups	.....	2. Add water and mix just until dry ingredients are moistened. Cover and set aside for step 10.
Canned unsweetened sliced apples, with juice	12 lb 8 oz	2 No. 10 cans	25 lb	4 No. 10 cans	.....	3. For filling: Drain apples, reserving juice. Set apples aside for step 8.
Water, as needed	.....	.....	.....	.....	.....	4. For 50 servings, add enough water to apple juice to make 2 qt liquid mixture. For 100 servings, add enough water to apple juice to make 1 gal liquid mixture.
Cornstarch	4 oz	¾ cup 2 Tbsp	8 oz	1¾ cups 2 Tbsp	.....	5. Mix cornstarch with about ¼ of the liquid mixture.
Sugar	1 lb 8 oz	3½ cups	3 lb	1¾ qt	.....	6. Bring remaining liquid mixture to boil. Add about ½ of the sugar. Gradually add cornstarch mixture to boiling liquid. Cook, stirring constantly, until thickened. Mixture will be very thick, but will thin after steps 7 and 8.
Ground cinnamon Ground nutmeg	....	1 Tbsp 2 tsp	....	2 Tbsp 1 Tbsp	....	7. Remove from heat. Blend remaining sugar, cinnamon, and nutmeg thoroughly into mixture.
						8. Add apples to thickened mixture. Stir lightly. Do not break up fruit.
						9. Pour 3¾ qt thickened apple mixture into each steamtable pan (12″ x 20″ x 2½″). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
						10. Roll out pastry dough into rectangles (about 12″ x 20″) on lightly floured surface. Use about 1 lb of dough for each pan.

(Continued on back)

Apple Cobbler (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						11. Cover apples with pastry. Brush with pastry brush dipped in water. Cut slits in pastry.
						12. Bake until pastry is brown and filling is bubbly: Conventional oven: 425 °F for 1 hour Convection oven: 375 °F for 40 minutes
						13. Cut each pan 5x5 (25 portions per pan).

SERVING: 1 portion provides ½ cup of fruit.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Variations

a. Apple-Honey Cobbler

50 servings: Follow steps 1-3. In step 4, add enough water to apple juice to make 1 qt 3⅔ cups. Continue with step 5. In step 6, omit sugar. Add 14½ oz (1¼ cups) honey. In step 7, add 12 oz (1¾ cups) sugar. Continue with steps 8-13.

100 servings: Follow steps 1-3. In step 4, add enough water to apple juice to make 3 qt 3⅓ cups. Continue with step 5. In step 6, omit sugar. Add 1 lb 13 oz (2½ cups) honey. In step 7, add 1 lb 8 oz (3½ cups) sugar. Continue with steps 8-13.

b. Apple-Raisin Cobbler

50 and 100 servings: Follow steps 1-9. Sprinkle 4 oz (¾ cup 1 Tbsp) raisins over each pan. Continue with steps 10-13.

Nutrients Per Serving

Calories	195	Vitamin A	3 RE/34 IU	Iron	0.9 mg
Protein	1 g	Vitamin C	0.9 mg	Calcium	8 mg
Carbohydrate	36 g	Thiamin	0.08 mg	Phosphorus	15 mg
Fat	6 g	Riboflavin	0.05 mg	Potassium	99 mg
Cholesterol	0 mg	Niacin	0.54 mg	Sodium	50 mg

Apple Crisp

Fruit **Desserts C-2**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	13½ oz	3 cups	1 lb 11 oz	1½ qt		1. For topping: Combine flour, rolled oats or rolled wheat, brown sugar, cinnamon, nutmeg (optional), salt, and butter or margarine. Mix until crumbly. Set aside for step 6.
Rolled oats	9 oz	3½ cups	1 lb 2 oz	1¾ qt		
OR	**OR**	**OR**	**OR**	**OR**		
Rolled wheat	9 oz	3 cups	1 lb 2 oz	1 qt 1¾ cups		
Brown sugar, packed	15 oz	2 cups	1 lb 14 oz	1 qt		
Ground cinnamon		1 Tbsp 1½ tsp		3 Tbsp		
Ground nutmeg (optional)		1 Tbsp 1½ tsp		3 Tbsp		
Salt		½ tsp		1 tsp		
Butter or margarine	1 lb	2 cups	2 lb	1 qt		
Canned unsweetened sliced apples, with juice	6 lb 4 oz	1 No. 10 can	12 lb 8 oz	2 No. 10 cans		2. For filling: Drain apples, reserving juice. For 50 servings, add enough water to juice to make 1½ cups liquid. For 100 servings, add enough water to juice to make 3 cups liquid. Set liquid aside for step 5.
Water, as needed						
						3. Place 5 lb 12 oz (3½ qt) apples into each steamtable pan (12″x20″x2½″). For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
Sugar	10 oz	1½ cups	1 lb 4 oz	3 cups		4. Sprinkle 10 oz (1½ cups) sugar, 1½ tsp cinnamon, and ¼ cup lemon juice over apples in each pan. Stir to combine.
Ground cinnamon		1½ tsp		1 Tbsp		
Reconstituted frozen lemon juice concentrate		¼ cup		½ cup		
						5. Pour 1½ cups liquid over apples in each pan.
						6. Sprinkle approximately 3 lb 5 oz (2½ qt) topping evenly over apples in each pan.
						7. Bake until topping is browned and crisp: Conventional oven: 425 °F for 35-45 minutes Convection oven: 350 °F for 25-35 minutes

(Continued on back)

Apple Crisp (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						8. Cool. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece provides ¼ cup of fruit.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

Variation

a. Apple-Honey Crisp

50 servings: Follow steps 1-3. In step 4, omit sugar. Use 10 oz (¾ cup 2 Tbsp) honey. Continue with steps 5-8.

100 servings: Follow steps 1-3. In step 4, omit sugar. Use 1 lb 4 oz (1¾ cups) honey. Continue with steps 5-8.

Nutrients Per Serving

Calories	192	Vitamin A	70 RE/295 IU	Iron	0.9 mg
Protein	2 g	Vitamin C	0.9 mg	Calcium	19 mg
Carbohydrate	30 g	Thiamin	0.09 mg	Phosphorus	39 mg
Fat	8 g	Riboflavin	0.05 mg	Potassium	103 mg
Cholesterol	20 mg	Niacin	0.55 mg	Sodium	103 mg

Applesauce Cake

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 14 oz	1 qt 2¾ cups	3 lb 12 oz	3 qt 1½ cups		1. Blend flour, sugar, dry milk, baking powder, salt, cloves, and cinnamon for 1 minute in mixer on low speed.
Sugar	1 lb 12 oz	1 qt	3 lb 8 oz	2 qt		
Noninstant, nonfat dry milk	2½ oz	½ cup	5 oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2½ oz	1 cup	5 oz	2 cups		
Baking powder		¼ cup	3 oz	½ cup		
Salt		1½ tsp		1 Tbsp		
Ground cloves		1½ tsp		1 Tbsp		
Ground cinnamon		1 Tbsp		2 Tbsp		
Large eggs (see note)	14 oz	8	1 lb 12½ oz	16		2. Combine eggs, vanilla, and water. Add shortening and liquid mixture to dry ingredients. Blend for 30 seconds on low speed. Beat for 6 minutes on medium speed.
Vanilla		1 Tbsp		2 Tbsp		
Water		¼ cup		½ cup		
Shortening	13 oz	2 cups	1 lb 10 oz	1 qt		
Applesauce	1 lb 11 oz	¼ No. 10 can	3 lb 6 oz	½ No. 10 can		3. Add applesauce. Blend for 30 seconds on low speed. Beat for 3 minutes on medium speed. Add raisins (optional) and nuts (optional). Blend for 1 minute on low speed.
†Raisins, plumped (optional)	1 lb	2½ cups	2 lb	1¼ qt		
Chopped walnuts (optional)	8 oz	1¾ cups 2 Tbsp	1 lb	3¾ cups		
						4. Pour 7 lb 3 oz (3¾ qt) batter into each sheet pan (18″x26″x1″), which has been lightly greased and dusted with flour. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.
						5. Bake until lightly browned: Conventional oven: 375 °F for 35 minutes Convection oven: 325 °F for 25 minutes

†To plump raisins, cover the fruit with very hot tap water. Soak 2-5 minutes. DO NOT OVERSOAK. Drain well before using.

(Continued on back)

Applesauce Cake (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						6. Cool. If desired, dust lightly with powdered sugar.
						7. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece.

YIELD: **50 servings:** 1 sheet pan
100 servings: 2 sheet pans

NOTE:

50 servings: Use 4 oz (1⅓ cups) dried whole eggs and 1⅓ cups water in place of shell eggs.

100 servings: Use 8 oz (2⅔ cups) dried whole eggs and 2⅔ cups water in place of shell eggs.

Nutrients Per Serving

Calories	219	Vitamin A	13 RE/45 IU	Iron	0.8 mg
Protein	3 g	Vitamin C	0.4 mg	Calcium	45 mg
Carbohydrate	33 g	Thiamin	0.12 mg	Phosphorus	69 mg
Fat	8 g	Riboflavin	0.11 mg	Potassium	65 mg
Cholesterol	45 mg	Niacin	0.95 mg	Sodium	184 mg

Brownies

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Shortening Sugar Salt Vanilla	9 oz 1 lb 10 oz 	1⅓ cups 3¾ cups 1½ tsp 1½ tsp	1 lb 2 oz 3 lb 4 oz 	2¾ cups 1 qt 3½ cups 1 Tbsp 1 Tbsp		1. Cream shortening, sugar, salt, and vanilla for 2 minutes in mixer on medium speed.
Large eggs (see note)	12½ oz	7	1 lb 9 oz	14		2. Add eggs and beat for 3 minutes on medium speed.
All-purpose flour Cocoa Baking powder	15 oz 6 oz 	3½ cups 2 cups 1 Tbsp	1 lb 14 oz 12 oz 	1 qt 2¾ cups 1 qt 2 Tbsp		3. Add flour, cocoa, and baking powder. Mix for 30 seconds on low speed, then mix for 1 minute on medium speed. Batter will be very thick.
						4. For 50 servings, spread 4 lb 3 oz (2 qt) batter in 1 half-sheet pan (18″x13″x1″), which has been lightly greased. For 100 servings, spread 8 lb 6 oz (1 gal) batter in 1 sheet pan (18″x26″x1″), which has been lightly greased.
Chopped walnuts (optional)	4¼ oz	1 cup	8½ oz	2 cups		5. Sprinkle nuts (optional) over batter.
						6. Bake: Conventional oven: 350 °F for 20-30 minutes Convection oven: 300 °F for 18-25 minutes DO NOT OVERBAKE.
						7. Cool. If desired, lightly dust with powdered sugar.
						8. For 50 servings, cut half-sheet pan 5x10 (50 pieces per pan). For 100 servings, cut sheet pan 10x10 (100 pieces per pan).

SERVING: 1 piece.

YIELD: **50 servings:** 1 half-sheet pan
100 servings: 1 sheet pan

(Continued on back)

Brownies (Continued)

NOTE:

50 servings: Use 3½ oz (1 cup 2 Tbsp) dried whole eggs and 1 cup 2 Tbsp water in place of shell eggs.

100 servings: Use 7 oz (2⅓ cups) dried whole eggs and 2⅓ cups water in place of shell eggs.

Nutrients Per Serving

Calories	153	Vitamin A	11 RE/38 IU	Iron	0.8 mg
Protein	2 g	Vitamin C	0 mg	Calcium	14 mg
Carbohydrate	23 g	Thiamin	0.06 mg	Phosphorus	49 mg
Fat	7 g	Riboflavin	0.06 mg	Potassium	70 mg
Cholesterol	39 mg	Niacin	0.54 mg	Sodium	105 mg

Carrot Cake

Vegetable/Fruit

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 14 oz	1 qt 2¾ cups	3 lb 12 oz	3 qt 1½ cups		1. Blend flour, sugar, baking powder, salt, cinnamon, cloves, nutmeg (optional), and dry milk for 1 minute in mixer on low speed.
Sugar	1 lb 11½ oz	1 qt	3 lb 7 oz	2 qt		
Baking powder		¼ cup	3 oz	½ cup		
Salt		1½ tsp		1 Tbsp		
Ground cinnamon		1½ tsp		1 Tbsp		
Ground cloves		1 tsp		2 tsp		
Ground nutmeg (optional)		1 tsp		2 tsp		
Noninstant, nonfat dry milk	2½ oz	½ cup	5 oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2½ oz	1 cup	5 oz	2 cups		
Large eggs (see note)	14 oz	8	1 lb 12½ oz	16		2. Add eggs and oil to dry ingredients. Blend for 30 seconds on low speed. Beat for 6 minutes on medium speed.
Vegetable oil		2 cups		1 qt		
*Carrots, shredded	1 lb 7 oz	1½ qt	2 lb 14 oz	3 qt		3. Add carrots, pineapple, and nuts (optional). Blend for 30 seconds on low speed. Beat for 2 minutes on medium speed.
Canned crushed pineapple, drained	1 lb 2½ oz	¼ No. 10 can	2 lb 5 oz	½ No. 10 can		
Chopped walnuts (optional)	6½ oz	1½ cups	13 oz	3 cups		
						4. Pour 8 lb 2 oz (3¾ qt) batter into each sheet pan (18″x26″x1″), which has been lightly oiled and dusted with flour. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.

*See marketing guide on back.

(Continued on back)

Carrot Cake (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						5. Bake until lightly browned: Conventional oven: 350 °F for 35-45 minutes Convection oven: 300 °F for 30-40 minutes
						6. Cool. If desired, frost or lightly dust with powdered sugar.
						7. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece provides ⅛ cup of vegetable and fruit.

YIELD: **50 servings:** 1 sheet pan
100 servings: 2 sheet pans

NOTE:

50 servings: Use 4 oz (1⅓ cups) dried whole eggs and 1⅓ cups water in place of shell eggs.

100 servings: Use 8 oz (2⅔ cups) dried whole eggs and 2⅔ cups water in place of shell eggs.

Nutrients Per Serving

Calories	230	Vitamin A	380 RE/3531 IU	Iron	0.8 mg
Protein	4 g	Vitamin C	1.8 mg	Calcium	48 mg
Carbohydrate	33 g	Thiamin	0.14 mg	Phosphorus	74 mg
Fat	10 g	Riboflavin	0.11 mg	Potassium	110 mg
Cholesterol	45 mg	Niacin	1.02 mg	Sodium	188 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Carrots	2 lb 1 oz	4 lb 2 oz	. . . . .

Cherry Cobbler

Fruit **Desserts C-6**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour Salt Shortening	1 lb 2 oz ..... 10 oz	1 qt 1 tsp 1½ cups	2 lb 4 oz ..... 1 lb 4 oz	2 qt 2 tsp 3 cups	....	1. For pastry topping: Combine flour and salt. Mix in shortening until size of small peas.
Cold water	.....	⅔ cup	.....	1⅓ cups	.....	2. Add water and mix just until dry ingredients are moistened. Cover and set aside for step 10.
Canned red tart pitted cherries, with juice	12 lb 14 oz.	2 No. 10 cans	25 lb 12 oz.	4 No. 10 cans	.....	3. For filling: Drain cherries, reserving juice. Set cherries aside for step 8.
Water, as needed	.....	.....	.....	.....	.....	4. For 50 servings, add enough water to cherry juice to make 2 qt liquid mixture. For 100 servings, add enough water to cherry juice to make 1 gal liquid mixture.
Cornstarch	10 oz	2¼ cups	1 lb 4 oz	1 qt ½ cup	.....	5. Mix cornstarch with about ¼ of the liquid mixture.
Sugar	2 lb 2 oz	1¼ qt	4 lb 4 oz	2½ qt	.....	6. Bring remaining liquid mixture to boil. Add about ½ of the sugar. Gradually add cornstarch mixture to boiling liquid. Cook, stirring constantly, until thickened. Mixture will be very thick, but will thin after steps 7 and 8.
Reconstituted frozen lemon juice concentrate	.....	¼ cup	.....	½ cup	.....	7. Remove from heat. Blend remaining sugar and lemon juice thoroughly into mixture.
						8. Add cherries to thickened mixture. Stir lightly. Do not break up fruit.
						9. Pour 3¼ qt thickened cherry mixture into each steamtable pan (12″ x 20″ x 2½″). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
						10. Roll out pastry dough into rectangles (about 12″ x 20″) on lightly floured surface. Use about 1 lb of dough for each pan.

(Continued on back)

Cherry Cobbler (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						11. Cover cherries with pastry. Brush with pastry brush dipped in water. Cut slits in pastry.
						12. Bake until pastry is brown and filling is bubbly: Conventional oven: 425 °F for 1 hour Convection oven: 375 °F for 40 minutes
						13. Cut each pan 5x5 (25 portions per pan).

SERVING: 1 portion provides ½ cup of fruit.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Variation

a. Cherry Cobbler (Using Frozen Red Tart Pitted Cherries, Thawed)

50 servings: Follow steps 1 and 2. In step 3, use 17 lb (2¼ gal) thawed cherries. Continue with steps 4 and 5. In steps 6 and 7, omit sugar. Continue with steps 8-13.

100 servings: Follow steps 1 and 2. In step 3, use 34 lb (4½ gal) thawed cherries. Continue with steps 4 and 5. In steps 6 and 7, omit sugar. Continue with steps 8-13.

Nutrients Per Serving

Calories	270	Vitamin A	85 RE/636 IU	Iron	1.8 mg
Protein	2 g	Vitamin C	2.1 mg	Calcium	14 mg
Carbohydrate	55 g	Thiamin	0.08 mg	Phosphorus	21 mg
Fat	6 g	Riboflavin	0.08 mg	Potassium	122 mg
Cholesterol	0 mg	Niacin	0.68 mg	Sodium	56 mg

Cherry Crisp

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour Rolled oats OR Rolled wheat Brown sugar, packed Ground cloves Salt Butter or margarine	13½ oz 9 oz OR 9 oz 15 oz .... 1 lb	3 cups 3½ cups OR 3 cups 2 cups ½ tsp ½ tsp 2 cups	1 lb 11 oz 1 lb 2 oz OR 1 lb 2 oz 1 lb 14 oz .... 2 lb	1½ qt 1¾ qt OR 1 qt 1¾ cups 1 qt 1 tsp 1 tsp 1 qt	....	1. For topping: Combine flour, rolled oats or rolled wheat, brown sugar, cloves, salt, and butter or margarine. Mix until crumbly. Set aside for step 8.
Canned red tart pitted cherries, with juice	6 lb 7 oz	1 No. 10 can	12 lb 14 oz	2 No. 10 cans	.....	2. For filling: Drain cherries, reserving juice. For 50 servings, reserve 1 cup juice. For 100 servings, reserve 2 cups juice. Set juice aside for step 4.
						3. Place 4 lb 8 oz (2 qt 3½ cups) cherries into each steamtable pan (12"x20"x2½"). For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
Sugar Reconstituted frozen lemon juice concentrate	10 oz	1½ cups ¼ cup	1 lb 4 oz	3 cups ½ cup	....	4. Combine cherry juice with sugar and lemon juice. Heat juice mixture over medium heat for 2 minutes.
Cornstarch Water	....	¼ cup 2 Tbsp ¼ cup	3¼ oz	¾ cup ½ cup	....	5. Combine cornstarch and water. Stir until smooth.
						6. Add cornstarch to juice mixture. Cook over medium heat, stirring constantly until thickened, 3-4 minutes. Remove from heat and stir well.
						7. Pour 2 cups liquid mixture over cherries in each pan.
						8. Sprinkle approximately 3 lb 5 oz (2½ qt) topping evenly over cherries in each pan.

(Continued on back)

Cherry Crisp (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						9. Bake until topping is browned and crisp: Conventional oven: 425 °F for 35-45 minutes Convection oven: 350 °F for 25-35 minutes
						10. Cool. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece provides ¼ cup of fruit.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

Variation

a. Cherry Crisp (Using Frozen Red Tart Pitted Cherries, Thawed)

50 servings: Follow step 1. In step 2, use 8 lb 8 oz (3¾ qt) thawed frozen red tart pitted cherries. Drain and reserve 1 cup juice for step 4. In step 3, place 6 lb (2¼ qt) drained cherries into 1 steamtable pan. Continue with steps 4-10.

100 servings: Follow step 1. In step 2, use 17 lb (1 gal 3½ qt) thawed frozen red tart pitted cherries. Drain and reserve 2 cups juice for step 4. In step 3, place 6 lb (2¼ qt) drained cherries into each of 2 steamtable pans. Continue with steps 4-10.

Nutrients Per Serving

Calories	214	Vitamin A	111 RE/600 IU	Iron	1.5 mg
Protein	2 g	Vitamin C	1.3 mg	Calcium	20 mg
Carbohydrate	35 g	Thiamin	0.09 mg	Phosphorus	40 mg
Fat	8 g	Riboflavin	0.06 mg	Potassium	114 mg
Cholesterol	20 mg	Niacin	0.54 mg	Sodium	106 mg

Chocolate Cake

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 6 oz	1¼ qt	2 lb 12 oz	2½ qt		1. Blend flour, sugar, cocoa, dry milk, baking powder, baking soda, and salt for 4 minutes in mixer on low speed.
Sugar	2 lb	1 qt ¾ cup	4 lb	2 qt 1½ cups		
Cocoa	5½ oz	1¾ cups	11 oz	3¾ cups		
Noninstant, nonfat dry milk	3 oz	½ cup 2 Tbsp	6 oz	1¼ cups		
OR	**OR**	**OR**	**OR**	**OR**		
Instant nonfat dry milk	3 oz	1¼ cups	6 oz	2½ cups		
Baking powder		2 Tbsp 1½ tsp	2 oz	⅓ cup		
Baking soda		1 Tbsp		2 Tbsp		
Salt		1½ tsp		1 Tbsp		
Large eggs (see note)	12½ oz	7	1 lb 9 oz	14		2. Combine eggs, vanilla, and water. Add shortening and about half the liquid mixture to dry ingredients. Blend for 30 seconds on low speed. Beat for 3 minutes on medium speed.
Vanilla		1½ tsp		1 Tbsp		
Water		3½ cups		1¾ qt		
Shortening	12 oz	1¾ cups 2 Tbsp	1 lb 8 oz	3¾ cups		
						3. Slowly add remaining liquid mixture. Blend for 30 seconds on low speed. Beat for 3 minutes on medium speed.
						4. Pour 7 lb 3 oz (1 gal) batter into sheet pans (18″x26″x1″), which have been lightly greased and dusted with flour. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.
						5. Bake: Conventional oven: 375 °F for 30 minutes Convection oven: 325 °F for 18-20 minutes
						6. Cool. Frost if desired.
						7. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece.

YIELD: **50 servings:** 1 sheet pan
100 servings: 2 sheet pans

(Continued on back)

Chocolate Cake (Continued)

NOTE:

50 servings: Use 3½ oz (1 cup 2 Tbsp) dried whole eggs and 1 cup 2 Tbsp water in place of shell eggs.

100 servings: Use 7 oz (2¼ cups) dried whole eggs and 2¼ cups water in place of shell eggs.

Nutrients Per Serving

Calories	202	Vitamin A	11 RE/38 IU	Iron	0.9 mg
Protein	3 g	Vitamin C	0.1 mg	Calcium	43 mg
Carbohydrate	30 g	Thiamin	0.09 mg	Phosphorus	77 mg
Fat	8 g	Riboflavin	0.10 mg	Potassium	100 mg
Cholesterol	39 mg	Niacin	0.75 mg	Sodium	224 mg

Chocolate Chip Cookies

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	14½ oz	3¼ cups	1 lb 13 oz	1 qt 2½ cups		1. Blend flour, baking soda, salt, sugar, and brown sugar for 2 minutes in mixer on low speed.
Baking soda		¾ tsp		1½ tsp		
Salt		¾ tsp		1½ tsp		
Sugar	3½ oz	½ cup	7 oz	1 cup		
Brown sugar, packed	9¼ oz	1¼ cups	1 lb 2½ oz	2½ cups		
Shortening	5 oz	¾ cup	10 oz	1½ cups		2. Add shortening, butter or margarine, eggs, and vanilla. Mix for 1 minute on medium speed.
Butter or margarine	5 oz	½ cup 2 Tbsp	10 oz	1¼ cups		
Large eggs (see note)	5¼ oz	3	10½ oz	6		
Vanilla		1½ tsp		1 Tbsp		
Chocolate chips	6 oz	1 cup	12 oz	2 cups		3. Add chocolate chips and peanut granules (optional). Blend for 30 seconds on medium speed.
Peanut granules (optional)	4¾ oz	1 cup	9½ oz	2 cups		
						4. Portion with level No. 40 scoop (1⅗ Tbsp) in rows of 6 down and 5 across onto each sheet pan (18″x26″x1″). For 50 servings, use 2 sheet pans. For 100 servings, use 4 sheet pans. (Cookie machine may be used, but adjustments may be necessary.)
						5. Bake until lightly browned: Conventional oven: 375 °F for 10-12 minutes Convection oven: 325 °F for 6-8 minutes DO NOT OVERBAKE.
						6. Cool for 1 minute. Remove from sheet pans.

SERVING: 1 cookie.

YIELD: **50 servings:** 50 cookies
100 servings: 100 cookies

NOTE:

50 servings: Use 1½ oz (½ cup) dried whole eggs and ½ cup water in place of shell eggs.

100 servings: Use 3 oz (1 cup) dried whole eggs and 1 cup water in place of shell eggs.

(Continued on back)

Chocolate Chip Cookies (Continued)

Nutrients Per Serving

Calories	124	Vitamin A	26 RE/104 IU	Iron	0.7 mg
Protein	2 g	Vitamin C	0 mg	Calcium	11 mg
Carbohydrate	14 g	Thiamin	0.06 mg	Phosphorus	27 mg
Fat	7 g	Riboflavin	0.05 mg	Potassium	59 mg
Cholesterol	22 mg	Niacin	0.50 mg	Sodium	83 mg

Oatmeal Cookies

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	14½ oz	3¼ cups	1 lb 13 oz	1 qt 2½ cups		1. Blend flour, baking soda, salt, rolled oats, sugar, brown sugar, cinnamon, cloves, and nutmeg (optional) for 2 minutes in mixer on low speed.
Baking soda		2 tsp		1 Tbsp 1 tsp		
Salt		1 tsp		2 tsp		
Rolled oats	10 oz	1 qt	1 lb 4 oz	1 qt 3¾ cups		
Sugar	7 oz	1 cup	14 oz	2 cups		
Brown sugar, packed	9½ oz	1¼ cups	1 lb 3 oz	2½ cups		
Ground cinnamon		1 tsp		2 tsp		
Ground cloves		¼ tsp		½ tsp		
Ground nutmeg (optional)		½ tsp		1 tsp		
Shortening	8 oz	1¼ cups	1 lb	2½ cups		2. Add shortening, butter or margarine, eggs, and vanilla. Mix for 1 minute on medium speed.
Butter or margarine	7 oz	¾ cup 2 Tbsp	14 oz	1¾ cups		
Large eggs (see note)	5¼ oz	3	10½ oz	6		
Vanilla		1 Tbsp		2 Tbsp		
†Raisins, plumped (optional)	9½ oz	1½ cups	1 lb 3½ oz	3 cups		3. Add raisins (optional) and blend for 30 seconds on low speed.
						4. Portion with level No. 40 scoop (1⅗ Tbsp) in rows of 6 down and 5 across onto each sheet pan (18″x26″x1″). For 50 servings, use 2 sheet pans. For 100 servings, use 4 sheet pans. (Cookie machine may be used, but adjustments may be necessary).
						5. Bake until lightly browned: Conventional oven: 350 °F for 12-14 minutes Convection oven: 300 °F for 6-8 minutes DO NOT OVERBAKE.
						6. Cool completely. Remove from sheet pans.

SERVING: 1 cookie.

YIELD: **50 servings:** 50 cookies
100 servings: 100 cookies

†To plump raisins, cover the fruit with very hot tap water. Soak 2-5 minutes. DO NOT OVERSOAK. Drain well before using.

(Continued on back)

Oatmeal Cookies (Continued)

NOTE:

50 servings: Use 1½ oz (½ cup) dried whole eggs and ½ cup water in place of shell eggs.

100 servings: Use 3 oz (1 cup) dried whole eggs and 1 cup water in place of shell eggs.

Nutrients Per Serving

Calories	206	Vitamin A	35 RE/141 IU	Iron	0.8 mg
Protein	2 g	Vitamin C	Tr	Calcium	12 mg
Carbohydrate	31 g	Thiamin	0.10 mg	Phosphorus	41 mg
Fat	8 g	Riboflavin	0.05 mg	Potassium	52 mg
Cholesterol	25 mg	Niacin	0.49 mg	Sodium	134 mg

Orange-Pineapple Gelatin

Fruit **Desserts C-11**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Water Unflavored gelatin Sugar	..... 3 oz 5¼ oz	2 cups ¾ cup ¾ cup	..... 6 oz 10½ oz	1 qt 1½ cups 1½ cups	....	1. Combine water, gelatin, and sugar. Cook over medium heat, stirring frequently until sugar and gelatin dissolve, 2-3 minutes. Remove from heat.
Canned crushed pineapple, in juice	3 lb 6 oz	½ No. 10 can	6 lb 11 oz	1 No. 10 can	.....	2. Drain pineapple, reserving juice. For 50 servings, reserve 2 cups juice. For 100 servings, reserve 1 qt juice.
Reconstituted orange juice	.....	3½ qt	.....	1¾ gal	.....	3. Stir orange juice and pineapple liquid into gelatin mixture. Chill until mixture begins to thicken, approximately 30 minutes.
Applesauce Chopped nuts (optional)	3 lb 6 oz 5¼ oz	½ No. 10 can 1¼ cups	6 lb 12 oz 10½ oz	1 No. 10 can 2½ cups	....	4. Fold in pineapple, applesauce, and nuts (optional).
						5. Pour 7 lb 12 oz (3 qt 1½ cups) of fruited gelatin into each steamtable pan (12″x20″x2½″). For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans.
						6. Refrigerate overnight or until set.
						7. Cut each pan 5x5 (25 portions per pan).

SERVING: 1 portion provides ½ cup of fruit.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Nutrients Per Serving

Calories	89	Vitamin A	7 RE/68 IU	Iron	0.3 mg
Protein	2 g	Vitamin C	30 mg	Calcium	12 mg
Carbohydrate	21 g	Thiamin	0.09 mg	Phosphorus	15 mg
Fat	Tr	Riboflavin	0.03 mg	Potassium	184 mg
Cholesterol	0 mg	Niacin	0.28 mg	Sodium	3 mg

Top Pastry Crust (Steamtable Pans)

Ingredients	Top Crust for 2 Steamtable Pans (12"x20"x2½")		Top Crust for 4 Steamtable Pans (12"x20"x2½")		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 2 oz	1 qt	2 lb 4 oz	2 qt		1. For top crust: Combine flour and salt. Mix in shortening until size of small peas.
Salt		1 tsp		2 tsp		
Shortening	10 oz	1½ cups	1 lb 4 oz	3 cups		
Cold water		⅔ cup		1⅓ cups		2. Add water and mix just until dry ingredients are moistened.
						3. Roll out pastry dough into rectangle (about 12"x20") on lightly floured surface. Use about 1 lb of dough for each pan (12"x20"x2½").
						4. Place pastry crust over desired filling, such as fruit pie and cobbler filling. Bake as directed in filling recipe.

Nutrients Per Serving*

Top Pastry Crust

Calories	87	Vitamin A	0 RE/0 IU	Iron	0.3 mg
Protein	1 g	Vitamin C	0 mg	Calcium	2 mg
Carbohydrate	8 g	Thiamin	0.06 mg	Phosphorus	9 mg
Fat	6 g	Riboflavin	0.04 mg	Potassium	10 mg
Cholesterol	0 mg	Niacin	0.54 mg	Sodium	47 mg

*25 portions per steamtable pan are used in the nutrient calculation.

Bottom Pastry Crust (Sheet Pans)

Ingredients	Bottom Crust for 1 Sheet Pan (18"x26"x1")		Bottom Crust for 2 Sheet Pans (18"x26"x1")		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 12 oz	1 qt 2¼ cups	3 lb 8 oz	3 qt ½ cup		1. For bottom crust: Combine flour and salt. Mix in shortening until size of small peas.
Salt		1½ tsp		1 Tbsp		
Shortening	15 oz	2¼ cups	1 lb 14 oz	1 qt ½ cup		
Cold water		1¼ cups		2½ cups		2. Add water and mix just until dry ingredients are moistened.
						3. Roll out pastry dough into rectangle (about 20"x28") on lightly floured surface. Use about 3 lb 5 oz dough for each pan (18"x26"x1"). Line bottom and sides of sheet pans with dough. **For 9" Pie Pans:** Recipe for 1 sheet pan will yield 7-8 9" single pie crusts. Recipe for 2 sheet pans will yield 14-16 9" single pie crusts.
						4. Add desired filling, such as fruit or custard. Bake as directed in filling recipe. **For Prebaked Crust:** Prick crust well. Bake for 15 minutes at 400 °F or until light brown. Cool. Add desired filling, such as chiffon or cooked filling.

Nutrients Per Serving*

Bottom Pastry Crust

Calories	133	Vitamin A	0 RE/0 IU	Iron	0.5 mg
Protein	2 g	Vitamin C	0 mg	Calcium	3 mg
Carbohydrate	12 g	Thiamin	0.10 mg	Phosphorus	14 mg
Fat	9 g	Riboflavin	0.06 mg	Potassium	15 mg
Cholesterol	0 mg	Niacin	0.84 mg	Sodium	71 mg

*50 portions per sheet pan are used in the nutrient calculation.

Fat _____ Niacin _____
Cholesterol _____ 0 mg
*50 portions per sheet pan are used in the nutrient calculation.

Peach Cobbler

Fruit

Desserts C-13

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour Salt Shortening	1 lb 2 oz 10 oz	1 qt 1 tsp 1½ cups	2 lb 4 oz 1 lb 4 oz	2 qt 2 tsp 3 cups		1. For pastry topping: Combine flour and salt. Mix in shortening until size of small peas.
Cold water		⅔ cup		1⅓ cups		2. Add water and mix just until dry ingredients are moistened. Cover and set aside for step 10.
Canned sliced peaches, in syrup	14 lb 15 oz.	2¼ No. 10 cans	29 lb 13 oz.	4½ No. 10 cans		3. For filling: Drain peaches, reserving syrup. Set peaches aside for step 8.
Water, as needed						4. For 50 servings, add enough water to peach syrup to make 1 qt 2¾ cups liquid mixture. For 100 servings, add enough water to peach syrup to make 3 qt 1½ cups liquid mixture.
Cornstarch	6 oz	1⅓ cups	12 oz	2¾ cups		5. Mix cornstarch with about ¼ of the liquid mixture.
Sugar	1 lb	2¼ cups	2 lb	1 qt ½ cup		6. Bring remaining liquid mixture to boil. Add about ½ of the sugar. Gradually add cornstarch mixture to boiling liquid. Cook, stirring constantly, until thickened. Mixture will be very thick, but will thin after steps 7 and 8.
Reconstituted frozen lemon juice concentrate Ground nutmeg	 	1½ tsp 1 tsp	 	1 Tbsp 2 tsp	 	7. Remove from heat. Blend remaining sugar, lemon juice, and nutmeg thoroughly into mixture.
						8. Add peaches to thickened mixture. Stir lightly. Do not break up fruit.
						9. Pour 3¼ qt thickened peach mixture into each steamtable pan (12″ x 20″ x 2½″). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
						10. Roll out pastry dough into rectangles (about 12″ x 20″) on lightly floured surface. Use about 1 lb of dough for each pan.

(Continued on back)

Peach Cobbler (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						11. Cover peaches with pastry. Brush with pastry brush dipped in water. Cut slits in pastry.
						12. Bake until pastry is brown and filling is bubbly: Conventional oven: 425 °F for 1 hour Convection oven: 375 °F for 40 minutes
						13. Cut each pan 5x5 (25 portions per pan).

SERVING: 1 portion provides ½ cup of fruit.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Variation

a. Peach-Honey Cobbler

50 servings: Follow steps 1-3. In step 4, add enough water to peach syrup to make 1 qt 2⅓ cups. Continue with step 5. In step 6, omit sugar. Add 9¾ oz (¾ cup 2 Tbsp) honey. In step 7, add 8 oz (1 cup 2 Tbsp) sugar. Continue with steps 8-13.

100 servings: Follow steps 1-3. In step 4, add enough water to peach syrup to make 3 qt ⅔ cup. Continue with step 5. In step 6, omit sugar. Add 1 lb 3½ oz (1¾ cups) honey. In step 7, add 1 lb (2¼ cups) sugar. Continue with steps 8-13.

Nutrients Per Serving

Calories	208	Vitamin A	47 RE/359 IU	Iron	0.8 mg
Protein	2 g	Vitamin C	2.6 mg	Calcium	6 mg
Carbohydrate	40 g	Thiamin	0.07 mg	Phosphorus	24 mg
Fat	6 g	Riboflavin	0.07 mg	Potassium	141 mg
Cholesterol	0 mg	Niacin	1.10 mg	Sodium	54 mg

Peanut Butter Cookies

Meat Alternate | **Desserts C-14**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	14 oz	3¼ cups	1 lb 12 oz	1 qt 2¼ cups		1. Combine flour, baking soda, dry milk, and salt.
Baking soda		¾ tsp		1½ tsp		
Noninstant, nonfat dry milk	2¼ oz	½ cup	4¾ oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2¼ oz	1 cup	4¾ oz	2 cups		
Salt		½ tsp		1 tsp		
Butter or margarine	8 oz	1 cup	1 lb	2 cups		2. Blend butter or margarine, peanut butter, sugar, brown sugar, eggs, and vanilla for 3 minutes in mixer on medium speed.
Peanut butter	13¼ oz	1½ cups	1 lb 10½ oz	3 cups		
Sugar	10½ oz	1½ cups	1 lb 5 oz	3 cups		
Brown sugar, packed	3¾ oz	½ cup	7½ oz	1 cup		
Large eggs (see note)	5¼ oz	3	10½ oz	6		
Vanilla		1 Tbsp		2 Tbsp		
Peanut granules (optional)	4¾ oz	1 cup	9½ oz	2 cups		3. Add dry ingredients and peanut granules (optional). Blend for 30 seconds on low speed. Blend for 30 seconds on medium speed.
						4. Portion with level No. 40 scoop (1⅗ Tbsp) in rows of 6 down and 5 across onto each sheet pan (18″x26″x1″). For 50 servings, use 2 sheet pans. For 100 servings, use 4 sheet pans. (Cookie machine may be used, but adjustments may be necessary.)
						5. Flatten cookies to approximately 2½ inches in diameter.
						6. Bake until lightly browned: Conventional oven: 350 °F for 10-12 minutes Convection oven: 300 °F for 6-8 minutes DO NOT OVERBAKE.
						7. Cool for 1 minute. Remove from sheet pans.

SERVING: 1 cookie

YIELD: **50 servings:** 50 cookies
100 servings: 100 cookies

(Continued on back)

Peanut Butter Cookies (Continued)

NOTE:

50 servings: Use 1½ oz (½ cup) dried whole eggs and ½ cup water in place of shell eggs.

100 servings: Use 3 oz (1 cup) dried whole eggs and 1 cup water in place of shell eggs.

Nutrients Per Serving

Calories	146	Vitamin A	39 RE/155 IU	Iron	0.5 mg
Protein	4 g	Vitamin C	0.1 mg	Calcium	25 mg
Carbohydrate	16 g	Thiamin	0.07 mg	Phosphorus	55 mg
Fat	8 g	Riboflavin	0.07 mg	Potassium	96 mg
Cholesterol	26 mg	Niacin	1.45 mg	Sodium	92 mg

Rice Pudding

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Reconstituted nonfat dry milk	.....	3 qt	.....	1½ gal	.....	1. Combine milk, cornstarch, sugar, salt, eggs, nutmeg (optional), and cinnamon. Stir until smooth.
Cornstarch	4½ oz	1 cup	8¾ oz	2 cups	.....	
Sugar	10½ oz	1½ cups	1 lb 5 oz	3 cups	.....	
Salt	.....	1 tsp	.....	2 tsp	.....	
Large eggs, beaten	14 oz	8	1 lb 12½ oz	16	.....	
Ground nutmeg (optional)	.....	½ tsp	.....	1 tsp	.....	
Ground cinnamon	.....	½ tsp	.....	1 tsp	.....	
						2. Cook over medium heat, stirring frequently, for 20-30 minutes until mixture begins to thicken and just boils.
Vanilla	.....	2 Tbsp	.....	¼ cup	.....	3. Immediately turn off heat. Stir in vanilla, rice, and raisins (optional).
Cooked white rice	2 lb 1 oz	1½ qt	4 lb 2 oz	3 qt	.....	
Raisins (optional)	10 oz	2 cups	1 lb 4 oz	1 qt	.....	
						4. Pour rice mixture into serving pans. Cover with plastic wrap to prevent the formation of surface film. Chill if desired.
						5. Portion with No. 12 scoop (⅓ cup). If desired, sprinkle with ground cinnamon.

SERVING: ⅓ cup (No. 12 scoop).

YIELD: **50 servings:** about 1 gallon 2 cups
100 servings: about 2¼ gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	66	Vitamin A	13 RE/42 IU	Iron	0.5 mg
Protein	1 g	Vitamin C	Tr	Calcium	10 mg
Carbohydrate	13 g	Thiamin	0.03 mg	Phosphorus	22 mg
Fat	1 g	Riboflavin	0.03 mg	Potassium	20 mg
Cholesterol	44 mg	Niacin	0.19 mg	Sodium	60 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
White rice	11 oz	1 lb 6 oz	.....

Spice Cake

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 14 oz	1 qt 2¾ cups	3 lb 12 oz	3 qt 1½ cups		1. Blend flour, sugar, dry milk, baking powder, salt, cocoa, cloves, and cinnamon for 1 minute in mixer on low speed.
Sugar	1 lb 14 oz	1 qt ¼ cup	3 lb 12 oz	2 qt ½ cup		
Noninstant, nonfat dry milk	2½ oz	½ cup	5 oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2½ oz	1 cup	5 oz	2 cups		
Baking powder		¼ cup	3 oz	½ cup		
Salt		1½ tsp		1 Tbsp		
Cocoa		1 Tbsp 1½ tsp		3 Tbsp		
Cloves		¾ tsp		1½ tsp		
Cinnamon		2 tsp		1 Tbsp 1 tsp		
Large eggs (see note)	14 oz	8	1 lb 12½ oz	16		2. Combine eggs, vanilla, and water. Add shortening and about half the liquid mixture to dry ingredients. Blend for 30 seconds on low speed. Beat for 6 minutes on medium speed.
Vanilla		1 Tbsp		2 Tbsp		
Water		3 cups		1½ qt		
Shortening	13 oz	2 cups	1 lb 10 oz	1 qt		
Uncooked prunes, finely chopped	1 lb	3 cups	2 lb	1½ qt		3. Add remaining liquid mixture. Blend for 30 seconds on low speed. Beat for 2 minutes on medium speed. Add prunes or raisins and nuts (optional). Blend for 1 minute on low speed.
OR	OR	OR	OR	OR		
†Raisins, plumped	1 lb	2½ cups	2 lb	1¼ qt		
Chopped nuts (optional)	8 oz	1¾ cups 2 Tbsp	1 lb	3¾ cups		
						4. Pour 8 lb 1 oz (1 gal 3 cups) batter into each sheet pan (18″x26″x1″), which has been lightly greased and dusted with flour. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.

†To plump raisins, cover the fruit with very hot tap water. Soak 2-5 minutes. DO NOT OVERSOAK. Drain well before using.

(Continued on back)

Spice Cake (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						5. Bake until lightly browned: Conventional oven: 375 °F for 35 minutes Convection oven: 325 °F for 25 minutes
						6. Cool. If desired, frost or lightly dust with powdered sugar.
						7. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece.

YIELD: **50 servings:** 1 sheet pan
100 servings: 2 sheet pans

NOTE:
50 servings: Use 4 oz (1⅓ cups) dried whole eggs and 1⅓ cups water in place of shell eggs.

100 servings: Use 8 oz (2⅔ cups) dried whole eggs and 2⅔ cups water in place of shell eggs.

Nutrients Per Serving

Calories	224	Vitamin A	18 RE/78 IU	Iron	0.8 mg
Protein	3 g	Vitamin C	0.1 mg	Calcium	46 mg
Carbohydrate	34 g	Thiamin	0.12 mg	Phosphorus	72 mg
Fat	9 g	Riboflavin	0.11 mg	Potassium	89 mg
Cholesterol	45 mg	Niacin	0.98 mg	Sodium	183 mg

Sweet Potato Pie With Whipped Topping

Vegetable

Desserts C-17

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 12 oz	1 qt 2¼ cups	3 lb 8 oz	3 qt ½ cup		1. For bottom crust: Combine flour and salt. Mix in shortening until size of small peas.
Salt		1½ tsp		1 Tbsp		
Shortening	15 oz	2¼ cups	1 lb 14 oz	1 qt ½ cup		
Cold water		1¼ cups		2½ cups		2. Add water and mix just until dry ingredients are moistened.
						3. Roll out pastry dough into rectangles (about 20″x28″) on lightly floured surface. Use 3 lb 5 oz of dough for each crust. Line bottom and sides of sheet pans (18″x26″x1″) with dough. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.
Canned sweet potatoes, drained	5 lb	2 qt 3½ cups	10 lb	2¼ No. 10 cans		4. For pie filling: Puree or mash drained sweet potatoes until very smooth and free from lumps. (Discard coarse fibers that stick to beater blades.) (1 No. 10 can yields about 4 lb 8 oz (2 qt) pureed or mashed sweet potatoes.)
Large eggs, very well beaten (see note)	14 oz	8	1 lb 12½ oz	16		5. Add beaten eggs, milk, butter or margarine, brown sugar, salt, flour, lemon juice, cinnamon, ginger, and cloves. Beat for 4 minutes on medium speed until smooth and well blended.
Reconstituted nonfat dry milk		1 qt		2 qt		
Butter or margarine, melted	3 oz	¼ cup 2 Tbsp	6 oz	¾ cup		
Brown sugar, packed	13½ oz	1¾ cups	1 lb 11 oz	3¾ cups		
Salt		¼ tsp		½ tsp		
All-purpose flour	2¼ oz	½ cup	4½ oz	1 cup		
Reconstituted frozen lemon juice concentrate		2 Tbsp		¼ cup		
Ground cinnamon		1 Tbsp		2 Tbsp		
Ground ginger		1½ tsp		1 Tbsp		
Ground cloves		1 tsp		2 tsp		
						6. Pour 9 lb 2 oz (1 gal) pie filling into each crust.

(Continued on back)

Sweet Potato Pie With Whipped Topping (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						7. Bake until a knife inserted near center comes out clean: Conventional oven: 425 °F for 15 minutes. Reduce oven temperature and bake at 375 °F for 45-55 minutes. Convection oven: 375 °F for 10 minutes. Reduce oven temperature and bake at 325 °F for 30-45 minutes.
						8. Cool. Cut each pan 5x10 (50 pieces per pan).
Gelatin Cold water	....	2 tsp ¼ cup	....	1 Tbsp 1 tsp ½ cup	....	9. For whipped topping: Soften gelatin in cold water.
Noninstant, nonfat dry milk **OR** Instant nonfat dry milk Water	4 oz **OR** 4 oz	¾ cup 2 Tbsp **OR** 1⅔ cups 1¼ cups	8 oz **OR** 8 oz	1¾ cups **OR** 3¼ cups 2½ cups	....	10. Combine dry milk and water. Whip until free of lumps. Heat to scalding. Remove from heat.
						11. Add softened gelatin and stir until dissolved. Cover. REFRIGERATE OVERNIGHT. (Chilling overnight produces a thicker mixture.)
Sugar Salt Vanilla	4½ oz	½ cup 2 Tbsp ½ tsp 2 tsp	9 oz	1¼ cups 1 tsp 1 Tbsp 1 tsp	....	12. Whip chilled mixture in mixer for 10 minutes on high speed. Add sugar, salt, and vanilla. Beat for 5 minutes on high speed until very stiff. Use immediately or keep chilled until service.
						13. Top each piece of pie with approximately 2 Tbsp whipped topping.

SERVING: 1 piece provides ¼ cup of vegetable.

YIELD: **50 servings:** 1 sheet pan
100 servings: 2 sheet pans

(Continued)

Sweet Potato Pie With Whipped Topping (Continued)

NOTE:

50 servings: Use 4 oz (1⅓ cups) dried whole eggs and 1⅓ cups water in place of shell eggs.

100 servings: Use 8 oz (2⅔ cups) dried whole eggs and 2⅔ cups water in place of shell eggs.

Nutrients Per Serving

Calories	266	Vitamin A	351 RE/2531 IU	Iron	1.4 mg
Protein	5 g	Vitamin C	4.9 mg	Calcium	78 mg
Carbohydrate	37 g	Thiamin	0.14 mg	Phosphorus	84 mg
Fat	11 g	Riboflavin	0.17 mg	Potassium	220 mg
Cholesterol	49 mg	Niacin	1.07 mg	Sodium	175 mg

Vanilla Cream Frosting

Ingredients	1 Quart		½ Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Butter or margarine	2½ oz	¼ cup 1 Tbsp	4¾ oz	½ cup 2 Tbsp		1. Cream butter or margarine and shortening in mixer at medium speed for 2 minutes until light and fluffy.
Shortening	2½ oz	¼ cup 2 Tbsp	4¾ oz	¾ cup		
Powdered sugar, unsifted	1 lb 14 oz	1 qt 3½ cups	3 lb 12 oz	3¾ qt		2. Combine powdered sugar, salt, and dry milk. Add to creamed butter or margarine. Mix for 1 minute on low speed.
Salt		¼ tsp		½ tsp		
Noninstant, nonfat dry milk		2 Tbsp		¼ cup		
OR		**OR**		**OR**		
Instant nonfat dry milk		¼ cup		½ cup		
Vanilla		1 Tbsp		2 Tbsp		3. Add vanilla while mixing at low speed. Slowly add water to obtain a spreading consistency. Scrape down bowl. Beat at medium speed for 5 minutes or until mixture is creamy and well blended. (For a thinner frosting, add additional water, 1 tsp at a time, mixing after each addition.)
Water, room temperature		¼ cup 3 Tbsp		¾ cup 2 Tbsp		
						4. Spread on cooled cakes.

YIELD: **1 quart:** will cover 1 sheet pan (18″x26″x1″)
½ gallon: will cover 2 sheet pans (18″x26″x1″)

(Continued on back)

Vanilla Cream Frosting (Continued)

Variations

a. Chocolate Cream Frosting

1 quart: Follow step 1. In step 2, add 4 oz (1⅓ cups) cocoa to dry ingredients. In step 3, add ½ cup 1 Tbsp water. Continue with step 4.

½ gallon: Follow step 1. In step 2, add 8 oz (2¾ cups) cocoa to dry ingredients. In step 3, add 1 cup 2 Tbsp water. Continue with step 4.

b. Peanut Butter Cream Frosting

1 quart: In step 1, omit butter or margarine. Use 9½ oz (1 cup 2 Tbsp) peanut butter. Continue with step 2. In step 3, add ½ cup 1 Tbsp water. Continue with step 4.

½ gallon: In step 1, omit butter or margarine. Use 1 lb 3 oz (2¼ cups) peanut butter. Continue with step 2. In step 3, add 1 cup 2 Tbsp water. Continue with step 4.

Nutrients Per Serving*

Calories	87	Vitamin A	10 RE/41 IU	Iron	Tr
Protein	Tr	Vitamin C	0 mg	Calcium	Tr
Carbohydrate	17 g	Thiamin	0 mg	Phosphorus	Tr
Fat	2 g	Riboflavin	0 mg	Potassium	1 mg
Cholesterol	3 mg	Niacin	Tr	Sodium	23 mg

***1¼ tablespoons of Vanilla Cream Frosting are used in the nutrient calculation.**

Whipped Topping

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Gelatin		2 tsp		1 Tbsp 1 tsp		1. Soften gelatin in cold water. Set aside for step 3.
Cold water		¼ cup		½ cup		
Noninstant, nonfat dry milk	4 oz	¾ cup 2 Tbsp	8 oz	1¾ cups		2. Combine dry milk and water. Whip until free of lumps. Heat to scalding. Remove from heat.
OR	OR	OR	OR	OR		
Instant nonfat dry milk	4 oz	1⅔ cups	8 oz	3¼ cups		
Water		1¼ cups		2½ cups		
						3. Add softened gelatin and stir until dissolved. Cover. Refrigerate overnight. (Chilling overnight produces a thicker mixture.)
Sugar	4½ oz	½ cup 2 Tbsp	9 oz	1¼ cups		4. Whip chilled mixture in mixer for 10 minutes on high speed. Add sugar, salt, and vanilla. Beat for 5 minutes on high speed until very stiff. Use immediately or keep chilled until service.
Salt		½ tsp		1 tsp		
Vanilla		2 tsp		1 Tbsp 1 tsp		
						5. Use as topping for pies, cakes, puddings, custards, fruit cups, or gelatin desserts.

SERVING: 2 tablespoons.

YIELD: **50 servings:** about 1½ quarts
100 servings: about 3 quarts

Nutrients Per Serving

Calories	18	Vitamin A	0 RE/Tr IU	Iron	Tr
Protein	1 g	Vitamin C	0.1 mg	Calcium	29 mg
Carbohydrate	4 g	Thiamin	0.01 mg	Phosphorus	22 mg
Fat	Tr	Riboflavin	0.04 mg	Potassium	41 mg
Cholesterol	Tr	Niacin	0.02 mg	Sodium	36 mg

Yellow Cake

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour	1 lb 14 oz	1 qt 2¾ cups	3 lb 12 oz	3 qt 1½ cups		1. Blend flour, sugar, dry milk, baking powder, and salt for 1 minute in mixer on low speed.
Sugar	1 lb 14 oz	1 qt ¼ cup	3 lb 12 oz	2 qt ½ cup		
Noninstant, nonfat dry milk	2½ oz	½ cup	5 oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2½ oz	1 cup	5 oz	2 cups		
Baking powder		¼ cup	3 oz	½ cup		
Salt		1½ tsp		1 Tbsp		
Large eggs (see note)	14 oz	8	1 lb 12½ oz	16		2. Combine eggs, vanilla, and water. Add shortening and about half the liquid mixture to dry ingredients. Blend for 30 seconds on low speed. Beat for 6 minutes on medium speed.
Vanilla		1 Tbsp		2 Tbsp		
Water		3 cups		1½ qt		
Shortening	13 oz	2 cups	1 lb 10 oz	1 qt		
						3. Add remaining liquid mixture. Blend for 30 seconds on low speed. Beat for 2 minutes on medium speed.
						4. Pour 7 lb 2 oz (1 gal) batter into each sheet pan (18″x26″x1″), which has been lightly greased and dusted with flour. For 50 servings, use 1 sheet pan. For 100 servings, use 2 sheet pans.
						5. Bake until lightly browned: Conventional oven: 375 °F for 30 minutes Convection oven: 325 °F for 18-20 minutes
						6. Cool. Frost if desired.
						7. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece.

YIELD: **50 servings:** 1 sheet pan
100 servings: 2 sheet pans

(Continued on back)

Yellow Cake (Continued)

NOTE:
50 servings: Use 4 oz (1⅓ cups) dried whole eggs and 1⅓ cups water in place of shell eggs.

100 servings: Use 8 oz (2⅔ cups) dried whole eggs and 2⅔ cups water in place of shell eggs.

Variations

a. Peanut Butter Cake

50 Servings: In step 1, omit sugar. Use 1 lb 14 oz (1 qt) packed brown sugar. In step 2, use 4 oz (½ cup 2 Tbsp) shortening and 1 lb 2 oz (2 cups) peanut butter. Continue with steps 3-7.

100 servings: In step 1, omit sugar. Use 3 lb 12 oz (2 qt) packed brown sugar. In step 2, use 8 oz (1¼ cups) shortening and 2 lb 4 oz (1 qt) peanut butter. Continue with steps 3-7.

b. Pineapple Upside Down Cake

50 servings: Follow steps 1-3. In step 4, pour 6 oz (¾ cup) melted butter or margarine into 1 sheet pan (18″x26″x1″). Sprinkle evenly with 1 lb (2¼ cups) packed brown sugar. Spread 2 lb 10 oz (1 qt ¾ cup) drained crushed pineapple over brown sugar in each pan. Pour 7 lb 2 oz (1 gal) cake batter into pan. In step 5, bake until lightly browned: Conventional oven: 375 °F for 40-45 minutes; Convection oven: 325 °F for 25-30 minutes. In step 6, do not frost. Cool, cut each pan 5x10, and serve inverted on individual dishes. Or, let sit approximately 10 minutes and invert while still warm onto another sheet pan (18″x26″x1″), and continue with step 7.

100 servings: Follow steps 1-3. In step 4, pour 6 oz (¾ cup) melted butter or margarine into each of 2 sheet pans (18″x26″x1″). Sprinkle each pan evenly with 1 lb (2¼ cups) packed brown sugar. Spread 2 lb 10 oz (1 qt ¾ cup) drained crushed pineapple over brown sugar in each pan. Pour 7 lb 2 oz (1 gal) cake batter into each pan. In step 5, bake until lightly browned: Conventional oven: 375 °F for 40-45 minutes; Convection oven: 325 °F for 25-30 minutes. In step 6, do not frost. Cool, cut each pan 5x10, and serve inverted on individual dishes. Or, let sit approximately 10 minutes and invert while still warm onto another sheet pan (18″x26″x1″), and continue with step 7.

SERVING: 1 piece provides ⅛ cup of fruit.

Nutrients Per Serving

Calories	212	Vitamin A	13 RE/42 IU	Iron	0.7 mg
Protein	3 g	Vitamin C	0.1 mg	Calcium	42 mg
Carbohydrate	31 g	Thiamin	0.12 mg	Phosphorus	68 mg
Fat	8 g	Riboflavin	0.10 mg	Potassium	54 mg
Cholesterol	44 mg	Niacin	0.92 mg	Sodium	183 mg

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Cooking Dry Beans, Peas, and Lentils

Dry beans and peas may be served as a vegetable or used in a main dish. One pound of dry beans yields 5⅞ to 7 cups cooked beans. Canned beans may be substituted for cooked dry beans in any recipe. Some or all of the salt in the recipe should be omitted when canned beans are used in place of cooked dry beans.

To prepare beans for cooking, wash beans in cold water, if needed. Sort beans or peas and remove dirt and foreign matter. Directions for soaking and cooking dry beans and peas are given below.

Soaking

DRY BEANS

Overnight Method: Add dry beans to cold water. Cover. Let stand in refrigerator overnight. Cook immediately after soaking period. Longer periods for soaking beans are not recommended.

Quick-Soak Method: Pour dry beans into boiling water and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

SPLIT PEAS

Dry split peas may be cooked without presoaking

OR

Add split peas to boiling water. Boil 2 minutes. Remove from heat and let soak for ½ hour.

LENTILS

Lentils may be cooked without soaking.

Cooking

1. Once the beans have been soaked, add ½ teaspoon salt for every pound of dry beans and peas. Boil gently with lid tilted until tender. Use the cooking time in the table as a guide. Add additional boiling water if beans become dry. Cook split peas in small batches to retain their shape and to avoid mashing.

2. Drain, if desired. Serve or use in recipes.

NOTE: Cooked beans may be stored in covered steamtable pans and refrigerated. Use within 2 days.

Cooking Dry Beans, Peas, and Lentils

Kind of Bean	Approximate Volume of 1 Pound of Beans (Cups)	Approximate Amount of Boiling Water for Each Pound of Beans (Quarts)	Approximate Cooking Time (Hours)
Blackeye peas	2¾	1¾	½
Garbanzos (chickpeas)	2½	1⅛	1¾
Great Northern	2½	1¾	1 to 1½
Kidney beans	2½	1¾	2
Lentils	2⅜	1¾	½
Lima beans, large	2⅝	1¾	1
Lima beans, small	2⅜	1¾	1
Pea beans (Navy)	2¼	1¾	1½ to 2
Peas, split	2¼	1¼	⅓
Peas, whole	2⅓	1½	1
Pinto beans	2⅜	1¾	2
Soybeans	2½	2¼	2 to 3

Hard-Cooked Eggs (Using Fresh, Frozen, and Dried Eggs)

Fresh shell eggs may be hard-cooked in a steamer, a steam-jacketed kettle, or in an oven. Frozen eggs and dried whole eggs should be hard-cooked in an oven. Directions for hard-cooking eggs and weight and volume measures for fresh, frozen, and dried whole eggs (with amounts of water for reconstitution) are given below.

Shell Eggs

Hard-Cooked in Steamer or Steam-Jacketed Kettle

1. Steam eggs in shell in a perforated pan for 15 minutes at 5 lb pressure

   OR

   Bring sufficient water to a boil to cover eggs. (Cook in batches of 50 eggs for ease in handling.) Gently lower eggs into water, using perforated basket or large slotted spoon. Return water to simmering. Simmer for 20 minutes.
2. Immediately remove from heat and cool quickly under cold running water.
3. To serve warm, crack shells by rolling or stirring lightly. Peel from large end of egg.
4. To serve cold or to use in salads, chill in refrigerator. To crack shells, roll eggs gently. Peel from large end of egg.

Shell or Frozen Eggs

Hard-Cooked in Oven

1. Remove eggs from shells

   OR

   Thaw amount of frozen eggs needed. See the following table for the amount of frozen eggs to use.
2. Place eggs in greased steamtable pans (12″x20″x2½″); use 25 eggs (1 qt 1¼ cups) per pan. Add ½ cup water to each pan.
3. Set pan of eggs into a larger pan of hot water; cover and bake at 350 °F (moderate oven) 30 minutes, or until eggs are firm.
4. Chop or grind into desired size pieces and use immediately in hot main dishes, or chill in refrigerator for use in salads or sandwiches.

Dried Whole Eggs

Hard-Cooked in Oven

1. Sprinkle dried whole eggs over water and beat to blend. See the following table for the amount of dried whole eggs and water to use.
2. Pour into greased steamtable pans (12″x20″x2½″) to a depth of ½″ (2 qt per pan). Bake at 325 °F (slow oven) 15 minutes, or until egg mixture is firm.
3. Chop or grind into desired size pieces for use in hot main dishes or in salads or sandwiches. **USE IMMEDIATELY. DO NOT HOLD HARD-COOKED EGGS PREPARED FROM DRIED WHOLE EGGS OVERNIGHT.**

(Continued on back)

Hard-Cooked Eggs (Continued)

Weight and Volume Measures for Fresh or Frozen Eggs and Dried Whole Eggs and Amounts of Water for Reconstitution

Number of Eggs (Large Size)	Fresh (without shells) or Frozen Eggs		Dried Whole Eggs (see note)		
	Weight	Measure	Weight	Measure	Water
20	2 lb 3½ oz	1 qt ¼ cup	10 oz	3⅓ cups	3⅓ cups
24	2 lb 11 oz	1¼ qt	12 oz	1 qt	1 qt
27	3 lb	1 qt 1⅔ cups	13½ oz	1 qt ½ cup	1 qt ½ cup
38	4 lb 3 oz	2 qt	1 lb 3 oz	1 qt 2⅓ cups	1 qt 2⅓ cups
50	5 lb 9 oz	2 qt 2½ cups	1 lb 9 oz	2 qt ⅓ cup	2 qt ⅓ cup

NOTE: Quantities are for dried whole eggs. For specialty products, follow manufacturer's directions.

Fish and Shellfish (Storing, Thawing, and Cooking)

Fish and shellfish must be properly handled during storage, thawing, preparation, cooking, and serving to avoid spoilage or serious food poisoning.

Directions for Storing

Canned

Canned fish and shellfish should be stored in a cool, dry place.

Fresh

Fresh fish and shellfish should be delivered packed in crushed ice. Fresh fish and shellfish should be stored in the refrigerator at 32 to 38 °F until removed for cooking.

DO NOT STORE FRESH FISH AND SHELLFISH LONGER THAN 1 DAY BEFORE COOKING.

Frozen

Frozen fish and shellfish should be delivered hard frozen. Frozen fish and shellfish should be stored in the freezer at 0 °F or below until removed for thawing and cooking. Battered or breaded fish should not be thawed before cooking. Follow manufacturer's directions on packages.

Directions for Thawing

1. Remove from the freezer only the amount of fish or shellfish needed for 1 day.

2. Schedule thawing so that the fish or shellfish will be cooked soon after it is thawed. **DO NOT HOLD THAWED FISH OR SHELLFISH LONGER THAN 1 DAY BEFORE COOKING.**

3. Remove the fish from cartons and place the individual packages or cans on trays or in shallow pans in the refrigerator at 32 to 38 °F to thaw. Place on refrigerator shelves so that air can circulate around the packages. Place on lower shelves below produce and other items. Allow 24 to 36 hours for thawing the 1-pound packages or cans and 48 to 72 hours for thawing the 5-pound solid-packed packages or the gallon cans.

4. **DO NOT THAW AT ROOM TEMPERATURE. DO NOT REFREEZE.**

   NOTE: Frozen unbreaded fillets and steaks may be cooked without thawing if additional cooking time is allowed. Fillets or steaks to be breaded or stuffed should be thawed.

Directions for Cooking

Fish and shellfish may be cooked by several methods. Suggested methods for various market forms of fish are given in the table below.

1. Schedule the cooking so that the fish or shellfish will be served soon after it is cooked.

2. Cook fish only until the flesh becomes opaque and flakes easily when tested with a fork. Check fish for doneness at minimum suggested cooking time. **DO NOT OVERCOOK.**

3. Use manufacturer's directions for temperature and cooking time or the following timetable as a guide for cooking fish.

(Continued on back)

Fish and Shellfish (Continued)

Timetable for Cooking Fish

Forms of Fish	Baking		Oven-Frying		Deep-Fat Frying	
	Oven Temperature	Approximate Cooking Time (Minutes)	Oven Temperature	Approximate Cooking Time (Minutes)	Temperature of Fat	Approximate Cooking Time (Minutes)
Fillets	350 °F	25 to 35	500 °F	15 to 20	350 °F	2 to 4
Steaks	350 °F	25 to 35	500 °F	15 to 20	350 °F	3 to 4
Portions						
Raw, breaded			500 °F	15 to 20	350 °F	4 to 6
Unbreaded	350 °F	25 to 35	500 °F	15 to 20	350 °F	4 to 6
Sticks						
Raw, breaded			500 °F	15 to 20	350 °F	3 to 4

NOTE: Check manufacturer's directions for temperatures and cooking times for fried breaded fish portions or sticks.

	Broiling		Poaching	
	Oven Temperature	Approximate Cooking Time (Minutes)	Cooking Temperature	Approximate Cooking Time (Minutes)
Fillets	Broil	10 to 15	Simmer	5 to 10
Steaks	Broil	10 to 15	Simmer	5 to 10

Storing and Thawing Frozen Meats

Frozen meat must be properly handled during storage, thawing, preparation, cooking, and serving to avoid spoilage or serious food poisoning. Many meats, such as meat patties, may be cooked without thawing. To be sure, check the manufacturer's label before thawing.

Frozen meat must be kept hard-frozen at 0 °F or below until it is removed from storage for thawing and cooking. Schedule thawing so that the meat will be cooked soon after it is thawed. Remove from freezer storage only the amount of meat needed for 1 day.

Directions

1. Remove meat from carton and thaw in original wrappings in refrigerator (35 to 40 °F).
2. Space blocks or packages of meat in shallow pans on refrigerator shelves so that air can circulate around them. Place on lower shelves, below produce and other items.
3. Use the table below as a general guide for thawing frozen meats.

Timetable for Thawing Frozen Meats

Meat	Pounds	Hours per Pound
Small roasts . .	5 and under . .	3 to 5
Large roasts . .	6 and over . . .	4 to 7
Ground meat . .	8 to 15	1½ to 2

DO NOT THAW AT ROOM TEMPERATURE OR IN WARM WATER.

Braising or Pot Roasting Meats

Less tender cuts of meat are often braised or pot roasted in a covered pan with or without added liquid. Suggested meat cuts for braising and times for cooking are given in the following timetable.

Directions

1. If desired, brown meat slowly on all sides. Roasts can be browned on top of the range, in a steam-jacketed kettle, in a tilting skillet, or in a roasting pan in the oven. Steaks, shortribs, stew meat, chops, and cutlets can be browned on a grill, in the oven, or in a tilting skillet.

2. Cook meat with no additional moisture or add a small amount of liquid. Cover. Simmer on top of range, in a steam-jacketed kettle, in a tilting skillet, or in a moderate oven (350 °F), until meat is tender. The following table serves as a guide to braising time. **DO NOT START COOKING ONE DAY AND FINISH ON THE NEXT.**

3. Remove roasts from pan and let stand 15 to 20 minutes. Slice and serve.

Timetable for Braising or Pot Roasting Meats

Kind of Meat	Approximate Thickness or Weight of Each Cut	Approximate Cooking Time* (Hours)
Beef:		
Chuck, boneless	4 to 6 lb	3 to 4
Brisket, fresh, boneless	6 to 8 lb	4 to 5
Flank steak, boneless	½″ thick	1½ to 2
Round, boneless	10 lb	3 to 5
Round steak, boneless	½″ thick	¾ to 1
Stew meat	1″ boneless cubes	1 to 1½
Lamb:		
Chops, shoulder, bone in	¾″ thick	¾
Shoulder, boneless	3 to 5 lb	2 to 2½
Stew meat	1½″ boneless cubes	1½ to 2
Pork:		
Chops, loin or rib, bone in	¾″ thick	¾ to 1
Spareribs, bone in	2 to 3 lb	1½
Stew meat	1″ boneless cubes	¾ to 1
Veal:		
Chuck, boneless	3 to 5 lb	2 to 2½
Stew meat	1″ boneless cubes	1½ to 2

*Frozen meat may be cooked without thawing first. Increase cooking time by up to 1½ times.

Simmering Meats

Less tender cuts of meat, as well as highly flavored cuts of meat, are generally simmered or stewed in enough water to cover the meat. Suggested cuts of meats for this method of cooking are given in the following timetable.

Directions

1. Brown meat, if desired. Add water to barely cover meat. For variety, add vegetables or seasonings such as carrots, celery, onions, thyme, marjoram, or parsley.

2. Cover; simmer until fork tender. Do not boil. The table serves as a guide to simmering time. **DO NOT START COOKING ONE DAY AND FINISH ON THE NEXT.**

3. Remove meat from liquid. Let large pieces stand at room temperature for 20 minutes. Slice and serve.

Timetable for Simmering Meats

Kind of Meat	Approximate Size or Weight of Each Cut	Approximate Cooking Time* (Hours)
Beef:		
Brisket, corned, boneless	6 to 8 lb	4 to 5
Brisket, fresh, boneless	4 to 8 lb	4 to 5
Stew meat	1½″ boneless cubes	1½ to 2
Tongue, fresh	3 to 4 lb	3 to 4
Pork, cured, cook-before-eating:		
Half ham, bone in	5 to 7 lb	2 to 3
Shoulder (Boston butt), boneless	2 to 3 lb	2 to 3
Shoulder (picnic), bone in	5 to 8 lb	3 to 4½
Pork, fresh:		
Stew meat	1″ boneless cubes	1½ to 2½
Lamb:		
Stew meat	1½″ boneless cubes	1½ to 2
Veal:		
Stew meat	1″ boneless cubes	1½ to 2

*Frozen meat may be cooked without thawing first. Extra cooking time will be needed.

Roasting Meats

Tender cuts of meat can be roasted in an open pan without added liquids. Beef for roasting should be of choice grade; beef of lower grades is often better pot-roasted or braised. Suggested meat cuts for roasting are included in the following timetable.

Directions

1. Trim fat from roasts.
2. Place roasts on racks in shallow open roasting pans. When more than one pan is needed, group roasts by size. Allow space between roasts. Do not cover pan or add liquid.
3. Insert a meat thermometer into the center of the smallest roast so that the tip is not touching bone, fat, or gristle.
4. Roast at 325 °F (slow oven) until the meat is tender and the thermometer registers the temperature given in the timetable. For roasting temperature and time in a convection oven, follow manufacturer's instructions. **DO NOT START COOKING ONE DAY AND FINISH ON THE NEXT.**
5. Remove roast from pan. Move thermometer to the next larger roast; follow this procedure until all the meat is cooked.
6. Let roasts stand 15 to 20 minutes; then slice and serve.

Timetable for Roasting Meats at 325 °F (Slow Oven)

Kind of Meat	Approximate Weight of Each Cut	Approximate Roasting Time* (Hours)	Internal Temperature of Meat When Done (°F)
Beef:			
Round, boneless, top or inside	5¼ to 8 lb	3¼ to 4	160
Rump, boneless	4 to 6 lb	2 to 2½	160
Lamb:			
Leg, boneless	4 to 7 lb	2¼ to 3½	180
Shoulder, boneless	3½ to 5 lb	2¼ to 3	180
Pork, fresh:			
Ham, boneless, rolled	10 to 14 lb	4½ to 5½	170
Shoulder (Boston butt), boneless	4 to 6 lb	3 to 4	170
Shoulder (picnic), bone in	5 to 8 lb	3 to 4	170
Spareribs, bone in	2 to 3 lb	1½ to 2½	Well done
Pork, cured, cook-before-eating:			
Ham, whole, bone in	10 to 14 lb	3 to 4	160
Shoulder (Boston butt), boneless	2 to 4 lb	1 to 2	170
Shoulder (picnic), bone in	5 to 8 lb	3 to 4	170
Pork, cured, fully cooked:			
Ham, canned	6 to 10 lb	1½ to 2½	140
Veal:			
Leg, boneless	3½ to 7 lb	2 to 3	170

*Frozen meat may be roasted without thawing first. Increase roasting time by up to 1½ times. Insert meat thermometer after meat is thawed in the oven and cook to recommended internal temperature.

Storing, Thawing, and Cleaning Poultry

Poultry must be properly handled during storage, thawing, preparation, cooking, cooling, and serving to avoid spoilage or serious food poisoning. Poultry may be purchased either chilled or frozen. Chilled poultry should be stored in the coldest part of the refrigerator and used within 1 to 2 days. Frozen poultry should be stored at 0 °F or below. Poultry roasts, parts, and patties, and whole poultry frozen without giblets, may be cooked without thawing. If thawing is desired, follow the directions below.

Directions for Thawing Poultry

Keep poultry frozen until time to thaw. Schedule thawing so that the meat will be cooked soon after it is thawed. Remove from freezer storage only the amount of chicken or turkey needed for 1 day.

1. Thaw poultry in the refrigerator (35 to 40 °F). **DO NOT THAW POULTRY BY HOLDING AT ROOM TEMPERATURE.** Keep poultry in original plastic wrappers to thaw. (Do not reuse wrappers that have contained poultry products.) If poultry is not individually wrapped, thaw loosely covered or wrapped.

2. Place wrapped poultry on trays or in shallow pans to catch drippings. Place on refrigerator shelves so that air can circulate around wrapped poultry. Place on lower shelves, below produce and other items. Thaw until poultry is pliable and giblets can be removed from cavity of whole poultry. Allow time for thawing as follows:

Weight of Poultry	Approximate Thawing Time in Refrigerator
Chicken:	
4 lb or over	1 to 1½ days
Less than 4 lb	12 to 16 hours
Turkey:	
4 to 12 lb	1 to 2 days
12 to 20 lb	2 to 3 days
20 to 24 lb	3 to 4 days
Parts of large turkey (half, quarter, half breast)	1 to 2 days
Cut-up parts	3 to 9 hours
Boneless roasts	24 hours

3. Clean thawed poultry using directions below.

4. Cook poultry and giblets promptly or cover loosely and refrigerate (35 to 40 °F). Do not hold thawed poultry longer than 24 hours before cooking or chilled poultry longer than 1 to 2 days from the time of purchase. **DO NOT REFREEZE THAWED POULTRY.**

NOTE: The giblets may be simmered with neck and wing tips for making broth or gravy stock. The cooked meat from these parts may be cut up and added to gravy or stuffing.

Directions for Cleaning Chilled, Frozen, or Thawed Poultry

1. Remove neck and giblets from whole poultry if packed in the body cavities.

2. Remove any pinfeathers or pieces of lung or windpipe from the poultry.

3. Chilled, thawed, and frozen poultry should be washed before cooking. Wash whole poultry and pieces thoroughly, inside and out, in cold running water. Drain.

4. **Thoroughly clean and sanitize** hands, sinks, table surfaces, and equipment before using these to handle other foods.

Stewing or Steaming Chicken or Turkey

Mature chickens or turkeys require stewing or steaming to make them tender and bring out the full flavor. Young poultry cooked by these methods will take less time to cook, but the broth may not be as flavorful as that from mature poultry.

Directions for Cooking

1. Thaw chickens or turkeys. Clean and rinse inside and out, in cold running water. Whole chickens or turkeys frozen without giblets may be cooked without thawing (see D-8, "**Storing, Thawing, and Cleaning Poultry**").
2. Cut in pieces or leave whole.
3. **To stew:** Place chickens or turkeys in stockpot or steam-jacketed kettle. Add enough hot water to barely cover. Season with herbs and spices as desired. Cover and simmer until tender using the following timetable.

   To steam: Place chickens or turkeys in solid steamer pans in steamer compartment. Steam until tender at 5 lb pressure. Use timetable below as a guide to cooking time at 5 lb pressure. Use manufacturer's timetable for steamers operating at different pressures.

DO NOT COOK PARTIALLY ON ONE DAY AND FINISH COOKING ON THE NEXT.

Timetable for Stewing or Steaming Chicken or Turkey

Form of Chicken or Turkey	Weight of Each (Pounds)	Cooking Time	
		Stewing (Hours)	Steaming (5 lb pressure) (Hours)
Chicken, whole, ready-to-cook	2½ to 4	1 to 1½	1 to 1½
	4 to 8	2 to 4	1 to 2
Turkey, whole, ready-to-cook	18 to 20	3 to 3½	2 to 2½

NOTE: Frozen chicken or turkey without giblets may be cooked without thawing. Extra time will be needed.

Directions for Cooling Cooked Poultry

1. Remove chickens or turkeys from broth and place on sheet pans.
2. Place container of broth in cold water or ice water, changing water as needed to keep cold. Stir broth frequently to hasten cooling. Pour cooled broth into containers of 1 gallon or less. Cover; store in refrigerator (35 to 40 °F).
3. When poultry is cool enough to handle, remove meat from bones. Spread pieces of meat in one layer to cool. When cool, wrap meat loosely. Store in refrigerator (35 to 40 °F).

CAUTION: Use broth and poultry meat within 2 days after cooking.

Roasting Turkey

Directions for Cooking Turkey—Whole, Parts, or Boneless Roasts

1. Thaw and clean frozen turkey according to **"Storing, Thawing, and Cleaning Poultry"** (see D-8), or follow label instructions. Frozen turkey can be cooked without thawing in the same way as thawed turkey.

2. For whole turkeys, fold neck skin over to the back and fasten with skewers or tie with a clean cord; tie legs together and fasten to tail; or, if there is a band of skin under tail, tuck legs under band.

   DO NOT STUFF WHOLE TURKEY. BAKE STUFFING SEPARATELY.

3. Place whole turkeys in shallow roasting pans, breast side up.

   Place boneless roasts and turkey parts in shallow roasting pans. Use separate pans for breast pieces and for legs (drumstick and thigh).

4. Insert a meat thermometer into the center of the meaty part of the inner side of the thigh (toward the body) in whole turkey, or into the center of a boneless turkey roast. Insert thermometer into the center of the thickest part of the breast or thigh piece. **BE SURE THERMOMETER DOES NOT TOUCH BONE.**

   NOTE: Insert a meat thermometer in frozen turkeys part way through cooking.

5. Roast at 325 °F (slow oven) using the following timetable as a guide to cooking time. When turkey is half done, release legs to speed cooking.

   Turkey is done when:

   - Thermometer registers 180 to 185 °F in inner thigh of whole turkeys or 170 °F in turkey roasts.
   - Juice from turkey is clear with no pink color.
   - Drumstick meat when pressed between fingers is very soft and leg joint moves easily.

   DO NOT PARTIALLY COOK ON ONE DAY AND FINISH COOKING ON THE NEXT.

Directions for Cooling Cooked Turkey

Cool cooked turkey 15 to 20 minutes. Slice and serve

OR

Cool cooked turkey on wire rack until cool enough to handle. Remove meat from bones. Spread pieces of meat in one layer to cool. As soon as cool, wrap meat and store in the refrigerator (35 to 40 °F).

USE WITHIN 2 DAYS AFTER ROASTING.

Timetable for Roasting Turkey at 325 °F (Slow Oven)

Form of Turkey and Approximate Weight	Approximate Cooking Time,* Hours
Whole:	
12 to 16 lb	3½ to 4½
16 to 21 lb	4½ to 6
21 to 26 lb	6 to 7½
Halves, 8 to 12 lb	2¼ to 4
Quarters, 3 to 8 lb	1½ to 3½
Pieces:	
Breast, 8 to 12 lb	3 to 4
Leg (drumstick and thigh), 3 to 8 lb	1¾ to 3
Boneless roasts, 8 to 12 lb	3 to 5†

*Whole turkey frozen without giblets and other frozen forms of turkey may be roasted without thawing. Extra time will be needed.

†The diameter can affect the cooking time more than the weight. The greater the diameter, the longer the cooking time.

Barbecued Chicken

Meat **Main Dishes D-11**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken stock		1¼ cups		2½ cups		1. For barbecue sauce: Simmer chicken stock and onions over medium heat for 5 minutes.
Dehydrated onions		¼ cup 2 tsp	2 oz	½ cup 1 Tbsp		
OR		OR	OR	OR		
*Fresh onions, chopped	3 oz	½ cup	6 oz	1 cup		
Catsup	3 lb 9 oz	½ No. 10 can.	7 lb 3 oz	1 No. 10 can		2. Add catsup, garlic powder, and brown sugar. Simmer 15-20 minutes, stirring frequently. Set aside for use in step 5.
Garlic powder		1 tsp		2 tsp		
Brown sugar, packed	12 oz	1⅔ cups	1 lb 8 oz	3¼ cups		
Chicken, cut-up, thawed (USDA-donated, whole, cut-up 8 pieces)	24 lb		48 lb			3. Rinse chicken in cold water. Drain well.
OR	OR		OR			
Chicken, cut-up, thawed (USDA-donated, whole, cut-up 9 pieces)	22 lb		44 lb			
						4. Arrange 25 pieces of chicken on each sheet pan (18″x26″x1″).
						5. Brush ¾ to 1 qt of barbecue sauce over chicken in each pan.
						6. Bake uncovered until tender, checking frequently: Conventional oven: 425 °F for 45 minutes Convection oven: 375 °F for 30 minutes
						7. Transfer to steamtable pans for serving.

SERVING: 1 portion (1 breast, or 1 drumstick and 1 wing, or 1 thigh with back) provides 2 ounces of cooked poultry.

YIELD: **50 servings:** 2 sheetpans
100 servings: 4 sheetpans

***See marketing guide on back.**

(Continued on back)

Barbecued Chicken (Continued)

Nutrients Per Serving

Calories	198	Vitamin A	72 RE/548 IU	Iron	1.2 mg
Protein	16 g	Vitamin C	5.2 mg	Calcium	23 mg
Carbohydrate	15 g	Thiamin	0.07 mg	Phosphorus	123 mg
Fat	8 g	Riboflavin	0.12 mg	Potassium	279 mg
Cholesterol	50 mg	Niacin	5.36 mg	Sodium	425 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	3½ oz.	7 oz.	

Beef or Pork Burrito

Meat/Meat Alternate–Vegetable–Bread Alternate

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	4 lb 5 oz		8 lb 10 oz			1. Brown ground beef or pork. Drain.
OR	OR		OR			
Raw ground pork (no more than 24% fat)	4 lb 5 oz		8 lb 10 oz			
Dehydrated onions		¼ cup 2 tsp.	2 oz	½ cup 1 Tbsp		2. Add onions, garlic powder, pepper, tomato paste, water, and seasonings. Blend well. Simmer for 30 minutes.
OR		OR	OR	OR		
*Fresh onions, chopped	5 oz	¾ cup 2 Tbsp	10 oz	1⅔ cups		
Garlic powder		1 Tbsp		2 Tbsp		
Black pepper		2 tsp		1 Tbsp 1 tsp		
Tomato paste	1 lb 12 oz.	¼ No. 10 can	3 lb 8 oz	½ No. 10 can		
Water		1½ qt		3 qt		
†Seasonings						
Chili powder		3 Tbsp		¼ cup 2 Tbsp		
Ground cumin		2 Tbsp		¼ cup		
Paprika		1 Tbsp		2 Tbsp		
Onion powder		1 Tbsp		2 Tbsp		
Cheddar cheese, shredded	3 lb 3 oz	3 qt 2½ cups	6 lb 6 oz	1 gal 3¼ qt		3. Combine shredded cheese with meat mixture.
Flour tortillas (at least 1.1 oz each)		50		100		4. Steam tortillas for 3 minutes or until warm.
						5. Portion meat mixture with No. 12 scoop (⅓ cup) onto each tortilla. Fold around meat envelope style.
						6. Place folded burritos seam side down on lightly oiled sheet pans (18″ x 26″ x 1″), 33-35 burritos per pan.
						7. Bake: Conventional oven: 375 °F for 15 minutes Convection oven: 325 °F for 15 minutes

*See marketing guide on back.

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 3 Tbsp Mexican Seasoning Mix. For 100 servings, use ¾ cup 2 Tbsp Mexican Seasoning Mix.

(Continued on back)

Beef or Pork Burrito (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Cheddar cheese, shredded (optional)	13 oz	3¾ cups	1 lb 10 oz	1 qt 3½ cups		8. Sprinkle shredded cheese (optional) evenly over burritos before serving.

SERVING: 1 burrito provides the equivalent of 2 ounces of cooked lean meat, ¼ cup of vegetable, and 1 serving of bread alternate.

YIELD: **50 servings:** 50 Burritos, 1½ sheet pans
100 servings: 100 Burritos, 3 sheet pans

Variations

a. Bean Burrito

50 servings: Omit step 1. In step 2, use 1 qt water. Simmer tomato mixture 15 minutes. In step 3, in place of meat, use 4 lb 10 oz (3 qt ½ cup) cooked dry pinto beans (see preparation note) or 1¼ No. 10 cans drained pinto beans. Puree beans to a smooth consistency. Continue with steps 4-8.

100 servings: Omit step 1. In step 2, use 2 qt water. Simmer tomato mixture 15 minutes. In step 3, in place of meat, use 9 lb 4 oz (1 gal 2¼ qt) cooked dry pinto beans (see preparation note) or 2½ No. 10 cans drained pinto beans. Puree to a smooth consistency. Continue with steps 4-8.

PREPARATION NOTE:

SOAKING BEANS

Overnight method: Add 1¾ qt cold water to every lb of dry beans. Cover. Let stand overnight in refrigerator.

Quick-soak method: Boil 1¾ qt water for each lb of dry beans. Pour beans in and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

COOKING BEANS

Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

1 lb dry beans = about 2½ cups dry or 6¼ cups cooked beans.

b. Beef or Pork Burrito (Using Canned Meats)

50 servings: Omit step 1. In step 2, use 6 lb 6 oz (3½ No. 2½ cans) undrained canned beef or undrained canned pork. Remove fat. Use 1 qt water. Continue with steps 3-8.

100 servings: Omit step 1. In step 2, use 12 lb 12 oz (7 No. 2½ cans) undrained canned beef or undrained canned pork. Remove fat. Use 2 qt water. Continue with steps 3-8.

Nutrients Per Serving

Calories	308	Vitamin A	151 RE/922 IU	Iron	2.4 mg
Protein	19 g	Vitamin C	7.1 mg	Calcium	227 mg
Carbohydrate	20 g	Thiamin	0.21 mg	Phosphorus	270 mg
Fat	17 g	Riboflavin	0.28 mg	Potassium	344 mg
Cholesterol	55 mg	Niacin	3.40 mg	Sodium	218 mg

Marketing Guide for Selected Items

Bean Burrito

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	5¾ oz	11½ oz	
Pinto beans, dry	2 lb	4 lb	

Beef or Pork Burrito

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	5¾ oz	11½ oz	

Beef or Pork Taco

Meat/Meat Alternate-Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	6 lb 7 oz		12 lb 14 oz			1. Brown ground beef or pork. Drain.
OR	OR		OR			
Raw ground pork (no more than 24% fat)	6 lb 7 oz		12 lb 14 oz			
Dehydrated onions		¼ cup 2 tsp	2 oz	½ cup 1 Tbsp		2. Add onions, garlic powder, pepper, tomato paste, water, and seasonings. Blend well. Bring to boil. Reduce heat and simmer for 25-30 minutes.
OR		OR	OR	OR		
*Fresh onions, chopped	5 oz	¾ cup 2 Tbsp	10 oz	1⅔ cups		
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp		
Black pepper		2 tsp		1 Tbsp 1 tsp		
Tomato paste	14 oz	1½ cups	1 lb 12 oz	¼ No. 10 can		
Water		1 qt		2 qt		
†Seasonings						
Chili powder		2 Tbsp		¼ cup		
Ground cumin		1 Tbsp 1½ tsp		3 Tbsp		
Paprika		1½ tsp		1 Tbsp		
Onion powder		1½ tsp		1 Tbsp		
Cheddar cheese, shredded	1 lb 10 oz	1 qt 3½ cups	3 lb 4 oz	3¾ qt		3. For topping: Set cheese aside for step 4. Combine tomatoes and lettuce. Toss lightly. Set mixture aside for step 4.
*Tomatoes, chopped	1 lb 4 oz	3 cups	2 lb 8 oz	1 qt 2¼ cups		
*Lettuce, shredded	2 lb 2 oz	1 gal 1 cup	4 lb 4 oz	2 gal		

***See marketing guide on back.**

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix. For 100 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix.

(Continued on back)

Beef or Pork Taco (Continued)

Ingredients	50 Servings		100 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Taco shells (at least 0.35 oz each)	. . . . .	100	. . . . .	200	. . . . .	4. Serving suggestions (2 tacos per serving): A. Before serving or on serving line, fill each taco shell with 2 Tbsp meat mixture. On each student tray, serve 2 tacos, No. 10 scoop (3/8 cup) lettuce and tomato mixture, and 1/2 oz (2 Tbsp 1 tsp) shredded cheese. **OR** B. 1. Preportion No. 10 scoop (3/8 cup) lettuce and tomato mixture and 1/2 oz (2 Tbsp 1 tsp) shredded cheese into individual souffle cups. Refrigerate until service. 2. Transfer meat mixture and taco shells to steamtable pans. On each student tray, serve 2 unfilled taco shells, No. 16 scoop (1/4 cup) meat mixture, 1 preportioned souffle cup of lettuce and tomato mixture, and 1 preportioned souffle cup of shredded cheese. Instruct students to "build" their own tacos.

SERVING: 2 tacos provide the equivalent of 2 ounces of cooked lean meat, 1/2 cup of vegetable, and 1 serving of bread alternate.

YIELD: **50 servings:** 100 tacos
100 servings: 200 tacos

(Continued)

Beef or Pork Taco (Continued)

Variations

a. Bean Taco

50 servings: Omit step 1. In step 2, use 7 lb 2 oz (1 gal 3 cups) cooked dry pinto beans (see preparation note) or 1¾ No. 10 cans drained pinto beans. Puree beans to a smooth consistency. Continue with steps 3 and 4.

100 servings: Omit step 1. In step 2, use 14 lb 4 oz (2¼ gal) cooked dry pinto beans (see preparation note) or 3½ No. 10 cans drained pinto beans. Puree beans to a smooth consistency. Continue with steps 3 and 4.

PREPARATION NOTE:

SOAKING BEANS

Overnight method: Add 1¾ qt cold water to every lb of dry beans. Cover. Let stand overnight in refrigerator.

Quick-soak method: Boil 1¾ qt of water for each lb of dry beans. Pour beans in and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

COOKING BEANS

Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

1 lb dry beans = about 2½ cups dry or 6¼ cups cooked beans.

b. Beef or Pork Taco (Using Canned Meats)

50 servings: Omit step 1. In step 2, use 9 lb 4 oz (5⅛ No. 2½ cans) undrained canned beef or undrained canned pork. Remove fat. Use 2 cups water and 3 Tbsp chili powder, 2 Tbsp cumin, 1 Tbsp paprika, 1 Tbsp onion powder (or ¼ cup 3 Tbsp Mexican Seasoning Mix). Continue with step 3. In step 4, serve ⅓ cup (No. 12 scoop) of meat mixture for 2 taco shells.

100 servings: Omit step 1. In step 2, use 18 lb 8 oz (10¼ No. 2½ cans) undrained canned beef or undrained canned pork. Remove fat. Use 1 qt water and ¼ cup 2 Tbsp chili powder, ¼ cup cumin, 2 Tbsp paprika, 2 Tbsp onion powder (or ¾ cup 2 Tbsp Mexican Seasoning Mix). Continue with step 3. In step 4, serve ⅓ cup (No. 12 scoop) of meat mixture for 2 taco shells.

c. Chicken or Turkey Taco

50 servings: Omit step 1. In step 2, use 4 lb 12 oz (3¾ qt) cooked chopped chicken or turkey and 1½ qt water. Continue with steps 3 and 4.

100 servings: Omit step 1. In step 2, use 9 lb 8 oz (1 gal 3½ qt) cooked chopped chicken or turkey and 3 qt water. Continue with steps 3 and 4.

(Continued on back)

Beef or Pork Taco (Continued)

Nutrients Per Serving

Calories	289	Vitamin A	104 RE/768 IU	Iron	3.1 mg
Protein	17 g	Vitamin C	6.5 mg	Calcium	160 mg
Carbohydrate	17 g	Thiamin	0.27 mg	Phosphorus	216 mg
Fat	17 g	Riboflavin	0.32 mg	Potassium	358 mg
Cholesterol	52 mg	Niacin	4.27 mg	Sodium	172 mg

Marketing Guide for Selected Items

Bean Taco

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Pinto beans, dry	3 lb	6 lb	
Mature onions	5¾ oz	11½ oz.	
Tomatoes	1 lb 4½ oz	2 lb 9 oz	
Head lettuce	2 lb 13 oz	5 lb 10 oz	

Beef or Pork Taco

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	5¾ oz	11½ oz.	
Tomatoes	1 lb 4½ oz	2 lb 9 oz	
Head lettuce	2 lb 13 oz	5 lb 10 oz	

Chicken or Turkey Taco

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Chicken, whole, without neck and giblets	13 lb 4 oz	26 lb 8 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	10 lb 2 oz	20 lb 4 oz	
Mature onions	5¾ oz	11½ oz.	
Tomatoes	1 lb 4½ oz	2 lb 9 oz	
Head lettuce	2 lb 13 oz	5 lb 10 oz	

Beef Stew

Meat-Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Boneless beef, 1-inch cubes	11 lb 10 oz		23 lb 4 oz			1. Trim all visible fat from beef cubes.
Vegetable oil		½ cup		1 cup		2. Brown beef cubes in oil. Drain.
*Fresh onions, quartered	1 lb	2¾ cups	2 lb	1 qt 1¼ cups		3. Add onions, flour, garlic powder, paprika, pepper, and thyme.
OR	OR	OR	OR	OR		
Dehydrated onions	2 oz	½ cup 1 Tbsp	4 oz	1 cup 2 Tbsp		
All-purpose flour	12 oz	2¾ cups	1 lb 8 oz	1 qt 1½ cups		
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp		
Paprika		1 Tbsp		2 Tbsp		
Black pepper		1½ tsp		1 Tbsp		
Flaked thyme		1 tsp		2 tsp		
Water or beef stock		1½ gal		3 gal		4. Add water or stock. Bring to boil. Reduce heat and cover. Simmer for approximately 1½ hours, or until meat is tender.
Canned sliced carrots, drained	2 lb 11 oz	2 qt	5 lb 5 oz	1¼ No. 10 cans		5. Add carrots, potatoes, and peas. Cook until vegetables are heated through, approximately 15 minutes.
Canned small whole potatoes, drained	3 lb 6 oz	¾ No. 10 can	6 lb 12 oz	1½ No. 10 cans		
Canned green peas, drained	3 lb 4 oz	¾ No. 10 can	6 lb 8 oz	1½ No. 10 cans		
						6. Pour into serving pans.
						7. Portion with 8-oz ladle (1 cup).

SERVING: 1 cup (8-ounce ladle) provides 2 ounces of cooked lean meat and ½ cup of vegetable.

YIELD: **50 servings:** about 3¼ gallons
100 servings: about 6½ gallons

*See marketing guide below.

Nutrients Per Serving

Calories	207	Vitamin A	359 RE/3,421 IU	Iron	3.4 mg
Protein	21 g	Vitamin C	4.7 mg	Calcium	26 mg
Carbohydrate	15 g	Thiamin	0.13 mg	Phosphorus	133 mg
Fat	7 g	Riboflavin	0.14 mg	Potassium	335 mg
Cholesterol	54 mg	Niacin	3.56 mg	Sodium	234 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 2½ oz	2 lb 4½ oz	

Beef Tamale Pie

Meat/Meat Alternate-Vegetable-Bread

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	6 lb 7 oz		12 lb 14 oz			1. Brown ground beef. Drain.
Dehydrated onions		½ cup	3½ oz	1 cup		2. Add onions, garlic powder, pepper, tomato paste, tomatoes, water, and seasonings. Blend well. Bring to boil. Reduce heat and simmer for 20-25 minutes. (Ground beef mixture may be prepared ahead and refrigerated overnight. In step 7, bake an additional 10 minutes in conventional or convection oven.)
OR		OR	OR	OR		
*Fresh onions, chopped	14 oz	2¼ cups	1 lb 12 oz	1 qt ¾ cup		
Garlic powder		2 Tbsp		¼ cup		
Black pepper		1½ tsp		1 Tbsp		
Tomato paste	1 lb 12 oz	¼ No. 10 can	3 lb 8 oz	½ No. 10 can		
Canned tomatoes, with liquid, chopped	3 lb 3 oz	½ No. 10 can	6 lb 6 oz	1 No. 10 can		
Water		1¼ qt		2½ qt		
†Seasonings						
Chili powder		¼ cup		½ cup		
Ground cumin		3 Tbsp		¼ cup 2 Tbsp		
Paprika		1 Tbsp		2 Tbsp		
Onion powder		1 Tbsp		2 Tbsp		
						3. Pour 5 lb 8 oz (2½ qt) mixture into each steamtable pan (12″x20″x2½″). For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans. Set aside for step 6.
All-purpose flour	1 lb	3½ cups	2 lb	1 qt 3¼ cups		4. For cornbread topping: Blend flour, cornmeal, sugar, baking powder, and salt for 1 minute in mixer on low speed.
Cornmeal	1 lb	3 cups	2 lb	1½ qt		
Sugar	3½ oz	½ cup	7 oz	1 cup		
Baking powder		2 Tbsp 2 tsp	2 oz	¼ cup 1 Tbsp		
Salt		¾ tsp		1½ tsp		
Large eggs (see note)	5¼ oz	3	10½ oz	6		5. Mix eggs, milk, and oil. Add to dry ingredients. Blend on medium speed only until dry ingredients are moistened, 2-3 minutes. Batter will be lumpy.
Reconstituted nonfat dry milk		3¾ cups		1 qt 3½ cups		
Vegetable oil		½ cup		1 cup		

***See marketing guide on back.**

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix. For 100 servings, use 1 cup 2 Tbsp Mexican Seasoning Mix.

(Continued on back)

Beef Tamale Pie (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						6. Pour 2 lb 5 oz (1 qt ½ cup) batter over meat mixture in each pan and spread into corners of pan.
						7. Bake until lightly browned: Conventional oven: 400 °F for 30-35 minutes Convection oven: 350 °F for 25-30 minutes
Cheddar cheese, shredded	1 lb 10 oz . .	1 qt 3½ cups .	3 lb 4 oz . . .	3¾ qt	. . . . .	8. Sprinkle 13 oz (3¾ cups) cheese over cornbread in each pan.
						9. Cut each pan 5x5 (25 portions per pan).
						10. If desired, serve with taco sauce.

SERVING: 1 portion provides the equivalent of 2 ounces of cooked lean meat, ⅜ cup of vegetable, and 1 serving of bread.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

NOTE:

50 servings: Use 1½ oz (½ cup) dried whole eggs and ½ cup water in place of shell eggs.

100 servings: Use 3 oz (1 cup) dried whole eggs and 1 cup water in place of shell eggs.

(Continued)

Beef Tamale Pie (Continued)

Variations

a. Beef and Bean Tamale Pie

50 servings: In step 1, use 3 lb 4 oz ground beef. In step 2, add 5 lb 13 oz (1 No. 10 can) drained pinto beans, coarsely chopped, or 3 lb 8 oz (2 qt 1½ cups) cooked dry pinto beans, coarsely chopped (see preparation note). Continue with steps 3-10.

100 servings: In step 1, use 6 lb 7 oz ground beef. In step 2, add 11 lb 10 oz (2 No. 10 cans) drained pinto beans, coarsely chopped, or 7 lb (1 gal 3 cups) cooked dry pinto beans, coarsely chopped (see preparation note). Continue with steps 3-10.

PREPARATION NOTE:

SOAKING BEANS

Overnight method: Add 1¾ qt cold water to every lb of dry beans. Cover. Let stand overnight in refrigerator.

Quick-soak method: Boil 1¾ qt of water for each lb of dry beans. Pour beans in and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

COOKING BEANS

Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

1 lb dry beans = about 2½ cups dry or 6¼ cups cooked beans.

b. Chicken or Turkey Tamale Pie

50 servings: Omit step 1. In step 2, add 4 lb 12 oz (3¾ qt) cooked chopped chicken or turkey and use 2¼ qt water. Continue with steps 3-10.

100 servings: Omit step 1. In step 2, add 9 lb 8 oz (1 gal 3½ qt) cooked chopped chicken or turkey and use 1 gal 2 cups water. Continue with steps 3-10.

Nutrients Per Serving

Calories	316	Vitamin A	136 RE/1044 IU	Iron	2.7 mg
Protein	18 g	Vitamin C	11.7 mg	Calcium	169 mg
Carbohydrate	23 g	Thiamin	0.18 mg	Phosphorus	239 mg
Fat	17 g	Riboflavin	0.29 mg	Potassium	458 mg
Cholesterol	69 mg	Niacin	3.87 mg	Sodium	302 mg

Marketing Guide for Selected Items

Beef Tamale Pie

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb	2 lb	

Beef and Bean Tamale Pie

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb	2 lb	
Dry pinto beans	1 lb 8 oz	3 lb	

Chicken or Turkey Tamale Pie

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb	2 lb	
Chicken, whole, without neck and giblets	13 lb 4 oz	26 lb 8 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	10 lb 2 oz	20 lb 4 oz	

Chicken or Turkey à la King

Meat-Vegetable **Main Dishes D-16**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Butter or margarine	7 oz	¾ cup 1 Tbsp	14 oz	1½ cups 2 Tbsp		1. Melt butter or margarine. Add flour and stir until smooth.
All-purpose flour	10 oz	2¼ cups	1 lb 4 oz	1 qt ½ cup		
Chicken or turkey stock		1 gal		2 gal		2. Add stock, milk, poultry seasoning, pepper, and onion powder. Stir until well blended.
Reconstituted nonfat dry milk		2 qt		1 gal		
Poultry seasoning		1½ tsp		1 Tbsp		
Black or white pepper		1½ tsp		1 Tbsp		
Onion powder		¼ cup		½ cup		
						3. Bring to boil. Reduce heat to medium. Cook uncovered, stirring frequently until thickened, 12-15 minutes.
*Cooked chicken or turkey, chopped	6 lb 6 oz	1¼ gal	12 lb 12 oz	2½ gal		4. Add chicken or turkey, peas, and pimientos. Cook over medium heat for 3-5 minutes or until heated through.
Canned green peas, drained	2 lb 6½ oz	1 qt 2½ cups	4 lb 14 oz	3¼ qt		
OR	**OR**	**OR**	**OR**	**OR**		
Frozen green peas	2 lb 6 oz	1 qt 3¾ cups	4 lb 12 oz	3 qt 3½ cups		
Pimientos, chopped, drained	3¾ oz	½ cup	7½ oz	1 cup		
						5. Pour into serving pans.
						6. Portion with 6-oz ladle (¾ cup) over cooked rice, noodles, or a biscuit.

SERVING: ¾ cup (6-ounce ladle) provides 2 ounces of cooked poultry and ⅛ cup of vegetable.

YIELD: **50 servings:** about 2½ gallons
100 servings: about 4¾ gallons

***See marketing guide on back.**

(Continued on back)

Chicken or Turkey à la King (Continued)

Nutrients Per Serving

Calories	189	Vitamin A	61 RE/362 IU	Iron	1.1 mg
Protein	19 g	Vitamin C	3.4 mg	Calcium	69 mg
Carbohydrate	10 g	Thiamin	0.10 mg	Phosphorus	150 mg
Fat	8 g	Riboflavin	0.17 mg	Potassium	232 mg
Cholesterol	58 mg	Niacin	4.04 mg	Sodium	618 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Chicken, whole, without neck and giblets	17 lb 12 oz	35 lb 8 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	13 lb 10 oz	27 lb 4 oz	

Chicken or Turkey and Noodles

Meat-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken stock		2 gal		4 gal		1. Heat chicken stock to boiling. Slowly stir in noodles, onions, and carrots (optional). Boil, uncovered, for 6 minutes. DO NOT DRAIN.
Noodles	2 lb 8 oz	1 gal 3½ qt	5 lb	3¾ gal		
Dehydrated onions		½ cup	3½ oz	1 cup		
OR		OR	OR	OR		
*Fresh onions, chopped	14 oz	2¼ cups	1 lb 12 oz	1 qt ¾ cup		
*Carrots, shredded (optional)	8 oz	2 cups	1 lb	1 qt ¼ cup		
Butter or margarine	4 oz	½ cup	8 oz	1 cup		2. Melt butter or margarine. Add flour and stir until smooth.
All-purpose flour	4 oz	¾ cup 2 Tbsp	8 oz	1¾ cups		
Reconstituted nonfat dry milk		1½ qt		3 qt		3. Add flour mixture, milk, pepper, marjoram (optional), parsley flakes (optional), and chicken or turkey to noodles. Stir gently to combine.
Black or white pepper		1½ tsp		1 Tbsp		
Flaked marjoram (optional)		1½ tsp		1 Tbsp		
Parsley flakes (optional)		½ cup		1 cup		
*Cooked chicken or turkey, chopped	6 lb 6 oz	1¼ gal	12 lb 12 oz	2½ gal		
						4. Cook over medium heat, stirring occasionally until thickened, 6-8 minutes.
						5. Pour into serving pans. Hold for 30 minutes on a 180-190 °F steamtable to allow sufficient time for mixture to set up properly.
						6. Portion with 8-oz ladle (1 cup).

SERVING: 1 cup (8-ounce ladle) provides 2 ounces of cooked poultry and 1 serving of bread alternate.

YIELD: **50 servings:** about 3 gallons
100 servings: about 6¼ gallons

*See marketing guide on back.

(Continued on back)

Chicken or Turkey and Noodles (Continued)

Nutrients Per Serving

Calories	234	Vitamin A	39 RE/144 IU	Iron	1.4 mg
Protein	21 g	Vitamin C	0.7 mg	Calcium	65 mg
Carbohydrate	20 g	Thiamin	0.12 mg	Phosphorus	166 mg
Fat	7 g	Riboflavin	0.17 mg	Potassium	220 mg
Cholesterol	73 mg	Niacin	4.56 mg	Sodium	1026 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb	2 lb	
Carrots	11½ oz	1 lb 7 oz	
Chicken, whole, without neck and giblets	17 lb 12 oz	35 lb 8 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	13 lb 10 oz	27 lb 4 oz	

Chicken or Turkey Chop Suey

Meat-Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken or turkey stock	.....	1¼ gal	.....	2½ gal	.....	1. Combine stock, soy sauce, pepper, and garlic powder. Bring to boil. Add celery and onions. Reduce heat and simmer for 10-12 minutes.
Soy sauce	.....	1 cup	.....	2 cups	.....	
Black or white pepper	.....	1 tsp	.....	2 tsp	.....	
Garlic powder	.....	1½ tsp	.....	1 Tbsp	.....	
*Celery, cut into strips	2 lb 5 oz	2 qt ½ cup	4 lb 10 oz	1 gal 1 cup	.....	
*Fresh onions, chopped	1 lb	2⅔ cups	2 lb	1 qt 1¼ cups	.....	
OR	OR	OR	OR	OR		
Dehydrated onions	2 oz	½ cup 1 Tbsp	4 oz	1 cup 2 Tbsp	.....	
Cornstarch	8¾ oz	2 cups	1 lb 1½ oz	1 qt	.....	2. Combine cornstarch and water. Mix until smooth.
Water	.....	1½ cups	.....	3 cups	.....	
						3. Add to stock mixture. Stir well and cook over medium heat until thickened, 6-8 minutes.
*Cooked chicken or turkey, diced	6 lb 6 oz	1 gal 1½ qt	12 lb 12 oz	2¾ gal	.....	4. Add chicken or turkey. Cook over medium heat for 3-5 minutes or until heated through. Add bean sprouts. Stir gently to combine.
Canned bean sprouts, drained	1 lb 10½ oz	½ No. 10 can	3 lb 5 oz	1 No. 10 can	.....	
						5. Pour into serving pans.
						6. Serve with 6-oz ladle (¾ cup) over cooked rice.

SERVING: ¾ cup (6-ounce ladle) provides 2 ounces of cooked poultry and ¼ cup vegetable.

YIELD: **50 servings:** about 2½ gallons
100 servings: about 5 gallons

***See marketing guide on back.**

Variation

a. Chicken or Turkey Chow Mein

50 and 100 servings: Follow steps 1-5. In step 6, serve with 6-ounce ladle (¾ cup) over chow mein noodles.

(Continued on back)

Chicken or Turkey Chop Suey (Continued)

Nutrients Per Serving

Calories	141	Vitamin A	11 RE/59 IU	Iron	1.2 mg
Protein	17 g	Vitamin C	1.5 mg	Calcium	30 mg
Carbohydrate	7 g	Thiamin	0.04 mg	Phosphorus	110 mg
Fat	4 g	Riboflavin	0.10 mg	Potassium	206 mg
Cholesterol	48 mg	Niacin	3.70 mg	Sodium	1096 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Celery	2 lb 13 oz	5 lb 10 oz	
Mature onions	1 lb 2½ oz	2 lb 4½ oz	
Chicken, whole, without neck and giblets	17 lb 12 oz	35 lb 8 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	13 lb 10 oz	27 lb 4 oz	

Chicken or Turkey Pot Pie

Meat-Vegetable-Bread

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour Salt Shortening	2 lb 1 lb 2 oz	1 qt 3¼ cups 1½ tsp 2¾ cups	4 lb 2 lb 4 oz	3 qt 2½ cups 1 Tbsp 1 qt 1½ cups		1. For pastry topping: Combine flour and salt. Mix in shortening until size of small peas.
Water, cold		1 cup		2 cups		2. Add water and mix just until dry ingredients are moistened. Cover and set aside for step 9.
*Cooked chicken or turkey, diced	6 lb 6 oz	1 gal 1½ qt	12 lb 12 oz	2¾ gal		3. For filling: Place 3 lb 3 oz (2¾ qt) chicken or turkey into each steamtable pan (12"x20"x2½"). For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans.
Canned mixed vegetables, drained OR Frozen mixed vegetables	3 lb 5 oz OR 3 lb 12 oz	¾ No. 10 can OR 2 qt 1½ cups	6 lb 9 oz OR 7 lb 8 oz	1½ No. 10 cans OR 1 gal 3 cups		4. Add mixed vegetables to each pan. For canned mixed vegetables, add 1 lb 10 oz (1 qt ½ cup) per pan. For frozen mixed vegetables, add 1 lb 14 oz (1 qt ¾ cup) per pan.
Butter or margarine *Celery, chopped Dehydrated onions OR *Fresh onions, chopped	8 oz 1 lb 4 oz 3½ oz OR 1 lb 4 oz	1 cup 1 qt ¾ cup 1 cup OR 3¼ cups	1 lb 2 lb 8 oz 7 oz OR 2 lb 8 oz	2 cups 2 qt 1½ cups 2 cups OR 1 qt 2¾ cups		5. Melt butter or margarine. Add celery and onion. Cook over medium heat for 5-10 minutes.
All-purpose flour	10 oz	2¼ cups	1 lb 4 oz	1 qt ½ cup		6. Blend in flour. Cook over medium heat, stirring constantly until golden brown, 6-8 minutes.
Chicken or turkey stock Black or white pepper Poultry seasoning		3¾ qt 1½ tsp 1½ tsp		1 gal 3½ qt 1 Tbsp 1 Tbsp		7. Slowly stir in stock, pepper, and poultry seasoning. Blend well and cook over medium heat, stirring frequently until slightly thickened, 10-15 minutes.
						8. Pour approximately 2¼ qt gravy mixture over chicken or turkey and vegetables in each pan. Gravy mixture will thicken in step 12. Stir carefully to combine.

*See marketing guide on back.

(Continued on back)

Chicken or Turkey Pot Pie (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						9. Roll out pastry dough into rectangles (about 12″x20″) on lightly floured surface. Use 1 lb 13 oz of dough for each pan.
						10. Cover chicken or turkey mixture with pastry. Brush with pastry brush dipped in water. Cut slits in pastry.
						11. Bake until crust is golden brown and filling is bubbly: Conventional oven: 450 °F for 30-35 minutes Convection oven: 400 °F for 20-25 minutes
						12. Hold for 30 minutes at 180-190 °F to allow sufficient time for mixture to thicken.
						13. Cut each pan 5x5 (25 portions per pan).

SERVING: 1 portion (1 cup) provides 2 ounces of cooked poultry, ¼ cup of vegetable, and 1 serving of bread.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Nutrients Per Serving

Calories	341	Vitamin A	388 RE/3,446 IU	Iron	1.8 mg
Protein	20 g	Vitamin C	2.8 mg	Calcium	36 mg
Carbohydrate	23 g	Thiamin	0.19 mg	Phosphorus	134 mg
Fat	18 g	Riboflavin	0.17 mg	Potassium	286 mg
Cholesterol	58 mg	Niacin	5.01 mg	Sodium	648 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Chicken, whole, without neck and giblets	17 lb 12 oz	35 lb 8 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	13 lb 10 oz	27 lb 4 oz	
Celery	1 lb 8½ oz	3 lb 1 oz	
Mature onions	1 lb 7 oz	2 lb 14 oz	

Chili Con Carne With Beans

Meat/Meat Alternate–Vegetable

Ingredients	50 Servings		100 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	7 lb		14 lb			1. Brown ground beef. Drain.
Dehydrated onions	2 oz	½ cup 1 Tbsp	4 oz	1 cup 2 Tbsp		2. Add onions, garlic powder, green pepper (optional), pepper, and seasonings. Cook for 5 minutes.
OR	OR	OR	OR	OR		
*Fresh onions, chopped	1 lb	2⅔ cups	2 lb	5⅓ cups		
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp		
Green pepper, chopped (optional)	8 oz	1½ cups	1 lb	3 cups		
Black pepper		2 tsp		1 Tbsp 1 tsp		
†Seasonings						
Chili powder		3 Tbsp		¼ cup 2 Tbsp		
Paprika		1 Tbsp		2 Tbsp		
Onion powder		1 Tbsp		2 Tbsp		
Ground cumin		2 Tbsp	2 oz	¼ cup		
Canned tomatoes, with liquid, chopped	3 lb 3 oz	½ No. 10 can	6 lb 6 oz	1 No. 10 can		3. Stir in tomatoes, water, and tomato paste; mix well. Bring to boil. Reduce heat. Cover. Simmer slowly, stirring occasionally until thickened, about 40 minutes.
Water		2¼ qt		1 gal 2 cups		
Tomato paste	1 lb 12 oz	¼ No. 10 can	3 lb 8 oz	½ No. 10 can		
Canned pinto or kidney beans, drained	3 lb 6 oz	½ No. 10 can	6 lb 12 oz	1 No. 10 can		4. Stir in beans. Cover and simmer about 10 minutes or until hot.
OR	OR	OR	OR	OR		
*Cooked dry pinto or kidney beans (see preparation note)	2 lb 1 oz	1 qt 1½ cups	4 lb 2 oz	2¾ qt		
						5. Pour into serving pans.
Cheddar cheese, shredded (optional)	1 lb 8 oz	1¾ qt	3 lb	3½ qt		6. Portion with 4-oz ladle (½ cup). Garnish with cheese (optional).

SERVING: ½ cup (4-ounce ladle) provides 2 ounces of cooked lean meat and 3/8 cup of vegetable.

YIELD: **50 servings:** about 1½ gallons
100 servings: about 3 gallons

***See marketing guide on back.**

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ⅓ cup 1 Tbsp 2 tsp Mexican Seasoning Mix. For 100 servings, use ¾ cup 2 Tbsp Mexican Seasoning Mix.

(Continued on back)

Chili Con Carne With Beans (Continued)

PREPARATION NOTE:

SOAKING BEANS

Overnight method: Add 1¾ qt cold water to every lb of dry beans. Cover. Let stand overnight in refrigerator.

Quick-soak method: Boil 1¾ qt of water for each lb of dry beans. Pour beans in and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

COOKING BEANS

Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

1 lb dry beans = about 2½ cups dry or 6¼ cups cooked beans.

Variation

a. Chili Con Carne Without Beans

50 servings: In step 1, use 8 lb 10 oz raw ground beef. Continue with steps 2 and 3. In step 4, omit pinto or kidney beans. Continue with steps 5 and 6.

100 servings: In step 1, use 17 lb 4 oz raw ground beef. Continue with steps 2 and 3. In step 4, omit pinto or kidney beans. Continue with steps 5 and 6.

Nutrients Per Serving

Calories	212	Vitamin A	81 RE/785 IU	Iron	3.0 mg
Protein	16 g	Vitamin C	11.6 mg	Calcium	40 mg
Carbohydrate	15 g	Thiamin	0.12 mg	Phosphorus	174 mg
Fat	10 g	Riboflavin	0.17 mg	Potassium	541 mg
Cholesterol	40 mg	Niacin	3.43 mg	Sodium	101 mg

Marketing Guide for Selected Items

Chili Con Carne With Beans

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 2 oz	2 lb 4 oz.	
Green peppers	10¼ oz	1 lb 4½ oz	
Pinto or kidney beans, dry	14 oz	1 lb 12 oz	

Chili Con Carne Without Beans

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 2 oz	2 lb 4 oz.	
Green peppers	10 ¼ oz	1 lb 4½ oz	

Country Fried Steak

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
All-purpose flour Salt Black or white pepper	8 oz	1¾ cups 1 Tbsp 1 Tbsp	1 lb	3½ cups 2 Tbsp 2 Tbsp	....	1. Combine flour, salt, and pepper.
Dehydrated onions Raw ground beef (no more than 24% fat)	2¾ oz 9 lb	¾ cup	5¼ oz 18 lb	1½ cups	....	2. Combine about ½ of the seasoned flour with onions and ground beef in mixer bowl. Mix for 2 minutes on low speed.
						3. Place 4 lb 8 oz (2¼ qt) ground beef into each sheet pan (18″x26″x1″). Pat or flatten meat with rolling pin to cover pan evenly. For 50 servings, use 2 sheet pans. For 100 servings, use 4 sheet pans.
						4. Sprinkle remaining seasoned flour evenly over meat, about ½ cup per pan. Pat into meat.
						5. Cut each pan 5x5 (25 portions per pan).
						6. Bake: Conventional oven: 375 °F for 15 minutes Convection oven: 300 °F for 10 minutes
						7. Transfer steaks, browned side up, into steamtable pans (12″x20″x 2½″). For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
Butter or margarine All-purpose flour	4 oz 5 oz	½ cup 1 cup 2 Tbsp	8 oz 10 oz	1 cup 2¼ cups	....	8. For brown gravy: Melt butter or margarine in stockpot. Blend in flour and cook on medium heat, stirring frequently until golden brown, 8-10 minutes.

(Continued on back)

Country Fried Steak (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Beef stock		2 qt ½ cup		1 gal 1 cup		9. Slowly stir in beef stock, onion powder, and pepper. Blend well and bring to boil. Reduce heat. Simmer, stirring constantly until thickened, 6-8 minutes.
Onion powder		2 tsp		1 Tbsp 1 tsp		
Black or white pepper		¼ tsp		½ tsp		
						10. Pour gravy over steaks, approximately 2 qt per pan. Cover pans.
						11. Bake: Conventional oven: 375 °F for 15 minutes Convection oven: 300 °F for 10 minutes
						12. Serve 1 steak with gravy or on a roll.

SERVING: 1 portion provides 2 ounces of cooked lean meat.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

Nutrients Per Serving

Calories	225	Vitamin A	17 RE/70 IU	Iron	1.6 mg
Protein	16 g	Vitamin C	0.8 mg	Calcium	12 mg
Carbohydrate	7 g	Thiamin	0.09 mg	Phosphorus	128 mg
Fat	14 g	Riboflavin	0.17 mg	Potassium	224 mg
Cholesterol	56 mg	Niacin	3.69 mg	Sodium	439 mg

Ground Beef and Macaroni (With Mexican Seasoning)

Meat-Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Water		3 gal		6 gal		1. Heat water to rolling boil. Add salt.
Salt		2⅔ Tbsp	3½ oz	⅓ cup		
Elbow macaroni	2 lb 10 oz	2¼ qt	5 lb 4 oz	1 gal 2 cups		2. Slowly add macaroni. Stir constantly, until water boils again. Cook for approximately 8 minutes or until tender; stir occasionally. DO NOT OVERCOOK. Drain well. Set aside for step 4.
Raw ground beef (no more than 24% fat)	8 lb 10 oz		17 lb 4 oz			3. Brown ground beef. Drain. Add onions and cook for 5 minutes.
Dehydrated onions		½ cup	3½ oz	1 cup		
OR		OR	OR	OR		
*Fresh onions, chopped	14 oz	2¼ cups	1 lb 12 oz	1 qt ¾ cup		
Tomato paste	1 lb 12 oz	¼ No. 10 can	3 lb 8 oz	½ No. 10 can		4. Add tomato paste, tomatoes, stock or water, pepper, garlic powder, seasonings, and macaroni. Cook over medium heat, uncovered, until heated through, 5-10 minutes.
Canned tomatoes, with liquid, chopped	3 lb 3 oz	½ No. 10 can	6 lb 6 oz	1 No. 1 can		
Beef stock or water		1½ qt		3 qt		
Black pepper		1½ tsp		1 Tbsp		
Garlic powder		1 Tbsp		2 Tbsp		
†Seasonings						
Chili powder		2 Tbsp		¼ cup		
Ground cumin		1 Tbsp 1½ tsp		3 Tbsp		
Paprika		1½ tsp		1 Tbsp		
Onion powder		1½ tsp		1 Tbsp		
						5. Pour into serving pans.
Cheddar cheese, shredded (optional)	14 oz	1 qt	1 lb 12 oz	2 qt		6. Sprinkle shredded cheese (optional) evenly over pans.
						7. Portion ¾ cup per serving.

SERVING: ¾ cup provides 2 ounces of cooked lean meat, ⅜ cup of vegetable, and 1 serving of bread alternate.

YIELD: **50 servings:** about 2½ gallons
100 servings: about 5 gallons

***See marketing guide on back.**

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix. For 100 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix.

(Continued on back)

Variation

a. Ground Beef and Macaroni (With Italian Seasoning)

50 servings: Follow steps 1-3. In step 4, omit seasonings (chili powder, ground cumin, paprika, and onion powder). Use † 3 Tbsp 2 tsp flaked basil, 3 Tbsp 2 tsp flaked oregano, 2 Tbsp 2 tsp flaked marjoram, and 1½ tsp flaked thyme. Continue with steps 5-7.

100 servings: Follow steps 1-3. In step 4, omit seasonings (chili powder, ground cumin, paprika, and onion powder). Use † ¼ cup 3 Tbsp flaked basil, ¼ cup 3 Tbsp flaked oregano, ¼ cup 1 Tbsp flaked marjoram, and 1 Tbsp flaked thyme. Continue with steps 5-7.

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ½ cup 2 Tbsp Italian Seasoning Mix. For 100 servings, use 1¼ cups Italian Seasoning Mix.

Nutrients Per Serving

Calories	267	Vitamin A	72 RE/688 IU	Iron	2.7 mg
Protein	17 g	Vitamin C	11.4 mg	Calcium	30 mg
Carbohydrate	21 g	Thiamin	0.17 mg	Phosphorus	168 mg
Fat	12 g	Riboflavin	0.23 mg	Potassium	463 mg
Cholesterol	49 mg	Niacin	4.56 mg	Sodium	462 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb	2 lb	.....

Ground Beef and Spanish Rice

Meat-Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	8 lb 10 oz		17 lb 4 oz			1. Brown ground beef. Drain.
Dehydrated onions		½ cup	3½ oz	1 cup		2. Add onions and green peppers. Cook approximately 5 minutes.
OR		OR	OR	OR		
*Fresh onions, chopped	15 oz	2½ cups	1 lb 14 oz	1¼ qt		
*Green pepper, chopped	10½ oz	2 cups	1 lb 5 oz	1 qt		
Beef stock or water		3¾ qt		1 gal 3½ qt		3. Add beef stock or water, tomatoes, tomato paste, and seasonings. Bring to boil.
Canned tomatoes, with liquid, chopped	2 lb 6½ oz	1 qt ½ cup	4 lb 13 oz	¾ No. 10 can		
Tomato paste	14 oz	1½ cups	1 lb 12 oz	¼ No. 10 can		
†Seasonings:						
Chili powder		2 Tbsp		¼ cup		
Ground cumin		1 Tbsp 1½ tsp		3 Tbsp		
Paprika		1½ tsp		1 Tbsp		
Onion powder		1½ tsp		1 Tbsp		
White rice	2 lb 15 oz	1¾ qt	5 lb 14 oz	3½ qt		4. Stir in rice. Return to boil. Reduce heat and cover tightly. Cook over low heat for 20-30 minutes or until rice is tender.
						5. Pour into serving pans.
						6. Portion with No. 6 scoop (⅔ cup).

SERVING: ⅔ cup (No. 6 scoop) provides 2 ounces of cooked lean meat, ¼ cup of vegetable, and 1 serving of bread alternate.

YIELD: **50 servings:** about 2¼ gallons
100 servings: about 4½ gallons

***See marketing guide on back.**

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix. For 100 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix.

(Continued on back)

Ground Beef and Spanish Rice (Continued)

Nutrients Per Serving

Calories	276	Vitamin A	169 RE/491 IU	Iron	3.0 mg
Protein	17 g	Vitamin C	12.9 mg	Calcium	28 mg
Carbohydrate	24 g	Thiamin	0.15 mg	Phosphorus	154 mg
Fat	12 g	Riboflavin	0.17 mg	Potassium	370 mg
Cholesterol	49 mg	Niacin	4.42 mg	Sodium	499 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 1½ oz	2 lb 2½ oz	
Green pepper	13½ oz	1 lb 10½ oz	

Ground Beef Stroganoff

Meat **Main Dishes D-24**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	9 lb 4 oz		18 lb 8 oz			1. Brown ground beef. Drain.
All-purpose flour	4½ oz	1 cup	9 oz	2 cups		2. Sprinkle flour over beef and stir.
Dehydrated onions	3 oz	¾ cup 2 Tbsp	6 oz	1¾ cups		3. Add onions, garlic powder, parsley flakes, and pepper. Stir to combine. Cook over low heat for approximately 5 minutes.
OR	OR	OR	OR	OR		
*Fresh onions, chopped	1 lb 12 oz	1 qt ¾ cup	3 lb 8 oz	2 qt 1½ cups		
Garlic powder		1½ tsp		1 Tbsp		
Parsley flakes		⅓ cup		⅔ cup		
Black or white pepper		1 tsp		2 tsp		
Noninstant, nonfat dry milk	8 oz	1¾ cups	1 lb	3½ cups		4. Combine dry milk and water or beef stock. Whip until well blended.
OR	OR	OR	OR	OR		
Instant nonfat dry milk	8 oz	3¼ cups	1 lb	1 qt 2¾ cups		
Water or beef stock		2¾ qt		1 gal 1½ qt		
Condensed cream of mushroom soup	7 lb 13 oz	2½ No. 3 cyl	15 lb 10 oz	5 No. 3 cyl		5. Add liquid and undiluted soup to beef mixture. Stir until well blended. Bring to boil. Reduce heat and cover. Simmer for 40-45 minutes.
						6. Pour into serving pans. Hold for 30 minutes at 180-190 °F to allow sufficient time for mixture to thicken.
						7. Portion with 6-oz ladle (¾ cup) over cooked rice or noodles.

SERVING: ¾ cup (6-ounce ladle) provides 2 ounces of cooked lean meat.

YIELD: **50 servings:** about 2¼ gallons
100 servings: about 4½ gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	283	Vitamin A	4 RE/34 IU	Iron	1.9 mg
Protein	18 g	Vitamin C	2.0 mg	Calcium	87 mg
Carbohydrate	11 g	Thiamin	0.09 mg	Phosphorus	191 mg
Fat	18 g	Riboflavin	0.27 mg	Potassium	354 mg
Cholesterol	54 mg	Niacin	3.84 mg	Sodium	648 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	2 lb	4 lb	

Lasagna With Ground Beef

Meat/Meat Alternate-Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	3 lb 4 oz		6 lb 8 oz			1. Brown ground beef. Drain. Add onions and garlic powder. Cook for 5 minutes.
Dehydrated onions	6 oz	1¾ cups	12 oz	3½ cups		
OR	OR	OR	OR	OR		
*Fresh onions, chopped	3 lb	2 qt	6 lb	1 gal		
Garlic powder		2 Tbsp		¼ cup		
Black pepper		1 tsp		2 tsp		2. Add pepper, parsley flakes, canned tomatoes, tomato paste, water, and seasonings. Heat to boiling, uncovered. Remove from heat.
Parsley flakes		¼ cup		½ cup		
Canned tomatoes, with liquid, chopped	4 lb 4 oz	⅔ No. 10 can	8 lb 8 oz	1⅓ No. 10 cans		
Tomato paste	1 lb 12 oz	¼ No. 10 can	3 lb 8 oz	½ No. 10 can		
Water		3 qt		1½ gal		
†Seasonings						
Flaked basil		3 Tbsp		¼ cup 2 Tbsp		
Flaked oregano		3 Tbsp		¼ cup 2 Tbsp		
Flaked marjoram		1 Tbsp		2 Tbsp		
Flaked thyme		1 tsp		2 tsp		
Lasagna noodles, uncooked	2 lb 2 oz		4 lb 4 oz			3. Assemble ingredients as follows: For 50 servings, use 2 steamtable pans (12″ × 20″ × 2½″). For 100 servings, use 4 steamtable pans (12″ × 20″ × 2½″). 1st layer—1 qt ½ cup sauce 2nd layer—10 uncooked noodles lengthwise 3rd layer—1 qt ½ cup sauce 4th layer—6½ oz process American cheese (1¾ cups) and 10 oz mozzarella cheese (2½ cups) 5th layer—10 uncooked noodles crosswise 6th layer—1 qt ¾ cup sauce 7th layer—6 oz process American cheese (1½ cups 2 Tbsp) and 9 oz mozzarella cheese (2¼ cups)
Process American cheese, shredded	1 lb 9 oz	1 qt 2¾ cups	3 lb 2 oz	3 qt 1½ cups		
Mozzarella cheese, shredded	2 lb 6 oz	2 qt 1½ cups	4 lb 12 oz	1 gal 3 cups		

*See marketing guide on back.

(Continued on back)

Lasagna With Ground Beef (Continued)

Ingredients	50 Servings		100 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
						4. Tightly cover pans.
						5. Bake: Conventional oven: 350 °F for 1¼-1½ hours Convection oven: 325 °F for 45 minutes
						6. Remove pans from oven. Uncover. Let stand for 15 minutes before serving.
						7. Cut each pan 5×5 (25 pieces per pan).

SERVING: 1 piece provides the equivalent of 2 ounces of cooked lean meat, 3/8 cup of vegetable, and 3/4 serving of bread alternate.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 3 Tbsp 1 tsp Italian Seasoning Mix. For 100 servings, use ¾ cup 2 Tbsp 2 tsp Italian Seasoning Mix.

Variation

a. Lasagna With Ground Pork and Ground Beef

50 servings: In step 1, use 2 lb 2 oz raw ground beef and 1 lb 2 oz raw ground pork (no more than 24 percent fat). Continue with steps 2-7.

100 servings: In step 1, use 4 lb 4 oz raw ground beef and 2 lb 4 oz raw ground pork (no more than 24 percent fat). Continue with steps 2-7.

Nutrients Per Serving

Calories	277	Vitamin A	147 RE/941 IU	Iron	2.1 mg
Protein	17 g	Vitamin C	14.0 mg	Calcium	266 mg
Carbohydrate	23 g	Thiamin	0.24 mg	Phosphorus	314 mg
Fat	13 g	Riboflavin	0.25 mg	Potassium	449 mg
Cholesterol	45 mg	Niacin	3.16 mg	Sodium	394 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	3 lb 7 oz	6 lb 14 oz. ..	.....

Macaroni and Cheese

Meat Alternate-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Water	.....	3 gal	.....	6 gal	.....	1. Heat water to rolling boil.
Elbow macaroni	2 lb 10 oz	2¼ qt	5 lb 4 oz	1 gal 2 cups	.....	2. Slowly add macaroni. Stir constantly, until water boils again. Cook about 8 minutes or until tender; stir occasionally. DO NOT OVERCOOK. Drain well.
Reconstituted nonfat dry milk	.....	3 qt	.....	1½ gal	.....	3. Quickly stir milk into macaroni. Add butter or margarine and seasonings.
Butter or margarine (cut into small cubes)	8 oz	1 cup	1 lb	2 cups	.....	
Dry mustard	.....	1 Tbsp	.....	2 Tbsp		
Black or white pepper	.....	¼ tsp	.....	½ tsp	.....	
Process American cheese, shredded	6 lb 4 oz	1 gal 2¾ qt	12 lb 8 oz	3½ gal	.....	4. Add the cheese and stir until the cheese is melted and the mixture is smooth. The mixture is quite liquid at this stage.
						5. Pour macaroni and cheese into serving pans. Hold for 30 minutes on a 180 °F – 190 °F steamtable to allow sufficient time for mixture to set up properly.
						6. Portion with No. 6 scoop (⅔ cup).

SERVING: ⅔ cup (No. 6 scoop) provides 2 ounces of cheese and 1 serving of bread alternate.

YIELD: **50 servings:** about 2 gallons
100 servings: about 4 gallons

(Continued on back)

Macaroni and Cheese (Continued)

Variation

a. Macaroni, Cheese, and Ham

50 servings: Follow steps 1-3. In step 4, use 5 lb 12 oz (1 gal 2¼ qt) shredded cheese and 1 lb (3 cups) diced cooked ham. Continue with steps 5 and 6.

100 servings: Follow steps 1-3. In step 4, use 11 lb 8 oz (3¼ gal) shredded cheese and 2 lb (1 qt 2¼ cups) diced cooked ham. Continue with steps 5 and 6.

SERVING: ⅔ cup (No. 6 scoop) provides the equivalent of 2 ounces of cooked lean meat and 1 serving of bread alternate.

Nutrients Per Serving

Calories	341	Vitamin A	199 RE/827 IU	Iron	0.9 mg
Protein	17 g	Vitamin C	0.4 mg	Calcium	431 mg
Carbohydrate	19 g	Thiamin	0.13 mg	Phosphorus	515 mg
Fat	22 g	Riboflavin	0.35 mg	Potassium	241 mg
Cholesterol	64 mg	Niacin	0.84 mg	Sodium	881 mg

Meat Loaf

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Tomato paste	14 oz	1½ cups	1 lb 12 oz	¼ No. 10 can		1. Combine tomato paste, water, stock, and dry milk in mixer for 2 minutes on medium speed.
Water		1 cup		2 cups		
Beef stock		2 cups		1 qt		
Noninstant, nonfat dry milk	2¼ oz	½ cup	4½ oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2¼ oz	1 cup	4½ oz	1¾ cups 2 Tbsp		
Raw ground beef (no more than 24% fat)	8 lb 8 oz		17 lb			2. Add ground beef, oats, eggs, onions, celery, parsley flakes, pepper, garlic powder, and seasonings. Mix on low speed for 3 minutes or until blended. DO NOT OVERMIX.
Rolled oats	14 oz	1 qt 1½ cups	1 lb 12 oz	2¾ qt		
Large eggs	7¼ oz	4	14½ oz	8		
Dehydrated onions		⅓ cup	2¼ oz	⅔ cup		
OR		OR	OR	OR		
*Fresh onions, chopped	8 oz	1⅓ cups	1 lb	2¾ cups		
*Celery, chopped	8 oz	1¾ cups 2 Tbsp	1 lb	3¾ cups		
Parsley flakes		¼ cup		½ cup		
Black pepper		1½ tsp		1 Tbsp		
Garlic powder		1 Tbsp		2 Tbsp		
†Seasonings:						
Flaked basil		¾ tsp		1½ tsp		
Flaked oregano		¾ tsp		1½ tsp		
Flaked marjoram		½ tsp		1 tsp		
Flaked thyme		⅛ tsp		¼ tsp		
						3. Place 12 lb 14 oz (1 gal 3¾ qt) mixture into each steamtable pan (12″x20″x2½″). For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.

*See marketing guide on back.

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use 2 tsp Italian Seasoning Mix. For 100 servings, use 1 Tbsp 1 tsp Italian Seasoning Mix.

(Continued on back)

Meat Loaf (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						4. Press mixture into steamtable pans. Smooth top. Separate mixture down the middle lengthwise into 2 equal loaves.
						5. Bake: Conventional oven: 350 °F for 1¼-1½ hours Convection oven: 275 °F for 1-1¼ hours
						6. Drain fat from pans. Let meat loaf stand 20 minutes. Slice each loaf into 25 slices, approximately ¾″ thick.
						7. Serve with Brown Gravy (see G-3) or Meatless Tomato Sauce (see G-7).

SERVING: 1 slice (¾″ thick) provides 2 ounces of cooked lean meat.

YIELD: **50 servings:** 2 loaves, 25 slices each
100 servings: 4 loaves, 25 slices each

Variation

a. Meat Balls

50 servings: Follow steps 1 and 2. In step 3, portion with level No. 16 scoop (¼ cup) into 4 steamtable pans, approximately 25 meat balls per pan. Omit step 4. In step 5, bake: Conventional oven: 375 °F for 30 minutes; convection oven: 325 °F for 20 minutes. In step 6, drain fat from pans. Portion 2 meat balls per serving. In step 7, serve with Brown Gravy (see G-3), Meatless Tomato Sauce (see G-7), or as a meat ball submarine sandwich.

100 servings: Follow steps 1 and 2. In step 3, portion with level No. 16 scoop (¼ cup) into 8 steamtable pans, approximately 25 meat balls per pan. Omit step 4. In step 5, bake: Conventional oven: 375 °F for 30 minutes; convection oven: 325 °F for 20 minutes. In step 6, drain fat from pans. Portion 2 meat balls per serving. In step 7, serve with Brown Gravy (see G-3), Meatless Tomato Sauce (see G-7), or as a meat ball submarine sandwich.

Nutrients Per Serving

Calories	216	Vitamin A	29 RE/246 IU	Iron	2.1 mg
Protein	16 g	Vitamin C	4 mg	Calcium	35 mg
Carbohydrate	8 g	Thiamin	0.12 mg	Phosphorus	175 mg
Fat	13 g	Riboflavin	0.19 mg	Potassium	335 mg
Cholesterol	71 mg	Niacin	3.38 mg	Sodium	122 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	9¼ oz	1 lb 2½ oz	
Celery	9¾ oz	1 lb 3½ oz	

Nachos With Ground Beef

Meat/Meat Alternate-Bread Alternate

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	4 lb 6 oz		8 lb 12 oz			1. Brown ground beef and seasonings. Drain.
†Seasonings						
Chili powder		2 Tbsp		¼ cup		
Ground cumin		1 Tbsp 1½ tsp		3 Tbsp		
Paprika		1½ tsp		1 Tbsp		
Onion powder		1½ tsp		1 Tbsp		
Reconstituted nonfat dry milk		1 qt		2 qt		2. Add milk, cheese, and butter or margarine to ground beef. Stir frequently over medium heat until cheese is melted, approximately 15 minutes.
Process American cheese, shredded	3 lb 6 oz	3 qt 2½ cups	6 lb 12 oz	1 gal 3¼ qt		
Butter or margarine	4 oz	½ cup	8 oz	1 cup		
Green chili peppers, chopped (optional)	2 oz	¼ cup	4 oz	½ cup		3. Add green chili peppers (optional) and stir to combine.
Taco shell pieces	2 lb 6 oz	1 gal 2¼ qt	4 lb 11 oz	3¼ gal		4. To maintain best consistency, serve immediately or keep warm. Portion 2½ oz (⅓ cup) over ¾ oz (½ cup) taco shell pieces.
						5. If desired, garnish with chopped green peppers, chopped tomatoes, and chopped green chili peppers.

SERVING: 1 portion provides the equivalent of 2 ounces of cooked lean meat and 1 serving of bread alternate.

YIELD: **50 servings:** about 1 gallon
100 servings: about 2 gallons

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix. For 100 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix.

Nutrients Per Serving

Calories	320	Vitamin A	127 RE/680 IU	Iron	2.5 mg
Protein	16 g	Vitamin C	0.4 mg	Calcium	260 mg
Carbohydrate	16 g	Thiamin	0.26 mg	Phosphorus	350 mg
Fat	21 g	Riboflavin	0.36 mg	Potassium	250 mg
Cholesterol	59 mg	Niacin	3.31 mg	Sodium	532 mg

Oven Fried Chicken

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken, cut-up, thawed (USDA-donated, whole, cut up 8 pieces)	24 lb		48 lb			1. Rinse chicken in cold water. Drain well.
OR	OR		OR			
Chicken, cut up, thawed (USDA-donated, whole, cut up 9 pieces)	22 lb		44 lb			
All-purpose flour	1 lb	3½ cups	2 lb	1 qt 3¼ cups		2. Combine flour, dry milk, poultry seasoning, pepper, paprika, and garlic powder. Mix well.
Noninstant, nonfat dry milk	8 oz	1⅔ cups	1 lb	3½ cups		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	8 oz	3¼ cups	1 lb	1 qt 2¾ cups		
Poultry seasoning		1 Tbsp 1½ tsp		3 Tbsp		
Black pepper		1 Tbsp		2 Tbsp		
Paprika		1½ tsp		1 Tbsp		
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp		
Vegetable oil		1½ cups		3 cups		3. Place chicken pieces in large bowl. Drizzle oil over chicken. Toss to coat thoroughly.
						4. Coat oiled chicken with seasoned flour. Place on ungreased sheet pans (18″x26″x1″), approximately 25 pieces per pan.
						5. Bake until golden brown: Conventional Oven: 400 °F for 45-55 minutes Convection Oven: 350 °F for 30-35 minutes
						6. Transfer to steamtable pans for serving.

SERVING: 1 portion (1 breast, or 1 drumstick and 1 wing, or 1 thigh with back) provides 2 ounces of cooked poultry.

YIELD: **50 servings:** 2 sheet pans
100 servings: 4 sheet pans

(Continued on back)

Oven Fried Chicken (Continued)

Nutrients Per Serving

Calories	245	Vitamin A	272 RE/139 IU	Iron	1.1 mg
Protein	18 g	Vitamin C	0.3 mg	Calcium	69 mg
Carbohydrate	10 g	Thiamin	0.11 mg	Phosphorus	157 mg
Fat	14 g	Riboflavin	0.20 mg	Potassium	223 mg
Cholesterol	51 mg	Niacin	5.34 mg	Sodium	71 mg

Pizza With Cheese Topping

Meat/Meat Alternate–Vegetable–Bread

Ingredients			100 Servings		For ___ Servings	Directions
			Weight	Measure		
Pizza dough in pans (18″ x 26″ x 1″)				5 sheet pans		1. For pizza dough, use Pizza Crust recipe (see B-14) or Pourable Pizza Crust recipe (see B-15).
Dehydrated onions			4 oz	1 cup 2 Tbsp		2. Combine onions, garlic powder, pepper, tomato paste, water, and seasonings. Simmer for 15 minutes.
OR			OR	OR		
*Fresh onions, chopped			2 lb	1 qt 1¼ cups		
Garlic powder				1 Tbsp 1½ tsp		
Black pepper				2 tsp		
Tomato paste			3 lb 8 oz	½ No. 10 can		
Water				3½ qt		
†Seasonings						
Flaked basil				¼ cup 2 Tbsp		
Flaked oregano				¼ cup 2 Tbsp		
Flaked marjoram				¼ cup 1 Tbsp		
Flaked thyme				1 Tbsp		
Mozzarella cheese, shredded			12 lb 8 oz	3¼ gal		3. Sprinkle 12 oz (3 cups) shredded cheese evenly over each pizza crust.
						4. Spread 1 qt tomato mixture over cheese in each pan.
						5. Sprinkle 1 lb 12 oz (1¾ qt) shredded cheese evenly over tomato mixture in each pan.
						6. Bake until crust is lightly browned: Conventional oven: 475 °F for 15-18 minutes Convection oven: 450 °F for 15 minutes
						7. Cut each pan 4x5 (20 pieces per pan).

SERVING: 1 piece provides the equivalent of 2 ounces of cooked lean meat, ¼ cup of vegetable, and 2 servings of bread.

YIELD: 100 servings: 5 sheet pans

***See marketing guide on back.**

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 100 servings, use 1 cup 2 Tbsp Italian Seasoning Mix.

(Continued on back)

Pizza With Cheese Topping (Continued)

Nutrients Per Serving

Calories	300	Vitamin A	143 RE/739 IU	Iron	1.9 mg
Protein	18 g	Vitamin C	7.1 mg	Calcium	388 mg
Carbohydrate	32 g	Thiamin	0.25 mg	Phosphorus	317 mg
Fat	11 g	Riboflavin	0.35 mg	Potassium	267 mg
Cholesterol	33 mg	Niacin	2.48 mg	Sodium	335 mg

Marketing Guide for Selected Items

Food as Purchased		For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	. . . . .	2 lb 4½ oz. . .	. . . . .

Pizza With Ground Beef Topping

Meat/Meat Alternate-Vegetable-Bread

Ingredients			100 Servings		For ___ Servings	Directions
			Weight	Measure		
Pizza dough in pans (18"x26"x1")				5 sheet pans		1. For pizza crust: Use Pizza Crust recipe (see B-14) or Pourable Pizza Crust recipe (see B-15).
Raw ground beef (no more than 24% fat)			8 lb 12 oz			2. For pizza topping: Brown ground beef. Drain. Add onions and garlic powder. Cook for 5 minutes.
Dehydrated onions			4 oz	1 cup 2 Tbsp		
OR			OR	OR		
*Fresh onions, chopped			2 lb	1 qt 1¼ cups		
Garlic powder				1 Tbsp 1½ tsp		
Black pepper				1 Tbsp		3. Add pepper, tomato paste, water, and seasonings. Simmer for 15 minutes.
Tomato paste			3 lb 8 oz	½ No. 10 can		
Water				3½ qt		
†Seasonings						
Flaked basil				¼ cup 2 Tbsp		
Flaked oregano				¼ cup 2 Tbsp		
Flaked marjoram				¼ cup 1 Tbsp		
Flaked thyme				1 Tbsp		
Mozzarella cheese, shredded			6 lb 4 oz	1 gal 2¼ qt		4. Sprinkle 8 oz (2 cups) shredded cheese evenly over each pizza crust.
						5. Spread 1¼ qt beef mixture over cheese in each pan.

***See marketing guide on back.**

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 100 servings, use 1 cup 2 Tbsp Italian Seasoning Mix.

(Continued on back)

Pizza With Ground Beef Topping (Continued)

Ingredients			100 Servings		For ___ Servings	Directions
			Weight	Measure		
						6. Sprinkle 12 oz (3 cups) shredded cheese evenly over topping in each pan.
						7. Bake until crust is lightly browned: Conventional oven: 475 °F for 15-18 minutes Convection oven: 450 °F for 15 minutes
						8. Portion by cutting each sheet pan 4x5 (20 pieces per pan).

SERVING: 1 piece provides the equivalent of 2 ounces of cooked lean meat, ¼ cup of vegetable, and 2 servings of bread.

YIELD: **100 servings:** 5 sheet pans

Variation

a. Pizza with Ground Pork Topping

100 servings: Follow step 1. In step 2, omit beef. Use 8 lb 12 oz raw ground pork (no more than 24 percent fat). In step 3, use the listed seasonings plus ¼ cup fennel seed, 2 Tbsp 1½ tsp ground sage, and 1½ tsp crushed red pepper (optional). Continue with steps 4-8.

Nutrients Per Serving

Calories	312	Vitamin A	92 RE/574 IU	Iron	2.5 mg
Protein	18 g	Vitamin C	7.1 mg	Calcium	207 mg
Carbohydrate	31 g	Thiamin	0.26 mg	Phosphorus	240 mg
Fat	12 g	Riboflavin	0.33 mg	Potassium	333 mg
Cholesterol	41 mg	Niacin	4.02 mg	Sodium	226 mg

Marketing Guide for Selected Items

Food as Purchased	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	2 lb 4½ oz ..	.....

Quiche With Self-Forming Crust

Meat Alternate | **Main Dishes D-32**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Process American cheese, shredded	1 lb 10 oz	1¾ qt	3 lb 4 oz	3½ qt		1. Sprinkle 13 oz (3½ cups) cheese into each steamtable pan (12"x20"x2½"), which has been lightly greased. For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans.
Large eggs (see note)	4 lb 7 oz	40	8 lb 14 oz	80		2. Beat eggs in mixer on medium speed for 2 minutes.
Reconstituted nonfat dry milk		3 qt		1½ gal		3. Add milk, flour, baking powder, salt, pepper, nutmeg (optional), and onions. Mix for 4 minutes on low speed.
All-purpose flour	14 oz	3¼ cups	1 lb 12 oz	1 qt 2¼ cups		
Baking powder		½ tsp		1 tsp		
Salt		1 Tbsp		2 Tbsp		
Black or white pepper		1 tsp		2 tsp		
Ground nutmeg (optional)		½ tsp		1 tsp		
Dehydrated onions	2¼ oz	½ cup 2 Tbsp	4½ oz	1¼ cups		
OR		OR	OR	OR		
*Fresh onions, chopped	12 oz	2 cups	1 lb 8 oz	1 qt		
Process American cheese, shredded (optional)	11 oz	3 cups	1 lb 6 oz	1½ qt		4. Slowly pour 3 lb 14 oz (2¾ qt) mixture evenly over cheese in each pan. Sprinkle 5½ oz (1½ cups) cheese (optional) over liquid mixture in each pan.

*See marketing guide on back.

(Continued on back)

Quiche With Self-Forming Crust (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						5. Bake until a knife inserted near center comes out clean. Surface will be lightly browned and puffy. Conventional oven: 400 °F for 50-60 minutes Convection oven: 350 °F for 25-35 minutes Stir lightly twice during first half of baking time.
						6. Let stand for 5 minutes. Cut each pan 5x5 (25 portions per pan).

SERVING: 1 portion provides the equivalent of 2 ounces of cooked lean meat.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

NOTE:

50 servings: Use 1 lb 4 oz (1 qt 2⅔ cups) dried whole eggs and 1 qt 2⅔ cups water in place of shell eggs.

100 servings: Use 2 lb 8 oz (3 qt 1¼ cups) dried whole eggs and 3 qt 1¼ cups water in place of shell eggs.

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	14 oz	1 lb 11½ oz .	. . . . .

Nutrients Per Serving

Calories	174	Vitamin A	106 RE/390 IU	Iron	1.2 mg
Protein	11 g	Vitamin C	1.1 mg	Calcium	195 mg
Carbohydrate	11 g	Thiamin	0.12 mg	Phosphorus	252 mg
Fat	9 g	Riboflavin	0.28 mg	Potassium	212 mg
Cholesterol	236 mg	Niacin	0.50 mg	Sodium	444 mg

Salisbury Steak

Meat **Main Dishes D-33**

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	8 lb 8 oz		17 lb			1. Blend all ingredients in mixer for 4 minutes on low speed. DO NOT OVERMIX.
Rolled oats	12 oz	1 qt ¾ cup	1 lb 8 oz	2 qt 1½ cups		
Large eggs	5¼ oz	3	10½ oz	6		
Water		1 cup		2 cups		
Beef stock		1 cup		2 cups		
Noninstant, nonfat dry milk	2¼ oz	½ cup	4½ oz	1 cup		
OR	OR	OR	OR	OR		
Instant nonfat dry milk	2¼ oz	1 cup	4½ oz	1¾ cups 2 Tbsp		
Dehydrated onions		½ cup	3½ oz	1 cup		
OR		OR	OR	OR		
*Fresh onions, chopped	12 oz	2 cups	1 lb 8 oz	1 qt		
Parsley flakes		¼ cup		½ cup		
Black pepper		1½ tsp		1 Tbsp		
						2. Portion steaks onto ungreased sheet pans (18″x26″x1″) with a No. 12 scoop (⅓ cup), approximately 25 steaks per pan. Flatten into an oval pattie. For 50 servings, use 2 sheet pans. For 100 servings, use 4 sheet pans.
						3. Bake until browned: Conventional oven: 350 °F for 25-30 minutes Convection oven: 300 °F for 15-20 minutes
						4. Transfer steaks to steamtable pans (12″x20″x2½″). For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans.
						5. Serve with Brown Gravy (see G-3) or Meatless Tomato Sauce (see G-7).

SERVING: 1 portion provides the equivalent of 2 ounces of cooked lean meat.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

***See marketing guide on back.**

(Continued on back)

Salisbury Steak (Continued)

Nutrients Per Serving

Calories	203	Vitamin A	7 RE/46 IU	Iron	1.7 mg
Protein	16 g	Vitamin C	0.8 mg	Calcium	30 mg
Carbohydrate	6 g	Thiamin	0.09 mg	Phosphorus	160 mg
Fat	12 g	Riboflavin	0.17 mg	Potassium	246 mg
Cholesterol	65 mg	Niacin	3.13 mg	Sodium	84 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	14 oz	1 lb 11½ oz .	. . . . .

Scrambled Eggs

Meat Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Large eggs (see note)	5 lb 9 oz	50	11 lb 2 oz	100		1. Beat eggs thoroughly.
Reconstituted nonfat dry milk Salt	 	1 qt 1½ tsp	 	2 qt 1 Tbsp	 	2. Add milk and salt. Mix until well blended.
						3. Pour 3 lb 12 oz (1 qt 3¼ cups) egg mixture into each steamtable pan (12″x20″x2½″), which has been lightly greased. For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans.
						4. Bake or steam: Conventional oven: 350 °F for 2 minutes. Stir once after 15 minutes. Convection oven: 300 °F for 15 minutes. Stir once after 10 minutes. Steamer: 5 lb pressure for 3-5 minutes. DO NOT STIR WHILE STEAMING. DO NOT OVERCOOK.
						5. Remove from oven or steamer. Stir well. Eggs should have a slightly moist appearance.
Butter or margarine (optional)	2½ oz	⅓ cup	5¼ oz	⅔ cup		6. Add approximately 1¼ oz (2 Tbsp 1½ tsp) butter or margarine (optional) to each pan. Stir.
Cheddar cheese, shredded (optional)	14 oz	1 qt	1 lb 12 oz	2 qt		7. Sprinkle 7 oz (2 cups) cheese (optional) over each pan.
						8. Portion with No. 16 scoop (¼ cup). For best results, serve within 15 minutes.

SERVING: ¼ cup (No. 16 scoop) provides 1 large egg.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

(Continued on back)

Scrambled Eggs (continued)

NOTE:

50 servings: Use 1 lb 9 oz (2 qt ½ cup) dried whole eggs and 2 qt ½ cup water in place of shell eggs.

100 servings: Use 3 lb 2 oz (1 gal 1 cup) dried whole eggs and 1 gal 1 cup water in place of shell eggs.

Nutrients Per Serving

Calories	87	Vitamin A	79 RE/263 IU	Iron	1.1 mg
Protein	7 g	Vitamin C	0.1 mg	Calcium	54 mg
Carbohydrate	2 g	Thiamin	0.05 mg	Phosphorus	110 mg
Fat	6 g	Riboflavin	0.17 mg	Potassium	101 mg
Cholesterol	277 mg	Niacin	0.04 mg	Sodium	151 mg

Spaghetti and Meat Sauce

Meat-Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	8 lb 10 oz		17 lb 4 oz			1. Brown ground beef. Drain. Add onions and garlic powder. Cook for 5 minutes.
Dehydrated onions	6 oz	1¾ cup	12 oz	3½ cups		
OR	OR	OR	OR	OR		
*Fresh onions, chopped	3 lb	2 qt	6 lb	1 gal		
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp		
Black pepper		1½ tsp		1 Tbsp		2. Add pepper, canned tomatoes, tomato paste, water, and seasonings. Simmer about 1 hour.
Canned tomatoes, with liquid, chopped	4 lb 4 oz	⅔ No. 10 can	8 lb 8 oz	1⅓ No. 10 cans		
Tomato paste	1 lb 12 oz	¼ No. 10 can	3 lb 8 oz	½ No. 10 can		
Water		1½ qt		3 qt		
†Seasonings						
Flaked basil		3 Tbsp 2 tsp		¼ cup 3 Tbsp		
Flaked oregano		3 Tbsp 2 tsp		¼ cup 3 Tbsp		
Flaked marjoram		2 Tbsp 2 tsp		¼ cup 1 Tbsp		
Flaked thyme		1½ tsp		1 Tbsp		
Water		3 gal		6 gal		3. Heat water to rolling boil. Add salt.
Salt		1 Tbsp		2 Tbsp		
Spaghetti, broken into thirds	3 lb 1 oz		6 lb 2 oz			4. Slowly add spaghetti. Stir constantly, until water boils again. Cook 10-12 minutes or until tender; stir occasionally. DO NOT OVERCOOK. Drain well.
						5. Stir into meat sauce.
						6. Pour into serving pans.
						7. Portion ¾ cup per serving.

SERVING: ¾ cup provides 2 ounces of cooked lean meat, 3/8 cup of vegetable, and 1 serving of bread alternate.

YIELD: **50 servings:** about 2¾ gallons
100 servings: about 5 gallons

***See marketing guide on back.**

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ½ cup 2 Tbsp Italian Seasoning Mix. For 100 servings, use 1¼ cups Italian Seasoning Mix.

(Continued on back)

Spaghetti and Meat Sauce (Continued)

Variation

a. Spaghetti and Meat Sauce (Ground Beef and Ground Pork)

50 servings: In step 1, use 5 lb 10 oz raw ground beef and 3 lb raw ground pork (no more than 24 percent fat). Continue with steps 2-7.

100 servings: In step 1, use 11 lb 4 oz raw ground beef and 6 lb raw ground pork (no more than 24 percent fat). Continue with steps 2-7.

Nutrients Per Serving

Calories	288	Vitamin A	75 RE/628 IU	Iron	3.0 mg
Protein	18 g	Vitamin C	14.0 mg	Calcium	44 mg
Carbohydrate	26 g	Thiamin	0.20 mg	Phosphorus	180 mg
Fat	12 g	Riboflavin	0.24 mg	Potassium	526 mg
Cholesterol	49 mg	Niacin	4.73 mg	Sodium	191 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	3 lb 7 oz	6 lb 14 oz.	

Sweet and Sour Pork

Meat-Vegetable/Fruit

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Boneless pork, 1-inch cubes	14 lb		28 lb			1. Trim all visible fat from pork cubes.
Vegetable oil		¼ cup		½ cup		2. Brown pork cubes in oil. Drain.
Canned pineapple chunks, in juice	3 lb 5 oz	½ No. 10 can	6 lb 10 oz	1 No. 10 can		3. Drain pineapple, reserving juice. For 50 servings, reserve 1¼ qt juice. For 100 servings, reserve 2½ qt juice. (If necessary, add water to juice to make the specified measure.) Set pineapple aside for step 8.
Chicken stock Vinegar Brown sugar, packed Soy sauce Tomato paste	 8 oz 9¼ oz	3 qt 2 cups 1 cup 2 Tbsp 1 cup 1 cup	 1 lb 1 lb 2½ oz	1½ gal 1 qt 2¼ cups 2 cups 2 cups		4. Add stock, vinegar, brown sugar, soy sauce, tomato paste, and pineapple juice to pork. Bring to boil. Reduce heat. Cover. Simmer over medium heat for 30 minutes.
*Carrots, pared and sliced	1 lb	3¾ cups	2 lb	1 qt 3½ cups		5. Add carrots. Cover. Simmer for 15 minutes.
*Green pepper, strips *Celery, sliced	12 oz 12 oz	3½ cups 3 cups	1 lb 8 oz 1 lb 8 oz	1 qt 2¾ cups 1½ qt		6. Add green pepper and celery. Cover. Simmer for 5 minutes.
Cornstarch Water	8 oz 	1¾ cups 2 Tbsp 1½ cups	 1 lb 	 3¾ cups 3 cups		7. Combine cornstarch and water. Mix until smooth.
						8. Add cornstarch mixture and pineapple. Stir well and cook over medium heat until thickened, 6-8 minutes.
						9. Pour into serving pans.
						10. Serve with 6-oz ladle (¾ cup) over cooked rice.

SERVING: ¾ cup (6-ounce ladle) provides 2 ounces of cooked lean meat and ¼ cup of vegetable and fruit.

YIELD: **50 servings:** about 2½ gallons
100 servings: about 5 gallons

*See marketing guide on back.

(Continued on back)

Sweet and Sour Pork (Continued)

Nutrients Per Serving

Calories	222	Vitamin A	275 RE/2608 IU	Iron	1.8 mg
Protein	16 g	Vitamin C	12.0 mg	Calcium	29 mg
Carbohydrate	17 g	Thiamin	0.32 mg	Phosphorus	156 mg
Fat	10 g	Riboflavin	0.17 mg	Potassium	401 mg
Cholesterol	55 mg	Niacin	2.85 mg	Sodium	839 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Carrots	1 lb 7 oz	2 lb 14 oz	
Green pepper	15 oz	1 lb 14 oz	
Celery	14½ oz	1 lb 13 oz	

Tuna and Noodles

Meat-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Water		2 gal		4 gal		1. Heat water to rolling boil.
Noodles	2 lb 8 oz	1 gal 3½ qt	5 lb	3¾ gal		2. Slowly add noodles. Stir constantly, until water boils again. Cook for 6 minutes. Drain well. DO NOT OVERCOOK.
Butter or margarine *Celery, chopped Dehydrated onions OR *Fresh onions, chopped	8 oz 1 lb 14 oz	1 cup 3¾ cups ½ cup OR 2¼ cups	1 lb 2 lb 3½ oz OR 1 lb 12 oz	2 cups 1 qt 3½ cups 1 cup OR 1 qt ¾ cup		3. Melt butter or margarine. Add celerly and onions. Cook over medium heat for 5-6 minutes.
All-purpose flour	8 oz	1¾ cups	1 lb	3½ cups		4. Add flour and stir until smooth.
Reconstituted nonfat dry milk Chicken stock Black or white pepper Parsley flakes Salt		1 gal 1 gal 1½ tsp ½ cup 1 tsp		2 gal 2 gal 1 Tbsp 1 cup 2 tsp		5. Add milk, chicken stock, pepper, parsley flakes, and salt. Cook over medium heat, stirring occasionally until thickened, 8-10 minutes.
Tuna, water-packed, chunk light, drained and flaked Reconstituted frozen lemon juice concentrate	6 lb 6 oz 2/3 cup	2 66½-oz cans	12 lb 12 oz	4 66½-oz cans 1⅓ cups		6. Add cooked noodles, tuna, and lemon juice. Stir gently to combine. Cook over medium heat for 6-8 minutes, or until heated through.
						7. Pour into serving pans. Hold for 30 minutes on a 180-190 °F steamtable to allow sufficient time for mixture to set up properly.
						8. Portion with 8-oz ladle (1 cup).

SERVING: 1 cup (8-ounce ladle) provides 2 ounces of cooked fish and 1 serving of bread alternate.

YIELD: **50 servings:** about 3¼ gallons
100 servings: about 6½ gallons

*See marketing guide on back.

(Continued on back)

Tuna and Noodles (Continued)

Nutrients Per Serving

Calories	261	Vitamin A	76 RE/292 IU	Iron	2.2 mg
Protein	27 g	Vitamin C	2.5 mg	Calcium	134 mg
Carbohydrate	24 g	Thiamin	0.15 mg	Phosphorus	267 mg
Fat	6 g	Riboflavin	0.25 mg	Potassium	410 mg
Cholesterol	78 mg	Niacin	10.76 mg	Sodium	808 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Celery	1 lb 3½ oz	2 lb 7 oz	
Mature onions	1 lb	2 lb	

Turkey and Dressing Supreme

Meat-Bread | **Main Dishes D-38**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						1. Lightly oil steamtable pans (12"x20"x2½"). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Bread cubes, soft	3 lb 2 oz	2¼ gal	6 lb 4 oz	4½ gal		2. For dressing: Combine bread cubes, seasonings, onions, and butter or margarine in a bowl. Mix lightly until well blended.
Poultry seasoning		2 tsp		1 Tbsp 1 tsp		
Black or white pepper		2 tsp		1 Tbsp 1 tsp		
Thyme (optional)		2 Tbsp		¼ cup		
Dehydrated onions		¼ cup 2 Tbsp	2½ oz	¾ cup		
OR		OR	OR	OR		
*Fresh onions, chopped	8 oz	1⅓ cups	1 lb	2⅔ cups		
Butter or margarine, melted	12 oz	1½ cups	1 lb 8 oz	3 cups		
Chicken stock		2 qt		1 gal		3. Add stock to bread mixture. Mix gently until dressing is moist.
						4. Spread 4 lb (1 gal 1¾ qt) of dressing evenly into each steamtable pan.
*Cooked turkey, chopped	6 lb 4 oz	1¼ gal	12 lb 8 oz	2½ gal		5. Cover each pan of dressing with 3 lb 2 oz (2½ qt) cooked, chopped turkey.
Butter or margarine	6 oz	¾ cup	12 oz	1½ cups		
All-purpose flour	7 oz	1½ cup				6. For gravy: Melt fat. Blend in flour and salt. Stir frequently until mixture is light brown, 8-10 minutes.
		2 Tbsp	14 oz	2⅔ cups		
Salt		2 tsp		1 Tbsp 1 tsp		
Chicken stock		3 qt		1½ gal		7. Gradually add stock to flour mixture. Stir to blend well. Cook until thickened, 8-10 minutes.
						8. Pour 1¼ qt gravy over each pan of turkey and dressing.

*See marketing guide on back.

(Continued on back)

Turkey and Dressing Supreme (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
						9. Bake: Conventional oven: 350 °F for 30 minutes Convection oven: 325 °F for 30 minutes
						10. Cut each pan 5x5 (25 portions per pan). If desired, serve with extra gravy.

SERVING: 1 portion provides 2 ounces of cooked poultry and 1 serving of bread.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Nutrients Per Serving

Calories	272	Vitamin A	77 RE/326 IU	Iron	1.9 mg
Protein	20 g	Vitamin C	0.4 mg	Calcium	46 mg
Carbohydrate	19 g	Thiamin	0.13 mg	Phosphorus	159 mg
Fat	12 g	Riboflavin	0.15 mg	Potassium	222 mg
Cholesterol	66 mg	Niacin	4.03 mg	Sodium	956 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ____ Serving Recipe
Mature onions	9¼ oz	1 lb 2½ oz	
Turkey, whole, without neck and giblets	13 lb 5 oz	26 lb 10 oz	

Salads and Salad Dressings

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Salad Combinations

Salads made from simple combinations of vegetables or fruits are generally the most appealing. Prepare salads using good quality vegetables and fruits that contrast in color, flavor, texture, and shape.

- **Color**—Avoid using too many foods of the same color in the same salad, such as a cottage-cheese-filled pear half. Instead, try a pear half filled with carrot-raisin salad. Use colorful foods in combination with those of little or no color or use garnishes to brighten the food. For example, add a slice of cucumber, a tomato wedge, a piece of brightly colored fruit, a sprig of parsley, or a dash of paprika.

- **Flavor**—Plan for flavor-balanced salad combinations. Combine mild with strong flavors, salty with bland, or tart with sweet.

- **Texture**—Try to include soft with crisp foods, fibrous with smooth foods, tender with chewy foods, and juicy with crunchy foods. For example, try celery sticks stuffed with peanut butter.

- **Shape**—Use a pleasing combination of different sizes and shapes of foods within a salad combination, such as cubes, julienne strips, slices, shredded bits, and wedges.

Look for these characteristics in the following vegetable and fruit salad combinations.

Vegetable Salad Combinations

- Combine lettuce and spinach.
- Serve celery, carrot, and zucchini sticks with vegetable dip.
- Toss cut-up celery, tomatoes, green peppers, and cauliflower with a vinaigrette dressing.
- Dress up cole slaw by adding shredded red cabbage, carrots, or green pepper.
- Arrange tomato, cucumber, and onion slices on salad greens. Pour tart dressing over vegetables.
- Quarter tomatoes leaving bottom intact. Spread quarters and stuff middle with cole slaw or a meat or cheese filling.

NOTE: Rinse salad greens gently but thoroughly in cold water. Separate leaves in order to rinse them thoroughly. Drain well. Place salad greens in a clean, covered container and chill in the refrigerator.

Fruit Salad Combinations

- Use fresh fruits, unsweetened frozen fruits, or fruits canned in juice or light syrup for fruit cups. Drain and mix for salads. Garnish fruits with lowfat yogurt.
- Serve chilled mixed fruit, orange sections, and sliced bananas sprinkled with lemon juice and flaked coconut.
- Add peach slices to waldorf salad.
- Combine orange sections, pineapple chunks, sliced bananas, and diced apples, and garnish with slivered almonds.

NOTE: To keep apples, peaches, or bananas from darkening, dip them in citrus or pineapple juice; or in a solution of lemon juice and water.

Salad Dressings

- Add salad dressings to salads just before serving unless the fruits or vegetables are to be marinated. Sogginess and wilting can be avoided by using only enough dressing to moisten the vegetables or fruits.

Salad Bar Concepts

A salad bar may be used as an accompaniment to the regular lunch or as the entire meal. Many USDA-donated commodities are ideal for salad bar service. Design the salad bar for self-service and arrange for good traffic flow, for example, lettuce first and dressings last. Offer at least two different salad dressings, one clear and one creamy, or include one low-calorie dressing for variety. Some food items may be preportioned, for example, meat and meat alternates. The variety of foods that can be served on a salad bar is endless, but here are a few suggestions. Recipes for the food items in bold print are included in this publication.

Meat and Meat Alternates

Chicken or Turkey Salad
Tuna Salad
cold lean roast meats
Beef, Pork, or Bean Taco Filling
Chili Con Carne With or Without Beans
cooked dry beans (such as garbanzo and kidney)
cottage cheese
cheddar cheese
process American cheese
mozzarella cheese
hard-cooked eggs
Egg Salad
Barbecued Beef or Pork
Sloppy Joe
parmesan cheese

Raw Vegetables

cabbage
cauliflower
broccoli
green peppers
green onions
cucumbers
mushrooms
tomatoes
carrots
celery
radishes
onions
spinach
alfalfa sprouts
bean sprouts

Cooked Vegetables

cooked dry beans
green beans
green peas
beets

Canned, Dried, or Fresh Fruits

prunes
raisins
pineapple
peaches
mixed fruit
blueberries
apricots
melon
bananas
apples
grapes

Prepared Salads

Carrot-Raisin Salad
corn relish
Creamy Coleslaw
Macaroni Salad
Potato Salad
Three Bean Salad
Waldorf Fruit Salad
Pasta Salad

Breads

Muffin Squares
Italian Bread
pita bread
Rolls
Wheat Bread
Brown Bread
Corn Bread
Banana Bread Squares
toasted bread cubes
bread sticks
taco shells and/or pieces
tortilla shells
crackers
other assorted breads

Ideas for Food Bar Service

Salads and Salad Dressings E-3

The self-service food bar is a popular method of displaying and offering food. Food bars can increase student satisfaction by offering a wide variety of choices. Preportioning of some items, such as the meat and meat alternate component, is recommended to ensure that the meal pattern requirements are met. Other expensive items may also be preportioned to help keep costs low.

In addition to salad bars, a variety of other self-service bars can be offered. For example, sandwich bars, potato bars, pasta bars, fruit bars, dessert bars, etc.

It is recommended that, initially, the number of choices be kept minimal. Then, after the food service staff has become comfortable with the concept of food bars, additional food choices may be added as desired. The following are ideas for self-service food bars; recipes for the food items in bold print are included in this publication.

Salad Bar

Turkey and Cheese Strips
Tossed Salad Greens
Sliced Cucumbers
Sliced Carrots
Tomato Wedges
Potato Salad
Pear Halves
Assorted Breads
Dressings

Deli Bar

Assorted Cold Lean Roast Meats
Assorted Cheese Slices
Lettuce Pieces
Sliced Tomatoes
Carrot and Celery Sticks
Dill Pickles
Hoagie Rolls
Mixed Fruit
Condiments

Taco or Taco Salad Bar

Taco Shells and/or Pieces
Tortilla Shells
Beef, Pork, or Bean Taco Filling
Refried Beans
Spanish Rice
Shredded Lettuce
Chopped Tomatoes
Diced Green Chili Peppers
Chopped Onions
Taco Sauce
Shredded Cheddar or Process American Cheese

Nacho Bar

Taco Shell Pieces
Chili Con Carne With or Without Beans
Chopped Tomatoes
Chopped Onion
Diced Green Chili Peppers
Nacho Cheese Sauce
Shredded Cheddar or Process American Cheese

(Continued on back)

Ideas for Food Bar Service (Continued)

Oriental Salad Bar

Chicken Chunks
Shredded Lettuce
Tomato Wedges
Shredded Carrots
Sliced Celery
Bean Sprouts
Bamboo Shoots
Pineapple Chunks
Chow Mein Noodles
Dressings

Baked Potato Bar

Baked Potatoes
Chili Con Carne With or Without Beans
Barbecued Beef or Pork
Broccoli
Chopped Onion
Cheese Sauce
Shredded Cheddar or Process American Cheese
Chilled Peaches
Assorted Crackers
Condiments

Italian Bar

Turkey Ham Slices
Mozzarella Cheese Slices
Chopped Egg
Shredded Lettuce
Tomato Slices
Shredded Carrots
Cucumber Slices
Sliced Onions
Garbanzo Beans
Pasta Salad
Pita Bread
Bread Sticks or Hard Rolls
Nuts
Dried Fruit

Burrito Bar

Burritos
Chili Con Carne With or Without Beans
Chopped Tomatoes
Shredded Lettuce
Chopped Onion
Diced Green Chili Peppers
Cheese Sauce
Shredded Cheddar or Process American Cheese
Condiments

Carrot-Raisin Salad

Vegetable/Fruit **Salads and Salad Dressings E-4**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
*Carrots, coarsely shredded	2 lb 14 oz	3 qt	5 lb 12 oz	1½ gal		1. Place carrots and raisins in large bowl.
Raisins	1 lb 7 oz	1 qt ½ cup	2 lb 14 oz	2¼ qt		
Reconstituted nonfat dry milk		½ cup		1 cup		2. Combine milk, mayonnaise or salad dressing, salt, nutmeg (optional), and lemon juice (optional).
Mayonnaise or salad dressing	1 lb	2 cups	2 lb	1 qt		
Salt		½ tsp		1 tsp		
Ground nutmeg (optional)		½ tsp		1 tsp		
Reconstituted frozen lemon juice concentrate (optional)		2 Tbsp		¼ cup		
						3. Pour dressing over carrots and raisins. Mix lightly.
						4. Cover. Refrigerate for 1 to 1½ hours.
						5. Mix lightly before serving. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ¼ cup of vegetable and fruit.

YIELD: **50 servings:** about 3¼ quarts
100 servings: about 1 gallon 2½ quarts

***See marketing guide below.**

Nutrients Per Serving

Calories	116	Vitamin A	734 RE/7363 IU	Iron	0.4 mg
Protein	1 g	Vitamin C	2.9 mg	Calcium	18 mg
Carbohydrate	13 g	Thiamin	0.05 mg	Phosphorus	29 mg
Fat	7 g	Riboflavin	0.03 mg	Potassium	190 mg
Cholesterol	5 mg	Niacin	0.35 mg	Sodium	87 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Carrots	4 lb 2 oz	8 lb 4 oz	

Chicken or Turkey Salad

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
*Cooked chicken or turkey, chopped	6 lb 6 oz	1¼ gal	12 lb 12 oz	2½ gal		1. Combine chicken or turkey, celery, onions, pickle relish, pepper, and dry mustard. Add mayonnaise or salad dressing. Mix lightly until well blended.
*Celery, chopped	1 lb 5 oz	1¼ qt	2 lb 10 oz	2½ qt		
Dehydrated onions		¼ cup 2 Tbsp	3 oz	¾ cup 2 Tbsp		
OR	OR	OR	OR	OR		
*Fresh onions, chopped	12 oz	2 cups	1 lb 8 oz	1 qt		
Sweet pickle relish, undrained	15 oz	1¾ cups	1 lb 14 oz	3½ cups		
Black or white pepper		2 tsp		1 Tbsp 1 tsp		
Dry mustard		1 Tbsp 1½ tsp		3 Tbsp		
Mayonnaise or salad dressing	1 lb 9½ oz	3¼ cups	3 lb 3 oz	1 qt 2½ cups		
						2. Cover. Refrigerate until ready to serve.
						3. Portion with No. 8 scoop (½ cup).
						4. Serve on salad greens or in sandwiches.

SERVING: ½ cup (No. 8 scoop) provides 2 ounces of cooked poultry.

YIELD: **50 servings:** about 1¾ gallons
100 servings: about 3½ gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	223	Vitamin A	11 RE/93 IU	Iron	1.0 mg
Protein	16 g	Vitamin C	1.9 mg	Calcium	20 mg
Carbohydrate	5 g	Thiamin	0.04 mg	Phosphorus	99 mg
Fat	15 g	Riboflavin	0.10 mg	Potassium	176 mg
Cholesterol	57 mg	Niacin	3.60 mg	Sodium	194 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Chicken, whole, without neck and giblets	17 lb 12 oz	35 lb 8 oz	
OR	OR	OR	
Turkey, whole, without neck and giblets	13 lb 10 oz	27 lb 4 oz	
Celery	1 lb 9½ oz	3 lb 3 oz	
Mature onions	14 oz	1 lb 11½ oz	

Creamy Cole Slaw

Vegetable

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
*Cabbage, coarsely chopped	3 lb 8 oz	1 gal 2 cups	7 lb	2¼ gal		1. Place all vegetables in large bowl and toss lightly to mix.
*Carrots, finely shredded	11 oz	2¾ cups	1 lb 6 oz	1 qt 1¾ cups		
Dehydrated onions		¼ cup		½ cup		
OR		**OR**		**OR**		
*Fresh onions, finely chopped	7 oz	1 cup 2 Tbsp	14 oz	2¼ cups		
*Green pepper, chopped (optional)	2¾ oz	½ cup	5½ oz	1 cup		
Mayonnaise or salad dressing	1 lb 1½ oz	2¼ cups	2 lb 3½ oz	1 qt ½ cup		2. Combine mayonnaise or salad dressing, sugar, celery seed, dry mustard, and vinegar.
Sugar		2 Tbsp		¼ cup		
Celery seed		2 tsp		1 Tbsp 1 tsp		
Dry mustard		1 tsp		2 tsp		
Vinegar		2 Tbsp		¼ cup		
						3. Pour dressing over vegetables. Mix thoroughly.
						4. Cover. Refrigerate until ready to serve.
						5. Mix lightly before serving. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ¼ cup of vegetable.

YIELD: **50 servings:** about 3¼ quarts
100 servings: about 1 gallon 2½ quarts

*See marketing guide below.

Nutrients Per Serving

Calories	86	Vitamin A	180 RE/1823 IU	Iron	0.3 mg
Protein	1 g	Vitamin C	15.8 mg	Calcium	21 mg
Carbohydrate	3 g	Thiamin	0.02 mg	Phosphorus	15 mg
Fat	8 g	Riboflavin	0.01 mg	Potassium	108 mg
Cholesterol	6 mg	Niacin	0.16 mg	Sodium	65 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ____ Serving Recipe
Cabbage	4 lb 1 oz	8 lb 2 oz	
Carrots	1 lb	2 lb	
Mature onions	8 oz	1 lb	
Green peppers	3½ oz	6¾ oz	

Macaroni Salad

Bread Alternate

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Water		3 gal		6 gal		1. Heat water to rolling boil. Add salt.
Salt		2 Tbsp 2 tsp	3½ oz	⅓ cup		
Elbow macaroni	2 lb 10 oz	2¼ qt	5 lb 4 oz	1 gal 2 cups		2. Slowly add macaroni. Stir constantly, until water boils again. Cook for 10-12 minutes or until tender; stir occasionally. DO NOT OVERCOOK. Drain well.
Mayonnaise or salad dressing	1 lb 8 oz	3 cups	3 lb	1½ qt		3. Add mayonnaise or salad dressing. Mix.
*Carrots, shredded	8 oz	2 cups	1 lb	1 qt		4. Add carrots, celery, onions, pickle relish, and seasonings. Toss lightly.
*Celery, chopped	8 oz	2 cups	1 lb	3¾ cups		
*Fresh onions, chopped	4 oz	⅔ cup	8 oz	1⅓ cups		
Sweet pickle relish, undrained	4 oz	½ cup	8 oz	1 cup		
Black or white pepper		1 tsp		2 tsp		
Dry mustard		1 Tbsp		2 Tbsp		
Salt		1 tsp		2 tsp		
Paprika		1½ tsp		1 Tbsp		5. Garnish with paprika.
						6. Cover. Refrigerate until ready to serve.
						7. Portion with No. 8 scoop (½ cup).

SERVING: ½ cup (No. 8 scoop) provides 1 serving of bread alternate.

YIELD: **50 servings:** about 1½ gallons
100 servings: about 3 gallons

***See marketing guide on back.**

(Continued on back)

Macaroni Salad (Continued)

Variation

a. Macaroni and Ham Salad

50 servings: Follow steps 1-3. In step 4, use 3 lb 12 oz (2 qt 3½ cups) diced cooked ham. Continue with steps 5-7.

100 servings: Follow steps 1-3. In step 4, use 7 lb 8 oz (1 gal 1¾ qt) diced cooked ham. Continue with steps 5-7.

SERVING: ⅔ cup (No. 6 scoop) provides ¾ ounce of cooked lean meat and 1 serving of bread alternate.

Nutrients Per Serving

Calories	**179**	**Vitamin A**	**133 RE/1364 IU**	**Iron**	**0.8 mg**
Protein	**3 g**	**Vitamin C**	**1.1 mg**	**Calcium**	**14 mg**
Carbohydrate	**17 g**	**Thiamin**	**0.10 mg**	**Phosphorus**	**43 mg**
Fat	**11 g**	**Riboflavin**	**0.06 mg**	**Potassium**	**84 mg**
Cholesterol	**8 mg**	**Niacin**	**0.81 mg**	**Sodium**	**339 mg**

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Carrots	11½ oz	1 lb 7 oz	
Celery	9¾ oz	1 lb 3½ oz	
Mature onions	4½ oz.	9 oz.	

Pasta Salad

Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Water	.....	1¼ gal	.....	2½ gal	.....	1. Heat water to rolling boil. Add salt.
Salt	.....	2 Tbsp	.....	¼ cup	.....	
Pasta spirals or shells	1 lb 8 oz	2 qt	3 lb	1 gal	.....	2. Slowly add pasta spirals or shells while stirring constantly until water boils again. Cook for 8-10 minutes. DO NOT OVERCOOK. Drain well.
Frozen mixed vegetables, thawed and drained	2 lb	1¼ qt	4 lb	2½ qt	.....	3. Add mixed vegetables, broccoli, and pepper. Shake dressing. Pour over pasta and vegetables. Toss lightly to combine and coat evenly.
OR	**OR**	**OR**	**OR**	**OR**		
Canned mixed vegetables, drained	1 lb 10 oz	1 qt ½ cup	3 lb 5 oz	¾ No. 10 can	.....	
Frozen chopped broccoli, thawed and drained	1 lb 6 oz	3¼ cups	2 lb 12 oz	1 qt 2¾ cups	.....	
Black or white pepper	.....	1 tsp	.....	2 tsp	.....	
Italian Dressing (see E-15)	.....	2 cups	.....	1 qt	.....	
						4. Cover. Refrigerate until ready to serve.
						5. Mix lightly before serving.
						6. Portion with No. 10 scoop (⅜ cup).

SERVING: ⅜ cup (No. 10 scoop) provides ⅛ cup of vegetable and ½ serving of bread alternate.

YIELD: **50 servings:** about 1¼ gallons
100 servings: about 2½ gallons

Nutrients Per Serving

Calories	113	Vitamin A	118 RE/1181 IU	Iron	0.6 mg
Protein	2 g	Vitamin C	9.4 mg	Calcium	17 mg
Carbohydrate	11 g	Thiamin	0.06 mg	Phosphorus	35 mg
Fat	7 g	Riboflavin	0.04 mg	Potassium	91 mg
Cholesterol	0 mg	Niacin	0.66 mg	Sodium	330 mg

Potato Salad

Vegetable

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Potatoes, as purchased	9 lb		18 lb			1. Steam potatoes at 5-6 pounds of pressure for 30-45 minutes, or boil for 30-40 minutes. Cool, peel, and dice into ½" cubes.
*Celery, chopped	1 lb	3¾ cups	2 lb	1 qt 3½ cups		2. Add all other ingredients. Mix lightly until well blended. Chill at least 1 hour before serving.
*Fresh onions, finely chopped	7 oz	1 cup 2 Tbsp	14 oz	2¼ cups		
Sweet pickle relish, undrained	6 oz	⅔ cup	12 oz	1⅓ cups		
Large eggs, hard-cooked, chopped (optional)	1 lb 5 oz	12	2 lb 10 oz	24		
Mayonnaise or salad dressing	1 lb 8 oz	3 cups	3 lb	1½ qt		
Salt		1 Tbsp		2 Tbsp		
Black or white pepper		1 tsp		2 tsp		
Dry mustard		1 Tbsp		2 Tbsp		
						3. Portion with No. 8 scoop (½ cup).

SERVING: ½ cup (No. 8 scoop) provides ½ cup of vegetable.

YIELD: **50 servings:** about 1½ gallons
100 servings: about 3 gallons

*See marketing guide below.

Nutrients Per Serving

Calories	165	Vitamin A	2 RE/53 IU	Iron	0.4 mg
Protein	2 g	Vitamin C	9.9 mg	Calcium	13 mg
Carbohydrate	16 g	Thiamin	0.08 mg	Phosphorus	39 mg
Fat	11 g	Riboflavin	0.02 mg	Potassium	302 mg
Cholesterol	8 mg	Niacin	1.02 mg	Sodium	254 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ____ Serving Recipe
Celery	1 lb 3½ oz	2 lb 7 oz	
Mature onions	8 oz	1 lb	

Taco Salad

Meat/Meat Alternate-Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	6 lb 7 oz		12 lb 14 oz			1. Brown ground beef. Drain.
Dehydrated onions		¼ cup 2 tsp	2 oz	½ cup 1 Tbsp		2. Add onions, garlic powder, pepper, tomato paste, water, and seasonings. Blend well. Bring to boil. Reduce heat. Simmer for 25-30 minutes.
OR		**OR**	**OR**			
*Fresh onions, chopped	5 oz	¾ cup 2 Tbsp	10 oz	1⅔ cups		
Garlic powder		1 Tbsp 1½ tsp		3 Tbsp		
Black pepper		2 tsp		1 Tbsp 1 tsp		
Tomato paste	14 oz	1½ cups	1 lb 12 oz	¼ No. 10 can		
Water		1 qt		2 qt		
†Seasonings						
Chili powder		2 Tbsp		¼ cup		
Ground cumin		1 Tbsp 1½ tsp		3 Tbsp		
Paprika		1½ tsp		1 Tbsp		
Onion powder		1½ tsp		1 Tbsp		
*Lettuce, shredded	4 lb	2 gal	8 lb	4 gal		3. Combine lettuce and tomatoes. Toss lightly.
*Tomatoes, chopped	1 lb 12 oz	1 qt ½ cup	3 lb 8 oz	2¼ qt		
Taco shell pieces	2 lb 6 oz	1 gal 2¼ qt	4 lb 11 oz	3¼ gal		4. Serving suggestions:
OR	**OR**	**OR**	**OR**	**OR**		A. Assemble each salad as follows, or in preferred order:
Tostada shells (0.7 oz each)	2 lb 3 oz	50	4 lb 6 oz	100		1st layer: about ¾ oz (½ cup) taco shell pieces or 1 tostada shell
Cheddar cheese, shredded	1 lb 10 oz	1 qt 3½ cups	3 lb 4 oz	3¾ qt		2nd layer: 1¾ oz (¾ cup) lettuce and tomato mixture
						3rd layer: No. 16 scoop (¼ cup) meat mixture
						4th layer: ½ oz (2 Tbsp 1 tsp) shredded cheese
						OR

*See marketing guide on back.

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix. For 100 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix.

(Continued on back)

Taco Salad (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						B. (1) Preportion 1¾ oz (¾ cup) lettuce and tomato mixture and ½ oz (2 Tbsp 1 tsp) shredded cheese into individual souffle cups. Refrigerate until service. (2) Transfer meat mixture and taco shell pieces or tostada shells into steamtable pans. On each student tray, serve ¾ oz (½ cup) taco shell pieces or 1 tostada shell. Top with No. 16 scoop (¼ cup) meat mixture. Add 1 preportioned souffle cup of lettuce and tomato mixture and 1 preportioned souffle cup of shredded cheese. Instruct students to "build their own taco salad."
						5. If desired, serve with taco sauce.

SERVING: 1 salad provides the equivalent of 2 ounces of cooked lean meat, ¾ cup of vegetable, and 1 serving of bread alternate.

YIELD: **50 servings:** 50 salads
100 servings: 100 salads

Nutrients Per Serving

Calories	232	Vitamin A	70 RE/719 IU	Iron	3.1 mg
Protein	13 g	Vitamin C	8.0 mg	Calcium	57 mg
Carbohydrate	18 g	Thiamin	0.28 mg	Phosphorus	145 mg
Fat	12 g	Riboflavin	0.27 mg	Potassium	380 mg
Cholesterol	37 mg	Niacin	4.31 mg	Sodium	82 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	5¾ oz	11½ oz	
Head lettuce	5 lb 6 oz	10 lb 10 oz	
Tomatoes	1 lb 12½ oz	3 lb 9 oz	

Three Bean Salad

Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned kidney beans, drained	1 lb 2 oz	¼ No. 10 can	2 lb 4 oz	½ No. 10 can		1. Rinse kidney beans in cold water and drain well.
Canned wax beans, drained	15 oz	¼ No. 10 can	1 lb 14 oz	½ No. 10 can		2. Combine kidney beans, wax beans, green beans, onions, and green pepper (optional).
Canned cut green beans, drained	2 lb 5½ oz	1 qt 3½ cups	4 lb 11 oz	1¼ No. 10 cans		
*Fresh white or red onions, chopped	3 oz	½ cup	6 oz	1 cup		
OR		OR		OR		
Dehydrated onions		1 Tbsp 1½ tsp		3 Tbsp		
*Green pepper, chopped (optional)	6½ oz	1¼ cups	13 oz	2½ cups		
Vegetable oil		⅔ cup		1⅓ cups		3. Combine vegetable oil, vinegar, sugar, basil, pepper, and garlic powder. Mix until well blended.
Vinegar		⅔ cup		1⅓ cups		
Sugar	2¼ oz	⅓ cup	4½ oz	⅔ cup		
Flaked basil		1 Tbsp		2 Tbsp		
Black or white pepper		1 tsp		2 tsp		
Garlic powder		1 tsp		2 tsp		
						4. Pour dressing over beans. Toss lightly to combine and coat evenly. Cover. Refrigerate until ready to serve. For best results, refrigerate overnight to develop flavor.
						5. Mix lightly before serving.
						6. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ¼ cup of vegetable.

YIELD: **50 servings:** about 3¼ quarts
100 servings: about 1 gallon 2½ quarts

***See marketing guide below.**

Nutrients Per Serving

Calories	50	Vitamin A	11 RE/109 IU	Iron	0.6 mg
Protein	1 g	Vitamin C	1.6 mg	Calcium	13 mg
Carbohydrate	5 g	Thiamin	0.02 mg	Phosphorus	21 mg
Fat	3 g	Riboflavin	0.02 mg	Potassium	76 mg
Cholesterol	0 mg	Niacin	0.14 mg	Sodium	75 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	3½ oz	7 oz	
Green pepper	8¼ oz	1 lb ½ oz	

Waldorf Fruit Salad

Fruit **Salads and Salad Dressings E-12**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
*Apples, cored, unpeeled, diced	2 lb 2 oz	2¼ qt	4 lb 4 oz	1 gal 2 cups		1. Sprinkle apples with lemon juice to prevent discoloration.
Reconstituted frozen lemon juice concentrate		¼ cup		½ cup		
Canned mixed fruit, drained	3 lb 4 oz	¾ No. 10 can	6 lb 8 oz	1½ No. 10 cans		2. Combine apples, mixed fruit, celery (optional), raisins (optional), mayonnaise or salad dressing, and nutmeg (optional). Mix lightly to combine.
*Celery, chopped (optional)	7½ oz	1¾ cups	15 oz	3½ cups		
Raisins (optional)	10 oz	2 cups	1 lb 4 oz	1 qt		
Mayonnaise or salad dressing	6 oz	¾ cup	12 oz	1½ cups		
Ground nutmeg (optional)		½ tsp		1 tsp		
						3. Cover. Refrigerate until ready to serve.
Chopped walnuts	8½ oz	2 cups	1 lb 1 oz	1 qt		4. Add nuts before service. Toss lightly. For best results, use same day.
						5. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ¼ cup of fruit.

YIELD: **50 servings:** about 3½ quarts
100 servings: about 1¾ gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	84	Vitamin A	8 RE/87 IU	Iron	0.3 mg
Protein	1 g	Vitamin C	2.2 mg	Calcium	8 mg
Carbohydrate	8 g	Thiamin	0.03 mg	Phosphorus	21 mg
Fat	6 g	Riboflavin	0.02 mg	Potassium	75 mg
Cholesterol	2 mg	Niacin	1.18 mg	Sodium	22 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Apples	2 lb 5½ oz	4 lb 11 oz	
Celery	9¼ oz	1 lb 2½ oz	

Creamy Dip for Fresh Vegetables

Ingredients	1 Quart		1 Gallon		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Plain lowfat yogurt	8¾ oz	1 cup	2 lb 3 oz	1 qt		1. Combine all ingredients. Blend well.
Mayonnaise or salad dressing	1 lb 3½ oz	2½ cups	4 lb 15 oz	2½ qt		
Reconstituted nonfat dry milk		½ cup		2 cups		
Parsley flakes		2 Tbsp		½ cup		
Garlic powder		¾ tsp		1 Tbsp		
Onion powder		¾ tsp		1 Tbsp		
Salt		1½ tsp		2 Tbsp		
Black or white pepper		½ tsp		2 tsp		
						2. Cover. Refrigerate until ready to serve. For best results, refrigerate overnight to develop flavor.
						3. Serve with raw vegetables or tossed green salads.

SERVING: 2 tablespoons (1-ounce ladle).

YIELD: **1 quart:** about 32 1-ounce servings
1 gallon: about 128 1-ounce servings

Nutrients Per Serving

Calories	132	Vitamin A	4 RE/73 IU	Iron	0.2 mg
Protein	1 g	Vitamin C	0.2 mg	Calcium	24 mg
Carbohydrate	1 g	Thiamin	0.01 mg	Phosphorus	21 mg
Fat	14 g	Riboflavin	0.02 mg	Potassium	36 mg
Cholesterol	11 mg	Niacin	0.02 mg	Sodium	218 mg

French Dressing

Ingredients	1 Quart		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Sugar	.....	2 Tbsp	4 oz	½ cup 1 Tbsp	.....	1. Mix sugar, salt, dry mustard, and paprika.
Salt	.....	1 tsp	.....	1 Tbsp 1 tsp	.....	
Dry mustard	.....	1½ tsp	.....	2 Tbsp	.....	
Paprika	.....	1½ tsp	.....	2 Tbsp	.....	
Dehydrated onions	.....	1 Tbsp	.....	¼ cup	.....	2. Add onions.
Vegetable oil	.....	2¼ cups	.....	2¼ qt	.....	3. Blend in oil, lemon juice, vinegar, and catsup in mixer at medium speed for 3 minutes.
Reconstituted frozen lemon juice concentrate	.....	½ cup	.....	2 cups	.....	
Vinegar	.....	½ cup 2 Tbsp	.....	2½ cups	.....	
Catsup	5 oz	½ cup	1 lb 4 oz	2 cups	.....	
						4. Cover. Refrigerate until ready to serve. For best results, refrigerate overnight to develop flavor.
						5. Stir or shake well before serving.

SERVING: 2 tablespoons (1-ounce ladle).

YIELD: **1 quart:** about 32 1-ounce servings
1 gallon: about 128 1-ounce servings

Variation

a. Honey French Dressing

Quart: In step 1, omit sugar. Use 2 Tbsp honey. Continue with steps 2-5.

Gallon: In step 1, omit sugar. Use ½ cup 1 Tbsp honey. Continue with steps 2-5.

Nutrients Per Serving

Calories	146	Vitamin A	13 RE/128 IU	Iron	0.1 mg
Protein	Tr	Vitamin C	2.1 mg	Calcium	3 mg
Carbohydrate	3 g	Thiamin	0.01 mg	Phosphorus	5 mg
Fat	15 g	Riboflavin	0.01 mg	Potassium	30 mg
Cholesterol	0 mg	Niacin	0.10 mg	Sodium	120 mg

Italian Dressing

Ingredients	1 Quart		1 Gallon		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Vegetable oil		3 cups		3 qt		1. Combine all ingredients in mixer bowl.
Reconstituted frozen lemon juice concentrate		½ cup		2 cups		
Vinegar		½ cup		2 cups		
Sugar		1 Tbsp		¼ cup		
Salt		1½ tsp		2 Tbsp		
Garlic powder		¾ tsp		1 Tbsp		
Dehydrated onions		2 Tbsp		½ cup		
†Seasonings						
Flaked basil		1 tsp		1 Tbsp 1 tsp		
Flaked oregano		1 tsp		1 Tbsp 1 tsp		
Flaked marjoram		¾ tsp		1 Tbsp		
Flaked thyme		¼ tsp		1 tsp		
						2. Blend in mixer at medium speed for 3 minutes.
						3. Cover. Refrigerate until ready to serve. For best results, refrigerate overnight to develop flavor.
						4. Stir or shake well before serving.

SERVING: 2 tablespoons (1-ounce ladle).

YIELD: **1 quart:** about 32 1-ounce servings
1 gallon: about 128 1-ounce servings

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 1 qt, use 1 Tbsp Italian Seasoning Mix. For 1 gal, use ¼ cup Italian Seasoning Mix.

Nutrients Per Serving

Calories	185	Vitamin A	1 RE/6 IU	Iron	0.1 mg
Protein	Tr	Vitamin C	1.5 mg	Calcium	3 mg
Carbohydrate	1 g	Thiamin	Tr	Phosphorus	2 mg
Fat	20 g	Riboflavin	Tr	Potassium	14 mg
Cholesterol	0 mg	Niacin	0.01 mg	Sodium	111 mg

Thousand Island Dressing

Ingredients	1 Quart		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Mayonnaise or salad dressing	1 lb 5½ oz	2¾ cups	5 lb 6 oz	2¾ qt		1. Combine mayonnaise or salad dressing and catsup. Blend well.
Catsup	8¼ oz	¾ cup 1 Tbsp	2 lb ½ oz	3¼ cups		
Sweet pickle relish, undrained	2¼ oz	¼ cup	8¾ oz	1 cup		2. Add pickle relish, onions, chopped eggs (optional), and pimientos (optional). Mix well.
Dehydrated onions		1½ tsp		2 Tbsp		
Large eggs, hard-cooked, finely chopped (optional)	3½ oz	2	14¼ oz	8		
Pimientos, chopped (optional)		2 Tbsp	4 oz	½ cup		
						3. Cover. Refrigerate until ready to serve. For best results, refrigerate overnight to develop flavor.
						4. Stir or shake well before serving.

SERVING: 2 tablespoons (1-ounce ladle).

YIELD: **1 quart:** about 32 1-ounce servings
1 gallon: about 128 1-ounce servings

Nutrients Per Serving

Calories	147	Vitamin A	10 RE/156 IU	Iron	0.2 mg
Protein	Tr	Vitamin C	1 mg	Calcium	6 mg
Carbohydrate	3 g	Thiamin	0.01 mg	Phosphorus	9 mg
Fat	15 g	Riboflavin	0.01 mg	Potassium	38 mg
Cholesterol	11 mg	Niacin	0.12 mg	Sodium	197 mg

Sandwiches

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Sandwich Making

Below is a method to make a large number of sandwiches in a short amount of time. Sandwich makers may adapt the technique to meet the needs of each individual school food service.

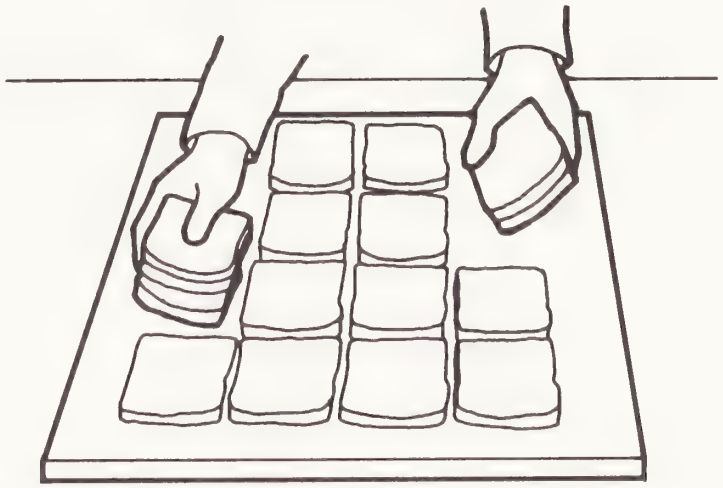
Have Ready Within Easy Reach

Tools: Serrated knife
Spatula
Scoop (size according to recipe portioning instructions)
Plastic wrap
Disposable plastic gloves
Storage tray or bins
Cutting surface

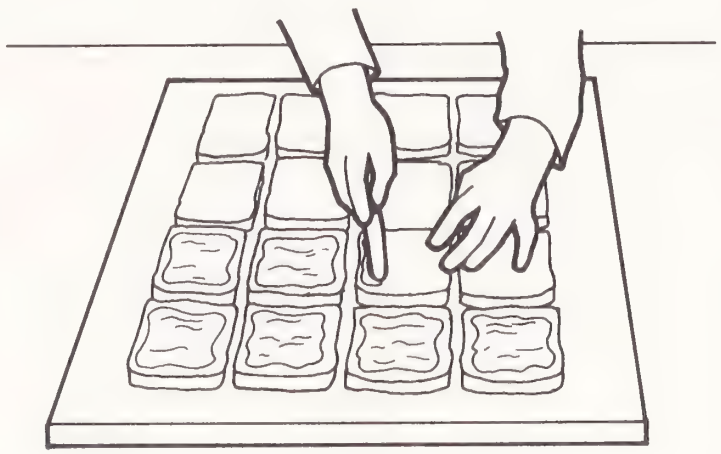
Foods: Loaves of sliced bread
Sandwich spread (optional): Mayonnaise, mustard, spreadable butter or margarine
Sandwich filling(s): Sliced meat, sliced cheese, peanut butter; or prepared fillings such as tuna salad, egg salad, or chicken or turkey salad
Lettuce, sliced tomatoes, etc., as desired, rinsed and drained

Procedure

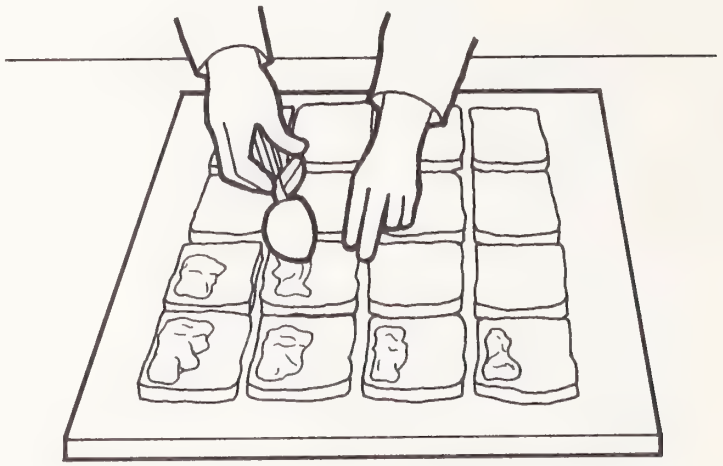
1. If desired, freeze bread a day ahead. Working with frozen bread allows easier spreading of fillings that tend to tear fresh bread.
2. Make prepared fillings only in the amount that will be used during one serving period. Refrigerate prepared fillings until sandwiches are to be made.
3. Pick up four slices of bread in each hand. Lay them out in a single row and repeat, making a square of 4x4 (16 slices).



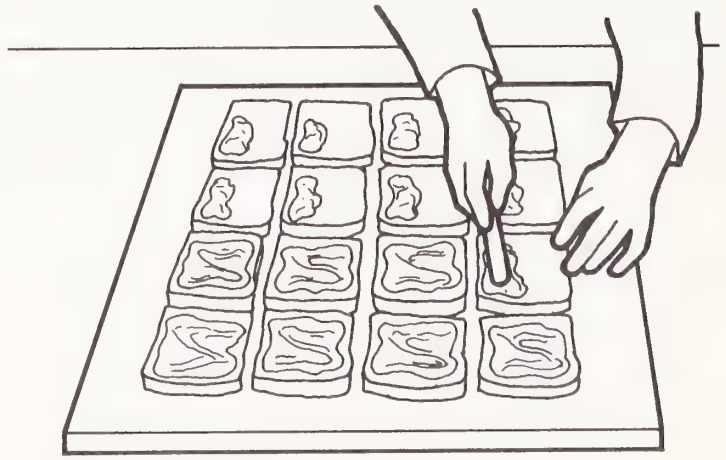
4. Dip spatula in sandwich spread (optional). Spread from right to left, covering each slice of bread.



5. Dip scoop in filling and level against the edge of the container. Place filling to the upper right of the center on each slice of bread.



With spatula, spread filling to upper left then lower right, then down to lower left, using an "S" motion.

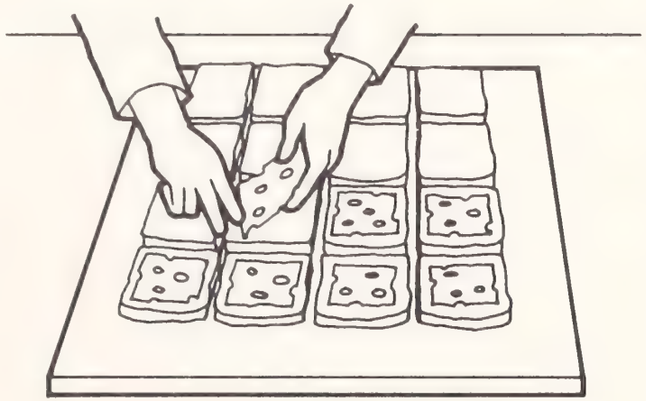


OR

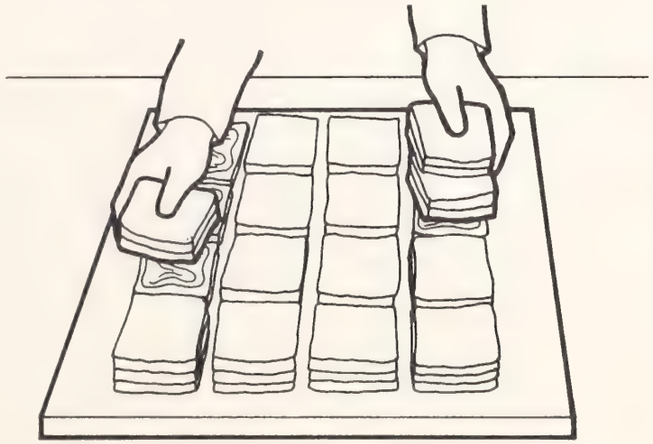
(Continued on back)

Sandwich Making (Continued)

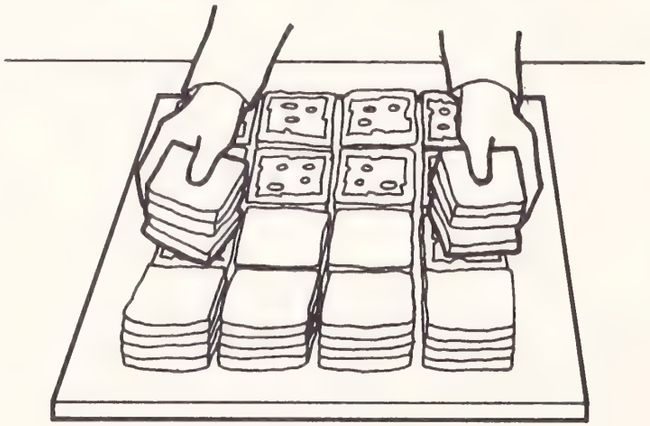
Lay slices of each sandwich filling (meat, cheese, or lettuce) on the bread. (Presliced fillings should be cross-stacked so that edges can be picked up quickly.) Add lettuce, tomatoes, etc., as desired.



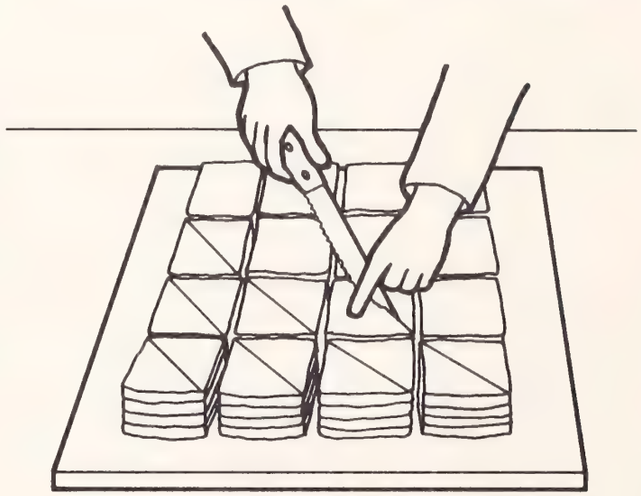
6. For second layer, pick up four slices of bread in each hand, and place **two** slices on each filled slice. The second slice forms the bottom of the next layer.



7. Repeat steps 4, 5, and 6. (It is recommended that no more than three layers of sandwiches be stacked as the weight tends to crush the bottom layer if stacked higher.) Top final layer of filled sandwiches with slices of bread.



8. Cut through entire stack of sandwiches diagonally, starting in upper left corner. Use thumb and forefinger to steady sandwiches. Use a serrated knife with a sawing motion. Wrap sandwiches individually or place on storage trays. Keep covered and airtight. Refrigerate. Serve the same day as prepared.



NOTE: Wear disposable plastic gloves when preparing or handling sandwiches. Handle bread and fillings as little as possible during preparation.

Barbecued Beef or Pork on Roll (Using Canned Meats)

Meat-Vegetable-Bread Sandwiches F-2

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Dehydrated onions		¼ cup		½ cup		1. Combine onions, celery, garlic powder, catsup, tomato paste, vinegar, brown sugar, dry mustard, pepper, and cayenne. Bring to boil. Reduce heat and simmer, uncovered, for 10-15 minutes, stirring frequently.
OR		OR		OR		
*Fresh onions, chopped	7 oz	1 cup 2 Tbsp	14 oz	2¼ cups		
*Celery, chopped	4¼ oz	1 cup	8½ oz	2 cups		
Garlic powder		1½ tsp		1 Tbsp		
Catsup	2 lb 11 oz	1 qt ¼ cup	5 lb 6 oz	¾ No. 10 can		
Tomato paste	12 oz	1¼ cups	1 lb 8 oz	2½ cups		
Vinegar		1 cup		2 cups		
Brown sugar, packed		¼ cup	3¾ oz	½ cup		
Dry mustard		3 Tbsp		¼ cup 2 Tbsp		
Black pepper		1½ tsp		1 Tbsp		
Cayenne		½ tsp		1 tsp		
Beef, canned with natural juices	13 lb 2 oz	7¼ No. 2½ cans	26 lb 4 oz	14½ No. 2½ cans		2. Remove fat from canned beef or pork, reserving juices. Add beef or pork, with juices, to sauce and stir. Bring to boil. Reduce heat. Simmer, uncovered, until heated through, 20-30 minutes. Stir occasionally.
OR	OR	OR	OR	OR		
Pork, canned with natural juices	13 lb 2 oz	7¼ No. 2½ cans	26 lb 4 oz	14½ No. 2½ cans		
						3. Pour meat mixture into serving pans.
Hamburger rolls		50		100		4. Portion with level No. 8 scoop (½ cup) onto bottom half of each roll. Top with other half of roll.

SERVING: 1 sandwich provides 2 ounces of cooked lean meat, ⅛ cup of vegetable, and 2 servings of bread.

YIELD: **50 servings:** about 1 gal 2½ quarts
100 servings: about 3¼ gallons

***See marketing guide on back.**

(Continued on back)

Barbecued Beef or Pork on Roll (Continued)

Variation

a. Barbecued Chicken or Turkey on Roll

50 servings: In step 1, add 1 qt chicken or turkey stock. In step 2, omit beef or pork. Use 6 lb 8 oz (1¼ gal) cooked chopped chicken or cooked chopped turkey. Cover mixture while simmering. Continue with steps 3 and 4.

100 servings: In step 1, add 2 qt chicken or turkey stock. In step 2, omit beef or pork. Use 13 lb (2½ gal) cooked chopped chicken or cooked chopped turkey. Cover mixture while simmering. Continue with steps 3 and 4.

Nutrients Per Serving

Calories	**356**	**Vitamin A**	**52 RE/515 IU**	**Iron**	**4.2 mg**
Protein	**33 g**	**Vitamin C**	**6.8 mg**	**Calcium**	**73 mg**
Carbohydrate	**40 g**	**Thiamin**	**0.28 mg**	**Phosphorus**	**198 mg**
Fat	**7 g**	**Riboflavin**	**0.42 mg**	**Potassium**	**514 mg**
Cholesterol	**102 mg**	**Niacin**	**6.60 mg**	**Sodium**	**948 mg**

Marketing Guide for Selected Items

Barbecued Beef or Pork on Roll

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	8 oz	1 lb	
Celery	5¼ oz	10½ oz	

Barbecued Chicken or Turkey on Roll

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	8 oz	1 lb	
Celery	5¼ oz	10½ oz	
Chicken, whole, without neck and giblets	18 lb 2 oz	36 lb 2 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	13 lb 14 oz	27 lb 12 oz	

Egg Salad Sandwich

Meat Alternate-Bread

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Large eggs, hard-cooked, chilled	5 lb 9 oz	50	11 lb 2 oz	100		1. Finely chop eggs.
Dehydrated onions OR *Fresh onions, chopped *Celery, chopped Black or white pepper Dry mustard Mayonnaise or salad dressing Sweet pickle relish, undrained	 8 oz 14½ oz 14 oz 8½ oz	¼ cup OR 1⅓ cups 3½ cups 1½ tsp 1½ tsp 1¾ cups 1 cup	 1 lb 1 lb 13 oz 1 lb 12 oz 1 lb 1 oz	½ cup OR 2¾ cups 1¾ qt 1 Tbsp 1 Tbsp 3½ cups 2 cups		2. Combine eggs, onions, celery, pepper, dry mustard, mayonnaise or salad dressing, and pickle relish. Mix lightly until well blended.
						3. Cover. Refrigerate until ready to use.
*Bread		100 slices		200 slices		4. Portion with No. 12 scoop (⅓ cup) on 1 slice of bread. Top with second slice of bread. Cut each sandwich diagonally in half. Cover. Refrigerate until ready to serve.

SERVING: 1 sandwich provides 1 large egg and 2 servings of bread.

YIELD: **50 servings:** about 1 gallon
100 servings: about 2 gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	281	Vitamin A	80 RE/300 IU	Iron	2.5 mg
Protein	11 g	Vitamin C	1.0 mg	Calcium	77 mg
Carbohydrate	28 g	Thiamin	0.24 mg	Phosphorus	146 mg
Fat	14 g	Riboflavin	0.26 mg	Potassium	158 mg
Cholesterol	283 mg	Niacin	1.72 mg	Sodium	410 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	9¼ oz	1 lb 2½ oz	
Celery	1 lb 1½ oz	2 lb 3 oz	
Bread, sliced	3¼ sandwich loaves (2 lb each)	6½ sandwich loaves (2 lb each)	

Pizzaburger on Roll

Meat/Meat Alternate-Vegetable-Bread

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	6 lb 8 oz		13 lb			1. Brown ground beef. Drain.
Dehydrated onions	2 oz	½ cup 1 Tbsp	4 oz	1 cup 2 Tbsp		2. Add onions, garlic powder, pepper, tomato paste, water, and seasonings. Mix. Simmer for 15 minutes.
OR	OR	OR	OR	OR		
*Fresh onions, chopped	1 lb	2¾ cups	2 lb	1 qt 1¼ cups		
Garlic powder		2¼ tsp		1 Tbsp 1½ tsp		
Black pepper		1 tsp		2 tsp		
Tomato paste	1 lb 12 oz	¼ No. 10 can	3 lb 8 oz	½ No. 10 can		
Water		2 qt		1 gal		
†Seasonings						
Flaked basil		3 Tbsp		¼ cup 2 Tbsp		
Flaked oregano		3 Tbsp		¼ cup 2 Tbsp		
Flaked marjoram		2 Tbsp 1½ tsp		¼ cup 1 Tbsp		
Flaked thyme		1½ tsp		1 Tbsp		
Hamburger rolls		50		100		3. Place split rolls on sheet pan (18″x26″x1″), 25 halves per pan. For 50 servings, use 4 sheet pans. For 100 servings, use 8 sheet pans.
Mozzarella cheese, shredded	1 lb 9 oz	1 qt 2¼ cups	3 lb 2 oz	3 qt ½ cup		4. Portion meat mixture with No. 24 scoop (2⅔ Tbsp) onto each roll half. Top each half with ¼ oz (1 Tbsp) shredded cheese.

***See marketing guide on back.**

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ½ cup 1 Tbsp Italian Seasoning Mix. For 100 servings, use 1 cup 2 Tbsp Italian Seasoning Mix.

(Continued on back)

Pizzaburger on Roll (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						5. Bake until heated through and cheese is melted: Conventional oven: 400 °F for 8 minutes Convection oven: 350 °F for 6 minutes
						6. Serve 2 open-faced halves per serving or, if preferred, serve as a closed sandwich.

SERVING: 1 sandwich (2 halves) provides the equivalent of 2 ounces of cooked lean meat, ¼ cup of vegetable, and 2 servings of bread.

YIELD: **50 servings:** 50 sandwiches
100 servings: 100 sandwiches

Nutrients Per Serving

Calories	348	Vitamin A	67 RE/486 IU	Iron	2.8 mg
Protein	19 g	Vitamin C	7.1 mg	Calcium	153 mg
Carbohydrate	35 g	Thiamin	0.28 mg	Phosphorus	213 mg
Fat	14 g	Riboflavin	0.31 mg	Potassium	375 mg
Cholesterol	49 mg	Niacin	4.71 mg	Sodium	398 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 2½ oz . .	2 lb 4½ oz . .	. . . . .

Sloppy Joe on Roll

Meat-Vegetable-Bread

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Raw ground beef (no more than 24% fat)	8 lb 10 oz.		17 lb 4 oz.			1. Brown ground beef. Drain.
Dehydrated onions		⅓ cup	2¼ oz.	⅔ cup		2. Add onions and garlic powder. Cook for 5 minutes. Add tomato paste, catsup, water, vinegar, dry mustard, pepper, and brown sugar. Mix well and simmer for 25-30 minutes.
OR		OR	OR	OR		
*Fresh onions, chopped	9 oz	1½ cups	1 lb 2 oz.	3 cups		
Garlic powder		1 Tbsp		2 Tbsp		
Tomato paste	1 lb 12 oz.	¼ No. 10 can	3 lb 8 oz.	½ No. 10 can		
Catsup	1 lb 13 oz.	¼ No. 10 can	3 lb 9 oz.	½ No. 10 can		
Water		1 qt 1¾ cups		2 qt 3½ cups		
Vinegar		1 cup 2 Tbsp		2¼ cups		
Dry mustard		2 Tbsp		¼ cup		
Black pepper		1 tsp		2 tsp		
Brown sugar, packed	2¾ oz	¼ cup 2 Tbsp	5½ oz	¾ cup		
						3. Pour ground beef mixture into serving pans.
Hamburger rolls		50		100		4. Portion with No. 12 scoop (⅓ cup) onto bottom half of each roll. Cover with top half of roll.

SERVING: 1 sandwich provides 2 ounces of cooked lean meat, ¼ cup of vegetable, and 2 servings of bread.

YIELD: **50 servings:** about 1¼ gallons
100 servings: about 2½ gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	375	Vitamin A	62 RE/599 IU	Iron	3.1 mg
Protein	20 g	Vitamin C	9.2 mg	Calcium	60 mg
Carbohydrate	40 g	Thiamin	0.30 mg	Phosphorus	182 mg
Fat	15 g	Riboflavin	0.31 mg	Potassium	462 mg
Cholesterol	53 mg	Niacin	5.71 mg	Sodium	512 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	10½ oz.	1 lb 4½ oz.	

Stromboli

Meat/Meat Alternate-Bread

Ingredients			100 Servings		For ____ Servings	Directions
			Weight	Measure		
						For best results, have all ingredients and utensils at room temperature.
Active dry yeast (see note)	.....	.....	.....	¼ cup 2 tsp ..	.....	
Water, warm (110 °F)	.....	.....	.....	1½ qt	.....	1. Dissolve dry yeast in warm water. Let stand for 4-5 minutes.
All-purpose or bread flour	.....	.....	5 lb 4 oz...	4¾ qt	.....	2. Place flour in mixer bowl. Make well in the center.
Vegetable oil.....	.....	.....	.....	½ cup.....	.....	3. Pour in dissolved yeast, oil, salt, and sugar. Gradually work into the flour using dough hook on low speed. Knead for 15 minutes on medium speed.
Salt	.....	.....	.....	2 tsp	.....	
Sugar.....	.....	.....	.....	3 Tbsp 2 tsp .	.....	
						4. Divide and shape dough into 5 balls, 1 lb 12 oz each. Let rest for 20 minutes.
†Seasonings						5. Combine seasonings in small bowl.
Flaked basil.....	.....	.....	.....	2½ tsp	.....	
Flaked oregano.....	.....	.....	.....	2 tsp	.....	
Flaked marjoram.....	.....	.....	.....	½ tsp	.....	
Flaked thyme	.....	.....	.....	⅛ tsp	.....	
						6. On lightly floured surface, roll out each ball of dough into a rectangle 16″ wide and 24″ long.
Mozzarella cheese, sliced .	.....	.....	6 lb 4 oz...	.....	.....	7. Layer ingredients lengthwise along the center of the dough rectangle as follows. Leave 6″ border across the top and bottom of dough for folding over in steps 8 and 9 (see diagram).
Turkey ham, sliced	.....	.....	9 lb	.....	.....	1st layer—10 oz cheese 2nd layer—approximately ½ tsp seasoning mix 3rd layer—14½ oz turkey ham slices.

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 100 servings, use 1 Tbsp 2⅛ tsp Italian Seasoning Mix.

(Continued on back)

Stromboli (Continued)

Ingredients		100 Servings		For ____ Servings	Directions
		Weight	Measure		
					8. Fold top third of dough over cheese and turkey ham. Place another layer of cheese, seasonings, and turkey ham on top of folded dough as follows: 1st layer—10 oz cheese 2nd layer—approximately ½ tsp seasoning mix 3rd layer—14½ oz turkey ham.
					9. Fold bottom third of dough over the second layer of cheese and turkey ham. Pinch to seal end and top seams. (If desired, brush seams with egg wash.)
					10. Using a fork, pierce top of dough lengthwise from end to end, repeating 4 rows across.
					11. Place rolled dough on lightly oiled sheet pan (18″x26″1″). Two strombolis can be placed on each sheet pan.
					12. Allow rolled stromboli to rise for 30 minutes.
					13. Bake until crust is lightly browned: Conventional oven: 400 °F for 30-35 minutes Convection oven: 350 °F for 25-30 minutes
					14. Remove from oven. Let stand for 15 minutes before cutting, to prevent cheese from running.
					15. Cut each stromboli lengthwise down the middle and crosswise 10 times into 20 portions.

SERVING: 1 piece provides the equivalent of 2 ounces of cooked lean meat and 1½ servings of bread.

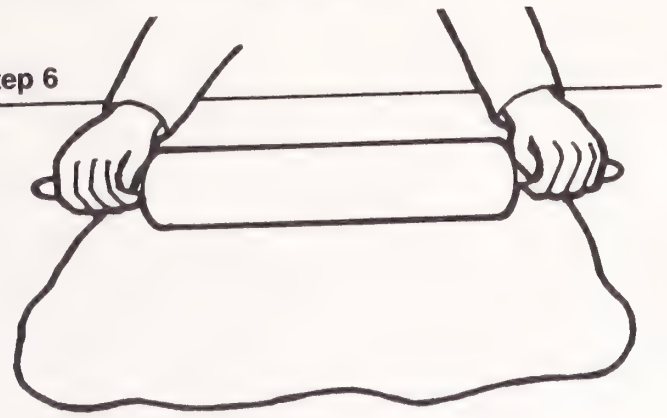
YIELD: **100 servings:** 5 stromboli rolls, 20 pieces each

(Continued)

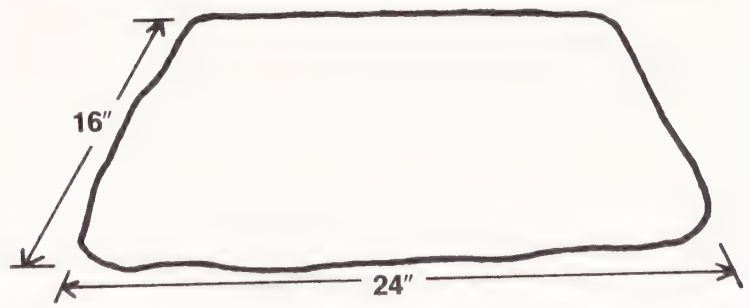
Stromboli (Continued)

Stromboli Instructional Diagrams

Step 6



Step 6



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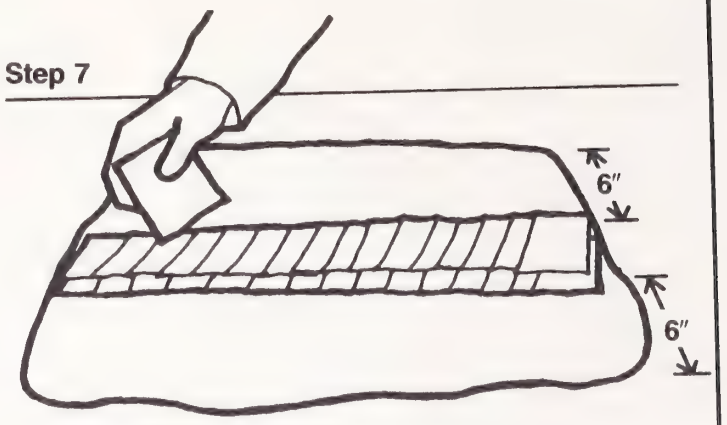

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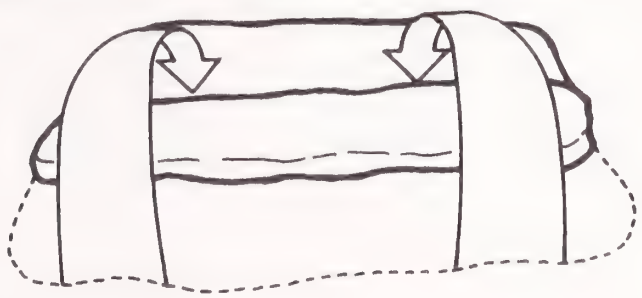

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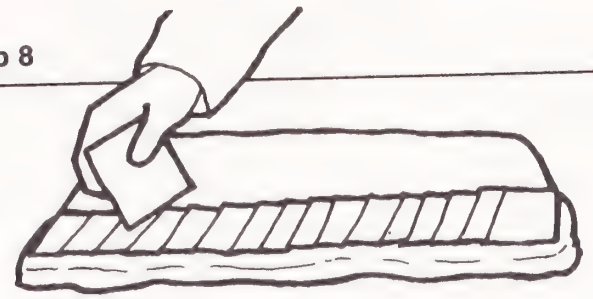

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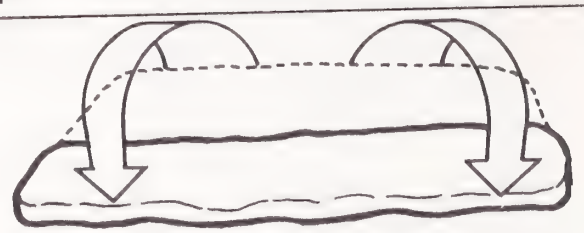

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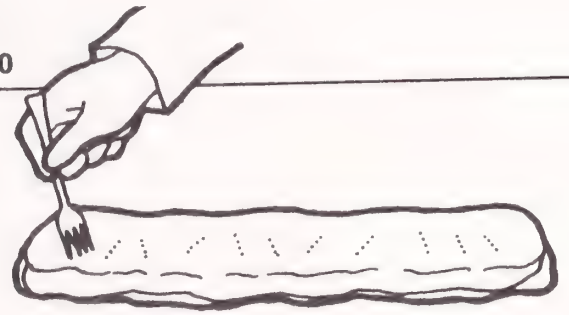

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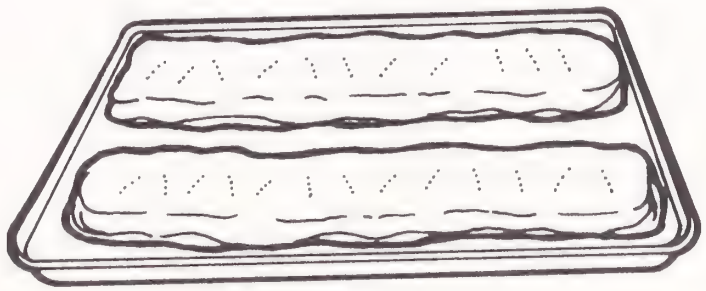
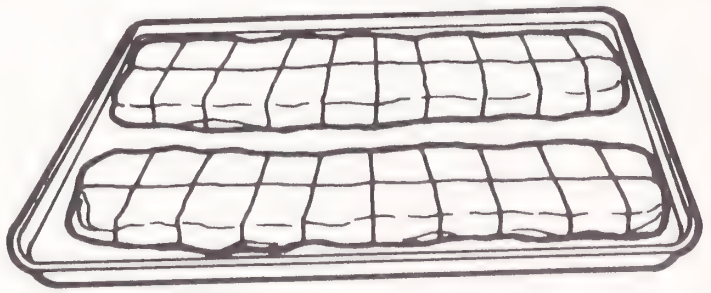


Step 15



(Continued on back)

Stromboli (Continued)

NOTE: To use high-activity (instant) yeast, follow directions below, or manufacturer's instructions.

100 servings: Omit step 1. Continue with step 2. In step 3, add 3 Tbsp 2 tsp high-activity (instant) yeast and 1½ qt water (110 °F). Continue with steps 4-15.

Variation

a. Stromboli with Tomato Sauce

Follow steps 1-6. Combine 3¼ cups (1 lb 13½ oz) tomato paste and 2 cups of water. In step 7, layer ingredients lengthwise along the center of the dough rectangle as follows: 1st layer—10 oz cheese; 2nd layer—½ cup tomato mixture; 3rd layer—approximately ½ tsp seasoning mix; 4th layer—14 oz turkey ham. In step 8, fold top third of dough over cheese, tomato mixture, and turkey ham, and place another layer of ingredients on top of folded dough as follows: 1st layer—10 oz cheese; 2nd layer—½ cup tomato mixture; 3rd layer—approximately ½ tsp seasoning mix; 4th layer—14 oz turkey ham. Continue with steps 9-15.

Nutrients Per Serving

Calories	**224**	**Vitamin A**	**50 RE/169 IU**	**Iron**	**2.0 mg**
Protein	**17 g**	**Vitamin C**	**0 mg**	**Calcium**	**192 mg**
Carbohydrate	**20 g**	**Thiamin**	**0.18 mg**	**Phosphorus**	**235 mg**
Fat	**8 g**	**Riboflavin**	**0.27 mg**	**Potassium**	**188 mg**
Cholesterol	**39 mg**	**Niacin**	**2.88 mg**	**Sodium**	**587 mg**

Toasted Cheese Sandwich

Meat Alternate-Bread **Sandwiches F-7**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Butter or margarine, melted	6 oz	¾ cup	12 oz	1½ cups		1. Brush approximately ½ oz (1 Tbsp) butter or margarine on each sheet pan (18"x26"x1"). For 50 servings, use 3 sheet pans. For 100 servings, use 5 sheet pans.
*Bread		100 slices		200 slices		2. Place 20 slices of bread on each sheet pan, 5 down and 4 across.
Process American cheese, sliced	6 lb 4 oz	50 slices (2 oz each)	12 lb 8 oz	100 slices (2 oz each)		3. Top each slice of bread with 1 slice (2 oz) of cheese.
						4. Cover with remaining bread slices.
						5. Brush tops of sandwiches with remaining butter or margarine, approximately 1½ oz (3 Tbsp) per pan.
						6. Bake until lightly browned: Conventional oven: 400 °F for 15-20 minutes Convection oven: 350 °F for 10-15 minutes DO NOT OVERBAKE.
						7. If desired, cut each sandwich diagonally in half. Serve immediately.

SERVING: 1 sandwich provides 2 ounces of cheese and 2 servings of bread.

YIELD: **50 servings:** 50 sandwiches
100 servings: 100 sandwiches

***See marketing guide on back.**

(Continued on back)

Toasted Cheese Sandwich (Continued)

Variation

a. Toasted Turkey Ham and Cheese Sandwich

50 servings: Follow steps 1 and 2. In step 3, use 3 lb 2 oz (50 1-oz slices) cheese and 4 lb 11 oz (50 1½-oz slices) turkey ham. Top each slice of bread with 1 slice of cheese and 1 slice of turkey ham. Continue with steps 4-7.

100 servings: Follow steps 1 and 2. In step 3, use 6 lb 4 oz (100 1-oz slices) cheese and 9 lb 6 oz (100 1½-oz slices) turkey ham. Top each slice of bread with 1 slice of cheese and 1 slice of turkey ham. Continue with steps 4-7.

Nutrients Per Serving

Calories	372	Vitamin A	190 RE/790 IU	Iron	1.5 mg
Protein	17 g	Vitamin C	0 mg	Calcium	392 mg
Carbohydrate	26 g	Thiamin	0.21 mg	Phosphorus	472 mg
Fat	22 g	Riboflavin	0.32 mg	Potassium	145 mg
Cholesterol	62 mg	Niacin	1.70 mg	Sodium	1093 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Bread, sliced	3¼ sandwich loaves (2 lb each)	6½ sandwich loaves (2 lb each)	. . . . .

Tuna Salad Sandwich

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned tuna, water pack, chunk	8 lb 5 oz	2 66½-oz cans	16 lb 10 oz	4 66½-oz cans		1. Drain and flake tuna.
Dehydrated onions		¼ cup 2 Tbsp	2½ oz	¾ cup		2. Combine tuna, onions, celery, pickle relish, dry mustard, eggs (optional), and mayonnaise or salad dressing. Mix lightly until well blended.
*Celery, chopped	2 lb	1 qt 3½ cups	4 lb	3¾ qt		
Sweet pickle relish, undrained	8¾ oz	1 cup	1 lb 1½ oz	2 cups		
Dry mustard		1½ tsp		1 Tbsp		
Large eggs, hard cooked, chopped (optional)	14 oz	8	1 lb 12½ oz	16		
Mayonnaise or salad dressing	2 lb 11 oz	1 qt 1½ cups	5 lb 6 oz	2¾ qt		
						3. Cover and refrigerate until ready to use.
*Bread		100 slices		200 slices		4. Portion with No. 8 scoop (½ cup) on 1 slice of bread. Top with second slice of bread. Cut each sandwich diagonally in half. Cover. Refrigerate until ready to serve.

SERVING: 1 sandwich provides 2 ounces of cooked fish and 2 servings of bread.

YIELD: **50 servings:** About 1½ gallons
100 servings: About 3 gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	396	Vitamin A	25 RE/144 IU	Iron	2.5 mg
Protein	21 g	Vitamin C	2.1 mg	Calcium	66 mg
Carbohydrate	29 g	Thiamin	0.23 mg	Phosphorus	174 mg
Fat	21 g	Riboflavin	0.19 mg	Potassium	299 mg
Cholesterol	52 mg	Niacin	9.45 mg	Sodium	467 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Celery	2 lb 7 oz	4 lb 13 oz	
Bread, sliced	3¼ sandwich loaves (2 lb each)	6½ sandwich loaves (2 lb each)	

Sauces, Gravies, and Seasoning Mixes

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Using and Storing Seasoning Mixes

The following Italian and Mexican Seasoning Mixes are convenient and will save time. They can be made in large batches in advance. When seasoning mix is used in a recipe, the suggested amount is listed at the bottom of the recipe. The recipes also list individual amounts of herbs and spices to add during preparation, if this seasoning method is preferred.

The seasoning mixes can be used as is, or herbs and spices can be added, deleted, or the proportions changed to make a blend more suited to local taste preferences.

NOTE: Stir seasoning mix well before measuring. In measuring, do not sift or pack mix. Place mix lightly in measuring container and level off with a spatula or the straight edge of a knife.

Store seasoning mix in a clean, dry container with a tight-fitting lid. All herbs and spices should be stored in a cool dry place away from direct light and heat. Refrigerating the seasoning mixes in an airtight container during warm seasons is highly recommended. This will help retain color and guard against infestation.

NOTE: To prevent caking, place a few grains of raw rice into a cheesecloth bag and add to the seasoning mix.

(See recipes on back)

Italian Seasoning Mix

Ingredients	1 Quart		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Flaked basil	2 oz	1¼ cups				1. Combine all ingredients.
		2 Tbsp	8½ oz	1 qt 1½ cups		
Flaked oregano		1¼ cups				
		2 Tbsp	8 oz	1 qt 1½ cups		
Flaked marjoram		1 cup	4 oz	1 qt		
Flaked thyme		¼ cup		1 cup		
						2. Before using, stir or shake all ingredients well. (Ingredients may settle during storage.)

Mexican Seasoning Mix

Ingredients	1 Quart		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chili powder	8¼ oz	1¾ cups	2 lb 5½ oz	1¾ qt		1. Combine all ingredients.
Ground cumin	5 oz	1⅓ cups	1 lb 6 oz	1 qt 1⅓ cups		
Paprika		¼ cup 3 Tbsp	7 oz	1¾ cups		
Onion powder		¼ cup 3 Tbsp	7½ oz	1¾ cups		
						2. Before using, stir or shake all ingredients well. (Ingredients may settle during storage.)

Barbecue Sauce

Sauces, Gravies, and Seasoning Mixes G-2

Ingredients	1 Quart		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken stock	.....	½ cup 2 Tbsp	.....	2½ cups	.....	1. Simmer chicken stock and onions over medium heat for 5 minutes
Dehydrated onions	.....	2 Tbsp 1 tsp	2 oz	½ cup 1 Tbsp	.....	
OR		OR	OR	OR		
*Fresh onions, chopped	.....	¼ cup	6 oz	1 cup	.....	
Catsup	1 lb 13 oz	3 cups	7 lb 3 oz	1 No. 10 can	.....	2. Add all other ingredients. Simmer for 15-20 minutes, stirring frequently.
Garlic powder	.....	½ tsp	.....	2 tsp	.....	
Brown sugar, packed	6 oz	¾ cup	1 lb 8 oz	3¼ cups	.....	

*See marketing guide below.

Nutrients Per Serving*

Calories	49	Vitamin A	36 RE/357 IU	Iron	0.4 mg
Protein	1 g	Vitamin C	4.1 mg	Calcium	12 mg
Carbohydrate	12 g	Thiamin	0.03 mg	Phosphorus	16 mg
Fat	Tr	Riboflavin	0.02 mg	Potassium	119 mg
Cholesterol	0 mg	Niacin	0.42 mg	Sodium	296 mg

*Two tablespoons of Barbecue Sauce are used in the nutrient calculation.

Marketing Guide for Selected Items

Food as Purchased	For 1-Quart Recipe	For 1-Gallon Recipe	For ___ Serving Recipe
Mature onions	3½ oz	7 oz	.....

Seasoning Mixes

Brown Gravy

Ingredients	½ Gallon		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Butter or margarine All-purpose flour	4 oz 5 oz	½ cup 1 cup 2 Tbsp	8 oz 10 oz	1 cup 2¼ cups		1. Melt butter or margarine in stockpot. Blend in flour and cook on medium heat, stirring frequently until golden brown, 8-10 minutes.
Beef stock Onion powder Black or white pepper	 	2 qt ½ cup 2 tsp ¼ tsp	 	1 gal 1 cup 1 Tbsp 1 tsp ½ tsp		2. Slowly stir in beef stock, onion powder, and pepper. Blend well and bring to boil. Reduce heat. Simmer on medium heat, stirring constantly until thickened, 6-8 minutes.
						3. Serve over mashed potatoes, noodles, rice, meat, or poultry.

Variations

a. Chicken or Turkey Gravy

½ gallon: In step 1, cook 6-8 minutes. In step 2, substitute chicken or turkey stock for beef stock. Add 1 tsp poultry seasoning. Continue with step 3.

1 gallon: In step 1, cook 6-8 minutes. In step 2, substitute chicken or turkey stock for beef stock. Add 2 tsp poultry seasoning. Continue with step 3.

b. Cream Gravy

½ gallon: In step 1, use 2½ oz (¼ cup 1 Tbsp) butter or margarine and 3 oz (½ cup 3 Tbsp) flour. Cook 4-6 minutes. In step 2, omit beef stock. Use 2 qt ½ cup reconstituted nonfat dry milk. Cook 4-6 minutes. Continue with Step 3.

1 gallon: In step 1, use 5 oz (½ cup 2 Tbsp) butter or margarine and 6 oz (1¼ cups 2 Tbsp) flour. Cook 4-6 minutes. In step 2, omit beef stock. Use 1 gal 1 cup reconstituted nonfat dry milk. Cook 4-6 minutes. Continue with step 3.

Nutrients Per Serving*

Calories	24	Vitamin A	13 RE/55 IU	Iron	0.1 mg
Protein	Tr	Vitamin C	Tr	Calcium	2 mg
Carbohydrate	2 g	Thiamin	0.01 mg	Phosphorus	6 mg
Fat	2 g	Riboflavin	0.01 mg	Potassium	8 mg
Cholesterol	4 mg	Niacin	0.16 mg	Sodium	195 mg

***Two tablespoons of Brown Gravy are used in the nutrient calculation.**

Nacho Cheese Sauce

Meat Alternate **Sauces, Gravies, and Seasoning Mixes G-4**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Reconstituted nonfat dry milk	.....	3 cups	.....	1½ qt	.....	1. Combine milk, cheese, butter or margarine, and seasonings (optional). Stir over medium heat until cheese is melted and mixture is smooth, approximately 15 minutes.
Process American cheese, shredded	3 lb 6 oz	3 qt 2½ cups	6 lb 12 oz	1 gal 3¼ qt	.....	
Butter or margarine	4 oz	½ cup	8 oz	1 cup	.....	
†Seasonings (optional)						
Chili powder	.....	2 Tbsp	.....	¼ cup	.....	
Ground cumin	.....	1 Tbsp 1½ tsp	.....	3 Tbsp	.....	
Paprika	.....	1½ tsp	.....	1 Tbsp	.....	
Onion powder	.....	1½ tsp	.....	1 Tbsp	.....	
Green chili peppers, chopped (optional)	2 oz	¼ cup	4 oz	½ cup	.....	2. Add green chili peppers (optional). Stir to combine.
						3. To maintain smooth consistency, serve immediately or keep warm. Portion 1½ oz (3 Tbsp) over taco shell pieces, baked potato, broccoli, cauliflower, or other vegetables. (If sauce becomes too thick, add a small amount of milk, as needed, stirring well after each addition.)

SERVING: 3 tablespoons (1½ ounces) provide 1 ounce of cheese.

YIELD: **50 servings:** about 2½ quarts
100 servings: about 1¼ gallons

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix. For 100 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix.

Nutrients Per Serving

Calories	136	Vitamin A	106 RE/440 IU	Iron	0.1 mg
Protein	7 g	Vitamin C	0.1 mg	Calcium	208 mg
Carbohydrate	1 g	Thiamin	0.02 mg	Phosphorus	243 mg
Fat	11 g	Riboflavin	0.13 mg	Potassium	77 mg
Cholesterol	34 mg	Niacin	0.03 mg	Sodium	465 mg

Sweet and Sour Sauce

Ingredients	½ Gallon		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken stock	.....	3¼ cups	.....	1 qt 2½ cups	.....	1. Combine stock, vinegar, brown sugar, soy sauce, tomato paste, and pineapple juice. Bring to boil. Reduce heat to simmer.
Vinegar	.....	1 cup	.....	2 cups	.....	
Brown sugar, packed	4 oz	½ cup 1 Tbsp	8 oz	1 cup 2 Tbsp	.....	
Soy sauce	.....	½ cup	.....	1 cup	.....	
Tomato paste	4¾ oz	½ cup	9¼ oz	1 cup	.....	
Pineapple juice	.....	2½ cups	.....	1¼ qt	.....	
Cornstarch	3 oz	½ cup 3 Tbsp	6 oz	1¼ cups 2 Tbsp	.....	2. Combine cornstarch and water. Mix until smooth.
Water	.....	½ cup	.....	1 cup		
						3. Add to simmering mixture. Stir occasionally and cook over medium heat until thickened, 6-8 minutes.

Nutrients Per Serving*

Calories	22	Vitamin A	5 RE/50 IU	Iron	0.3 mg
Protein	Tr	Vitamin C	1.6 mg	Calcium	7 mg
Carbohydrate	5 g	Thiamin	0.01 mg	Phosphorus	6 mg
Fat	Tr	Riboflavin	0.01 mg	Potassium	52 mg
Cholesterol	0 mg	Niacin	0.10 mg	Sodium	243 mg

*Two tablespoons of Sweet and Sour Sauce are used in the nutrient calculation.

Tartar Sauce

Sauces, Gravies, and Seasoning Mixes G-6

Ingredients	½ Gallon		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Mayonnaise or salad dressing	2 lb 10 oz	1 qt 1¼ cups	5 lb 4 oz	2 qt 2½ cups		1. Combine all ingredients. Blend well.
Sweet pickle relish, undrained	1 lb 6½ oz	2½ cups	2 lb 13 oz	1 qt 1¼ cups		
Dehydrated onions		¼ cup		½ cup		
Parsley flakes		½ cup		1 cup		
Dry mustard		1 tsp		2 tsp		
						2. Cover. Refrigerate until ready to use.
						3. Serve with fish sandwiches, fish portions, or fish sticks.

SERVING: 2 tablespoons (1-ounce ladle).

YIELD: **½ gallon:** about 64 1-ounce servings
1 gallon: about 128 1-ounce servings

Nutrients Per Serving

Calories	148	Vitamin A	6 RE/100 IU	Iron	0.3 mg
Protein	Tr	Vitamin C	0.9 mg	Calcium	8 mg
Carbohydrate	4 g	Thiamin	Tr	Phosphorus	8 mg
Fat	15 g	Riboflavin	Tr	Potassium	35 mg
Cholesterol	11 mg	Niacin	0.02 mg	Sodium	177 mg

Tomato Sauce (Meatless)

Ingredients	½ Gallon		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Vegetable oil		1 Tbsp 1½ tsp		3 Tbsp		1. Heat oil. Add onions and cook approximately 5 minutes.
Dehydrated onions		¼ cup		½ cup		
OR		OR		OR		
*Fresh onions, chopped	6¾ oz	1 cup 2 Tbsp	13½ oz	2¼ cups		
Tomato paste	1 lb 2½ oz	2 cups	2 lb 5 oz	⅓ No. 10 can		2. Add tomato paste, canned tomatoes, water, pepper, parsley flakes, garlic powder, and seasonings. Mix well and bring to boil. Reduce heat and simmer, uncovered, 25-30 minutes.
Canned tomatoes, with liquid, chopped	3 lb 3 oz	½ No. 10 can	6 lb 6 oz	1 No. 10 can		
Water		1 cup		2 cups		
Black pepper		¼ tsp		½ tsp		
Parsley flakes		2 Tbsp		¼ cup		
Garlic powder		1½ tsp		1 Tbsp		
†Seasonings:						
Flaked basil		½ tsp		1 tsp		
Flaked oregano		½ tsp		1 tsp		
Flaked marjoram		¼ tsp		¾ tsp		
Flaked thyme		⅛ tsp		¼ tsp		
						3. Serve over Meat Loaf (see D-27), Meat Balls (see D-27a), or Salisbury Steak (see D-33).

***See marketing guide below.**

†Italian Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For ½ gallon, use 1½ tsp Italian Seasoning Mix. For 1 gallon, use 1 Tbsp Italian Seasoning Mix.

Nutrients Per Serving**

Calories	16	Vitamin A	157 RE/332 IU	Iron	0.4 mg
Protein	1 g	Vitamin C	6.8 mg	Calcium	10 mg
Carbohydrate	3 g	Thiamin	0.02 mg	Phosphorus	12 mg
Fat	Tr	Riboflavin	0.02 mg	Potassium	134 mg
Cholesterol	0 mg	Niacin	0.40 mg	Sodium	42 mg

****Two tablespoons of Meatless Tomato Sauce are used in the nutrient calculation.**

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	7¾ oz	15½ oz	

White Sauce

Ingredients	½ Gallon		1 Gallon		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
THIN WHITE SAUCE:						1. Melt butter or margarine. Add flour and salt. Stir until smooth. 2. Add milk gradually, stirring constantly. 3. Cook, stirring frequently, until smooth and thick, 12-15 minutes. SUGGESTED USES: THIN WHITE SAUCE: Cream soup; gravy; creamed and scalloped vegetables, eggs, fish, meat. MEDIUM WHITE SAUCE: Gravy; creamed and scalloped vegetables, eggs, fish, meat. THICK WHITE SAUCE: Binder for souffles, croquettes.
Butter or margarine	2 oz	¼ cup	4 oz	½ cup		
All-purpose flour	2¼ oz	½ cup	4½ oz	1 cup		
Salt		1 tsp		2 tsp		
Reconstituted nonfat dry milk		2 qt		1 gal		
MEDIUM WHITE SAUCE:						
Butter or margarine	4 oz	½ cup	8 oz	1 cup		
All-purpose flour	4½ oz	1 cup	9 oz	2 cups		
Salt		1 tsp		2 tsp		
Reconstituted nonfat dry milk		2 qt		1 gal		
THICK WHITE SAUCE:						
Butter or margarine	6 oz	¾ cup	12 oz	1½ cups		
All-purpose flour	6¾ oz	1½ cups	13½ oz	3 cups		
Salt		1 tsp		2 tsp		
Reconstituted nonfat dry milk		2 qt		1 gal		

Variation

a. Cheese Sauce

About 1¼ gallon: Follow steps 1 and 2. In step 3, add 3 lb (3¼ qt) shredded process American cheese to thickened medium sauce.

Nutrients Per Serving*

Calories	31	Vitamin A	14 RE/55 IU	Iron	0.1 mg
Protein	1 g	Vitamin C	0.2 mg	Calcium	40 mg
Carbohydrate	3 g	Thiamin	0.02 mg	Phosphorus	32 mg
Fat	1 g	Riboflavin	0.06 mg	Potassium	58 mg
Cholesterol	5 mg	Niacin	0.13 mg	Sodium	68 mg

*Two tablespoons of Medium White Sauce are used in the nutrient calculation.

Soups

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Bean Soup

Meat Alternate-Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken or ham stock	.....	2¼ gal	.....	4½ gal	.....	1. Combine stock, beans, tomato paste, onions, celery, carrots, pepper, parsley flakes, and ham (optional). Bring to boil. (If desired, liquid from cooked beans may be used as part of the stock.)
*Cooked dry navy beans (see preparation note)	10 lb 2 oz	1 gal 2½ qt	20 lb 4 oz	3¼ gal	.....	
Tomato paste	7 oz	¾ cup	14 oz	1½ cups	.....	
Dehydrated onions	.....	½ cup	3½ oz	1 cup	.....	
OR		OR	OR	OR		
*Fresh onions, chopped	14 oz	2¼ cups	1 lb 12 oz	1 qt ¾ cup	.....	
*Celery, chopped	6½ oz	1½ cups	13 oz	3 cups	.....	
*Carrots, chopped	6½ oz	1¼ cups	13 oz	2½ cups	.....	
Black or white pepper	.....	1 tsp	.....	2 tsp	.....	
Parsley flakes	.....	¼ cup	.....	½ cup	.....	
Cooked ham, diced (optional)	1 lb	3 cups	2 lb	1 qt 2¼ cups	.....	
						2. Reduce heat. Cover. Simmer for 20 minutes or until vegetables are tender.
All-purpose flour	4½ oz	1 cup	9 oz	2 cups	.....	3. Combine flour and water. Mix until smooth.
Water	.....	1 cup	.....	2 cups	.....	
						4. Add to stock mixture. Stir well and cook over medium heat until thickened, 10-12 minutes.
						5. Pour into serving pans.
						6. Portion with 8-oz ladle (1 cup).

SERVING: 1 cup (8-ounce ladle) provides ½ cup of cooked dry beans and ⅛ cup of vegetable.

YIELD: **50 servings:** about 3¼ gallons
100 servings: about 6½ gallons

***See marketing guide on back.**

(Continued on back)

Bean Soup (Continued)

PREPARATION NOTE

SOAKING BEANS

Overnight method: Add 1¾ qt cold water to every lb of dry beans. Cover. Let stand overnight in refrigerator.

Quick-soak method: Boil 1¾ qt of water for each lb of dry beans. Pour beans in and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

COOKING BEANS

Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

1 lb dry beans = about 2½ cups dry or 6¼ cups cooked beans.

Nutrients Per Serving

Calories	143	Vitamin A	116 RE/1128 IU	Iron	2.8 mg
Protein	9 g	Vitamin C	2.7 mg	Calcium	65 mg
Carbohydrate	25 g	Thiamin	0.15 mg	Phosphorus	156 mg
Fat	1 g	Riboflavin	0.10 mg	Potassium	482 mg
Cholesterol	0 mg	Niacin	1.07 mg	Sodium	1,082 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Dry navy beans	4 lb 5 oz	8 lb 10 oz	
Mature onions	1 lb	2 lb	
Celery	8 oz	1 lb	
Carrots	9½ oz	1 lb 3 oz	

Chicken or Turkey Noodle Soup

Meat-Bread Alternate

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken or turkey stock	.....	3 gal	.....	6 gal	.....	1. Combine stock, celery, carrots (optional), onions, parsley flakes (optional), pepper, and poultry seasoning.
*Celery, chopped	1 lb 8 oz	1 qt 1¾ cups	3 lb	2 qt 3½ cups	.....	
*Carrots, chopped (optional)	12 oz	2¼ cups	1 lb 8 oz	1 qt ¾ cup	.....	
Dehydrated onions	.....	½ cup	3½ oz	1 cup	.....	
OR		OR	OR	OR		
*Fresh onions, chopped	14 oz	2¼ cups	1 lb 12 oz	1 qt ¾ cup	.....	
Parsley flakes (optional)	.....	¼ cup	.....	½ cup	.....	
Black or white pepper	.....	1 tsp	.....	2 tsp	.....	
Poultry seasoning	.....	1 tsp	.....	2 tsp	.....	
						2. Bring to boil. Reduce heat and cover. Simmer for 20 minutes.
Noodles	1 lb 4 oz	3¾ qt	2 lb 8 oz	1 gal 3½ qt	.....	3. Add noodles and chicken or turkey. Return to simmer. Cover. Simmer for 10 minutes or until noodles are tender.
*Cooked chicken or turkey, chopped	1 lb 9½ oz	1¼ qt	3 lb 3 oz	2½ qt	.....	
						4. Pour into serving pans.
						5. Portion with 8-oz ladle (1 cup).

SERVING: 1 cup (8-ounce ladle) provides ½ ounce of cooked poultry and ½ serving of bread alternate.

YIELD: **50 servings:** about 3¼ gallons
100 servings: about 6½ gallons

***See marketing guide on back.**

Variation

a. Chicken or Turkey Rice Soup

50 servings: Follow steps 1 and 2. In step 3, omit noodles. Use 1 lb 6½ oz (3¼ cups) rice. Simmer for 20 minutes. Continue with steps 4 and 5.

100 servings: Follow steps 1 and 2. In step 3, omit noodles. Use 2 lb 13 oz (1 qt 2½ cups) rice. Simmer for 20 minutes. Continue with steps 4 and 5.

Nutrients Per Serving

Calories	92	Vitamin A	5 RE/67 IU	Iron	0.6 mg
Protein	7 g	Vitamin C	1.2 mg	Calcium	27 mg
Carbohydrate	10 g	Thiamin	0.05 mg	Phosphorus	59 mg
Fat	2 g	Riboflavin	0.07 mg	Potassium	119 mg
Cholesterol	22 mg	Niacin	1.48 mg	Sodium	1,447 mg

(Continued on back)

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Celery	1 lb 13 oz	3 lb 10 oz	
Carrots	1 lb 1½ oz	2 lb 2½ oz	
Mature onions	1 lb	2 lb	
Chicken, whole, without neck and giblets	4 lb 7 oz	8 lb 14 oz	
OR	**OR**	**OR**	
Turkey, whole, without neck and giblets	3 lb 7 oz	6 lb 14 oz	

Cream of Vegetable Soup

Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Butter or margarine Dehydrated onions *Celery, chopped (optional)	1 lb 8½ oz	2 cups ½ cup 2 cups	2 lb 3½ oz 1 lb 1 oz	1 qt 1 cup 1 qt		1. Melt butter or margarine. Add onions and celery (optional). Cook over medium heat for 5-10 minutes.
All-purpose flour	1 lb 1 oz	3¾ cups	2 lb 2 oz	1 qt 3¾ cups		2. Blend in flour and cook over medium heat, stirring constantly until golden brown, 6-8 minutes.
Reconstituted nonfat dry milk Chicken stock Black or white pepper Flaked basil (optional) Parsley flakes (optional) Garlic powder		2 qt 2¼ gal 1 tsp 1 Tbsp ¼ cup 1 Tbsp		1 gal 4½ gal 2 tsp 2 Tbsp ½ cup 2 Tbsp		3. Slowly stir in milk, stock, pepper, basil (optional), parsley flakes (optional), and garlic powder. Blend well and bring to boil. Reduce heat. Simmer, uncovered, stirring frequently until slightly thickened, 10-15 minutes.
Assorted cooked and canned, drained vegetables (choose one or more) Broccoli Carrots Corn Green beans Mixed vegetables Green peas	5 lb		10 lb			4. Add vegetables. Cook over medium heat until heated through, 5-10 minutes.
						5. Pour into serving pans.
						6. Portion with 8-oz ladle (1 cup).

SERVING: 1 cup (8-ounce ladle) provides ¼ cup of vegetable.

YIELD: **50 servings:** about 3¼ gallons
100 servings: about 6½ gallons

***See marketing guide below.**

Nutrients Per Serving

Calories	166	Vitamin A	299 RE/2492 IU	Iron	0.8 mg
Protein	5 g	Vitamin C	4.3 mg	Calcium	78 mg
Carbohydrate	18 g	Thiamin	0.13 mg	Phosphorus	88 mg
Fat	8 g	Riboflavin	0.16 mg	Potassium	215 mg
Cholesterol	21 mg	Niacin	1.08 mg	Sodium	1186 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Celery	10½ oz	1 lb 4½ oz	

Vegetable Soup

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Chicken or beef stock	.....	1 gal 3½ qt	.....	3¾ gal	.....	1. Combine stock, tomatoes, celery, onions, pepper, parsley flakes, and garlic powder. Bring to boil.
Canned tomatoes, with liquid, chopped	6 lb 6 oz	1 No. 10 can	12 lb 12 oz	2 No. 10 cans	.....	
*Fresh celery, chopped	10 oz	2½ cups	1 lb 4 oz	1 qt ¾ cup	.....	
Dehydrated onions	3 oz	¾ cup 2 Tbsp	6 oz	1¾ cups	.....	
OR	OR	OR	OR	OR		
*Fresh onions, chopped	1 lb	2¾ cups	2 lb	1 qt 1¼ cups	.....	
Black pepper	.....	1 tsp	.....	2 tsp	.....	
Parsley flakes	.....	¼ cup	.....	½ cup	.....	
Garlic powder	.....	2 Tbsp	.....	¼ cup	.....	
						2. Reduce heat and cover. Simmer for 20 minutes.
Canned liquid pack whole-kernel corn, drained	1 lb 1½ oz	¼ No. 10 can	2 lb 3 oz	½ No. 10 can		3. Add corn, carrots, green beans, and green peas. (Frozen vegetables may be combined with canned vegetables.)
OR	OR	OR	OR	OR		
Frozen whole-kernel corn	1 lb 1½ oz	3¼ cups	2 lb 3 oz	1 qt 2¼ cups	.....	
Canned diced carrots, drained	1 lb 2 oz	¼ No. 10 can	2 lb 4 oz	½ No. 10 can	.....	
OR	OR	OR	OR	OR		
Frozen sliced carrots	1 lb 6 oz	1¼ qt	2 lb 12 oz	2½ qt	.....	
Canned cut green beans, drained	15 oz	¼ No. 10 can	1 lb 14 oz	½ No. 10 can	.....	
OR	OR	OR	OR	OR		
Frozen cut green beans	15 oz	3½ cups	1 lb 14 oz	1¾ qt	.....	
Canned green peas, drained	1 lb 1½ oz	¼ No. 10 can	2 lb 2½ oz	½ No. 10 can	.....	
OR	OR	OR	OR	OR		
Frozen green peas	1 lb 4 oz	1 qt	2 lb 8 oz	2 qt	.....	
						4. Cover and simmer for 15 minutes, or until vegetables are tender.
						5. Pour into serving pans.
						6. Portion with 8-oz ladle (1 cup).

SERVING: 1 cup (8-ounce ladle) provides ½ cup of vegetable.

YIELD: **50 servings:** about 3¼ gallons
100 servings: about 6½ gallons

*See marketing guide on back.

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Variations

a. Beef Vegetable Soup

50 servings: In step 1, use beef stock and 3 lb 3 oz (1¾ No. 2½ cans) undrained canned beef, fat removed, or 2 lb 2½ oz raw ground beef (no more than 24 percent fat), browned and drained. Continue with steps 2-6.

100 servings: In step 1, use beef stock and 6 lb 6 oz (3½ No. 2½ cans) undrained canned beef, fat removed, or 4 lb 5 oz raw ground beef (no more than 24 percent fat), browned and drained. Continue with steps 2-6.

SERVING: 1 cup (8-ounce ladle) provides ½ ounce of cooked lean meat and ½ cup of vegetable.

b. Chicken or Turkey Vegetable Soup

50 servings: In step 1, use chicken stock and 1 lb 9½ oz (1¼ qt) cooked chopped chicken or turkey. Continue with steps 2-6.

100 servings: In step 1, use chicken stock and 3 lb 3 oz (2½ qt) cooked chopped chicken or turkey. Continue with steps 2-6.

SERVING: 1 cup (8-ounce ladle) provides ½ ounce of cooked poultry and ½ cup of vegetable.

Nutrients Per Serving

Calories	**51**	**Vitamin A**	**156 RE/1830 IU**	**Iron**	**0.8 mg**
Protein	**3 g**	**Vitamin C**	**11.5 mg**	**Calcium**	**39 mg**
Carbohydrate	**9 g**	**Thiamin**	**0.06 mg**	**Phosphorus**	**44 mg**
Fat	**1 g**	**Riboflavin**	**0.06 mg**	**Potassium**	**258 mg**
Cholesterol	**0 mg**	**Niacin**	**0.71 mg**	**Sodium**	**1090 mg**

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Celery	12½ oz	1 lb 8½ oz	
Mature onions	1 lb 2½ oz.	2 lb 4½ oz.	

Vegetables

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Cooking Fresh and Frozen Vegetables

Schedule cooking of fresh and frozen vegetables so they will be served soon after they are cooked. Cook vegetables in small batches to prevent them from becoming broken or overcooked.

Loosely packed frozen vegetables, such as whole-kernel corn, can be cooked without thawing. Solid-pack frozen vegetables, such as spinach, should be thawed long enough to break apart easily and then cooked. Broccoli spears will cook more uniformly if they are partially thawed.

Wash fresh vegetables before cooking. Trim, pare, or cut as desired. Discard discolored parts, or tough ends or stems, as needed.

Cook vegetables only until tender crisp; they may continue to cook when held on a hot steam-table or in a holding cabinet. Vegetables will become overcooked if held too long.

Cooking Directions

To cook

1. Cook in covered stockpot or steam-jacketed kettle. Add fresh or frozen vegetables to boiling water. If desired, add 1 teaspoon salt for each 100 servings of vegetable.
2. After water boils again, reduce temperature and simmer. Use the following timetable as a guide to cooking time.
3. Drain cooked vegetables and place in serving pans.
4. Season with herbs and spices, as desired. Garnish. Serve.

To steam

1. Place fresh or frozen vegetables in a single layer in a steamer pan (12″x20″x2½″).
2. Steam uncovered at 5 pounds pressure, using the following timetable as a guide. Follow manufacturer's directions for steamers operating at other pressures or when using pressureless steamers.
3. Drain cooked vegetables.
4. Season with herbs and spices, as desired. Sprinkle 1 teaspoon salt over each 100 servings of vegetable, if desired. Garnish. Serve.

(Continued on back)

Timetable for Cooking or Steaming Fresh and Frozen Vegetables

For 100 Servings, ¼ Cup Each						
				Boiling		Steaming
Vegetable (As Purchased)	Fresh or Frozen	Amount To Purchase (Pounds)	Ready To Cook (Pounds)	Amount of Water (Quarts)	Cooking Time After Water Boils (Minutes)	Time at 5 Pounds Pressure (Minutes)
Asparagus:						
spears	Fresh	20.7	11.0	3¼	10 to 25	7 to 10
cuts and tips	Frozen	12.3	12.3	1¾	7 to 10	5 to 10
Beans or peas, blackeye	Fresh	19	9.7	2½	30 to 45	20 to 40
	Frozen	8.9	8.9	1¾	25 to 30	15 to 25
Beans, green, cut	Fresh	9	7.9	1¾	15 to 30	20 to 30
	Frozen	8.7	8.7	1	10 to 20	10 to 15
Beans, lima:	Fresh	21.1	9.3	2½	15 to 25	15 to 20
Baby	Frozen	9.2	9.2	1½	12 to 15	10 to 15
Fordhook	Frozen	9.0	9.0	1½	6 to 12	12 to 20
Beet greens	Fresh	28.6	13.7	Water on leaves	15 to 25	15 to 25
Beets, whole for slicing	Fresh	13.0	9.5	To cover	45 to 60	60 to 75
Broccoli:						
spears	Fresh	10.6	8.6	2¼	10 to 20	7 to 10
	Frozen	10.4	10.4	1½	10 to 15	5 to 10
cut or chopped	Frozen	10.4	10.4	1½	8 to 20	10 to 20
Brussels sprouts	Fresh	11.7	8.9	6	10 to 20	5 to 12
	Frozen	9.6	9.6	1½	10 to 15	5 to 10
Cabbage (green and red):						
shredded	Fresh	7.3	6.5	1½	10 to 15	5 to 12
wedges	Fresh	11.8	10.6	1¾	15 to 20	12 to 20
Carrots:						
whole (for slicing)	Fresh	11.9	8.3	2¼	20 to 30	15 to 30
	Frozen	9.5	9.5	1	8 to 10	3 to 5
Cauliflower, flowerets	Fresh	11.3	7.0	4½	15 to 20	8 to 12
	Frozen	10.9	10.9	1½	10 to 12	4 to 5
Celery, 1″ pieces	Fresh	12.4	10.3	3½	15 to 20	10 to 15
Chard	Fresh	15.8	14.5	Water on leaves	15 to 25	15 to 25
Collard greens	Fresh	9.6	7.1	3½	20 to 40	15 to 30
	Frozen	10.8	10.8	1¾	30 to 40	20 to 40
Corn:						
on cob (½ medium ear)	Fresh	27	17.6	6 or to cover	5 to 15	8 to 10
whole kernel	Frozen	9.1	9.1	1½	5 to 10	5 to 10

(Continued)

Cooking Fresh and Frozen Vegetables (Continued)

Timetable for Cooking or Steaming Fresh and Frozen Vegetables

For 100 Servings, ¼ Cup Each						
				Boiling		Steaming
Vegetable (As Purchased)	Fresh or Frozen	Amount To Purchase (Pounds)	Ready To Cook (Pounds)	Amount of Water (Quarts)	Cooking Time After Water Boils (Minutes)	Time at 5 Pounds Pressure (Minutes)
Eggplant, pieces or slices	Fresh	14.8	12.0	3½	15 to 20	10 to 15
Kale	Fresh	8.5	5.7	2	25 to 45	15 to 35
	Frozen	10.6	10.6	1¾	20 to 30	15 to 30
Mustard greens	Fresh	7.6	7.1	Water on leaves	15 to 25	15 to 25
chopped	Frozen	8.6	8.6	1¾	20 to 30	15 to 20
Okra, whole	Fresh	10.3	9.0	2	10 to 15	8 to 15
	Frozen	8.5	8.5	1¼	3 to 5	3 to 5
Onions: Mature, quartered if large	Fresh	14.1	12.4	7	20 to 35	20 to 35
Parsnips, 3″ pieces	Fresh	12.3	10.2	4¾	20 to 30	15 to 20
Peas and carrots	Frozen	9.2	9.2	1	8 to 10	3 to 5
Peas, green	Fresh	24.7	9.4	2	10 to 20	10 to 20
shelled	Frozen	9.9	9.9	1	5 to 10	3 to 5
Potatoes, whole	Fresh	11.3	9.2	5	30 to 45	30 to 45
Rutabagas, 1″ cubes	Fresh	12	10.2	2½	20 to 30	15 to 30
Soybeans, green	Fresh	14.5	9.4	1¾	10 to 20	
Spinach, leaf	Fresh	13.1	11.5	Water on leaves	10 to 20	4 to 8
	Frozen	15.3	15.3	1¼	5 to 10	5 to 10
Squash, summer, slices	Fresh	11.7	11.1	2	10 to 20	8 to 20
	Frozen	12.6	12.6	1	5 to 10	5 to 10
Squash, winter:						
Butternut, pieces	Fresh	13.3	11.2	5¼	15 to 30	15 to 20
mashed	Frozen	14.3	14.3			20 to 25 (covered)
Succotash	Frozen	10.6	10.6	2	6 to 15	12 to 20
Sweet potatoes, whole	Fresh	11.0	8.8	5	30 to 45	20 to 40
Turnip greens	Fresh	15.4	10.8	Water on leaves	15 to 25	15 to 25
chopped	Frozen	10.5	10.5	1¾	20 to 30	15 to 20
Turnips, 1″ cubes	Fresh	11.5	9.1	2¾	15 to 20	10 to 15
Vegetables, mixed	Frozen	12.3	12.3	1	12 to 20	12 to 20

NOTE: Cooking times for fresh vegetables are approximate; they can differ with variety, maturity, quality, and size of vegetable.

Heating Canned Vegetables

Canned vegetables should be heated only to serving temperature and served soon after heating. Canned vegetables will become overcooked when held too long in a hot steamtable or holding cabinet. Prepare in small batches to prevent vegetables from becoming broken or overcooked.

Heating Directions

Heating in Stockpot or in Steam-Jacketed Kettle

1. Drain off half the liquid.*
2. Pour vegetables and remaining liquid into a stockpot or steam-jacketed kettle. Heat only long enough to bring to serving temperature. Do not allow to boil.
3. Drain vegetables and place in serving pans.
4. Season with herbs and spices, as desired. Garnish. Serve.

Heating in Steamer

1. Drain off half the liquid.*
2. Pour vegetables and remaining liquid directly into steamer pans. A 12″x20″x2½″ pan will hold the contents of 2 No. 10 cans.
3. Heat in steamer at 5 lb pressure about 3 minutes, or just long enough to bring to serving temperature. Or follow manufacturer's directions for steamers operating at different pressures.
4. Drain vegetables. Season with herbs and spices, as desired. Garnish. Serve.

*Vegetables such as cream-style corn, lima beans, and sauerkraut may be heated without draining.

Seasoning Vegetables (With Herbs and Spices)

Vegetables can be made more appealing with herbs, spices, and other seasonings. Seasoning vegetables with herbs and spices reduces the need for added salt. Try the suggestions below to enhance the natural flavor of vegetables.

Use	To season
Allspice	Winter squash, sweet potatoes
Basil	Cabbage, carrots, green peas, spinach, tomatoes
Caraway	Beets, cabbage, cauliflower, green beans, wax beans, zucchini
Cardamom	Winter squash, sweet potatoes
Celery seed	Cabbage, carrots, cauliflower, celery, sauerkraut, tomatoes
Chili powder	Corn, tomatoes
Cinnamon	Beets, carrots, sweet potatoes, onions, tomatoes
Curry	Cabbage, celery, lima beans
Dill seed	Beets, cabbage, carrots, cauliflower, celery, green beans, green peas, wax beans
Garlic powder	Green leafy vegetables, tomatoes
Lemon juice	Green leafy vegetables, broccoli, cauliflower
Mace	Cauliflower
Marjoram	Broccoli, carrots, cauliflower, green peas, spinach, zucchini
Mint	Carrots, green peas, spinach
Mustard seed	Cabbage
Nutmeg	Celery, spinach, winter squash
Onion powder	Cabbage, green beans
Oregano	Green peas, tomatoes, zucchini
Parsley	Tomatoes, corn
Rosemary	Cauliflower, spinach, turnips
Red pepper	Celery
Sage	Green beans, onions, tomatoes, wax beans
Tarragon	Cauliflower
Thyme	Carrots, celery
Vinegar	Green leafy vegetables

Baking Potatoes and Winter Squash

Prepare these fresh vegetables for baking as described below. Place vegetables in a single layer on baking pans. Schedule baking of vegetables so they will be served soon after they are cooked. Bake each vegetable for the shortest time necessary until tender. Use the timetable below as a guide.

Preparation and Timetable for Baking Fresh Vegetables

Vegetable	Preparation	Approximate Baking Time	Oven Temperature
Potatoes or sweet potatoes	**Scrub. Sort for size. Pierce skins. Bake in jackets.**	**1 hour or until done.**	**425 °F**
Winter squash	**Wash, cut in half. Remove seeds and fiber. Brush with melted butter or margarine and sprinkle with salt and brown sugar, if desired.**	**45 minutes covered; remove cover and bake 15 minutes longer until lightly browned.**	**400 °F**
Butternut or Hubbard squash	**Wash. If peel is hard and tough, soften by steaming or boiling 10 minutes. Cut in half and remove seeds and fiber. Peel. Cut into pieces. Brush with melted butter or margarine and sprinkle with salt and brown sugar, if desired.**	**20 to 45 minutes covered; remove cover and bake 15 minutes longer until lightly browned.**	**400 °F**

NOTE: Baking times for each vegetable can differ with variety, maturity, quantity, and size of vegetable.

Preparing Instant Mashed Potatoes

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
POTATO FLAKES:						
Boiling water	.....	1 gal 2 cups	.....	2¼ gal	.....	1. Pour liquids into large bowl.
Reconstituted warm nonfat dry milk	.....	1½ qt	.....	3 qt	.....	
Potato flakes	2 lb 1 oz	.....	4 lb 2 oz	.....	.....	2. Add instant potato flakes, butter or margarine, and salt to liquids.
Butter or margarine	6 oz	¾ cup	12 oz	1½ cups	.....	
Salt	.....	1 Tbsp	.....	2 Tbsp	.....	
						3. Stir ½ minute to moisten potatoes. Stir an additional ½ minute to fluff. Avoid overmixing. (Use of mixer is not recommended.)
						4. Serve.
POTATO GRANULES:						
Boiling water	.....	3½ qt	.....	1¾ gal	.....	1. Pour liquids into mixer bowl.
Reconstituted warm nonfat dry milk	.....	1 qt ¾ cups	.....	2 qt 1½ cups	.....	
Potato granules	2 lb 1 oz	.....	4 lb 2 oz	.....	.....	2. Add instant potato granules, butter or margarine, and salt to liquids.
Butter or margarine	6 oz	¾ cup	12 oz	1½ cups	.....	
Salt	.....	1 Tbsp	.....	2 Tbsp	.....	
						3. Mix ½ minute to moisten potatoes. Beat an additional 1 minute until fluffy. (Use of mixer is recommended.)
						4. Serve.

SERVING: ½ cup (No. 8 scoop) provides ½ cup vegetable.

YIELD: **50 servings:** about 1½ gallons
100 servings: about 3 gallons

NOTE: Since the starch content of potatoes can differ, adjustment of the liquid may be necessary. Increase or decrease the quantity of liquid as needed for a fluffy product.

Baked Beans (Using Canned Vegetarian Beans)

Meat Alternate or Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned vegetarian beans .	14 lb 10 oz.	1 gal 2½ qt ..	29 lb 4 oz..	4¼ No. 10 cans	.....	1. Pour 14 lb 10 oz (1 gal 2½ qt) canned vegetarian beans into each steamtable pan (12"x20"x4"). For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
Dehydrated onions.....	2¾ oz.....	¾ cup.....	5¼ oz.....	1½ cups.....	.....	2. Combine onions, molasses, dry mustard, brown sugar, water, tomato paste, and ham (optional). Blend well.
OR	OR	OR	OR	OR		
*Fresh onions, chopped ...	1 lb 8 oz...	1 qt.....	3 lb.....	2 qt.....	.....	
Molasses.....	11 oz	1 cup	1 lb 6 oz...	2 cups	.....	
Dry mustard	.....	2 Tbsp	.....	¼ cup.....	.....	
Brown sugar, packed	3¾ oz.....	½ cup.....	7½ oz.....	1 cup	.....	
Water.....	.....	2 cups	.....	1 qt.....	.....	
Tomato paste	9½ oz.....	1 cup	1 lb 2½ oz .	2 cups	.....	
Ham, diced (optional)	1 lb	3 cups	2 lb.....	1 qt 2¼ cups.	.....	
						3. Pour 2 lb 11 oz (1 qt 1¼ cups) mixture over beans in each steamtable pan. Stir to combine. Cover pans.
						4. Bake: Conventional oven: 350 °F for 2¼ hours Convection oven: 325 °F for 1¼ hours Remove cover during last ½ hour of baking to brown the beans.
						5. Portion with 4-oz ladle (½ cup).

SERVING: ½ cup (4-ounce ladle) provides ½ cup of cooked dry beans.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

***See marketing guide below.**

Nutrients Per Serving

Calories	151	Vitamin A	36 RE/350 IU	Iron	1.0 mg
Protein	7 g	Vitamin C	6.1 mg	Calcium	89 mg
Carbohydrate	34 g	Thiamin	0.21 mg	Phosphorus	149 mg
Fat	1 g	Riboflavin	0.10 mg	Potassium	517 mg
Cholesterol	0 mg	Niacin	0.78 mg	Sodium	533 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 11½ oz .	3 lb 7 oz	.....

Baked Sweet Potatoes and Apples

Vegetable/Fruit **Vegetables I-7**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned cut sweet potatoes, drained	3 lb 5 oz	¾ No. 10 can	6 lb 10 oz	1½ No. 10 cans		1. Place 3 lb 5 oz (1 qt 3½ cups) sweet potatoes into each steamtable pan (12"x20"x2½"), which has been lightly greased. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
Canned unsweetened sliced apples, with juice	2 lb 5½ oz	1 qt ¾ cup	4 lb 11 oz	¾ No. 10 can		2. Place 2 lb 5½ oz (1 qt ¾ cup) apples over sweet potatoes in each pan.
Brown sugar, packed Ground cinnamon Ground nutmeg (optional)	5½ oz	¾ cup 1 tsp 1 tsp	11 oz	1½ cups 2 tsp 2 tsp	....	3. Combine brown sugar, cinnamon, and nutmeg (optional).
						4. Sprinkle ¾ cup sugar mixture over apples in each pan.
Butter or margarine	2½ oz	⅓ cup	5¼ oz	⅔ cup	.....	5. Dot each pan with ⅓ cup butter or margarine.
Water	.....	¾ cup	.....	1½ cups	.....	6. Add ¾ cup water to each pan.
						7. Bake: Conventional oven: 350 °F for 25-30 minutes Convection oven: 300 °F for 15-20 minutes
						8. Portion ¼ cup per serving.

SERVING: ¼ cup provides ¼ cup of vegetable and fruit.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

Nutrients Per Serving

Calories	64	Vitamin A	227 RE/1663 IU	Iron	0.4 mg
Protein	Tr	Vitamin C	3.1 mg	Calcium	9 mg
Carbohydrate	13 g	Thiamin	0.01 mg	Phosphorus	10 mg
Fat	1 g	Riboflavin	0.02 mg	Potassium	85 mg
Cholesterol	3 mg	Niacin	0.11 mg	Sodium	25 mg

Broccoli, Cheese, and Rice Casserole

Meat Alternate-Vegetable-Bread Alternate

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
*Cooked white rice	2 lb 3 oz	1 qt 2¼ cups	4 lb 6 oz	3 qt ½ cup		1. Combine rice, broccoli, undiluted soup, milk, cheese, onions, garlic powder, pepper, and oregano (optional).
Frozen chopped broccoli, thawed, drained	5 lb	1 gal 2¾ qt	10 lb	3½ gal		
Condensed cream of mushroom soup	1 lb 9 oz	½ No. 3 cyl	3 lb 2 oz	1 No. 3 cyl		
Reconstituted nonfat dry milk		3 cups		1½ qt		
Process American or cheddar cheese, shredded	1 lb 9 oz	1 qt 3¼ cups	3 lb 2 oz	3 qt 2½ cups		
Dehydrated onions		¼ cup		½ cup		
OR		OR		OR		
*Fresh onions, chopped	8 oz	1⅓ cups	1 lb	2¾ cups		
Garlic powder		1½ tsp		1 Tbsp		
Black or white pepper		1 tsp		2 tsp		
Flaked oregano (optional)		1½ tsp		1 Tbsp		
						2. Pour 11 lb 8 oz (1¼ gal) mixture into each steamtable pan (12"x20"x2½"), which has been lightly greased. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
Butter or margarine melted (optional)	2 oz	¼ cup	4 oz	½ cup		3. Optional topping: Combine butter or margarine and bread crumbs. Mix to coat crumbs well. Sprinkle crumbs evenly over each pan, approximately 8 oz (1⅔ cups) per pan.
Bread crumbs, dry (optional)	6 oz	1½ cups 2 Tbsp	12 oz	3¼ cups		

*See marketing guide on back.

(Continued on back)

Broccoli, Cheese, and Rice Casserole (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						4. Bake: Conventional oven: 350 °F for 30 minutes Convection oven: 300 °F for 20 minutes DO NOT OVERBAKE.
						5. Serve immediately. Portion with No. 12 scoop (⅓ cup).

SERVING: ⅓ cup (No. 12 scoop) provides ½ ounce of cheese, ¼ cup of vegetable, and ¼ serving of bread alternate.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

Nutrients Per Serving

Calories	112	Vitamin A	137 RE/1090 IU	Iron	0.8 mg
Protein	6 g	Vitamin C	22.2 mg	Calcium	154 mg
Carbohydrate	9 g	Thiamin	0.06 mg	Phosphorus	122 mg
Fat	6 g	Riboflavin	0.13 mg	Potassium	160 mg
Cholesterol	15 mg	Niacin	0.46 mg	Sodium	222 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
White rice	11½ oz	1 lb 6½ oz	
Mature onions	9¼ oz	1 lb 2½ oz	

Chinese Style Vegetables

Vegetable | **Vegetables I-9**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Assorted frozen and/or fresh vegetables	6 lb 4 oz...	.....	12 lb 8 oz..	.....	.....	1. Select a colorful assortment of 4 or more vegetables from vegetable list. (Frozen vegetables may be mixed with fresh vegetables.) Keep Group A vegetables separate from Group B vegetables, as they require different cooking times in step 3. Clean, slice, and cut vegetables into bite-size pieces.
GROUP A Broccoli Carrots Cauliflower Celery Onions GROUP B Cabbage Green beans Green peas Yellow summer squash Zucchini Optional vegetables Bean sprouts Snow peas Red or green peppers Pimientos Water chestnuts						
Water	.....	½ cup	.....	1 cup	.....	2. Combine water, soy sauce, and garlic powder. Set aside for step 6.
Soy sauce	.....	¼ cup	.....	½ cup	.....	
Garlic powder	.....	2 tsp	.....	1 Tbsp 1 tsp .	.....	
Vegetable oil	.....	½ cup	.....	1 cup	.....	3. Heat oil in steam-jacketed kettle.
Black pepper	.....	½ tsp	.....	1 tsp	.....	4. Add pepper to oil and stir.
						5. Add vegetables in order of cooking time, as follows: Add Group A vegetables. Cook for 4 minutes. Add Group B vegetables and any optional vegetables. Stir mixture constantly over high heat for 1 minute.

(Continued on back)

Chinese Style Vegetables (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						6. Add soy sauce mixture to vegetables. Stir quickly for a few seconds.
						7. Cover, lower heat, and steam for 2-3 minutes. VEGETABLES SHOULD NOT BE OVERCOOKED as they will continue to cook on the steamtable.
						8. Pour into serving pans.
						9. Portion ¼ cup per serving.

SERVING: ¼ cup provides ¼ cup of vegetable.

YIELD: **50 servings:** about 3¾ quarts
100 servings: about 2 gallons

Nutrients Per Serving*

Calories	37	Vitamin A	247 RE/2345 IU	Iron	0.5 mg
Protein	1 g	Vitamin C	18.6 mg	Calcium	18 mg
Carbohydrate	4 g	Thiamin	0.03 mg	Phosphorus	23 mg
Fat	2 g	Riboflavin	0.03 mg	Potassium	143 mg
Cholesterol	0 mg	Niacin	0.20 mg	Sodium	121 mg

*Equal amounts of fresh broccoli, carrots, cabbage, green pepper, celery, onion, and canned bean sprouts are used in the nutrient calculation.

Corn Pudding

Meat Alternate-Vegetable

Vegetables I-10

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Reconstituted nonfat dry milk	.....	2 cups	.....	1 qt	.....	1. Combine milk, flour, eggs, butter or margarine, sugar, pepper, and nutmeg (optional) in mixer bowl. Mix for 3 minutes on low speed.
All-purpose flour	11 oz	2½ cups	1 lb 6 oz	1¼ qt	.....	
Large eggs, beaten (see note)	1 lb 7 oz	13	2 lb 12 oz	25	.....	
Butter or margarine, melted	4 oz	½ cup	8 oz	1 cup	.....	
Sugar	.....	2 Tbsp	.....	¼ cup	.....	
Black or white pepper	.....	1 tsp	.....	2 tsp	.....	
Ground nutmeg (optional)	.....	1 tsp	.....	2 tsp	.....	
Canned whole-kernel corn, drained	2 lb 3 oz	½ No. 10 can	4 lb 6 oz	1 No. 10 can	.....	2. Add whole-kernel corn, cream style corn, and onions (optional). Mix for 2 minutes on low speed.
Canned cream style corn	4 lb 2 oz	1 qt 3¼ cups	8 lb 4 oz	1¼ No. 10 cans	.....	
Dehydrated onions (optional)	.....	⅓ cup	2¼ oz	⅔ cup	.....	
						3. Pour 9 lb 9 oz (1 gal 2 cups) into each steamtable pan (12″x20″x2½″), which has been lightly greased. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
						4. Bake until lightly browned: Conventional oven: 375 °F for 50-60 minutes Convection oven: 325 °F for 30-40 minutes
						5. Cut each pan 5x10 (50 pieces per pan).

SERVING: 1 piece provides ¼ large egg and ¼ cup of vegetable.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

(Continued on back)

Corn Pudding (Continued)

NOTE:

50 servings: Use 6½ oz (2¼ cups) dried whole eggs and 2¼ cups water in place of shell eggs.

100 servings: Use 12½ oz (1 qt ¼ cup) dried whole eggs and 1 qt ¼ cup water in place of shell eggs.

Nutrients Per Serving

Calories	108	Vitamin A	44 RE/199 IU	Iron	0.8 mg
Protein	4 g	Vitamin C	2.6 mg	Calcium	23 mg
Carbohydrate	16 g	Thiamin	0.07 mg	Phosphorus	70 mg
Fat	4 g	Riboflavin	0.10 mg	Potassium	130 mg
Cholesterol	74 mg	Niacin	0.76 mg	Sodium	212 mg

Green Beans in Cheese Sauce

Meat Alternate-Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Reconstituted nonfat dry milk		1½ cups		3 cups		1. Combine milk, cheese, butter or margarine, onion powder, garlic powder, dry mustard, thyme, and pepper. Stir over medium heat until cheese is melted and mixture is smooth, approximately 15 minutes.
Process American cheese, shredded	1 lb 9½ oz	1¾ qt	3 lb 3 oz	3½ qt		
Butter or margarine	2 oz	¼ cup	4 oz	½ cup		
Onion powder		1 tsp		2 tsp		
Garlic powder		1 tsp		2 tsp		
Dry mustard		1 tsp		2 tsp		
Flaked thyme		½ tsp		1 tsp		
Black or white pepper		1 tsp		2 tsp		
Canned cut green beans, drained	4 lb 11 oz	1¼ No. 10 cans	9 lb 6 oz	2½ No. 10 cans		2. Add green beans and stir gently. Cook over low heat until heated through, 5-8 minutes.
						3. Pour into serving pans.
						4. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ½ ounce of cheese and ¼ cup of vegetable.

YIELD: **50 servings:** about 3½ quarts
100 servings: about 1½ gallons

Nutrients Per Serving

Calories	74	Vitamin A	66 RE/351 IU	Iron	0.5 mg
Protein	4 g	Vitamin C	1.6 mg	Calcium	110 mg
Carbohydrate	3 g	Thiamin	0.01 mg	Phosphorus	124 mg
Fat	6 g	Riboflavin	0.08 mg	Potassium	85 mg
Cholesterol	16 mg	Niacin	0.07 mg	Sodium	327 mg

Mexicali Corn

Vegetable | **Vegetables I-12**

Ingredients	50 Servings		100 Servings		For _____ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned liquid pack whole-kernel corn	6 lb 10 oz	1 No. 10 can	13 lb 4 oz	2 No. 10 cans		1. Prepare corn:
OR	**OR**	**OR**	**OR**	**OR**		A. Canned corn:
Frozen whole-kernel corn	4 lb 3 oz	3 qt	8 lb 6 oz	1½ gal		To steam: Drain and discard approximately 2 cups of the liquid from each can. Place corn, green pepper, and onions in steamtable pan (12″ × 20″ × 2½″). Stir to combine. Heat uncovered in steamer at 5 lb pressure 4-8 minutes, until heated through.
*Green pepper, finely chopped	5¼ oz	1 cup	10½ oz	2 cups		
Dehydrated onions		¼ cup		½ cup		
OR	**OR**	**OR**	**OR**	**OR**		**OR**
*Fresh onions, chopped	4½ oz	¾ cup	9 oz	1½ cups		To heat: Drain and discard half the liquid from each can. Place corn with remaining liquid, green pepper, and onions in stockpot or steam-jacketed kettle. Stir to combine. Heat, uncovered, for 5-10 minutes. Drain. Pour into serving pans.
						B. Frozen corn:
						To steam: Place corn, green pepper, and onions in steamtable pan (12″ × 20″ × 2½″). Stir to combine. Heat, uncovered, in steamer at 5 lb pressure 9-13 minutes, until heated through.
						OR
						To cook: Place corn, green pepper, and onions in stockpot or steam-jacketed kettle. For 50 servings, add 2 cups water. For 100 servings, add 1 qt water. Bring water to boil. Reduce heat and simmer, uncovered, for 5-10 minutes. Drain. Pour into serving pans.

*See marketing guide on back.

(Continued on back)

Mexicali Corn (Continued)

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Pimientos, chopped	2½ oz	⅓ cup	5¼ oz	⅔ cup		2. Add pimientos, butter or margarine, and seasonings. Stir lightly.
Butter or margarine	2 oz	¼ cup	4 oz	½ cup		
†Seasonings						
Chili powder		1¼ tsp		2½ tsp		
Ground cumin		¾ tsp		1½ tsp		
Paprika		½ tsp		1 tsp		
Onion powder		½ tsp		1 tsp		
						3. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ¼ cup of vegetable.

YIELD: **50 servings:** about 3¼ quarts
100 servings: about 1½ gallons

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use 1 Tbsp Mexican Seasoning Mix. For 100 servings, use 2 Tbsp Mexican Seasoning Mix.

Nutrients Per Serving

Calories	59	Vitamin A	18 RE/208 IU	Iron	0.6 mg
Protein	2 g	Vitamin C	8.0 mg	Calcium	5 mg
Carbohydrate	12 g	Thiamin	0.02 mg	Phosphorus	42 mg
Fat	2 g	Riboflavin	0.04 mg	Potassium	134 mg
Cholesterol	2 mg	Niacin	0.53 mg	Sodium	205 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ____ Serving Recipe
Green peppers	6¾ oz	13½ oz	
Mature onions	5¼ oz	10½ oz.	

Orange Glazed Sweet Potatoes

Vegetable **Vegetables I-13**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned cut sweet potatoes, with light syrup	8 lb 7 oz	1¼ No. 10 cans	16 lb 14 oz	2½ No. 10 cans		1. Drain sweet potatoes, reserving liquid. For 50 servings, reserve 1 cup liquid. For 100 servings, reserve 2 cups liquid. Set liquid aside for step 3.
						2. Place 5 lb 9 oz (3½ qt) sweet potatoes into each steamtable pan (12"x20"x2½"). For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
Butter or margarine	4 oz	½ cup	8 oz	1 cup		3. For glaze: Combine butter or margarine, brown sugar, undiluted orange juice concentrate, sweet potato liquid, nutmeg (optional), and cinnamon. Stir to blend.
Brown sugar, packed	5¼ oz	½ cup 3 Tbsp	10½ oz	1¼ cups 2 Tbsp		
Undiluted frozen orange juice concentrate	7 oz	¾ cup	14 oz	1½ cups		
Ground nutmeg (optional)		1 tsp		2 tsp		
Ground cinnamon		1 tsp		2 tsp		
Raisins (optional)	5 oz	1 cup	10 oz	2 cups		4. Bring to boil. Remove from heat. Add raisins (optional).
						5. Pour 2¾ cups glaze over each pan of sweet potatoes. Bake: Conventional oven: 375 °F for 20-30 minutes Convection oven: 325 °F for 15-20 minutes
						6. Portion ¼ cup per serving.

SERVING: ¼ cup provides ¼ cup of vegetable.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

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Orange Glazed Sweet Potatoes (Continued)

Variation

a. Orange Glazed Carrots

50 servings: Omit step 1. In step 2, omit sweet potatoes. Use 5 lb 5 oz (1¼ No. 10 cans) drained sliced carrots. In step 3, omit sweet potato liquid. Use 1 cup water mixed with 2 Tbsp 2 tsp cornstarch. Continue with steps 4-6.

100 servings: Omit step 1. In step 2, omit sweet potatoes. Use 10 lb 10 oz (2½ No. 10 cans) drained sliced carrots. In step 3, omit sweet potato liquid. Use 2 cups water mixed with ⅓ cup cornstarch. Continue with steps 4-6.

Nutrients Per Serving

Calories	102	Vitamin A	456 RE/3,361 IU	Iron	0.8 mg
Protein	1 g	Vitamin C	11.6 mg	Calcium	16 mg
Carbohydrate	20 g	Thiamin	0.03 mg	Phosphorus	24 mg
Fat	2 g	Riboflavin	0.04 mg	Potassium	180 mg
Cholesterol	5 mg	Niacin	0.28 mg	Sodium	53 mg

Potatoes Au Gratin (Using Dehydrated Sliced Potatoes)

Meat Alternate–Vegetable

Vegetables I-14

Ingredients	50 Servings		100 Servings		For ____ Servings	Directions
	Weight	Measure	Weight	Measure		
Dehydrated sliced potatoes	2 lb 1 oz	1¼ gal	4 lb 2 oz	2½ gal		1. Place 1 lb (2 qt 1⅔ cups) potatoes into each lightly oiled streamtable pan (12″x 20″x 2 ½″). For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans.
Dehydrated onions OR *Fresh onions, chopped	2 oz OR 1 lb	½ cup 1 Tbsp OR 2¾ cups	4 oz OR 2 lb	1 cup 2 Tbsp OR 1 qt 1¼ cups		2. Sprinkle onions evenly over potatoes. For dehydrated onions, use 1 oz (¼ cup 1½ tsp) per pan. For fresh onions, use 8 oz (1¼ cups 1 Tbsp) per pan.
Water		1 gal 2½ qt		3¼ gal		3. Heat water to rolling boil. Remove from heat.
All-purpose flour Noninstant, nonfat dry milk OR Instant nonfat dry milk Salt Black or white pepper	5 oz 1 lb OR 1 lb	1 cup 2 Tbsp 3½ cups OR 1 qt 2¾ cups 1½ tsp 1 tsp	10 oz 2 lb OR 2 lb	2¼ cups 1 qt 2¾ cups OR 3 qt 1½ cups 1 Tbsp 2 tsp		4. Combine flour, dry milk, salt, and pepper. Add slowly to boiling water while whipping until smooth.
Process American cheese, shredded	1 lb 10 oz	1¾ qt	3 lb 4 oz	3½ qt		5. Add cheese to sauce and whip until well blended.
						6. Pour 1 gal cheese sauce over each pan. Stir to combine.
Butter or margarine, melted (optional) Bread crumbs, dry (optional)	4 oz 12 oz	½ cup 3¼ cups	8 oz 1 lb 8 oz	1 cup 1 qt 2¼ cups		7. Optional topping: Combine butter or margarine and bread crumbs. Mix to coat crumbs well. Sprinkle crumbs evenly over each pan, approximately 8 oz (1⅔ cups) per pan.

*See marketing guide on back.

(Continued on back)

Potatoes Au Gratin (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						8. Bake until evenly golden brown on top: Conventional oven: 350 °F for 45 minutes-1 hour Convection oven: 300 °F for 35-45 minutes
						9. Portion with No. 8 scoop (½ cup).

SERVING: ½ cup (No. 8 scoop) provides ½ ounce of cheese and 3/8 cup of vegetable.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Nutrients Per Serving

Calories	171	Vitamin A	44 RE/182 IU	Iron	0.5 mg
Protein	8 g	Vitamin C	7.5 mg	Calcium	220 mg
Carbohydrate	24 g	Thiamin	0.06 mg	Phosphorus	236 mg
Fat	5 g	Riboflavin	0.24 mg	Potassium	377 mg
Cholesterol	16 mg	Niacin	1.08 mg	Sodium	350 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb 2½ oz . .	2 lb 4½ oz. . .	. . . . .

Refried Beans

Meat Alternate or Vegetable

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Canned pinto beans, drained	7 lb 3 oz	1¼ No. 10 cans	14 lb 6 oz	2½ No. 10 cans		1. Place beans, stock, oil, and seasonings (optional) in mixer. Blend on medium speed for 3-5 minutes until smooth or to desired consistency.
OR	OR	OR	OR	OR		
*Cooked dry pinto beans, drained (see preparation note)	4 lb 13 oz	3¼ qt	9 lb 10 oz	1 gal 2½ qt		
Chicken or bean stock		1 cup		2 cups		
Vegetable oil		½ cup		1 cup		
†Seasonings (optional)						
Chili powder		2 Tbsp		¼ cup		
Ground cumin		1 Tbsp 1½ tsp		3 Tbsp		
Paprika		1½ tsp		1 Tbsp		
Onion powder		1½ tsp		1 Tbsp		
						2. Pour approximately 3½ qt mixture into each steamtable pan (12"x20" x2½"), which has been lightly oiled. For 50 servings, use 1 steamtable pan. For 100 servings, use 2 steamtable pans.
						3. Bake: Conventional oven: 350 °F for 30 minutes Convection oven: 300 °F for 20 minutes
Cheddar cheese, shredded	11 oz	3¼ cups	1 lb 6 oz	1 qt 2¼ cups		4. Sprinkle 11 oz (3¼ cups) cheese over each pan.
						5. Portion with No. 16 scoop (¼ cup).

SERVING: ¼ cup (No. 16 scoop) provides ¼ cup of cooked dry beans.

YIELD: **50 servings:** 1 steamtable pan
100 servings: 2 steamtable pans

***See marketing guide on back.**

†Mexican Seasoning Mix (see G-1, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¼ cup 1½ tsp Mexican Seasoning Mix. For 100 servings, use ½ cup 1 Tbsp Mexican Seasoning Mix.

(Continued on back)

Refried Beans (Continued)

PREPARATION NOTE:

SOAKING BEANS

Overnight method: Add 1¾ qt cold water to every lb of dry beans. Cover. Let stand overnight in refrigerator.

Quick-soak method: Boil 1¾ qt of water for each lb of dry beans. Pour beans in and boil for 2 minutes. Remove from heat and allow to soak for 1 hour.

COOKING BEANS

Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

1 lb dry beans = about 2½ cups dry or 6¼ cups cooked beans.

Nutrients Per Serving

Calories	104	Vitamin A	19 RE/70 IU	Iron	1.2 mg
Protein	5 g	Vitamin C	0 mg	Calcium	64 mg
Carbohydrate	11 g	Thiamin	0.03 mg	Phosphorus	103 mg
Fat	4 g	Riboflavin	0.05 mg	Potassium	179 mg
Cholesterol	6 mg	Niacin	0.26 mg	Sodium	70 mg

Marketing Guide for Selected Items

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Pinto beans, dry	2 lb ½ oz . . .	4 lb 1 oz	. . . . .

Scalloped Potatoes (Using Dehydrated Sliced Potatoes)

Vegetable **Vegetables I-16**

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
Dehydrated sliced potatoes	2 lb 4 oz	1 gal 1½ qt	4 lb 8 oz	2¾ gal		1. Rehydrate potatoes according to package instructions or cover potatoes with hot tap water. Let stand for 5 minutes. Drain well.
						2. Place 2 lb 10 oz (3 qt) potatoes into each steamtable pan (12″x20″x2½″), which has been lightly greased. For 50 servings, use 2 steamtable pans. For 100 servings, use 4 steamtable pans. Set aside for step 6.
Butter or margarine	6 oz	¾ cup	12 oz	1½ cups		3. Melt butter or margarine. Add onions and cook over medium heat for 5-10 minutes.
Dehydrated onions		½ cup	3½ oz	1 cup		
OR		OR	OR	OR		
*Fresh onions, chopped	14 oz	2¼ cups	1 lb 12 oz	1 qt ¾ cup		
All-purpose flour	6¾ oz	1½ cups	13½ oz	3 cups		4. Blend in flour and cook over medium heat, stirring constantly until golden brown, 6-8 minutes.
Reconstituted nonfat dry milk		1½ gal		3 gal		5. Slowly stir in milk, salt, pepper, and parsley flakes (optional). Blend well and cook over medium heat, stirring frequently until slightly thickened, 10-15 minutes.
Salt		2 Tbsp		¼ cup		
Black or white pepper		1½ tsp		1 Tbsp		
Parsley flakes (optional)		½ cup		1 cup		
						6. Pour 3 qt liquid mixture over potatoes in each pan. Stir to combine.
Butter or margarine, melted (optional)	4 oz	½ cup	8 oz	1 cup		7. Optional topping: Combine butter or margarine and bread crumbs. Mix to coat crumbs well. Sprinkle crumbs evenly over each pan, approximately 8 oz (1⅔ cups) per pan.
Bread crumbs, dry (optional)	12 oz	3¼ cups	1 lb 8 oz	1 qt 2¼ cups		
						8. Bake until evenly golden brown on top: Conventional oven: 350 °F for 45-60 minutes Convection oven: 300 °F for 35-45 minutes

*See marketing guide on back.

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Scalloped Potatoes (Continued)

Ingredients	50 Servings		100 Servings		For ___ Servings	Directions
	Weight	Measure	Weight	Measure		
						9. Hold for 30 minutes on a 180-190 °F steamtable to allow sufficient time for mixture to set up properly.
						10. Portion with No. 8 scoop (½ cup).

SERVING: ½ cup provides ½ cup of vegetable.

YIELD: **50 servings:** 2 steamtable pans
100 servings: 4 steamtable pans

Variation

a. Scalloped Potatoes (Using Fresh Potatoes)

50 servings: Omit step 1. In step 2, use 8 lb 2 oz (1½ gal) fresh potatoes, peeled and thinly sliced. Place 4 lb 1 oz (3 qt) potatoes into each steamtable pan. Continue with steps 3 and 4. In step 5, use 1 gal milk. In step 6, pour 2¼ qt liquid mixture over potatoes in each pan. Continue with step 7. In step 8, bake: Conventional oven: 350 °F for 50-65 minutes; convection oven: 300 °F for 40-50 minutes. Continue with steps 9 and 10.

100 servings: Omit step 1. In step 2, use 16 lb 4 oz (3 gal) fresh potatoes, peeled and thinly sliced. Place 4 lb 1 oz (3 qt) potatoes into each steamtable pan. Continue with steps 3 and 4. In step 5, use 2 gal milk. In step 6, pour 2¼ qt liquid mixture over potatoes in each pan. Continue with step 7. In step 8, bake: Conventional oven: 350 °F for 50-65 minutes; convection oven: 300 °F for 40-50 minutes. Continue with steps 9 and 10.

Nutrients Per Serving

Calories	160	Vitamin A	27 RE/108 IU	Iron	0.6 mg
Protein	6 g	Vitamin C	8.2 mg	Calcium	168 mg
Carbohydrate	27 g	Thiamin	0.08 mg	Phosphorus	158 mg
Fat	3 g	Riboflavin	0.24 mg	Potassium	419 mg
Cholesterol	10 mg	Niacin	1.22 mg	Sodium	397 mg

Marketing Guide for Selected Items

Scalloped Potatoes

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb	2 lb	. . . . .

Scalloped Potatoes (Using Fresh Potatoes)

Food as Purchased	For 50-Serving Recipe	For 100-Serving Recipe	For ___ Serving Recipe
Mature onions	1 lb	2 lb	. . . . .
Potatoes	10 lb	20 lb	. . . . .