

Grains/Breads

Grains/Breads Component for the Child Nutrition Programs

All reimbursable meals offered under the food-based menu planning approach in the National School Lunch Program (NSLP), Child and Adult Care Food Program (CACFP), and Summer Food Service Program (SFSP) must include grains/breads food product(s). A reimbursable school breakfast in the School Breakfast Program (SBP) and a reimbursable supplement in the CACFP or an Afterschool Snack may contain a grains/breads component.

FNS meal pattern regulations establish the *minimum* serving size(s) of grains/breads required for breakfasts, lunches, suppers, and supplements (snacks). Meal pattern charts for each of the Child Nutrition Programs are on pages I-7 through I-27.

Definitions

- **Bran** is the seed husk or outer coating of cereal grains such as wheat, rye, and oats. The bran can be mechanically removed from the flour or meal by sifting or bolting.
- **Breakfast cereal** is any cereal served ready to eat (cold dry) or cooked as a menu item for breakfast and other meals, as appropriate.
- **Creditable grains** represent all of the grains and grain components that count towards a creditable grains/breads component; they are enriched or whole-grain meal and/or flour, bran, and/or germ.
- **Enriched** means that the product conforms to the Food and Drug Administration's standard of identity for levels of iron, thiamin, riboflavin, niacin, and folic acid. The terms "enriched," "fortified," or similar terms indicate the addition of one or more vitamins or minerals or protein to a food, unless an applicable Federal regulation requires the use of specific words or statements.
- **Flour** is the product derived by finely grinding and bolting (sifting) wheat or other grains. Flour may be made from all grains (wheat, rye, corn, etc.).
- **Grains/Breads servings** designates the contribution a given serving size makes toward the grains/breads component. The term "grains/breads serving" appears in Column 4 of the yield table (except for Group H foods).
- **Germ** is the vitamin-rich embryo of the grain kernel. The germ can be separated before milling for use as a cereal or food supplement.
- **Primary grain ingredient** is the first listed grain ingredient in the ingredient statement.

Examples of Foods That Qualify as Grains/Breads

- **Whole-grain flour or meal** is the product derived by grinding the entire grain. If a flour or meal does not contain the bran and the germ, it is not whole grain.

Foods that qualify as grains/breads in the Child Nutrition Programs are enriched or whole-grain, or are made from enriched or whole-grain meal and/or flour. Bran and germ are credited the same as enriched or whole-grain meal or flour. Such foods include, but are not limited to:

- **Breads** that are enriched or whole-grain or made from enriched or whole-grain meal and/or flour, bran, and/or germ.
- **Biscuits, bagels, rolls, tortillas, muffins, or crackers** made with enriched or whole-grain meal and/or flour, bran, and/or germ.
- **Cereal grains (cooked) such as rice, bulgur, oatmeal, corn grits, wheat, or couscous** that are enriched, whole-grain, or fortified.
- **Ready-to-eat breakfast cereals** that are enriched, whole-grain, or fortified.
- **Cereals or bread products that are used as an ingredient in another menu item such as crispy rice treats, oatmeal cookies, or breading on fish or poultry** when the cereal or bread ingredients are enriched or whole-grain, or when the cereal is fortified.
- **Macaroni or noodle products (cooked)** made with enriched or whole-grain flour. Program regulations for the NSLP and the SFSP allow enriched macaroni products that have been fortified with protein to be counted to meet either a grains/breads or meat/meat alternate requirement, but not as both components in the same meal.
- **Sweet food products such as toaster pastries, coffee cake, doughnuts, sweet rolls, cookies, cakes, or formulated grain-fruit products (authorized under Appendix A of 7 CFR Part 220)** when made with whole grain, enriched or whole-grain meal and/or flour, bran, and/or germ and served, as permitted under Exhibit A. When sweet food products are permitted, no more than one sweet grains/breads serving per day may be a dessert, and sweet snack food products should not be served as part of a supplement (snack) more than twice a week.
- **Pie crust** when made with enriched or whole-grain meal and/or flour and served, as allowed under Exhibit A.
- **Non-sweet snack food products such as hard pretzels, hard bread sticks, and tortilla chips** made from enriched or whole-grain meal and/or flour.

I. Criteria for Determining Acceptable Grains/Breads Under the Food-Based Menu Planning Approaches

Use the following criteria as a basis for crediting items to meet the grains/breads requirement under the food-based menu planning approaches.

- A. All grains/breads items must be enriched or whole-grain, made from enriched or whole-grain meal and/or flour. If using a cereal it must be whole-grain, enriched, or fortified. Bran and germ are credited the same as enriched or whole-grain meal or flour.
- B. The label must indicate that 1) the food product is enriched or whole-grain, made from enriched or whole-grain meal and/or flour, bran, and/or germ, or 2) the cereal is whole-grain, enriched, or fortified. If the food product is enriched, it must meet the Food and Drug Administration's standards of identity (21 CFR Part 136, Part 137, Part 139) for enriched bread, macaroni and noodle products, rice, or cornmeal.
- C. The food product must be provided in quantities specified in the appropriate program regulations. One-quarter (1/4) of a serving is the smallest amount allowable to be credited toward the minimum quantities of grains/breads specified in program regulations.

II. Determining Grains/Breads Creditability

To review a grains/breads food product to determine if it is creditable, Child Nutrition Programs need to verify that the food product is enriched or whole-grain, *or* that it is made from enriched or whole-grain meal and/or flour, bran, and/or germ, *or* if it is a cereal, that it is whole-grain, enriched, or fortified.

The steps listed here will help determine if a food product is creditable towards the grains/breads component of a reimbursable meal. If at any point during the steps a “yes” answer is obtained, proceed to Section III, Criteria for Determining Serving Sizes. If you answer “no” to all of the steps from A to H2, the food product is not creditable towards the grains/breads component of a reimbursable meal.

The following steps are summarized in the flow chart on page 3-7.

- A. Is the *food product* labeled as “whole-grain”?

If a food product is made from whole grain, the product name on the label will usually include the word “whole” or “entire”.

Some examples include: “whole wheat bread,” “entire wheat bread,” “whole wheat rolls,” “entire wheat rolls,” “whole wheat buns,” “entire wheat buns,” and “whole wheat macaroni products”.

or



B. Is the *food product* labeled as “enriched”?

If a food product is enriched, the product name on the label will include the word “enriched.”

Some examples include: “enriched bread,” “enriched rolls,” “enriched buns,” “enriched rice,” “enriched macaroni products,” “enriched egg noodle products,” “enriched grits,” and “enriched cereal”.

or

C. Is the *food product* a fortified cereal? (Fortification only applies to cereals, so if the food product is not a cereal, continue on to step D).

If a cereal is fortified, the word “fortified” will be included on the product label.

or

D. In the *ingredient statement*, is the primary grain ingredient labeled “enriched”?

Ingredients with standards of enrichment will include the word “enriched” in the ingredient name. The usual method of declaration for enriched grain ingredients is to list the established or usual name of the ingredient along with the word “enriched” followed by a parenthetical listing of the grain and the enrichment ingredients.

Some examples include: “enriched wheat flour (wheat flour, niacin, iron, thiamine mononitrate, riboflavin, folic acid); “enriched cornmeal (...); “enriched self-rising flour (...); and “enriched farina (...).”

Note: While enrichment of cornmeal (a whole-grain meal) is not required, many programs choose to purchase enriched cornmeal for the added nutritional value.

or

E. In the *ingredient statement*, is the primary grain ingredient designated as a whole grain?

A whole grain ingredient will usually include the word “whole,” “entire,” “cracked,” “crushed,” or “groats.”

Some examples include: “whole wheat flour,” “entire wheat flour,” “cracked wheat,” “crushed wheat,” “buckwheat groats,” “graham flour” (which is another name for whole wheat flour), “brown rice” (which indicates that the rice retains the bran layer), “old-fashioned oatmeal” (also called “rolled oats”), “quick-cooking oats,” and “cornmeal”.

or

- F. In the *ingredient statement*, does the primary grain ingredient appear to be whole grain but it is **not** designated as whole grain?

When the ingredient statement does not clearly indicate that the primary grain ingredient is whole grain, the Child Nutrition Program operator *must obtain documentation* from the manufacturer stating that the grain is whole grain prior to using the food product toward meeting meal pattern requirements.

Some examples include: “amaranth,” “corn,” “millet,” and “quinoa”.

or

- G. In the *ingredient statement*, is the primary grain ingredient bran and/or germ?

Bran and germ are two components of grains. While not whole grains, they are nutritious portions of the grain and are, therefore, credited the same as whole-grain or enriched ingredients. Bran or germ will be listed along with the name of the grain.

Some examples include: “oat bran” and “wheat germ”.

or

- H1. Although the primary grain ingredient is not creditable, does the *ingredient statement* list other grains that **are** creditable?

If a food product contains grain(s) that are creditable, but *a non-creditable grain ingredient is the primary grain ingredient*, then *documentation will be needed to determine the grams of creditable grain(s) per serving of that food product in order to be used towards meeting meal requirements.*

- H2. If the primary grain ingredient is not creditable, but the ingredient statement does include creditable grain(s), the Child Nutrition program operator *must obtain documentation* from the manufacturer. The documentation must state 1) the gram weight or percentage of all *creditable grains* in one defined portion, and 2) that the grain(s) counted towards the percentage given are either enriched and/or whole-grain and/or bran, and/or germ. If a grain is not creditable, it should not be included in the weight or percent given in the documentation.

*Some examples of **non-creditable** grain ingredients include: “bromated flour,” “corn grits,” “degerminated cornmeal,” “degerminated (grain),” “durum flour,” “farina,” “flour,” “plain flour,” “self-rising flour,” “semolina flour,” “white flour,” and “wheat flour”.*

Instructions for Using the Grains/Breads Flow Chart

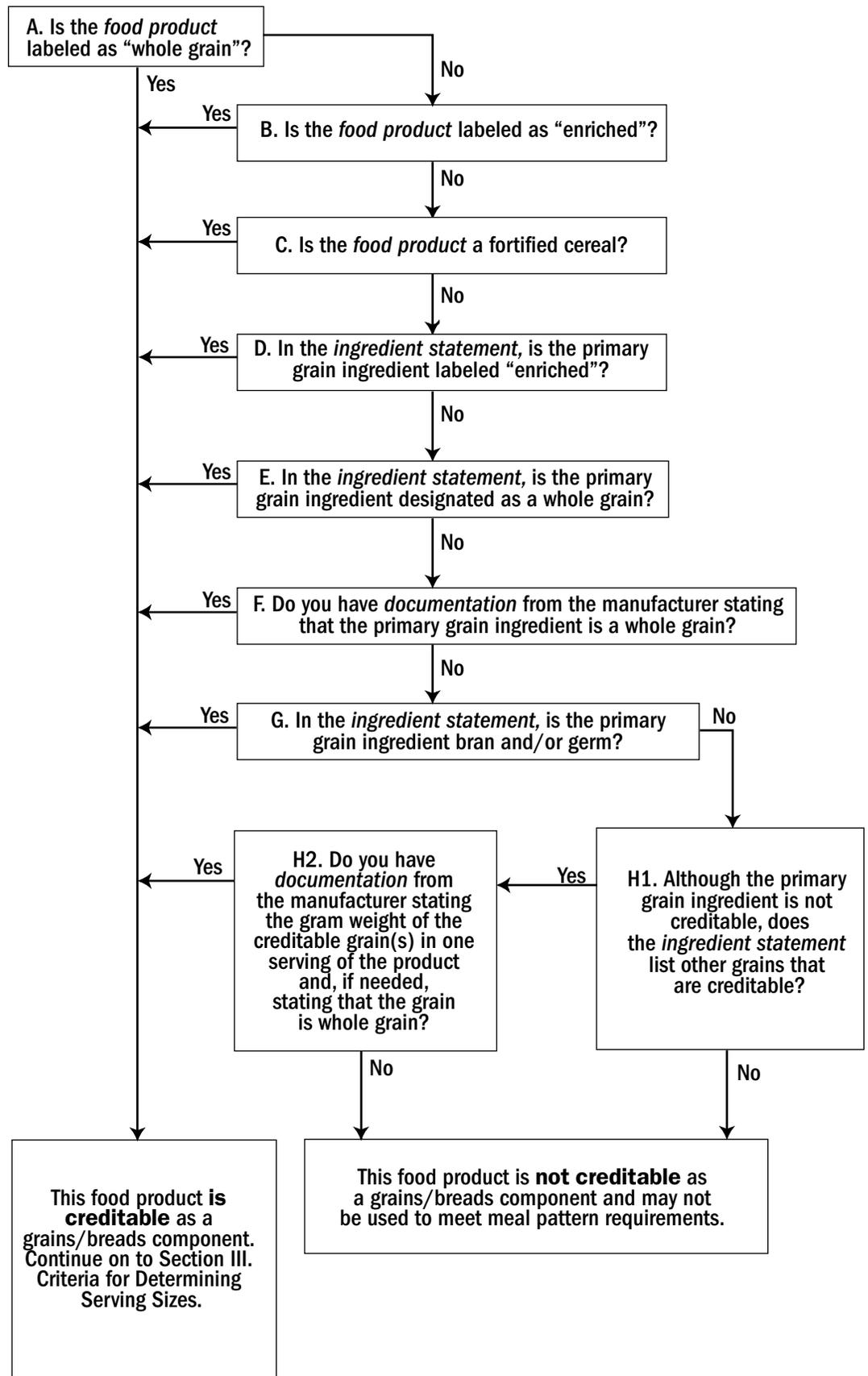
*If you have answered “no” to all the above steps, the food product is **not creditable** towards the grains/breads component of a reimbursable meal. These items may be served as an “other foods” item and used to help round out the meal as well as contribute calories and nutrients.*

Child Nutrition Programs need to verify that the food product is enriched or whole-grain, *or* that it is made from enriched or whole-grain meal and/or flour, bran, and/or germ, *or* if it is a cereal, that it is whole-grain, enriched, or fortified. By using the following flow chart along with steps A-H2 above, you can evaluate a grains/breads food product to determine if it is creditable towards the grains/breads component of a reimbursable meal.

Once you have determined if a food product is creditable, it is important to read through Section III, Criteria for Determining Serving Sizes. This section will explain when to use Exhibit A of FCS Instruction 783.1, Rev 2¹ (see pages 3-15 & 3-16), or calculate grams of creditable grains (see pages 3-9 through 3-13) to determine the portion size required to provide one grains/breads serving.

¹ At the time this instruction was written, the Agency name was Food and Consumer Service (FCS).

Flow Chart for Determining Grains/Breads Creditability



III. Criteria for Determining Serving Sizes

There are two different ways to determine the portion size required to provide one grains/breads serving: by using Exhibit A of FCS Instruction 783.1, Rev 2, or by calculating the grams of creditable grains.



A. Determining Serving Sizes Based on Exhibit A:

- One grains/breads serving for commonly available food products can be determined using Exhibit A (see pages 3-15 & 3-16) of the FCS Grains/Breads Instruction 783.1, Rev. 2. The wide variety of prepared grains/breads food products listed in Exhibit A are grouped based on their average grain content. Food types having similar concentrations of creditable grains are grouped together. Each group in Exhibit A provides the minimum serving size needed to supply one full grains/breads serving. Use Exhibit A for products that are whole-grain, enriched, or fortified (if a cereal), or for products that have a creditable grain as the primary grain ingredient.
- The weight needed for the different groups of grains/breads food products to provide one grains/breads serving is different since different types of grains/breads food products have different concentrations of enriched or whole-grain meal and/or flour, bran, and/or germ.

1. Exhibit A, Groups A-G:

- For the types of food products listed in Groups A-G, one grains/breads serving provides not less than 14.75 grams of enriched or whole-grain meal and/or flour, bran, and/or germ. The serving sizes (weights) given in Exhibit A, Groups A-G, may be used for grains/breads food products that are either commercially purchased or prepared on-site.
- Food products that are labeled whole-grain or enriched, and food products that have a creditable grain as the primary grain ingredient should provide the minimum of 14.75 grams of creditable grains per serving (without obtaining manufacturers documentation) as long as the minimum serving sizes (weights) given in Exhibit A are met. If the product is not whole-grain or enriched, or does not have a creditable grain for the primary grain ingredient, you must obtain manufacturer's documentation showing the amount of creditable grain(s) in one portion of the product. Once documentation is obtained, calculate the serving size based on the grams of creditable grains as shown in step B.

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- Exhibit A, Groups A-G provides the weight needed for 1/4, 1/2, and 3/4 of a grains/breads serving in addition to the weight needed for one grains/breads serving.

2. Exhibit A, Groups H & I:

- For the types of food products listed in Groups H and I of Exhibit A to count as one grains/breads serving, the weights and volumes listed therein must be met.
- When items in Groups H and I are served as cooked or cold breakfast cereals (such as cooked oatmeal, cooked millet, cooked rice served with milk and sugar, or cold cereal) or cooked pasta, the weights and volumes listed in Exhibit A, groups H or I must be used as noted. For example, the serving size required for one grains/breads serving of cooked oatmeal made from dry oats is 1/2 cup cooked or 25 grams dry oats.
- There is an exception to the equivalency of one grains/breads serving for Group H as stated in Exhibit A. For the *School Breakfast Program* only, the traditional or enhanced meal patterns, *grades K-12*, and the enhanced meal pattern *option for grades 7-12*, by regulation, one grains/breads serving of cooked and ready-to-eat (cold dry) breakfast cereal is *3/4 cup or 1 ounce*. This means 3/4 cup or 1 ounce (whichever is less) for cold dry cereal, or 3/4 cup cooked cereal, count as one grains/breads serving. This serving size is different from the equivalency of one grains/breads serving of 1/2 cup cooked given in Exhibit A, Group H.
- Some of the food products in Group H, such as dry oatmeal or cornmeal, may be used as a grain ingredient in a recipe as well as a cooked cereal. When the cereal grain items listed in Group H are used as an ingredient in a recipe such as oatmeal bread or cornmeal muffins (in contrast to being used as a cooked breakfast cereal) do not use the amounts listed in Group H. In this case, one grains/breads serving should be determined using the weights given in Groups A-G of Exhibit A corresponding to the appropriate food group, or calculated using 14.75 grams of the creditable grains in one portion of the recipe.
- For example, the credit for oatmeal bread made using dry oats may be determined by two ways: 1) using the serving weight in Group B of Exhibit A which contains “bread” since the food type is now “bread,” or 2) using the information in “B” below to determine the serving size needed to provide 14.75 grams of creditable grains.

B. Determining Serving Sizes Based on Creditable Grains Content:

- There are several situations where the creditable grains content would be used to calculate the serving size instead of using the serving weights given in Exhibit A. Some of these situations are: 1) a product is not whole-grain, enriched, or fortified (if a cereal) and the primary grain ingredient is not a creditable grain but there are creditable grains in the product; 2) a manufacturer claims that a product can provide the minimum of 14.75 grams of creditable grains per portion using a serving size less than the weights given in Exhibit A; 3) a product is made on site and you choose to calculate the serving size based on grams of creditable grains instead of using Exhibit A; or 4) a food product does not fit into one of the groups of Exhibit A.
- In the above cases, the menu planner will need to document or obtain documentation showing the weight of creditable grain(s) content of the grains/breads item. This will be easy for grains/breads items prepared on site, since the exact weight of the creditable grain(s) ingredient can be documented based on the recipe. For purchased products, the manufacturer will need to be contacted to obtain the required documentation showing the weight of creditable grain(s) per portion contained in a specific food product. Be aware that some manufacturers will not provide this information if they consider it proprietary information. If you have a situation where documentation is required, but the manufacturer cannot supply the documentation, you cannot use that product as a credited grains/breads component of a reimbursable meal.
- When the exact or minimum amount of creditable grains can be documented, the grains/breads serving for any grains/breads product found in Groups A through G may be calculated using 14.75 grams of creditable grains as one grains/breads serving. For manufacturer's documentation which provides the gram weight of creditable grain(s) per portion, you will want to start your calculation at step 2 below or at step 6 of the worksheet (see page 3-13).

² Creditable grains are enriched or whole-grain meal and/or flour, bran and/or germ.

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- Steps to determine how many creditable grains/breads servings a recipe yields:

- 1) Divide the total grams of “creditable grains²” in the recipe by the number of portions the recipe yields: (Note: 1 lb = 453.6 grams). One “portion” is the amount of the food product you plan to serve; it is not necessarily equivalent to one grains/breads serving.

$$\frac{\text{total grams of enriched or whole-grain meal and/or flour, bran, and/or germ in the recipe}}{\text{number of portions the recipe yields}}$$

This calculation gives you the total grams of creditable grains contained in one portion of your recipe.

- 2) Divide the total grams of “creditable grains” in one portion by 14.75 grams: (note: 14.75 grams of creditable grains = one full grains/breads serving)

$$\frac{\text{Total grams of “creditable grains” in ONE portion}}{14.75 \text{ grams}}$$

= the number of grains/breads servings per portion

This calculation gives you the number of creditable grains/breads servings per portion of the recipe. The smallest creditable serving of the grains/breads component is 1/4 serving.

- 3) Round down to the nearest 1/4 grains/breads serving. To count as one full grains/breads serving, a food product must contain no less than 14.75 grams (0.52 ounces) of enriched or whole-grain meal and/or flour, bran, and/or germ.

Worksheet for Calculating Grains/Breads Contribution from a Recipe for the Types of Food Products in Groups A-G, Using Grams of Creditable Grains

Instructions:

1. On the worksheet, list each enriched or whole-grain meal and/or flour, bran, and/or germ ingredient in the recipe.
2. Fill in the quantity (cups, pounds, kilograms, ounces, grams, etc.) of each enriched or whole-grain meal and/or flour, bran, and/or germ ingredient in the recipe.
3. Convert the amount of each enriched or whole-grain meal and/or flour, bran, and/or germ ingredient in the recipe to grams. If you do not know the weight per cup of the grain you are using, here are some commonly used conversions:

Number of pounds of ingredient X 453.6 grams

Number of ounces of ingredient X 28.35 grams

Number of cups of *enriched white flour* X 125 grams

Number of cups of *regular rolled oats* X 81 grams

Number of cups of *quick-cooking oats* X 81 grams

Number of cups of *regular cornmeal* X 122 grams

Number of cups of *degermed, enriched cornmeal* X 138 grams

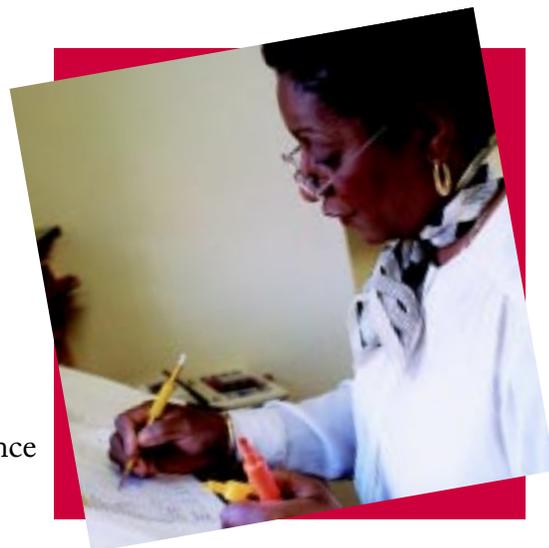
Number of cups of *stone ground cornmeal* X 132 grams

Number of cups of *wheat bran* X 58 grams

Number of cups of *wheat germ* X 115 grams

Number of cups of *whole wheat flour* X 120 grams

4. Add the grams for each grain ingredient to determine the total grams of enriched or whole-grain meal and/or flour, bran, and/or germ in the recipe.
5. Divide the total grams of creditable grains in the recipe by the number of portions in the recipe to determine the number of grams of creditable grains per portion of food product.
6. Divide the number of grams of creditable grains per portion by 14.75 grams (reference amount of enriched or whole-grain meal and/or flour, bran, and/or germ in one grains/breads serving).
7. Round down to the nearest 1/4 grains/breads serving.



Worksheet:

1. Creditable Grain Ingredient	2. Quantity	3. Convert to Grams	Grams
		X	=
		X	=
		X	=
		X	=
		4. Total Grams	=

5. Total grams *divided by* number of portions in recipe:

$$\frac{\begin{array}{l} \text{Total grams} \\ \text{creditable grains} \\ \text{from step 4} \end{array}}{\begin{array}{l} \text{Number of portions} \\ \text{per recipe} \end{array}} = \frac{\text{_____}}{\text{_____}} = \text{_____} \begin{array}{l} \text{number of grams creditable} \\ \text{grains per portion} \end{array}$$

6. Divide number of grams per portion (answer from step 5) by 14.75:

$$\frac{\text{_____}}{14.75} = \text{_____} \text{ grains/breads serving(s)}$$

7. Round *down* to the nearest 1/4 grains/breads serving.

$$= \text{_____} \text{ creditable grains/breads servings}$$

**Grains/Breads
Chart
Introduction**

The following Chart titled “Exhibit A - Grains/Breads for the Food-Based Menu Planning Alternatives in the Child Nutrition Programs” provides a general guideline for crediting prepared grains/breads items. The chart is taken from the FCS Grains/Breads Instruction 783-1, Revision 2.

Once you have determined that a food product qualifies as a grains/breads component (see pages 3-3 through 3-7), find the Group on the chart containing the name of the food product. Read the minimum serving size for that group on the right-hand side of the chart.



FCS Instruction 783.1 Rev 2: Exhibit A
GRAINS/BREADS FOR THE FOOD-BASED MENU PLANNING ALTERNATIVES
IN THE CHILD NUTRITION PROGRAMS^{1, 2}

Group A	Minimum Serving Size for Group A
<ul style="list-style-type: none"> • Bread type coating • Bread sticks (hard) • Chow mein noodles • Crackers (saltines and snack crackers) • Croutons • Pretzels (hard) • Stuffing (dry) Note: weights apply to bread in stuffing. 	1 serving = 20 gm or 0.7 oz 3/4 serving = 15 gm or 0.5 oz 1/2 serving = 10 gm or 0.4 oz 1/4 serving = 5 gm or 0.2 oz
Group B	Minimum Serving Size for Group B
<ul style="list-style-type: none"> • Bagels • Batter type coating • Biscuits • Breads (white, wheat, whole wheat, French, Italian) • Buns (hamburger and hot dog) • Crackers (graham crackers - all shapes, animal crackers) • Egg roll skins • English muffins • Pita bread (white, wheat, whole wheat) • Pizza crust • Pretzels (soft) • Rolls (white, wheat, whole wheat, potato) • Tortillas (wheat or corn) • Tortilla chips (wheat or corn) • Taco shells 	1 serving = 25 gm or 0.9 oz 3/4 serving = 19 gm or 0.7 oz 1/2 serving = 13 gm or 0.5 oz 1/4 serving = 6 gm or 0.2 oz
Group C	Minimum Serving Size for Group C
<ul style="list-style-type: none"> • Cookies³ (plain) • Cornbread • Corn muffins • Croissants • Pancakes • Pie crust (dessert pies³, fruit turnovers⁴, and meat/meat alternate pies) • Waffles 	1 serving = 31 gm or 1.1 oz 3/4 serving = 23 gm or 0.8 oz 1/2 serving = 16 gm or 0.6 oz 1/4 serving = 8 gm or 0.3 oz

¹The following foods are whole-grain or enriched or made with enriched or whole-grain meal and/or flour, bran, and/or germ.

²Some of the following foods, or their accompaniments may contain more sugar, salt, and/or fat than others. This should be a consideration when deciding how often to serve them.

³Allowed only for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP.

⁴Allowed for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP, and for breakfasts served under the SBP, SFSP, and CACFP.

Group D	Minimum Serving Size for Group D
<ul style="list-style-type: none"> • Doughnuts⁴ (cake and yeast raised, unfrosted) • Granola bars⁴ (plain) • Muffins (all, except corn) • Sweet rolls⁴ (unfrosted) • Toaster pastries⁴ (unfrosted) 	1 serving = 50 gm or 1.8 oz 3/4 serving = 38 gm or 1.3 oz 1/2 serving = 25 gm or 0.9 oz 1/4 serving = 13 gm or 0.5 oz
Group E	Minimum Serving Size for Group E
<ul style="list-style-type: none"> • Cookies³ (with nuts, raisins, chocolate pieces and/or fruit purees) • Doughnuts⁴ (cake and yeast raised, frosted or glazed) • French toast • Grain fruit bars⁴ • Granola bars⁴ (with nuts, raisins, chocolate pieces and/or fruit) • Sweet rolls⁴ (frosted) • Toaster pastries⁴ (frosted) 	1 serving = 63 gm or 2.2 oz 3/4 serving = 47 gm or 1.7 oz 1/2 serving = 31 gm or 1.1 oz 1/4 serving = 16 gm or 0.6 oz
Group F	Minimum Serving Size for Group F
<ul style="list-style-type: none"> • Cake³ (plain, unfrosted) • Coffee cake⁴ 	1 serving = 75 gm or 2.7 oz 3/4 serving = 56 gm or 2 oz 1/2 serving = 38 gm or 1.3 oz 1/4 serving = 19 gm or 0.7 oz
Group G	Minimum Serving Size for Group G
<ul style="list-style-type: none"> • Brownies³ (plain) • Cake³ (all varieties, frosted) 	1 serving = 115 gm or 4 oz 3/4 serving = 86 gm or 3 oz 1/2 serving = 58 gm or 2 oz 1/4 serving = 29 gm or 1 oz
Group H	Minimum Serving Size for Group H
<ul style="list-style-type: none"> • Barley • Breakfast cereals (cooked)^{5, 6} • Bulgur or cracked wheat • Macaroni (all shapes) • Noodles (all varieties) • Pasta (all shapes) • Ravioli (noodle only) • Rice (enriched white or brown) 	1 serving = 1/2 cup cooked (or 25 gm dry)
Group I	Minimum Serving Size for Group I
<ul style="list-style-type: none"> • Ready to eat breakfast cereal (cold dry)^{5, 6} 	1 serving = 3/4 cup or 1 oz, whichever is less

³Allowed only for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP.

⁴Allowed for desserts under the enhanced food-based menu planning alternative specified in 7CFR Part 210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP, and for breakfasts served under the SBP, SFSP, and CACFP.

⁵Refer to program regulations for the appropriate serving size for supplements served to children aged 1 through 5 in the NSLP; breakfasts served under the SBP; and meals served to children ages 1 through 5 and adult participants in the CACFP. Breakfast cereals are traditionally served as a breakfast menu item but may be served in meals other than breakfast.

⁶Cereals may be whole-grain, enriched, or fortified.

Factors Affecting Yield

The data for grains/breads in the following table include yield information on **common types** and **customary portion sizes** of products that you can buy on the market. All grains/breads items – commercially baked or school baked – must meet the criteria noted on page 3-3.

The approximate weight of a serving of grains/breads is given in the table. If the weight of a serving differs from the approximate weight given, you may need to make adjustments in the amount you buy (see pages I-3 & I-4 for information on determining in-house yield data).

Explanation of the Columns

- Column 1 **Food As Purchased, AP:** In general, foods are arranged in alphabetical order. The Group letter is listed for each product. For additional information on these groups, see Exhibit A (pages 3-15 & 3-16).
- Column 2 **Purchase Unit:** The purchase unit for grains/breads is generally by the pound or, for cold dry cereals, a package. You can use data for one purchase unit to determine how much of the item you need for the number of people you serve.
- Column 3 **Servings per Purchase Unit, EP:** This column shows the number of servings of a given size obtained from each purchase unit. Numbers in this column are often rounded down in order to help ensure enough food for the number of servings.
- Column 4 **Serving Size per Meal Contribution:** The size of a serving is expressed in volume and/or weight. The number of grains/breads servings is given in parentheses for sliced bread and crackers.

Note that the minimum requirements for cereals and cereal grains are different for each program.

School Breakfast Program (Traditional and Enhanced)

Ages 1-2: 1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

Preschool: 1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/3 cup cooked cereal grain,

Grades K-12: 3/4 cup or 1 ounce (whichever is less) cold dry cereal *or* 3/4 cup cooked cereal grain,

National School Lunch Program (Traditional and Enhanced)

All levels: 1/2 cup cooked cereal grain

Afterschool Snacks

Ages 1-2: 1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

Ages 3-5: 1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

Ages 6-12: 3/4 cup or 1 oz (whichever is less) cold dry cereal *or* 1/2 cup cooked cereal grain,

Child and Adult Care Food Program

Breakfast

Ages 1-2: 1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

Ages 3-5: 1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

Ages 6-12: 3/4 cup or 1 oz (whichever is less) cold dry cereal *or* 1/2 cup cooked cereal grain,

Adults: 1-1/2 cup or 2 oz (whichever is less) cold dry cereal *or* 1 cup cooked cereal grain,

Lunch and Supper

Ages 1-2 and 3-5: 1/4 cup cooked cereal grain,

Ages 6-12: 1/2 cup cooked cereal grain,

Adult: 1 cup cooked cereal grain,

Snacks

Ages 1-2: 1/4 cup or 1/3 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

Ages 3-5: 1/3 cup or 1/2 oz (whichever is less) cold dry cereal *or* 1/4 cup cooked cereal grain,

Ages 6-12 and Adults: 3/4 cup or 1 oz (whichever is less) cold dry cereal *or* 1/2 cup cooked cereal grain,

Summer Food Service Program

Breakfast and Snacks 3/4 cup or 1 oz (whichever is less)
cold dry cereal, or 1/2 cup cooked cereal
grain

Lunch or Supper 1/2 cup cooked cereal grain.

Note: Dry cereals vary greatly in number of servings per pound or package. Check the cereal box for the number and/or size of servings.

Column 5 **Purchase Units for 100 Servings:** This column shows the number of purchase units needed for 100 servings. Numbers in this column are generally rounded up in order to help ensure enough food for the number of servings.

Column 6 **Additional Yield Information:** This column gives other information to help you calculate the amount of food you need to prepare meals. For example, the number of cups you will get from one pound of food as purchased is shown for many grains/breads items.

Food Buying Guide for Child Nutrition Programs

Section 3 Grains/Breads

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
BARLEY					
Barley (Group H) <i>Dry</i>	Pound	42.0	1/4 cup cooked	2.4	1 lb dry = about 2-1/3 cups dry barley
	Pound	21.2	1/2 cup cooked	4.8	
	Pound	14.1	3/4 cup cooked	7.1	
BREAD³					
Bread (Group B) <i>Sliced³</i> <i>Fresh</i> <i>All types - white, rye, whole wheat, raisin, quick bread, etc.</i>	Pound	32.0	1/2 grains/breads serving (1/2 slice; must weigh at least 13 g or 0.5 oz)	3.2	
	Pound	16.0	1 grains/breads serving (1 slice; must weigh at least 25 g or 0.9 oz)	6.3	
BREAD STICKS					
Bread Sticks (Group A) <i>Hard</i>	Pound	45.3	1/2 grains/breads serving (about 2 sticks; must weigh at least 10 g or 0.4 oz)	2.2	7-3/4 inches long, 3/4-inch diameter
	Pound	22.6	1 grains/breads serving (about 3 sticks; must weigh at least 20 g or 0.7 oz)	4.5	
BULGUR					
Bulgur (Group H) <i>Dry</i>	Pound	39.2	1/4 cup cooked	2.6	1 lb dry = about 3 cups dry bulgur
	Pound	19.6	1/2 cup cooked	5.1	
	Pound	13.0	3/4 cup cooked	7.7	

³The number of slices per purchase unit does not include the end slices

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
CEREAL GRAINS					
Cereal Grains Amaranth (Group H) <i>Dry</i>	Pound	19.6	1/4 cup cooked	5.1	1 lb dry = about 2-1/3 cups dry or 2.70 lb (about 4-5/8 cups) cooked amaranth when prepared with 2 parts water to 1 part dry amaranth
	Pound	9.82	1/2 cup cooked	10.2	
	Pound	6.54	3/4 cup cooked	15.3	
Cereal Grains Buckwheat (Group H) <i>Dry</i>	Pound	22.8	1/4 cup cooked	4.4	1 lb dry = about 2-1/3 cups dry or 3.06 lb (about 5-2/3 cups) cooked buckwheat when prepared with 2 parts water to 1 part dry buckwheat
	Pound	11.4	1/2 cup cooked	8.8	
	Pound	7.61	3/4 cup cooked	13.2	
Cereal Grains Cornmeal (Group H) <i>Dry</i>	Pound	50.7	1/4 cup cooked	2.0	1 lb dry = about 3 cups dry cornmeal
	Pound	25.3	1/2 cup cooked	4.0	
	Pound	16.9	3/4 cup cooked	6.0	
Cereal Grains Cornmeal (Group H) <i>Stone ground Dry</i>	Pound	57.3	1/4 cup cooked	1.8	1 lb dry = about 3-3/8 cups dry, stone-ground cornmeal
	Pound	28.6	1/2 cup cooked	3.5	
	Pound	19.1	3/4 cup cooked	5.3	
Cereal Grains Corn Grits (Group H) <i>Instant Dry</i>	Pound	54.7	1/4 cup cooked	1.9	1 lb dry = about 5-3/4 cups dry, instant corn grits
	Pound	27.4	1/2 cup cooked	3.7	
	Pound	18.2	3/4 cup cooked	5.5	

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
CEREAL GRAINS (continued)					
Cereal Grains Corn Grits (Group H) <i>Quick Dry</i>	Pound	45.0	1/4 cup cooked	2.3	1 lb dry = about 2-3/4 cups dry, quick grits
	Pound	22.4	1/2 cup cooked	4.5	
	Pound	15.0	3/4 cup cooked	6.7	
Cereal Grains Corn Grits (Group H) <i>Regular Dry</i>	Pound	50.3	1/4 cup cooked	2.0	1 lb dry = about 2-3/4 cups dry, regular grits
	Pound	25.1	1/2 cup cooked	4.0	
	Pound	16.7	3/4 cup cooked	6.0	
Cereal Grains Farina (Group H) <i>Instant Dry</i>	Pound	45.5	1/4 cup cooked	2.2	1 lb dry = about 2-3/8 cups dry, instant farina
	Pound	22.7	1/2 cup cooked	4.4	
	Pound	15.1	3/4 cup cooked	6.6	
Cereal Grains Farina (Group H) <i>Regular Dry</i>	Pound	58.9	1/4 cup cooked	1.7	1 lb dry = about 2-1/2 cups dry, regular farina
	Pound	29.4	1/2 cup cooked	3.4	
	Pound	19.6	3/4 cup cooked	5.1	
Cereal Grains Farina (Group H) <i>Quick Dry</i>	Pound	58.1	1/4 cup cooked	1.8	1 lb dry = about 2-1/2 cups dry, quick farina
	Pound	29.0	1/2 cup cooked	3.5	
	Pound	19.3	3/4 cup cooked	5.2	
Cereal Grains Kasha (Group H) <i>Dry</i>	Pound	21.1	1/4 cup cooked	4.8	1 lb dry = about 2-3/8 cups dry or 2.92 lb (about 5-1/4 cups) cooked kasha when prepared with 2 parts water to 1 part dry kasha
	Pound	10.5	1/2 cup cooked	9.6	
	Pound	7.05	3/4 cup cooked	14.2	

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
CEREAL GRAINS (continued)					
Cereal Grains Millet (Group H) Dry	Pound	22.9	1/4 cup cooked	4.4	1 lb dry = about 2-1/8 cups dry or 2.30 lb (about 5-5/8 cups) cooked millet when prepared with 1-1/2 parts water to 1 part dry millet
	Pound	11.4	1/2 cup cooked	8.8	
	Pound	7.64	3/4 cup cooked	13.1	
Cereal Grains Oats (Group H) Rolled Instant Enriched Dry	Pound	46.9	1/4 cup cooked	2.2	1 lb dry = about 5-2/3 cups dry, instant, rolled oats
	Pound	23.4	1/2 cup cooked	4.3	
	Pound	15.6	3/4 cup cooked	6.5	
Cereal Grains Oats (Group H) Rolled Quick Dry	Pound	47.6	1/4 cup cooked	2.1	1 lb dry = about 6-1/4 cups dry, quick, rolled oats
	Pound	23.8	1/2 cup cooked	4.2	
	Pound	15.8	3/4 cup cooked	6.4	
Cereal Grains Oats (Group H) Rolled Regular Dry Includes USDA Commodity	Pound	45.4	1/4 cup cooked	2.2	1 lb dry = about 6 cups dry, regular, rolled oats
	Pound	22.7	1/2 cup cooked	4.4	
	Pound	15.1	3/4 cup cooked	6.7	
Cereal Grains Quinoa (Group H) Dry	Pound	26.4	1/4 cup cooked	3.8	1 lb dry = about 2-1/2 cups dry or 2.51 lb (6-1/2 cups) cooked quinoa when prepared with 2 parts water to 1 part dry quinoa
	Pound	13.2	1/2 cup cooked	7.6	
	Pound	8.81	3/4 cup cooked	11.4	

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
CEREAL GRAINS (continued)					
Cereal Grains Wheat Berries (Group H) <i>Dry</i>	Pound	24.0	1/4 cup cooked	4.2	1 lb dry = about 2-1/4 cups dry or 2.77 lb (about 6 cups) cooked wheat berries when prepared with 3 parts water to 1 part dry wheat berries
	Pound	12.0	1/2 cup cooked	8.4	
	Pound	8.00	3/4 cup cooked	12.5	
Cereal Grains Wheat Cereal (Group H) <i>Instant Dry</i>	Pound	49.1	1/4 cup cooked	2.1	1 lb dry = about 4 cups dry, instant, wheat cereal
	Pound	24.5	1/2 cup cooked	4.1	
	Pound	16.3	3/4 cup cooked	6.2	
Cereal Grains Wheat Cereal (Group H) <i>Regular Dry</i>	Pound	49.2	1/4 cup cooked	2.1	1 lb dry = about 3-1/3 cups dry, regular, wheat cereal
	Pound	24.6	1/2 cup cooked	4.1	
	Pound	16.4	3/4 cup cooked	6.1	
Cereal Grains Wheat, Rolled (Group H) <i>Dry</i> <i>Includes USDA Commodity</i>	Pound	38.0	1/4 cup cooked	2.7	1 lb dry = about 2-3/8 cups dry or 4.83 lb (about 9-1/2 cups) cooked rolled wheat when prepared with 3-1/2 parts water to 1 part dry rolled wheat
	Pound	19.0	1/2 cup cooked	5.3	
	Pound	12.6	3/4 cup cooked	8.0	
CEREALS, READY-TO-EAT					
Cereals, Ready-to-eat Wheat, Corn, Rice, Oats, Granola (Group I)	Single Serve Package	1.00	1 grains/breads serving (3/4 cup or 1.0 oz, whichever is less)	100.0	Package contents vary with the cereal—flakes, biscuits, shreds, granules, etc.
Cereals, Ready-to-eat Wheat Germ (Group I) <i>Toasted Dry</i>	Pound	13.0	1 grains/breads serving (about 1/4 cup dry; must weigh at least 28.35 g or 1.0 oz dry)	7.7	1 lb dry = about 3-1/4 cups dry wheat germ

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
CHOW MEIN NOODLES					
Chow Mein Noodles (Group A)	Pound	34.8	1/2 grains/breads serving (about 1/4 cup; must weigh at least 10 g or 0.4 oz)	2.9	
	Pound	17.4	1 grains/breads serving (about 1/2 cup; must weigh at least 20 g or 0.7 oz)	5.8	
CORN CHIPS					
Corn Chips (Group B)	Pound	20.0	3/4 grains/breads serving (about 1/2 cup; must weigh at least 13 g or 0.5 oz)	5.0	
	Pound	15.0	1 grains/breads serving (about 2/3 cup; must weigh at least 25 g or 0.9 oz)	6.7	
COUSCOUS					
Couscous (Group H) Dry	Pound	29.1	1/4 cup cooked	3.5	1 lb dry = about 2-3/8 cups dry couscous
	Pound	14.5	1/2 cup cooked	6.9	add 3-1/4 cups water to 1 lb dry couscous
	Pound	9.71	3/4 cup cooked	10.3	1 lb dry = 2.55 lb (about 7-1/4 cups) cooked couscous
CROUTONS					
Croutons (Group A) Prepackaged Dry	Pound	44.6	1/2 grains/breads serving (about 1/4 cup dry; must weigh at least 10 g or 0.4 oz)	2.3	1 lb dry = about 11-1/8 cups dry croutons
	Pound	22.3	1 grains/breads serving (about 1/2 cup dry; must weigh at least 20 g or 0.7 oz)	4.5	

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
GRAHAM CRACKERS					
Graham Crackers (Group B)	Pound	32.4	1/2 grains/breads serving (about 2 crackers; must weigh at least 13 g or 0.5 oz)	3.1	1 lb AP = about 64 crackers
	Pound	21.3	1 grains/breads serving (about 4 crackers; must weigh at least 25 g or 0.9 oz)	4.7	
MELBA TOAST					
Melba Toast (Group A)	Pound	37.8	1/2 grains/breads serving (about 3 pieces; must weigh at least 10 g or 0.4 oz)	2.7	
	Pound	22.2	1 grains/breads serving (about 5 pieces; must weigh at least 20 g or 0.7 oz)	4.5	
PASTA					
Pasta (Group H) <i>Bowties</i> <i>Large size</i> <i>Dry</i>	Pound	25.1	1/4 cup cooked	4.0	1 lb dry = about 7-1/2 cups dry bowtie pasta
	Pound	12.5	1/2 cup cooked	8.0	1 lb dry = 2.66 lb (about 6-1/4 cups) cooked pasta boiled 17 minutes
	Pound	8.39	3/4 cup cooked	12.0	
Pasta (Group H) <i>Elbow Macaroni</i> <i>Regular</i> <i>Dry</i>	Pound	39.0	1/4 cup cooked	2.6	1 lb dry = about 3-1/2 cups dry elbow macaroni
	Pound	19.5	1/2 cup cooked	5.2	
	Pound	13.0	3/4 cup cooked	7.7	
Pasta (Group H) <i>Noodles</i> <i>Egg</i> <i>Medium</i> <i>Dry</i>	Pound	40.3	1/4 cup cooked	2.5	1 lb dry = about 11-7/8 cups dry egg noodles
	Pound	20.1	1/2 cup cooked	5.0	
	Pound	13.4	3/4 cup cooked	7.5	

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
PASTA (continued)					
Pasta (Group H) <i>Noodles</i> <i>Lasagna</i> <i>Dry</i>	Pound	28.3	1/4 cup cooked	3.6	1 lb dry = about 21 pieces dry lasagna noodles
	Pound	14.1	1/2 cup cooked	7.1	1 lb dry = 2.66 lb (about 7 cups) cooked pasta boiled 15 minutes
	Pound	9.46	3/4 cup cooked	10.6	
Pasta (Group H) <i>Noodles</i> <i>Lasagna sheets</i> <i>Frozen</i>	Pound	13.9	1/4 cup cooked	7.2	1 lb frozen = about 3-3/4 frozen lasagna sheets
	Pound	6.96	1/2 cup cooked	14.4	1 lb AP = 1.47 lb (about 2-1/2 sheets) cooked pasta boiled 4 minutes
	Pound	4.64	3/4 cup cooked	21.6	
Pasta (Group H) <i>Noodles</i> <i>Ramen</i> <i>Dry</i>	Pound	25.4	1/4 cup cooked	4.0	1 lb dry = about 5-1/2 cups dry ramen noodles
	Pound	12.7	1/2 cup cooked	7.9	1 lb dry = 3.07 lb (about 6-1/3 cups) cooked pasta boiled 3 minutes
	Pound	8.48	3/4 cup cooked	11.8	
Pasta (Group H) <i>Orzo</i> <i>Dry</i>	Pound	25.5	1/4 cup cooked	4.0	1 lb dry = about 2-3/8 cups dry orzo pasta
	Pound	12.7	1/2 cup cooked	7.9	1 lb dry = 3.07 lb (about 6-3/8 cups) cooked orzo pasta boiled 9 minutes
	Pound	8.53	3/4 cup cooked	11.8	
Pasta (Group H) <i>Penne</i> <i>Dry</i>	Pound	31.2	1/4 cup cooked	3.2	1 lb dry = about 5-1/8 cups dry penne pasta
	Pound	15.6	1/2 cup cooked	6.5	1 lb dry = 2.60 lb (about 7-3/4 cups) cooked pasta boiled 14 minutes
	Pound	10.4	3/4 cup cooked	9.7	

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
PASTA (continued)					
Pasta (Group H) Shells Large size (for stuffing) Dry	Pound	25.3	1/4 cup cooked (about 2 shells)	4.0	1 lb dry = about 10-7/8 cups dry large shell pasta
	Pound	12.6	1/2 cup cooked (about 4 shells)	8.0	1 lb dry = 2.27 lb (about 6-1/3 cups) cooked pasta shells boiled 14 minutes
Pasta (Group H) Shells Medium Dry	Pound	26.7	1/4 cup cooked	3.8	1 lb dry = about 6 cups dry medium shell pasta
	Pound	13.3	1/2 cup cooked	7.6	1 lb dry = 2.53 lb (about 6-2/3 cups) cooked pasta
	Pound	8.93	3/4 cup cooked	11.2	1/4 cup cooked = about 17 shells boiled 12 minutes
Pasta (Group H) Spaghetti Regular Dry	Pound	21.2	1/4 cup cooked <i>al dente</i>	4.8	1 lb dry = about 3-1/4 cups dry spaghetti pieces
	Pound	10.6	1/2 cup cooked <i>al dente</i>	9.5	1 lb dry = 2.37 lb (about 5-1/4 cups) <i>al dente</i> cooked pasta (boiled 8 minutes)
	Pound	7.06	3/4 cup cooked <i>al dente</i>	14.2	
Pasta (Group H) Spiral (Rotini) Dry	Pound	33.8	1/4 cup cooked	3.0	1 lb dry = about 5-3/8 cups dry spiral pasta
	Pound	16.9	1/2 cup cooked	6.0	
	Pound	11.2	3/4 cup cooked	9.0	
Pasta (Group H) Wagon Wheels Medium size Dry	Pound	31.1	1/4 cup cooked	3.3	1 lb dry = about 5 cups dry wagon wheel pasta
	Pound	15.5	1/2 cup cooked	6.5	1 lb dry = 2.79 lb (about 7-3/4 cups) cooked pasta boiled 12 minutes
	Pound	10.3	3/4 cup cooked	9.7	

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
RICE⁴					
Rice (Group H)⁴ <i>Brown Instant Dry</i>	Pound	28.8	1/4 cup cooked	3.5	1 lb dry = about 4-3/8 cups dry rice
	Pound	14.4	1/2 cup cooked	7.0	1 lb dry = about 7-1/8 cups cooked
	Pound	9.62	3/4 cup cooked	10.4	1 cup dry = about 1-2/3 cups cooked
Rice (Group H)⁴ <i>Brown Long grain Regular Dry</i>	Pound	17.5	1/4 cup cooked	5.8	1 lb dry = about 2-1/2 cups dry rice
	Pound	8.75	1/2 cup cooked	11.5	1 lb dry = about 4-3/8 cups cooked
	Pound	5.83	3/4 cup cooked	17.2	1 cup dry = about 1-3/4 cups cooked
Rice (Group H)⁴ <i>White Long grain Parboiled (Converted) Dry</i>	Pound	17.5	1/4 cup cooked	5.8	1 lb dry = about 2-1/2 cups dry rice
	Pound	8.75	1/2 cup cooked	11.5	1 lb dry = about 4-3/8 cups cooked
	Pound	5.83	3/4 cup cooked	17.2	1 cup dry = about 1-3/4 cups cooked
Rice (Group H)⁴ <i>White Long grain Instant Dry</i>	Pound	28.0	1/4 cup cooked prepared with boiling water	3.6	1 lb dry = about 4-1/2 cups dry rice
	Pound	14.0	1/2 cup prepared with boiling water	7.2	1 lb dry = about 7 cups cooked
	Pound	7.00	3/4 cup prepared with boiling water	14.3	1 cup dry = about 1-1/2 cups cooked
Rice (Group H)⁴ <i>White Long grain Regular Dry</i>	Pound	30.0	1/4 cup cooked	3.4	1 lb dry = about 2-1/3 cups dry rice
	Pound	15.0	1/2 cup cooked	6.7	1 lb dry = about 7-1/2 cups cooked
	Pound	10.0	3/4 cup cooked	10.0	1 cup dry = about 3-1/4 cups cooked

⁴The yield for rice differs depending on how it is cooked. The yields provided in this guide represent the lower range of the average yield for each type of rice. If you consistently get a different yield for your cooking method, you may want to see pages I-3 & I-4 of the introduction on how to establish in-house yield data in cooperation with your State agency.

Section 3—Grains/Breads

1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
RICE⁴ (continued)					
Rice (Group H)⁴ <i>White Medium grain Regular Dry</i>	Pound	27.0	1/4 cup cooked	3.8	1 lb dry = about 2-1/4 cups dry rice
	Pound	13.5	1/2 cup cooked	7.5	1 lb dry = about 6-3/4 cups cooked
	Pound	9.00	3/4 cup cooked	11.2	1 cup dry = about 3 cups cooked
Rice (Group H)⁴ <i>White Short grain Regular Dry</i>	Pound	27.0	1/4 cup cooked	3.8	1 lb dry = about 2-1/4 cups dry rice
	Pound	13.5	1/2 cup cooked	7.5	1 lb dry = about 6-3/4 cups cooked
	Pound	9.00	3/4 cup cooked	11.2	1 cup dry = about 3 cups cooked
RICE CAKES⁵					
Rice Cakes⁵ (Group A) <i>Puffed Includes seeds or other grains</i>	Package (average 5.25 oz)	10.7	1/2 grains/breads serving (about 1-1/2 cakes, puffed; must weigh at least 10 g or 0.4 oz)	9.3	1 lb AP = about 48 rice cakes
	Package (average 5.25 oz)	5.30	1 grains/breads serving (about 3 cakes, puffed; must weigh at least 20 g or 0.7 oz)	18.8	
RYE WAFERS					
Rye Wafers (Group A)	Pound	36.0	1/2 grains/breads serving (about 2 wafers; must weigh at least 10 g or 0.4 oz)	2.8	
	Pound	18.0	1 grains/breads serving (about 4 wafers; must weigh at least 20 g or 0.7 oz)	5.6	

⁴The yield for rice differs depending on how it is cooked. The yields provided in this guide represent the lower range of the average yield for each type of rice. If you consistently get a different yield for your cooking method, you may want to see pages I-3 & I-4 of the introduction on how to establish in-house yield data in cooperation with your State agency.

⁵Does not include popcorn cakes or popcorn in combination with other grains since popcorn is not creditable towards meal pattern requirements.

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
SALTINES					
Saltines (Group A)	Pound	41.2	1/2 grains/breads serving (about 4 crackers; must weigh at least 10 g or 0.4 oz)	2.5	
	Pound	20.6	1 grains/breads serving (about 8 crackers; must weigh at least 20 g or 0.7 oz)	4.9	
SODA CRACKERS					
Soda Crackers (Group A)	Pound	45.0	1/2 grains/breads serving (about 2 crackers; must weigh at least 10 g or 0.4 oz)	2.3	
	Pound	22.5	1 grains/breads serving (about 4 crackers; must weigh at least 20 g or 0.7 oz)	4.5	
TACO/TOSTADA SHELLS					
Taco/Tostada Shells (Group B)	Dozen	12.0	1/2 grains/breads serving (about 1 taco/tostada shell; must weigh at least 13 g or 0.5 oz)	8.4	
	Dozen	6.00	1 grains/breads serving (about 2 taco/tostada shells; must weigh at least 25 g or 0.9 oz)	16.7	
WILD RICE					
Wild Rice (Group H) Dry	Pound	34.8	1/4 cup cooked	2.9	1 lb dry = about 2-2/3 cups dry wild rice
	Pound	17.4	1/2 cup cooked	5.8	2-1/2 cups water to 1 cup dry wild rice
	Pound	11.6	3/4 cup cooked	8.7	1 lb dry = 2.55 lb (about 8-2/3 cups) cooked wild rice

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1 Food As Purchased, AP	2 Purchase Unit	3 Servings per Purchase Unit, EP	4 Serving Size per Meal Contribution	5 Purchase Units for 100 Servings	6 Additional Information
WILD RICE (continued)					
Wild Rice and Enriched White Rice Mix (Group H) Dry	Pound	28.7	1/4 cup cooked	3.5	1 lb dry = about 2-3/8 cups dry mixed rice
	Pound	14.3	1/2 cup cooked	7.0	2-1/4 cups water to 1 cup dry
	Pound	9.57	3/4 cup cooked	10.5	1 lb dry = 3.21 lb (about 7-1/8 cups) cooked rice mix
ZWEIBACK					
Zweiback (Group A)	Pound	32.4	1/2 grains/breads serving (about 2 pieces; must weigh at least 10 g or 0.4 oz)	3.1	
	Pound	21.3	1 grains/breads serving (about 3 pieces; must weigh at least 20 g or 0.7 oz)	4.7	