

U.S. Department of Agriculture's Food Buying Guide for Child Nutrition Programs

As a part of this agenda item for the March 2024, California State Board of Education meeting, the California Department of Education has incorporated, by reference, the U.S. Department of Agriculture's (USDA) Food Buying Guide for Child Nutrition Programs. On February 21, 2024, the title page, page three, page four, and sections one through four, not including the yield tables, were downloaded from the USDA's website at <https://foodbuyingguide.fns.usda.gov/Appendix/DownloadFBG> and combined into a single document. This file is not the complete document.



FNS-634



Food Buying Guide for Child Nutrition Programs



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Updated by:

Child Nutrition Programs

Nutrition, Education, Training, and Technical Assistance Division, Food and Nutrition Service

U.S. Department of Agriculture

Buy American Requirement

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Attachment 3

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The Buy American Provision is a very important provision in the National School Lunch and Breakfast Programs (NSLP/SBP). This provision does not apply to Child and Adult Care Food Program (CACFP) sponsors who are not school food authorities operating the NSLP/SBP.

This provision requires that a school food authority purchase, to the maximum extent practicable, domestic commodities or products. The term “domestic commodity or product” means an agricultural commodity that is produced in the United States or a food product that is processed in the United States substantially using agricultural commodities that are produced in the United States.

The definition of “substantially” means that over 51% of the final processed product consists of agricultural commodities that were grown domestically; however, exceptions to purchase domestic foods are very limited. These limited exceptions are only permitted after first considering domestic alternatives and when domestic foods are unavailable or prohibitively expensive.

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Meats / Meat Alternates

Food Buying Guide for Child Nutrition Programs



Meats/Meat Alternates Component for the Child Nutrition Programs

Child Nutrition Program regulations require all schools, centers, and day care homes participating in the National School Lunch Program (NSLP), National School Breakfast Program (SBP), Child and Adult Care Food Program (CACFP), and Summer Food Service Program (SFSP) to follow a food-based menu planning (FBMP) approach. FBMP helps Program operators serve cost-effective meals that are varied, balanced, safe, wholesome, and health promoting.



Meats and meat alternates (M/MA) include meat, poultry, fish, cheese, yogurt, soy yogurt, dry beans and peas, whole eggs, tofu, tempeh, peanut butter or other nut or seed butters, and nuts and seeds. Child Nutrition Program operators must serve meals that contain the amount of M/MA required in the lunch and supper Meal Pattern Charts as shown on pages I-7 to I-17. Program operators have the choice to serve a M/MA as one of the two components of a snack served in the NSLP, CACFP, or as part of the breakfast for the SBP and CACFP.

For the NSLP and SFSP, enriched macaroni-type products with fortified protein as defined in 7 CFR Part 210 Appendix A, may be counted as meeting part of the M/MA requirement. Products formulated with alternate protein products may be counted as meeting all or part of the meats/meat alternates requirement for all Child Nutrition Programs.

Noodles made from bean or legume flours may credit toward the meat/meat alternate component when paired with another meat/meat alternate, such as meat or cheese. Yield data for bean flour is listed in Appendix C of the *Food Buying Guide*.

Dried and semi-dried meat, poultry and seafood products may be served in CNPs as part of a reimbursable meal or snack; however, these types of products (e.g., dried meat sticks) are not listed in the *Food Buying Guide*, as there is no standard yield data for these food items and the product formulations vary widely. Therefore, the meats/meat alternates contribution is based on the amount of meat, poultry, or seafood these products contain and the contribution is limited by the portion size. This is true of all food contributions with the exception of tomato paste, tomato puree, and dried fruit. A Child Nutrition (CN) label or a manufacturer's Product Formulation Statement (PFS) must be used as documentation for dried meat, poultry, and seafood products. When a PFS is provided for a dried meat, poultry, or seafood product, it should be evaluated to ensure the following crediting principles are followed:

- The creditable meat ingredient listed on the PFS must match or have a similar description as the ingredient listed on the product label (e.g., ground beef, no more than 30% fat).
- The creditable meat ingredient listed on the PFS must have a similar description to the food item in this *Food Buying Guide*.
- The creditable amount cannot exceed the finished weight of the product.

For detailed information and assistance on the proper use of these products, please contact your State agency.

- The M/MA for the lunch or supper must be served in the main dish or in the main dish and one other menu item.

- In order for a food to contribute to the M/MA component, it must contain a minimum of 0.25 oz of a M/MA.
- For the SBP, M/MA can be an extra food, not a component for a reimbursable meal, or it may credit toward the required weekly total grains, only after meeting the daily grains requirement.
- For the CACFP, M/MA may be served in place of the entire grains component at breakfast a maximum of three times per week.

Optional Best Practices for All Child Nutrition Programs

To further strengthen the nutritional quality of meals served, Program operators are encouraged, but not required, to:

- Serve a variety of lean protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products, such as tempeh or tofu.
- Limit serving processed meats and poultry as they are typically sources of sodium and saturated fats. According to Dietary Guidelines for Americans (DGAs), processed meats are products preserved by smoking, curing, salting, and/or the addition of chemical preservatives.
- Serve only natural cheeses and choose low-fat or reduced-fat cheeses.

This section contains yield data for:

- Fresh and frozen boneless meat, poultry, and fish in servings of 1 and 1-1/2 oz equivalent;
- Surimi seafood in servings of 1/4 oz, 1-oz, and 1-1/2 oz equivalent;
- Some fresh and frozen meats, poultry, and fish with bones (e.g., chicken drumstick) in servings of 1 and 1-1/2 oz equivalent;
- Commercially prepared tofu in a serving of 1 oz equivalent for the NSLP, SBP, and CACFP;
- Tempeh in a serving of 1 oz equivalent;
- Peanut butter and other nut butters in 2 Tbsp and 3 Tbsp measures that are equivalent to 1 and 1-1/2 oz of meat alternate respectively;
- Whole eggs are expressed in large egg equivalents (1 large egg = 2 oz equivalent meat alternate) and 1/2 large egg equivalent (1/2 large egg = 1 oz equivalent meat alternate);
- “USDA Foods” or “Market pack” is listed in column 1. For items where the USDA Foods and Market pack are both available, the items are designated as “Includes USDA Foods”;
- Commercially-prepared combination foods that meet USDA, Food Safety and Inspection Service (FSIS) standards that require a minimum percent of meat or poultry. Products listed include canned and frozen meat and poultry products at portion sizes to provide at least 1 ounce equivalent of cooked meat or poultry per average-size serving;
- Cooked dry beans and peas in servings of 1/4 cup and 3/8 cup (1 and 1-1/2 oz equivalent meat alternate respectively); and
- Standard commercially prepared canned bean or pea soups where one 1/2 cup serving provides 1/4 cup cooked beans (1 oz equivalent meat alternate).

NOTE: Information for nonspecific products such as chicken, beef, or pork nuggets and patties, and dried and semi-dried meat, poultry and seafood products is not provided in this Food Buying Guide. Nonspecific products do not require a minimum amount of meat by FSIS labeling Standards of Identity. There is no general way to determine how much meat or poultry is contained in these products, especially since each manufacturer has its own formulation. Program operators using these products must either request the manufacturer to obtain a Child Nutrition label or request the manufacturer's documentation known as the Product Formulation Statement to credit each specific product used. For more information on CN Labeling, please see Appendix C. Sample manufacturer's Product Formulation Statement (PFS) templates may be accessed via the CN Labeling website at: <http://www.fns.usda.gov/cnlabeling/food-manufacturersindustry>.

Definitions

A serving of cooked meat	A serving of cooked meat is understood to be lean meat without bone. According to Dietary Guidelines for Americans, lean meats and poultry contain less than 10 g of fat, 4.5 g or less of saturated fats, and less than 95 mg of cholesterol per 100 g and per labeled serving size.
A serving of cooked fresh or frozen poultry	A serving of cooked fresh or frozen poultry includes boneless meat and skin unless otherwise indicated.
A serving of yogurt	A serving of yogurt includes plain or flavored, unsweetened or sweetened – all types of yogurt must be commercially prepared and are further defined in the program regulations under 7 CFR parts 210.2, 220.2(bb), 226.2, and 225.2. All yogurt served in the CACFP must contain no more than 23 grams of sugar per 6 ounces (7 CFR 226.20(a)(5)(iii)).
“Market pack”	“Market pack” refers to foods available on the market.
IMPS	IMPS stands for Institutional Meat Purchase Specifications. These specifications describe in exact detail items most commonly used by foodservice establishments and institutional purchasers for purchasing meats. They are also used in USDA commodity specifications. Only meats that are certified by the USDA, Agricultural Marketing Service, Livestock, Poultry, and Seed Program (LPS) may be labeled “IMPS.”
Like IMPS:	Products having the description “like IMPS” imply that the IMPS standard for the described meat cut has been met but the meat has not been certified by LPS; hence, it is “like” or “similar” to IMPS meat but is not labeled as such. The data for the products contained in the FBG was derived using certified IMPS meat, but meats matching the descriptions and specifications may use the FBG yield for the matching IMPS product.
PFF	PFF stands for “Protein Fat Free,” which is a procedure used by cured pork processors to reflect the presence of added ingredients, including water in cured pork products, and relates labeling claims to the percent of meat protein in the product. Manufacturers must monitor the PFF since adding water and other ingredients dilutes the natural protein content. Labeling regulations established by FSIS state that products such as “Ham,” “Ham with Natural Juices,” “Ham Water Added,” etc., must comply with the minimum meat PFF percentages as stated in the regulations.

NOTE: Products named “Ham and Water Product, X% of weight is added ingredients” do not have standardized PFF values since the amount of water/ingredients added is not limited. For products labeled “Ham and Water Product X% of weight is added ingredients” to be properly used in Child Nutrition programs, you should either:

- *purchase a CN labeled product, or*
- *take out the percent of added water/ingredients by multiplying the finished weight by the percent added ingredients and then subtracting that amount from the finished weight, divide by the manufacturer’s cooking yield to obtain the raw weight of the product, and then apply the FBG yield for the specific cut of pork used to process the product.*

Please note that luncheon meats that are not CN Labeled or listed in the FBG are not creditable toward meal pattern requirements.

Yields

Standard commercially prepared combination foods: The yields for commercially prepared combination foods having Federal standards of identity (see 9 CFR parts 319 and 381 for FSIS regulations pertaining to standards of identity for meat and poultry products) listed under Chicken Products (and Beef or Turkey Products) are based on the minimum meat and poultry requirements for food products that are packed for interstate shipment under Federal Meat and Poultry Inspection. The serving size listed for these products will provide at least one ounce equivalent of cooked meat or poultry. Purchasers of these products will need to ensure that the name of the food on the product label exactly matches the FBG description for the “Food As Purchased” in Column 1 before using the crediting information.

Breaded fish portions or sticks: Yields are based on raw fish portions or sticks and the amount of fish in the product. “Precooked” or “Fried” seafood is not fully cooked; only the breading or batter is flash-fried to set. The fish is raw. For serving purposes the product must be fully cooked. For crediting purposes, the calculations were done using the weights and yields for cooked fish.

Yields of cooked meat and poultry vary with type, age, fat content, and weight of the animal, and the method, time, and temperature of cooking. The quantities of food to purchase are based on average yields of cooked meat and poultry.

Explanation of the Columns

The yield information is presented in table form for easy reference. The data on M/MA in the following table include yield information on common types and customary serving sizes of products that you can buy on the market, as well as some USDA Foods products. The columns are numbered 1 through 6 as follows:

Column 1: Food As Purchased, AP

The individual foods are arranged in alphabetical order by species (for example, ham is listed under PORK, MILD CURED). Within each species, all of the raw items are listed first followed by cooked and/or canned products. For Chicken and Turkey, the raw items are presented starting with the whole bird followed by whole parts and then the remaining raw items. Other characteristics are given, such as fat content, with or without bone, percent of fish in fish products, and weight of individual pieces of chicken. The items are listed according to the forms in which they appear in the market – fresh, canned, frozen or dehydrated.



Column 2: Purchase Unit

The purchase unit is generally given as either a pound, a No. 10 can, and, in many cases, a smaller size can.

Column 3: Servings per Purchase Unit, EP (Edible Portion)

This column shows the number of 1 or 1-1/2 ounce lean meat or equivalent servings you will get from each purchase unit. Numbers in this column have been rounded down in order to help ensure enough food is purchased for the number of servings stated.

Column 4: Serving Size per Meal Contribution

The size of a serving is given as 1 or 1-1/2 ounce cooked lean meat or equivalent (1/4 cup or 3/8 cup of cooked beans or peas, 1 or 1-1/2 ounce of cheese, 1/2 large egg (1 ounce) or 1 large egg (2 ounces), or 2 or 3 tablespoons of peanut butter). Individual servings such as frankfurters, chicken pieces, or fish portions are listed by the piece along with the equivalent ounces of lean meat given in parentheses under the portion size.

Column 5: Purchase Units for 100 Servings

This column shows the number of purchase units you need for 100 servings of the corresponding serving size listed in column 4. Numbers in this column have been generally rounded up in order to help ensure enough food is purchased for the number of servings.

Column 6: Additional Information

This column gives other information to help you calculate the amount of food you need to prepare meals. It shows the amount of cooked ready-to-serve meat you will get from 1 pound of meat, poultry, seafood, or acceptable meat alternate as purchased.

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Vegetables

Food Buying Guide for Child Nutrition Programs

Vegetables Component for the Child Nutrition Programs

Vegetables are one of the required components of reimbursable meals in the National School Lunch Program (NSLP) and Child and Adult Care Food Program (CACFP). Vegetables may be served as part of a reimbursable meal for the School Breakfast Program (SBP) and the Summer Food Service Program (SFSP). They may also be served as part of the reimbursable snack for the NSLP Afterschool Snack Service. The meal pattern requirements are described in the Charts located on pages I-7 through I-17.



Specific requirements:

- Fresh, frozen, or canned vegetables and full-strength vegetable juice may contribute toward the vegetables requirement.
- Any liquid or frozen product labeled “juice,” “full-strength juice,” “single-strength juice,” “100 percent juice” or “reconstituted juice” is considered full-strength juice. To be used in meeting the vegetable requirement, the product must be 100% full-strength juice.
 - In School Meal Programs, no more than 1/2 of the total weekly fruit or vegetable requirements may be met with full-strength vegetable juice.
 - In the CACFP, full-strength juice may be used to meet the vegetables or fruits component no more than once per day.
- Juice products that are less than full-strength or that contain concentrates that are not fully reconstituted may not be served as part of a reimbursable meal or snack.
- Full-strength vegetable juice may be used as one component of a snack when the other component is not fluid milk.
- Juice cannot be credited when used as an ingredient in another food or beverage product with the exception of smoothies.
- Snack-type vegetable products, such as potato chips, do not contribute toward meal pattern requirements. Please refer to the section titled “Products That Do Not Meet Requirements” on page 2-6 for more information.
- Over the course of the week, schools must offer vegetables from specific subgroups established by the Dietary Guidelines for Americans: dark green, red/orange, beans/peas (legumes), starchy, and “other” vegetables. The “additional” vegetables requirement may be met with vegetables from any subgroup. Offering specific amounts of vegetable subgroups is not required in other Child Nutrition Programs. However, serving a variety of vegetables each week helps to ensure that program participants have access to a greater variety of nutrients.
- The minimum creditable serving size for any vegetable offering is 1/8 cup. The importance of adequate and recognizable amounts of vegetables must be considered in menu planning in order to ensure a well-balanced meal, to illustrate healthy choices from the MyPlate food guidance system and to meet meal pattern requirements.
- Hominy in its whole form may credit as a starchy vegetable. If served milled, hominy credits towards the grains component.
- Beans and legume vegetables may be counted towards the meats/meat alternates or vegetables components, but not as both simultaneously. This includes roasted beans, such as roasted chickpeas (garbanzo beans).

- Noodles made from bean or legume flours may credit toward the vegetable or meat/meat alternate component. Program operators may serve vegetable noodles without serving additional recognizable vegetables and credit towards the vegetable component. This guidance is limited to vegetable noodles only, and does not apply to other food items. This crediting flexibility aims to increase options for local Program operators to meet vegetable requirements; therefore, this crediting change does not remove the visual recognition requirement for legume pasta crediting toward the meat/meat alternate component.
- In School Meal Programs or the CACFP, menu items that are mixtures of fruits and vegetables, for example, carrot-raisin salad, must be credited separately for the fruits and vegetables components. For the component to credit, the serving must contain a minimum of 1/8 cup.

Program requirements for vegetables are based on nutritional standards and the Dietary Guidelines for Americans, which identify vegetables as important sources of many key nutrients, including potassium, dietary fiber, folate (folic acid), Vitamin A, and Vitamin C. The following tips can help you to increase the variety of nutrients offered to program participants:

- Include a variety of vegetables each week (for School Meal Programs, this includes vegetables from each of the vegetable subgroups). The DGAs recommend including a variety of vegetables from all of the subgroups – dark green, red and orange, legumes (beans and peas), starchy, and other vegetables.
- Whenever possible, serve vegetables in place of foods high in calories, saturated fats, or sodium. Make sure to keep added fats, sodium, and sugars low when preparing vegetable dishes.
- Increase the vegetables content of mixed dishes.
- Offer green salads when possible and incorporate vegetables into most meals and snacks.

During menu development, you will decide whether or not to take advantage of flexibility in crediting Vegetables and Meats/Meat Alternates (M/MA) toward the required breakfast components. If you include Vegetables or M/MA at breakfast, remember the following:

- Vegetables can be served as an extra food if not being offered as a component of a reimbursable meal, or
- In the SBP and the CACFP, vegetables may credit for some or all of the required fruits component when these guidelines are followed:
 - Equal volume measures of vegetables can be substituted for equal volume measures of fruits.
 - Include vegetables that are good sources of fiber, like fresh, frozen, or canned vegetables, instead of juices, and beans/peas (legumes).
 - Vegetable juices must be pasteurized, full-strength 100% juice and count toward the limit on juice offered daily or weekly.
 - In the SBP, 2 cups of vegetables from the red/orange, dark green, legume, and other vegetable subgroups must be served during a week that starchy vegetables are served.
- Refer to the appropriate program regulatory guidance for further information related to the vegetables requirement.

Crediting of Vegetables

- A serving of cooked vegetable is considered to be drained. If it is a canned, heated vegetable, use listing in Column 4 (Serving Size Per Meal Contribution), that reads “1/4 cup heated, drained vegetable.” If it is served unheated, the appropriate listing is “1/4 cup drained vegetable.”
- A serving of raw vegetable used in salads containing dressing is shown as “1/4 cup raw, (pieces, shredded, chopped) vegetable with dressing.”
- **School Meal Programs and the CACFP:** raw, leafy greens credit at half the volume served, which is consistent with the Dietary Guidelines for Americans. For example, a 1/2 cup of romaine lettuce contributes 1/4 cup toward the dark green vegetable subgroup. Cooked leafy greens such as sautéed spinach are credited by volume as served; for example, 1/2 cup of cooked spinach credits as 1/2 cup of dark green vegetables.



Crediting of Vegetable Concentrates (Tomato Paste and Tomato Puree)

Tomato paste and tomato puree can be credited using the whole food equivalency (volume of tomatoes prior to pureeing) rather than on the actual volume served. *All other vegetables and vegetable purees credit based on the finished volume served.*

The following examples demonstrate how to credit tomato paste and tomato puree:

How to Use Information on Tomato Paste and Tomato Puree Concentrates

Example Using Pounds of Concentrate

Multiply the number of pounds of concentrate by the creditable 1/4 cup servings per pound of concentrate as listed in the FBG.

EXAMPLE: A recipe calls for 4 lb 12 oz (4.75 lb) of tomato paste. The vegetables yield table shows that each pound of tomato paste provides 27.6 creditable servings of vegetable. Thus, $4.75 \times 27.6 = 131.1$ servings. Therefore, the tomato paste in the recipe provides 131.1 creditable 1/4 cup servings of vegetable (red/orange vegetable subgroup in school meals).

Example Using Cans of Concentrate

Multiply the number of No. 10 cans of concentrate in the recipe by the number of creditable 1/4 cup servings provided by one No. 10 can of the concentrate.

EXAMPLE: Two No. 10 cans of tomato puree are used in a recipe. The vegetable yield table shows that one No. 10 can of tomato puree provides 96 creditable 1/4 cup servings of vegetable. Thus, $2 \times 96 = 192$. Therefore, 192 creditable 1/4 cup servings of vegetable are provided by the tomato puree.

Yield figures for vegetables are for on-site preparation. They do not allow for losses that may occur in prepared products (both pre-portioned and bulk) during freezing, storage, heating, and serving. Other factors may affect your yields: quality and condition of the food, storage conditions and handling, equipment used in preparation, cooking and holding times, serving utensils, and portion control.



Factors Affecting Yields

Yields of vegetables vary according to the form of the food when purchased. For example:

- Frozen vegetables usually yield more servings per pound than fresh vegetables since the frozen ones are cleaned, blanched, and ready-to-cook.
- Dehydrated vegetables yield more servings per pound than fresh, frozen, or canned because they gain weight and volume as they absorb water during soaking and cooking. Some dehydrated products continue to expand while cooling.
- The weight of canned vegetables varies due to different densities of the food. A No. 10 can yields an average of 12 to 13-2/3 cups and 96 oz (6 lb) to 117 oz (7 lb 5 oz).

Definitions

Count	The number of whole vegetables contained or packed in a specific container. The higher the count the smaller the size of each vegetable.
Pared	When the outer covering (skin or peel) of a vegetable is removed.
Size	The number of pieces of whole vegetables in 10 pounds of product.
Tempered	Frozen vegetables brought to room temperature; thawed but not heated.
Unpared	When the outer covering (skin or peel) of a vegetable is not removed.

Products That Do Not Meet Requirements

The following products do not contribute to the vegetables component in any meal served under the Child Nutrition Programs:

- snack-type foods made from vegetables, such as potato chips;
- pickle relish, jam, or jelly;
- tomato catsup and chili sauce (tomato paste in chili is creditable);
- home canned products (for food safety reasons); or
- dehydrated vegetables used for seasoning.

Information Included In This Section

Over 630 entries for vegetables – fresh, canned, frozen, and dehydrated – are listed alphabetically. Data for canned juices and canned soups are also included in this section.

Vegetables information includes:

- Yield information on common institutional packs, smaller packs, and 1-pound units of many fresh, canned, and frozen vegetables.
- Net weight of contents of the can (including liquid) under the can size in Column 2, except where noted.
- Minimum weight and volume of drained vegetables in Column 6.
- Yields in terms of 1/4 cup servings, unless noted.
- Contribution to the meal patterns.
- Yield information on juice concentrates, tomato paste, and tomato puree as if reconstituted to full strength.
- Yield information on canned soups that contain at least 1/4 cup of vegetable per cup of soup.
- Yield information for all vegetables based on volume, not weight. This includes dried or dehydrated vegetables.

Explanation of the Columns

The data on vegetables in the yield tables includes yield information on common types and customary serving sizes of products that you can buy on the market, as well as some USDA Foods products.

Column 1: Food As Purchased, AP

The individual foods are arranged in alphabetical order.

Column 2: Purchase Unit

The purchase unit is specified, for example, 1 can (generally No. 10, No. 2-1/2, or No. 300), 1 pound, or 1 package. You can use data for one purchase unit to determine how much product you need for a specific number of servings.

Column 3: Servings per Purchase Unit, EP (Edible Portion)

This column shows the number of servings of a given size (found in Column 4) from each purchase unit (found in Column 2). Numbers in this column have sometimes been 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 given as a measure and/or weight or number of pieces. In most cases the serving size and contribution to the meal pattern are the same. When they differ, the contribution is stated along with the serving size.

Column 5: Purchase Units for 100 Servings

This column shows the number of purchase units (found in Column 2) you need for 100 servings. Numbers in this column are generally rounded up in order to help ensure enough food is purchased for the required number of servings.

Column 6: Additional Information

This column gives other information to help you calculate the amount of food you need to prepare meals. Column 6 information is not available for every food item.

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Fruits

Food Buying Guide for Child Nutrition Programs



Fruits Component for the Child Nutrition Programs

Regulations for the Child Nutrition Programs require that each reimbursable meal contain fruits. Fruits may be served as part of a reimbursable snack for the National School Lunch Program (NSLP) Afterschool Snack Service, Child and Adult Care Food Program (CACFP), and Summer Food Service Program (SFSP). The meal pattern requirements are described in the Charts located on pages I-7 and I-17.

Specific requirements:

Fruits that are fresh, frozen, dried, canned (packed in water, full-strength juice, or light syrup) and full-strength fruit juice may contribute toward the fruits requirement.



- Any liquid or frozen product labeled “juice,” “full-strength juice,” “single-strength juice,” “100% juice” or “reconstituted juice” is considered full-strength juice. To be used in meeting the fruits requirement, the product must be 100% full-strength juice.
- Juice products that are less than full-strength or that contain concentrates that are not fully reconstituted may not be served as part of a reimbursable meal or snack.
- Juice cannot be credited when used as an ingredient in another food or beverage product with the exception of smoothies.
- In School Meal Programs, no more than 1/2 of the total weekly fruits requirements may be met with full-strength fruit juice.
- In the CACFP, full-strength juice may be used to meet the fruits or vegetables component no more than once per day.
- Snack-type fruit products do not contribute toward meal pattern requirements. Please refer to the section titled “Products That Do Not Meet Requirements” on page 3-6 for more information.
 - The minimum creditable serving size for fruits is 1/8 cup. The importance of adequate and recognizable amounts of fruits must be considered in menu planning in order to ensure a well-balanced meal, to illustrate healthy choices from the MyPlate food guidance system and to meet the meal pattern requirements.
- In School Meal Programs and the CACFP, whole dried fruit and whole dried fruit pieces credit at twice the volume served.
 - For example, if you have 1/8 cup of dried cranberries, it credits as 1/4 cup fruit. Please note that 1/8 cup of any fruit (frozen, fresh, or dried) is the minimum creditable amount; 1/16 cup (1 Tbsp) of dried fruit does not credit as 1/8 cup.
- Full-strength juice may be used as one component of a snack when the other component is not fluid milk.
- For School Meal Programs and the CACFP, menu items that are mixtures of fruits and vegetables, for example, carrot-raisin salad, must be credited separately for the fruits and the vegetables components. For each component to credit, the serving must contain a minimum of 1/8 cup.

To help meet nutritional standards and the Dietary Guidelines for Americans, the fruits requirements are based on the following recommendations:

- Include a variety of fruits each week;
 - Fruits are sources of many essential nutrients such as potassium, dietary fiber, vitamin C, and folate. Serve a variety of fruit choices, as each fruit differs in nutrient content.
 - At least half of the recommended amount of fruits should come from whole fruits.
 - Fruit juice is lower than whole fruit in dietary fiber and when consumed in excess can contribute extra calories.
 - Serve fruits with more potassium often, such as bananas, prunes and prune juice, dried peaches and apricots, cantaloupe, honeydew melon and orange juice.
 - When serving canned fruits, purchase fruit canned in 100% fruit juice or water rather than syrup.
 - Keep saturated fat and added sugars low when preparing fruit dishes.



Crediting of Fruits

Please refer to the appropriate program regulatory guidance for program-specific information related to the fruits requirement.

A serving of canned fruit (as described in Column 4) may include the juice or liquid syrup in which the fruit is packed. Serving information is also provided for drained fruit. A serving of cooked fruit includes the fruit and juice or liquid. A serving of thawed frozen fruit consists of fruit plus the juice or liquid that accumulated during thawing unless otherwise noted in Column 4.



Crediting of Fruit Juice Concentrates How to Use Information on Concentrates

Fruit juice concentrates are allowed to be credited when fully reconstituted. The actual amount of fruit concentrate, before reconstituting, is used to determine the creditable amount.

See the following example:

Multiply the number of 32 fl oz cans of concentrate in the recipe by the number of creditable tablespoons of concentrate (1 Tbsp concentrate credits as 1/4 cup fruit juice when fully reconstituted) provided by one 32 fl oz can of concentrate.

EXAMPLE: Two 32 fl oz cans of frozen orange juice concentrate are reconstituted with water to make 100% orange juice. The yield data states that one 32 fl oz can of frozen orange juice concentrate provides 64 tablespoons of concentrate. Thus, $2 \times 64 = 128$. Therefore, 128 creditable 1/4 cup servings of fruit juice are provided by the reconstituted frozen orange juice concentrate.

Juice concentrates that are not fully reconstituted do not credit and may not be served as part of a reimbursable meal. Only 100% juice that is offered in a beverage form may credit toward the fruit requirement. In schools, up to half of the weekly fruits requirement may be served as 100% juice. In the CACFP, pasteurized full-strength juice may only be served at one meal, including snack, per day.

Please note that 1 Tbsp concentrate + 3 Tbsp water = 4 Tbsp full-strength reconstituted juice or 1/4 cup credit.

Factors Affecting Yields

Yield figures for fruits are for on-site preparation. They do not allow for losses that may occur in prepared products (both pre-portioned and bulk) during freezing, storage, heating, and serving. Other factors may affect your yields: quality and condition of the food, storage conditions and handling, equipment used in preparation, cooking and holding times, serving utensils, and portion control.

Yields of fruits vary according to the form of the food when it is purchased (before preparations). For example:

- Dehydrated fruits yield more servings per pound than fresh, frozen, or canned because they gain weight and volume as they absorb water during soaking and cooking. Some dehydrated products, particularly fruits, continue to expand while cooling.
- The weight of canned fruits varies due to different densities of the food. A No. 10 can yields an average of 12 to 13-2/3 cups and 96 oz (6 lb) to 117 oz (7 lb 5 oz).



Definitions

Count	The number of whole fruits contained or packed in a specific container. The higher the count the smaller the size of each fruit.
Pared	When the outer covering (skin or peel) of a fruit has been removed.
Size	The number of pieces of whole fruits in 10 pounds of product.
Tempered	Frozen fruit brought to room temperature; thawed but not heated.
Unpared	When the outer covering (skin or peel) of a fruit has not been removed.

Products That Do Not Meet Requirements

The following products do not contribute to the fruits component and may not be credited toward meeting the fruits requirement in any meal served under the Child Nutrition Programs:

- Snack-type foods made from fruits, such as fried banana chips;
- Pickle relish, jam, or jelly; or
- Home canned fruit products (for food safety reasons).

Information Included In This Section

Over 360 entries for fruits – fresh, canned, frozen, and dehydrated – are listed alphabetically. Data for canned and frozen juices are also included in this section. Fruits information includes:

- Yield information on common institutional packs, smaller packs, and 1-pound units of many fresh, canned, and frozen fruits.
- Data on unsweetened canned and frozen fruits or those packed in juice, light syrup, or water.
- Net weight of contents of the can (including liquid) under the can size in Column 2, except where noted.
- Minimum weight and volume of drained fruits in Column 6.
- Yields in terms of 1/4 cup servings, unless noted.
- Contribution to the meal patterns.
- Yield information on juice concentrates, if reconstituted to full-strength.
- Yield information for all fruits are based on volume not weight. This includes pureed, dried, or dehydrated fruits.



Explanation of the Columns

The data on fruits in the following tables include yield information on common types and customary serving sizes of products that you can buy on the market as well as some USDA Foods products.

Column 1: Food As Purchased, AP

The individual foods are arranged in alphabetical order.

Column 2: Purchase Unit

The purchase unit is specified, for example, 1 can (generally No. 10, No. 2-1/2, or No. 300), 1 pound, or 1 package. You can use data for one purchase unit to determine how much product you need for a specific number of servings.

Column 3: Servings per Purchase Unit, EP (Edible Portion)

This column shows the number of servings of a given size (found in Column 4) from each purchase unit (found in Column 2). Numbers in this column have sometimes been 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 given as a measure and/or weight or number of pieces. In most cases the serving size and contribution to the meal pattern are the same. When they differ, the contribution is stated along with the serving size.

Column 5: Purchase Units for 100 Servings

This column shows the number of purchase units (found in Column 2) you need for 100 servings. Numbers in this column are generally rounded up in order to help ensure enough food is purchased for the number of servings.

Column 6: Additional Information

This column gives other information to help you calculate the amount of food you need to prepare meals. Column 6 information is not available for every food item.

4

Grains

Food Buying Guide for Child Nutrition Programs

4 | Grains

Grains Component for the Child Nutrition Programs

All reimbursable meals offered in the National School Lunch Program (NSLP), School Breakfast Program (SBP), Child and Adult Care Food Program (CACFP), and Summer Food Service Program (SFSP) must include a grains food product. A reimbursable snack in the CACFP, SFSP, or the NSLP Afterschool Snack Service may include a creditable grain.

FNS meal pattern regulations establish the minimum serving size(s) of grains required for breakfasts, lunches, suppers, and snacks. Meal pattern charts for each of the Child Nutrition Programs are on pages I-7 through I-17. This section pertains to grains requirements in the NSLP, SBP, and CACFP. Please refer to Appendix E for grains requirements for the SFSP and NSLP Afterschool Snack Service.



Definitions

Bran	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. Bran can be used to meet the enriched grains requirements in Child Nutrition Programs.
Creditable grains	Creditable grains represent all of the grain ingredients in a product that are creditable toward the grains component; they include whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be included in an enriched product such as, enriched bread or in a fortified cereal.
Enriched	Enriched means that the product conforms to the U.S. Food and Drug Administration’s (FDA) Standard of Identity for enrichment (21 CFR Section 137). The terms “enriched,” “fortified,” or similar terms indicate the addition of one or more vitamins or minerals or protein to a food.
Flour	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.).
Germ	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. Germ can be used to meet the enriched grains requirements in Child Nutrition Programs.
Nixtamalization	Nixtamalization is a process in which dried corn is soaked and cooked in an alkaline (slaked lime) solution. This process increases the bioavailability of certain nutrients. Nixtamalized corn is used to make hominy, corn masa (dough from masa harina), masa harina (corn flour), and certain types of cornmeal. These ingredients are considered whole grain when evaluating products for CNP meal requirements. If the ingredient statement indicates the corn is treated with lime (for example, “ground corn with trace of lime” or “ground corn treated with lime”), then the corn is nixtamalized.
Ounce equivalents	Ounce equivalents designates the contribution a given serving size makes toward the grains component. One ounce equivalent provides sixteen grams of creditable grains.
Primary grain ingredient	Primary grain ingredient is the first grain ingredient listed in the ingredient statement.
Whole grain	Whole grain contains all parts of the grain kernel which includes the bran, germ and endosperm.
Whole grain-rich (WGR)¹	Whole grain-rich (WGR) is the term designated by FNS to indicate that the grains components in a product are at least 50 percent whole grain, with the remaining grains being enriched. This term only refers to FNS criteria for meeting the grains requirements for the NSLP, SBP, and CACFP. The term is not found on product labels and should not be confused with the FDA whole grain health claim.

¹ Please refer to Appendix E for grains/breads requirements in the SFSP and NSLP Afterschool Snack Service.

Examples of Foods That Are Creditable Toward the Grains Component

The following types of ingredients are considered creditable grains in Child Nutrition Programs:

- whole grains (i.e. whole wheat, whole-wheat meal/flour, brown rice, rolled oats, whole corn)
- enriched grains (i.e. enriched wheat meal/flour, enriched rice)
- bran or germ can be used to meet the enriched grains requirements in Child Nutrition Programs
- Note: nixtamalized corn, (i.e., corn treated with lime), such as hominy, corn masa, and masa harina are considered whole grain when evaluating products for meal requirements. (Please refer to the “Definitions” section for more information on nixtamalization). These ingredients are processed in a way that increases the bioavailability of certain nutrients so they have a nutritional profile similar to whole corn.



Foods that contribute to the grains requirement in all Child Nutrition Programs include the following items when made from above specified ingredients but are not limited to:

Breads, biscuits, bagels, rolls, tortillas, crackers, cereal grains (cooked) such as rice, bulgur, oatmeal, corn grits, hominy grits, wheat berries, or couscous

- Must be made from creditable grains: whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or included in an enriched product such as, enriched bread or in a fortified cereal.

Ready-to-eat (RTE) breakfast cereals

- If the product includes enriched ingredients, or the product itself is labeled as “Enriched,” it must meet the Food and Drug Administration’s Standards of Identity for enrichment (12 CFR Section 137).
- In the NSLP/SBP, RTE cereals that list a whole grain as the first ingredient must be fortified. If the cereal is 100 percent whole grain, fortification is not required.
- All breakfast cereals served in the CACFP must contain no more than 6 grams of sugar per dry ounce.

Cereals or bread products that are used as an ingredient in another menu item such as crispy rice treats, cereal bars, oatmeal cookies, or breading on fish or poultry

- Must be made from creditable grains: whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or included in an enriched product such as, enriched bread or in a fortified cereal.

See above requirements for RTE cereals in the NSLP, SBP, and CACFP.

Macaroni, pasta, noodle products (cooked)

- Must be made from creditable grains: whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or included in an enriched product such as, enriched bread or in a fortified cereal.

- The NSLP and SFSP regulations allow enriched macaroni products that have been fortified with protein to be counted toward either the grains or meats/meat alternates requirements, but not toward both meal components simultaneously.
 - In the NSLP, these products may be counted toward meeting part of the meats/meat alternates requirement only. However, enriched macaroni products that have been fortified with protein cannot count toward the grains or meats/meat alternates meal components simultaneously.
 - The CACFP regulations allow enriched macaroni products that have been fortified with protein to be counted toward the grains requirement only.
 - Pasta products made with bean flours do not count toward the grains requirement. Please see Appendix C for more information on products made with bean flour and how they may contribute to Child Nutrition Program meal pattern requirements.

Sweet food products such as toaster pastries, coffee cake, doughnuts, sweet rolls, pie crusts, cookies, cakes, etc.

- Must be made from creditable grains: whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or included in an enriched product such as enriched bread or in a fortified cereal.
- No more than 2.0 oz eq grains served per week in the NSLP may be in the form of a grain-based dessert.
- Grain-based desserts do not count toward the grains component in the CACFP meal pattern requirements.

Non-sweet snack food products such as hard pretzels, hard bread sticks, and tortilla chips

- Must be made from creditable grains: whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or included in an enriched product such as enriched bread or in a fortified cereal.

See pages 4-6 through 4-7 for more information on grains requirements in each CN program.

- *At least eighty percent of the grains offered weekly in the NSLP (7 CFR 210.10(c)(2)(iv)(B)) and the SBP (7 CFR 220.8(c)(2)(iv)(B)) must be whole grain-rich, and the other grain items offered must be enriched. See pages 4-7 through 4-9 for more information on the criteria. (Please note: State agencies have the discretion to set stricter requirements than the minimum nutrition standards for school meals. For additional guidance, please contact your State agency.)*
- *For the CACFP, at least one serving of grains per day must be whole grain-rich.*

Criteria for Determining Acceptable Grain Items

The following criteria are to be used as a basis for crediting items to meet the grains requirement in the Child Nutrition Programs.

- Creditable grain items are made from grains that are whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be an enriched product, such as enriched bread, or a fortified cereal.
- Some enriched grain products that are being blended with whole-grain ingredients 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.

School Meal Programs

- Ounce equivalents (oz eq) are used to determine the amount of creditable grains.
- One-quarter ounce equivalent (0.25 oz eq) is the smallest amount allowable to be credited toward the grains requirement as specified in program regulations.
- At least eighty percent of the weekly grains offered must meet the whole grain-rich criteria, meaning they are:
 - 100 percent whole grain; or contain a blend of whole-grain ingredients and enriched grain ingredients (whole-grain meal and/or whole-grain flour blended with enriched meal and/or enriched flour), of which at least 50 percent is whole grain.
 - Bran and germ can be used to meet the enriched grains requirements.

Note: Nixtamalized corn (i.e., corn treated with lime), such as hominy, corn masa, and masa harina are considered whole grain when evaluating products for meal requirements. See page 4-3 for more information on nixtamalization.

Please note: State agencies have the discretion to set stricter requirements than the minimum nutrition standards for school meals. For additional guidance, please contact your State agency.

- Up to twenty percent of the grain items offered weekly can be made from grains that are enriched meal and/or flour.
 - Bran and germ can be used to meet the enriched grains requirements.

Please refer to Appendix E for grains requirements in the SFSP and NSLP Afterschool Snack Service.

- Up to 2.0 oz eq grains per week may be credited in the form of a grain-based dessert.

CACFP and Preschool

- Ounce equivalents (oz eq) are used to determine the amount of creditable grains.
- One-quarter ounce equivalent (0.25 oz eq) is the smallest amount allowable to be credited toward the grains requirement as specified in program regulations.
- Grain items must be made from grains that are whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be an enriched product such as enriched bread or a fortified cereal.
- At least one serving of grains per day must be whole grain-rich.
- Grain-based desserts cannot be credited toward the grains component.
- Breakfast cereals must contain no more than 6 grams of sugar per dry ounce.

SFSP and NSLP Afterschool Snack Service

- Grain items are credited in servings. See program guidance and Appendix E for further information.
- One-quarter serving is the smallest amount allowable to be credited toward the grains requirement as specified in program regulations.
- Grain items must be made from grains that are whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be an enriched product, such as enriched bread, or a fortified cereal.

Please note that the SFSP and NSLP Afterschool Snack Service are not required to serve grain items that meet the whole grain-rich criteria; however, regularly offering items that meet these standards will help children develop healthy eating habits.

Also, the SFSP and NSLP Afterschool Snack Service (for grades K-12), are not required to credit grains using ounce equivalents. However, ounce equivalents contain a slightly higher amount of creditable grains than grains servings. Therefore, ounce equivalents may be used to calculate grains servings in the SFSP and NSLP Afterschool Snack Service if the Child Nutrition program operator wishes to do so. See Appendix E for more information.

What Foods Meet the Whole Grain-Rich Criteria?

The NSLP, SBP and CACFP meal patterns require specific amounts of grains that meet the whole grain-rich criteria to be served.

Any one of the following methods can be used to evaluate if a grain product meets the whole grain-rich criteria:

A. Use Exhibit A: Grain Requirements for Child Nutrition Programs:

- For grain items in Groups A – G of Exhibit A, the whole-grain content per 1 ounce equivalent (oz eq) must be at least 8 grams out of the standard 16 grams. The remaining grains must be enriched.

For grain items in Group H of Exhibit A, the volumes or weights listed in the chart can be used to meet grains requirements. For example, a ½ cup of cooked brown rice or enriched rice is equal to 1.0 oz eq of whole grain or enriched grain, respectively. As another example, if dry pasta includes a blend of whole-grain flour and enriched flour, the whole-grain content must be at least 14 grams of whole-grain flour out of the standard 28 grams of creditable grains per oz eq. The remaining 14 grams of flour must be enriched. This information may be determined from information provided on the product packaging or by the manufacturer, if available. If any non-whole grains (refined grains) are included, they must be enriched.

- Ready-to-eat (RTE) breakfast cereals in Group I of Exhibit A must list a whole grain as the primary ingredient and the cereal must be fortified. RTE breakfast cereals that are 100 percent whole grain are not required to be fortified. However, any non-creditable grains must be restricted to insignificant levels.

Please find Exhibit A online at:

<https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/ExhibitA.pdf>

B. Use the FDA-Approved Whole Grain Health Claim

The product includes one of the following FDA-approved whole grain health claims on its packaging and any refined grains in the product are enriched:

“Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat, and cholesterol, may reduce the risk of heart disease and some cancers.” OR “Diets rich in

whole grain foods and other plant foods, and low in saturated fat and cholesterol, may help reduce the risk of heart disease.”

C. Use the Ingredient Statement (List)

Whole grains are the primary ingredient by weight, with the exception of water. Specifically:

- I. Non-mixed dishes (e.g., breads, cereals): A whole grain is the first ingredient in the list (ingredients are listed in descending order of predominance by weight). Any other grains must be enriched. When a whole grain is listed first and there are two or more enriched grains that follow, additional information is needed from the manufacturer in the form of a product formulation statement. The document will need to indicate that the whole grain weighs equal to or more than the enriched grains in the product.

Even if a whole grain is not listed as the first ingredient, if there are multiple whole-grain ingredients, the combined weight of those whole grains may be more than the weight of the other ingredients. These products could meet the whole grain-rich criteria with proper manufacturer documentation or a standardized recipe. For example, a bread item may be made with three grain ingredients: enriched wheat flour (40 percent of grain), whole-wheat flour (30 percent of grain), and whole oats (30 percent of grain). The Program operator, with the assistance of the manufacturer through the use of a Product Formulation Statement, could determine that the whole grains are the primary grain ingredient by weight because the combined whole-grain ingredients (whole-wheat flour and whole oats), at 60 percent, are greater than the enriched wheat flour at 40 percent.

- II. Mixed dishes (e.g., pizza, corn dogs): A whole grain is the first grain ingredient in the list (ingredients are listed in descending order of predominance by weight). Any other grains must be enriched. Ingredient statements can be organized by component such as by listing the ingredients of the cheese, crust, and toppings separately. In this case, the whole-grain ingredient needs to be the first grain ingredient in the ingredient statement for the crust.

D. Use the State Agency’s Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) List

As an additional flexibility, any grain product found on any State agency’s WIC-approved whole-grain food list meets whole grain-rich criteria for all Child Nutrition Programs. Program operators can obtain a copy of a State agency’s WIC-approved whole-grain food list by contacting the WIC State agency. For a list of WIC State agency contacts, please see: <http://www.fns.usda.gov/wic/wic-contacts>.

Please refer to specific program guidance for complete whole grain-rich criteria for SBP/NSLP and CACFP.

Flour Blends

Some products include flour blends listed in the ingredient declaration, for example, ingredients: flour blend (whole-wheat flour, enriched flour), sugar, cinnamon, etc. When trying to determine if whole grains are the primary ingredient by weight for these products, Child Nutrition Program operators will need to know either that the whole-grain content is at least 8.0 grams per oz eq or that the weight of the whole grain is greater than the first ingredient listed after the flour blend such as sugar in the example. Non-creditable grains in products at very low levels used as processing aids are limited to 2 percent or less of the product formula by weight or less than 0.25 oz eq in the NSLP and SBP.

Manufacturers producing qualifying products (meat/meat alternate entrées containing grains) may apply for a Child Nutrition (CN) label to indicate the number of oz eq grains that meet the whole grain-rich criteria. The term “oz eq grains” on the CN label indicates that the product meets the whole grain-rich criteria, while the term “oz eq grains (enriched)” means the grains portion of the product is primarily made from enriched grains.

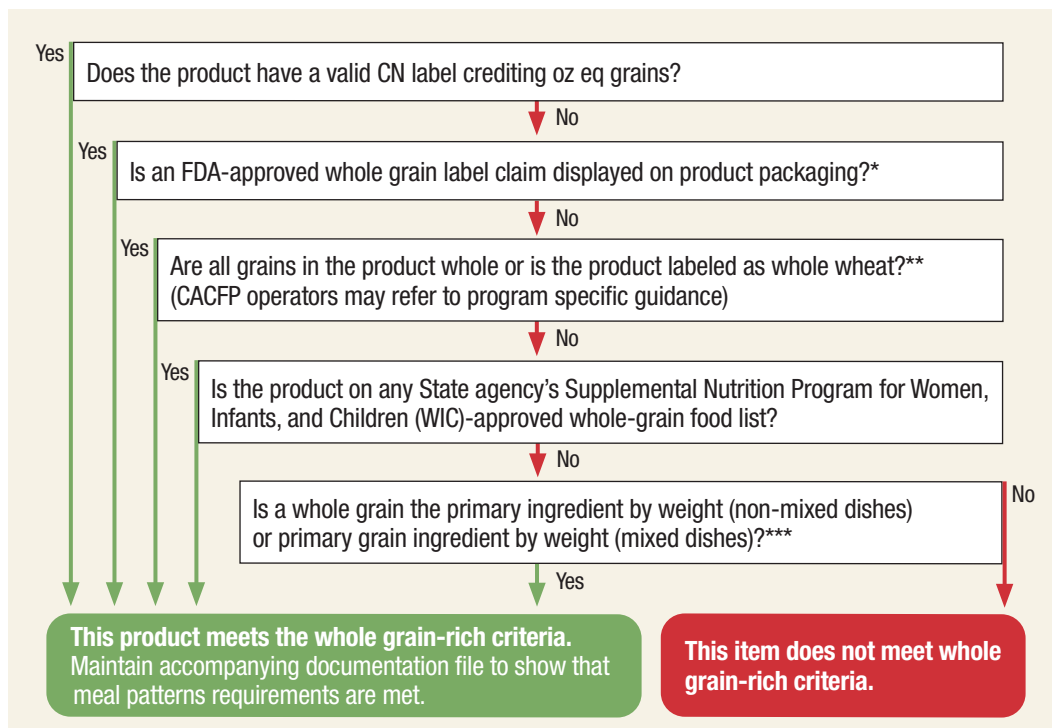
In addition to the SBP and NSLP, grain foods with a CN label indicating the number of ounce equivalents that meet the whole grain-rich criteria do contribute to the CACFP, SFSP, and NSLP Afterschool Snack Service meal pattern requirements as declared on the CN label. Therefore, the ounce equivalent meets the minimum quantity for the grains component in all Child Nutrition Programs. For more information on the CN Labeling Program, see Appendix C.

Does My Product Meet the Whole Grain-Rich Criteria?

By using the following flow chart, you can evaluate a product to determine if it meets the whole grain-rich criteria.

Once you determine that a grain product is creditable, it is important to read through “Criteria for Determining Ounce Equivalents” (see pages 4-11 through 4-12). This section explains when to use Exhibit A (see pages 4-15 through 4-17), or calculate grams of creditable grains (see pages 4-13 through 4-14) to determine the grains contribution.

The following criteria are to be used as a basis for crediting items to meet the grains requirement in the Child Nutrition Programs. Please note, products must include at least 0.25 oz eq grains.



* For the NSLP and SBP, any refined grains included in the product must be enriched, in addition to having a FDA whole grain health claim. To demonstrate compliance with the whole grain-rich criteria in the CACFP, the FDA whole grain health claim is sufficient documentation.

** Nixtamalized corn, (i.e., corn treated with lime), such as hominy, corn masa, and masa harina, are considered whole grain when evaluating products for meal requirements. In School Meal Programs, non-creditable ingredients should be limited to no more than 0.24 oz eq (3.99 grams for Groups A-G or 6.99 grams for Groups H or I of the Exhibit A). All other refined grains must be enriched. The CACFP operators may refer to appropriate regulatory guidance for additional information.

*** At least half of the grains in the product must be whole grains, with any remaining grains being enriched. Nixtamalized corn, (i.e., corn treated with lime), such as hominy, corn masa, and masa harina, are considered whole grain when evaluating products for meal requirements. When determining this in grams, at least 8 grams per oz should be whole grain for items located in Groups A-G or at least 14 grams for items located in Groups H and I of Exhibit A.

Criteria for Determining Ounce Equivalents

All grain products served in the NSLP, SBP, CACFP and Preschool must be credited based on ounce equivalent (oz eq) standards. This applies to various products as follows:

- Baked goods (breads, biscuits, bagels, etc.): 16 grams of creditable grains provide 1.0 oz eq credit.
- Cereal grains (oatmeal, pasta, brown rice, etc.): 28 grams (approximately 1.0 ounce by weight) of dry product OR 1/2 cup cooked cereal, pasta, rice, etc. provides 1.0 oz eq credit.
- Ready-to-eat (RTE) breakfast cereal: 28 grams or 1.0 ounce of product provides 1.0 oz eq credit. Ounce equivalent volumes are 1 cup flakes or rounds, 1.25 cups puffed cereal, and 1/4 cup granola.

There are two different ways to determine the amount required to provide 1.0 oz eq grains: by using the weights listed in Exhibit A: Grain Requirement For Child Nutrition Programs or by calculating the grams of creditable grains.

A. Determining Contribution Based on Exhibit A

The weight needed to provide 1.0 oz eq grains for commonly available food products can be determined using Exhibit A (see pages 4-15 through 4-17). The wide variety of prepared grain products listed in Exhibit A are grouped based on their average grains content. Food types having similar concentrations of creditable grains are grouped together. Each group in Exhibit A provides the minimum weight required to supply 1.0 oz eq grains.

Exhibit A, Groups A-G

- For the types of food products listed in Groups A-G, 1.0 oz eq grains provide at least 16.0 grams of creditable grains. The weights given in Exhibit A, Groups A-G, may be used for grain products that are either commercially purchased or prepared on-site.
- Grain products listed in Groups A-G should provide the minimum of 16.0 grams of creditable grains for 1.0 oz eq. Obtain manufacturer's documentation if it is unclear that the item is creditable toward program requirements. Once documentation is obtained, calculate the serving size based on the grams of creditable grains as shown below in section B.
- Exhibit A, Groups A-G also provides the weight needed for 1/4, 1/2, and 3/4 of an oz eq in addition to the weight needed for 1.0 oz eq grains.

Exhibit A, Groups H & I

- When items in Groups H and I are served as cooked or cold breakfast cereals (such as cooked oatmeal, cooked millet, cooked rice or cold cereal) or cooked pasta, the weights OR volumes listed in Exhibit A, groups H or I must be used. For example, the serving size required for 1.0 oz eq of cooked oatmeal made from dry oats is 1/2 cup cooked or 28 grams dry oats.
- 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 in a cereal bar (in contrast to being used as a breakfast cereal) do not use the amounts listed in Group H. In this case, the grains contribution should be determined using the weights given in Groups A-G of Exhibit A corresponding to the appropriate food group, or calculated using the grams of creditable grains per portion (16 grams of the creditable

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grains provide 1.0 oz eq grains).

- For example, oatmeal bread may be credited in one of two ways: 1) using the finished serving weight in Group B of Exhibit A, or 2) using the grains contribution based on the standard 16 grams of creditable grains per oz eq.

B. Determining Serving Sizes Based on Creditable Grains Content

There are several situations where creditable grains 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 manufacturer's formula demonstrates that a product provides a higher amount of creditable grains than the standard grams per oz eq (>16.0g for items in Groups A-G or >28.0g for Groups H and I) of Exhibit A; or 2) you are using a recipe and you choose to calculate the serving size based on grams of creditable grains instead of using Exhibit A.

In these cases, the Child Nutrition Program operator will need to obtain or maintain documentation (such as documentation from manufacturer or recipe) showing the weight of creditable grain(s) per portion of the grain item. This will be easy for grain items prepared on-site, since the exact weight of the creditable grains can be documented using the recipe. For purchased products, the manufacturer will need to provide the required documentation showing the weight of creditable grain(s) per portion. Manufacturers may wish to provide this information using a Product Formulation Statement (PFS) to protect their proprietary information. Sample PFS templates are located on the CN Labeling website at <https://www.fns.usda.gov/cnlabeling/food-manufacturersindustry>. If you have a situation where documentation is required, but the manufacturer cannot supply the documentation, that product is not creditable toward the reimbursable meal.

When the exact or minimum amount of creditable grains can be documented, the grains contribution for items listed in Groups A-G of Exhibit A may be calculated using 16.0 grams of creditable grains as 1.0 oz eq or items listed in Groups H and I may be calculated using 28 grams of creditable grains as 1.0 oz eq.

There are three steps to determine how many oz eq grains a recipe yields when calculating based on the grams of creditable grains:

1. Divide the total grams of creditable grains 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 to each program participant to meet the daily and/or weekly grains requirements. One "portion" is not necessarily equivalent to 1.0 oz eq grains.

Total grams of creditable grains ÷ 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 (the answer from the calculation in step 1) by 16.0 grams or 28.0 grams (note: 16.0 grams of creditable grains = one full oz eq for Groups A-G of Exhibit A and 28.0 grams of creditable grains = one full oz eq for Groups H and I of Exhibit A):

Total grams of creditable grains in ONE portion

16.0 grams or 28.0 grams

= the number of oz eq grains per portion

3. Round down to the nearest 0.25 oz eq. To count as one full oz eq, the product must contain no less than 16.0 grams for Groups A-G of Exhibit A or 28.0 grams for Groups H and I of Exhibit A of creditable grains.

Worksheet for Calculating Grains Contribution Using Grams of Creditable Grains

Instructions:

1. On the worksheet (see page 4-14), list each creditable grain ingredient in the recipe. Grain ingredients that are whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran or germ are creditable toward the grains requirements for Child Nutrition Programs.
2. Fill in the quantity (for example: cups, pounds, kilograms, ounces, grams, etc.) of each creditable ingredient in the recipe.
3. Convert the amount of each creditable grain ingredient in the recipe to grams. Use the chart below for commonly used conversions.

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 degermed, enriched cornmeal	x 138 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 creditable grain ingredient to determine the total grams of creditable grains 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 16.0 grams (standard amount of enriched or whole-grain meal and/or flour, in 1.0 oz eq grains for Groups A-G of Exhibit A) or 28.0 grams (standard amount of grains, in 1.0 oz eq grains for Groups H and I of Exhibit A).
7. Round down to the nearest 0.25 oz eq grains.

4 | Grains

Worksheet

1. Creditable Grain Ingredient	2. Quantity (pounds, ounces, cups)	3. Convert to Grams (reference conversion chart)	Grams
		X	=
		X	=
		X	=
		X	=
4. Total Grams			=

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

$$\frac{\text{Total grams creditable grains from Step 4}}{\text{Number of portions per recipe}} = \text{Number of grams creditable grains per portion}$$

6. Divide the number of grams per portion by 16.0 or 28.0

$$\frac{\text{Number of grams creditable grains per portion from Step 5}}{16.0 \text{ or } 28.0} = \text{oz eq grains}$$

7. Round down to the nearest 0.25 oz eq grains.

$$\text{oz eq from Step 6} = \text{oz eq grains}$$

Exhibit A: Grain Requirements for Child Nutrition Programs

The following Chart titled “Exhibit A: Grain Requirements for Child Nutrition Programs” provides a general guideline for crediting prepared grain items. Once you have determined that a food product is creditable (see pages 4-4 through 4-7), find the Group on the chart containing the name of the food product. Read the minimum serving size required for that group on the right-hand side of the chart.

Exhibit A: Grain Requirements For Child Nutrition Programs^{1, 2}

Food Products per Group	Ounce Equivalent (oz eq)	Minimum Serving Size
Group A	Ounce Equivalent (oz eq) for Group A	Minimum Serving Size for Group A
Bread type coating	1 oz eq = 22 gm or 0.8 oz	1 serving = 20 gm or 0.7 oz
Bread sticks (hard)	3/4 oz eq = 17 gm or 0.6 oz	3/4 serving = 15 gm or 0.5 oz
Chow Mein noodles	1/2 oz eq = 11 gm or 0.4 oz	1/2 serving = 10 gm or 0.4 oz
Savory Crackers (saltines and snack crackers)	1/4 oz eq = 6 gm or 0.2 oz	1/4 serving = 5 gm or 0.2 oz
CROUTONS		
Pretzels (hard)		
Stuffing (dry) <i>Note: weights apply to bread in stuffing</i>		
Group B	Ounce Equivalent (oz eq) for Group B	Minimum Serving Size for Group B
Bagels	1 oz eq = 28 gm or 1.0 oz	1 serving = 25 gm or 0.9 oz
Batter type coating	3/4 oz eq = 21 gm or 0.75 oz	3/4 serving = 19 gm or 0.7 oz
Biscuits	1/2 oz eq = 14 gm or 0.5 oz	1/2 serving = 13 gm or 0.5 oz
Breads - all (for example sliced, French, Italian)	1/4 oz eq = 7 gm or 0.25	1/4 serving = 6 gm or 0.2 oz
Buns (hamburger and hot dog)		
Sweet Crackers ⁵ (graham crackers - all shapes, animal crackers)		
Egg roll skins		
English muffins		
Pita bread		
Pizza crust		
Pretzels (soft)		
Rolls		
Tortillas		
Tortilla chips		
Taco shells		

¹ In the NSLP and SBP (grades K-12), at least eighty percent of the weekly grains offered must meet the whole grain-rich criteria and the remaining grain items offered must be made from whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be an enriched product, such as enriched bread, or a fortified cereal. Please note: State agencies have the discretion to set stricter requirements than the minimum nutrition standards for school meals. For additional guidance, please contact your State agency. For all other Child Nutrition Programs, grains must be made from whole-grain flour, whole-grain meal, corn masa, masa harina, hominy, enriched flour, enriched meal, bran, germ, or be an enriched product, such as enriched bread, or a fortified cereal. Under the CACFP child and adult meal patterns, and in the NSLP/SBP preschool meals, at least one grains serving per day must meet whole grain-rich criteria.

² For the NSLP and SBP (grades K-12), grain quantities are determined using ounce equivalents (oz eq). All other Child Nutrition Programs determine grain quantities using grains/breads servings. Beginning Oct. 1, 2021, grain quantities in the CACFP and NSLP/SBP infant and preschool meals will be determined using oz eq. Some of the following grains may contain more sugar, salt, and/or fat than others. This should be a consideration when deciding how often to serve them.

⁵ Allowed in NSLP (up to 2.0 oz eq grain-based dessert per week in grades K-12) as specified in §210.10. May count toward the grains component in the SBP (grades K-12), CACFP, NSLP/SBP infant and preschool meals, and SFSP.

Chart continues on next page

4 | Grains

Food Products per Group	Ounce Equivalent (oz eq)	Minimum Serving Size
Group C	Ounce Equivalent (oz eq) for Group C	Minimum Serving Size for Group C
Cookies ³ (plain - includes vanilla wafers) Cornbread Corn muffins Croissants Pancakes Pie crust (dessert pies ³ , cobbler ³ , fruit turnovers ⁴ , and meats/meat alternate pies) Waffles	1 oz eq = 34 gm or 1.2 oz 3/4 oz eq = 26 gm or 0.9 oz 1/2 oz eq = 17 gm or 0.6 oz 1/4 oz eq = 9 gm or 0.3 oz	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
Group D	Ounce Equivalent (oz eq) for Group D	Minimum Serving Size for Group D
Doughnuts ⁴ (cake and yeast raised, unfrosted) Cereal bars, breakfast bars, granola bars ⁴ (plain) Muffins (all, except corn) Sweet roll ⁴ (unfrosted) Toaster pastry ⁴ (unfrosted)	1 oz eq = 55 gm or 2.0 oz 3/4 oz eq = 42 gm or 1.5 oz 1/2 oz eq = 28 gm or 1.0 oz 1/4 oz eq = 14 gm or 0.5 oz	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	Ounce Equivalent (oz eq) for Group E	Minimum Serving Size for Group E
Cereal bars, breakfast bars, granola bars ⁴ (with nuts, dried fruit, and/or chocolate pieces) Cookies ³ (with nuts, raisins, chocolate pieces and/or fruit purees) Doughnuts ⁴ (cake and yeast raised, frosted or glazed) French toast Sweet rolls ⁴ (frosted) Toaster pastry ⁴ (frosted)	1 oz eq = 69 gm or 2.4 oz 3/4 oz eq = 52 gm or 1.8 oz 1/2 oz eq = 35 gm or 1.2 oz 1/4 oz eq = 18 gm or 0.6 oz	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	Ounce Equivalent (oz eq) for Group F	Minimum Serving Size for Group F
Cake ³ (plain, unfrosted) Coffee cake ⁴	1 oz eq = 82 gm or 2.9 oz 3/4 oz eq = 62 gm or 2.2 oz 1/2 oz eq = 41 gm or 1.5 oz 1/4 oz eq = 21 gm or 0.7 oz	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

³ Allowed in NSLP (up to 2.0 oz eq grain-based dessert per week in grades K-12) as specified in §210.10 and at snack service in SFSP. Considered a grain-based dessert and cannot count toward the grains component in CACFP or NSLP/SBP infant and preschool meals as specified in §§226.20(a)(4) and 210.10.

⁴ Allowable in NSLP (up to 2.0 oz eq grain-based dessert per week for grades K-12) as specified in §210.10. May count toward the grains component in SBP (grades K-12) and at snack and breakfast meals in SFSP. Considered a grain-based dessert and cannot count toward the grains component in the CACFP and NSLP/SBP infant and preschool meals as specified in §§226.20(a)(4) and 210.10.

Chart continues on next page

Food Products per Group	Ounce Equivalent (oz eq)	Minimum Serving Size
Group G	Ounce Equivalent (oz eq) for Group G	Minimum Serving Size for Group G
Brownies ³ (plain) Cake ³ (all varieties, frosted)	1 oz eq = 125 gm or 4.4 oz 3/4 oz eq = 94 gm or 3.3 oz 1/2 oz eq = 63 gm or 2.2 oz 1/4 oz eq = 32 gm or 1.1 oz	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	Ounce Equivalent (oz eq) for Group H	Minimum Serving Size for Group H
Cereal Grains (barley, quinoa, etc.) Breakfast cereals (cooked) ^{6,7} Bulgur or cracked wheat Macaroni (all shapes) Noodles (all varieties) Pasta (all shapes) Ravioli (noodle only) Rice	1 oz eq = 1/2 cup cooked or 1 ounce (28 gm) dry	1 serving = 1/2 cup cooked or 25 gm dry
Group I	Ounce Equivalent (oz eq) for Group I	Minimum Serving Size for Group I
Ready to eat breakfast cereal (cold, dry) ^{6,7}	1 oz eq = 1 cup or 1 ounce for flakes and rounds 1 oz eq = 1.25 cups or 1 ounce for puffed cereal 1 oz eq = 1/4 cup or 1 ounce for granola	1 serving = 3/4 cup or 1 oz, whichever is less

- ³ Allowed in NSLP (up to 2.0 oz eq grain-based dessert per week in grades K-12) as specified in §210.10 and at snack service in SFSP. Considered a grain-based dessert and cannot count toward the grain component in CACFP or NSLP/SBP infant and preschool meals as specified in §§226.20(a)(4) and 210.10.
- ⁶ Refer to program regulations for the appropriate serving size for supplements served to children aged 1 through 5 in the NSLP; breakfast served in 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.
- ⁷ In the NSLP and SBP, cereals that list a whole grain as the first ingredient must be fortified, or if the cereal is 100 percent whole grain, fortification is not required. For all Child Nutrition Programs, cereals must be whole-grain, enriched, or fortified; cereals served in CACFP and NSLP/SBP infant and preschool meals must contain no more than 6 grams of sugar per dry ounce.

Instructions for Using Yield Data

The data for grains in the yield table includes yield information on common types and customary portion sizes of products that you can buy on the market. All grains served must meet program requirements.

Explanation of Columns

The approximate weight of an oz eq of grains is given in the table.

Column 1: Food as Purchased, AP

In general, foods are arranged in alphabetical order. The Group number is listed for each product. For additional information on these groups, see Exhibit A (pages 4-15 through 4-17).

Column 2: Purchase Unit

The purchase unit for grain items 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 oz eq 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 an oz eq is expressed in weight and/or volume.

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 grain items.

Yield Data Table for Grains

