

Crediting Enriched Grains in the School Nutrition Programs

This guidance applies to the U.S. Department of Agriculture’s (USDA) meal patterns for grades K-12 and preschool (ages 1-5) in the National School Lunch Program (NSLP), School Breakfast Program (SBP), and Afterschool Snack Program (ASP) of the NSLP. The Seamless Summer Option (SSO) of the NSLP follows the NSLP and SBP meal patterns. For information on the school meal patterns, visit the Connecticut State Department of Education’s (CSDE) [Meal Patterns for Grades K-12 in School Nutrition Programs](#) webpage, [Meal Patterns for Preschoolers in School Nutrition Programs](#) webpage, and [ASP](#) webpage. For information on the crediting requirements, visit the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage and [Crediting Documentation for the Child Nutrition Programs](#) webpage.



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Definition of Enriched Grains

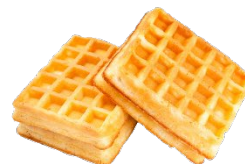
Enriched grains are refined grains (such as wheat, rice, and corn) and grain products (such as cereal, pasta, and bread) that have certain vitamins and minerals added to replace some of the nutrients lost during processing. The five enrichment nutrients are defined by the Food and Drug Administration (FDA) and include:

- thiamin (vitamin B₁, thiamin mononitrate, or thiamin hydrochloride):
- riboflavin (vitamin B₂):
- niacin (vitamin B₃ or niacinamide):
- folic acid (folate):
- and iron (reduced iron, ferrous sulfate, or ferric orthophosphate).

If a commercial grain product includes enriched ingredients or the product itself is enriched, the ingredients or product must meet the applicable FDA standard of identity for enrichment. Examples of enriched ingredients include enriched flour ([21 CFR 137.165](#)) and enriched cornmeal ([21 CFR 137.260](#)). Examples of enriched products include enriched bread, rolls, and buns ([21 CFR 136.115](#)); enriched macaroni products ([21 CFR 139.115](#)); enriched noodle products ([21 CFR 139.155](#)); enriched rice ([21 CFR 137.350](#)); and enriched farina ([21 CFR 137.305](#)).

[Table 1](#) shows some examples of grain ingredients that are enriched and not enriched. This list is not all-inclusive.

Enriched products are not nutritionally equivalent to whole-grain products because enrichment does not replace all nutrients originally present in the whole grain. School food authorities (SFAs) should serve whole grains more often.



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Table 1. Examples of grain ingredients that are enriched or not enriched

Enriched	Not enriched ¹
Bleached enriched flour	Bleached flour
Enriched bromated flour	Bromated flour
Enriched corn flour	Corn flour ²
Enriched corn grits	Corn grits ²
Enriched cornmeal	Cornmeal ²
Enriched degerminated cornmeal	Degerminated cornmeal
Enriched durum flour	Durum flour
Enriched durum wheat flour	Durum wheat flour
Enriched farina	Farina
Enriched flour	Flour
Enriched rice	Rice
Enriched rice flour	Rice flour
Enriched rye flour	Rye flour
Enriched self-rising flour	Self-rising flour
Enriched semolina flour	Semolina flour
Enriched wheat flour	Wheat flour
Enriched white flour	White flour
Enriched white cornmeal	White cornmeal ²
Enriched yellow cornmeal	Yellow cornmeal ²
Milled corn enriched with....(<i>lists the five enrichment nutrients</i>)	Milled corn ²
Puffed wheat enriched with....(<i>lists the five enrichment nutrients</i>)	Puffed wheat
Puffed rice enriched with....(<i>lists the five enrichment nutrients</i>)	Puffed rice
Unbleached enriched wheat flour	Unbleached wheat flour
Unbleached enriched white flour	Unbleached white flour

¹ These ingredients are not enriched unless the label states “enriched,” or the ingredients statement lists the five enrichment nutrients.

² A PFS may be required to determine if some cornmeal products are enriched or nixtamalized (i.e., soaked and cooked in an alkaline solution). Nixtamalized corn credits as a whole grain.

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Overview of Crediting Requirements

Enriched grain products and standardized recipes made with enriched grains credit as the grains component in the school nutrition programs. Bran (such as oat bran, wheat bran, corn bran, rice bran, and rye bran) and germ (such as wheat germ) credit the same as enriched grains.

The different crediting requirements for the meal patterns for grades K-12 and preschoolers are summarized below. For a comparison of the grain requirements in the school nutrition programs, refer to the CSDE's resource, [Comparison of Meal Pattern Requirements for the Grains Component in the School Nutrition Programs](#).

Crediting enriched grains in the NSLP and SBP meal patterns for grades K-12

At least 80 percent of the weekly grains offered at lunch and breakfast must be whole grain-rich (WGR). Enriched grains cannot exceed 20 percent of the weekly grains offered at lunch and breakfast. Grain products that contain bran or germ as the primary grain ingredient count toward the weekly limit for enriched grains.

Limit for noncreditable grains in the NSLP and SBP meal patterns for grades K-12

All WGR and enriched grain menu items must meet the limit for noncreditable grains. Noncreditable grains cannot exceed 3.99 grams per portion for groups A-G or 6.99 grams per portion for groups H-I. Groups A-I are the grain groups in the USDA's [Exhibit A: Grain Requirements for Child Nutrition Programs](#) (Exhibit A chart). For more information, refer to "Required Servings for Grain Products and Recipes" in this document.

Examples of noncreditable grains include oat fiber, corn fiber, wheat starch, corn starch, and modified food starch (including potato, legume, and other vegetable flours). A detailed list is available in section 3 of the CSDE's [Guide to Meeting the Whole Grain-rich Requirement for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#).

Depending on where the noncreditable grains are listed in the ingredients statement, the SFA may need to obtain a product formulation statement (PFS) to document that the grain product does not exceed the applicable limit. The limit for noncreditable grains does not apply to noncreditable grains listed in any of the following ways: 1) after the statement, "contains 2% or less;" 2) as part of a non-grain ingredient (such as a bagel that contains molasses powder made with wheat starch or a fruit pastry that contain jam filling made with modified food starch); and 3) as part of the non-grain portion of a commercial combination food (such as modified food starch

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in the chicken portion of breaded chicken or wheat flour in the cheese filling of ravioli). For examples, refer to “[Crediting commercial enriched grain products with noncreditable grains](#)” in this document.

Crediting enriched grains in the NSLP, SBP, and ASP preschool meal patterns

Enriched grains credit in the preschool meal patterns. Enriched cooked and ready-to-eat (RTE) breakfast cereals cannot exceed 6 grams of sugars per dry ounce (refer to the CSDE’s [Crediting Breakfast Cereals in the Preschool Meal Patterns for the School Nutrition Programs](#)). At least one serving of grains per day must be WGR. The preschool meal patterns do not require a limit for noncreditable grains.

Effective with school year 2025-26 (July 1, 2025), the USDA final rule, [Child Nutrition Programs: Meal Patterns Consistent with the 2020-2025 Dietary Guidelines for Americans](#), changes the product-based limit for breakfast cereals in the preschool meal patterns from total sugars to added sugars. Breakfast cereals cannot exceed 6 grams of added sugars per dry ounce.

Crediting enriched grains in the ASP meal pattern for grades K-12

Enriched grains credit in the ASP meal pattern for grades K-12. The ASP meal pattern for grades K-12 does not require a limit for noncreditable grains.



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Identifying Enriched Products

To credit as an enriched grain in the school meal patterns, a commercial product must contain an enriched grain as the greatest ingredient by weight. A commercial grain product is enriched if it meets at least one of the criteria below.

1. The food is labeled as “enriched,” e.g., enriched long grain rice.
2. An enriched grain is the first ingredient in the food’s ingredients statement (or water is the first ingredient, and an enriched grain is the next ingredient). The label will usually state “enriched flour” or “enriched wheat flour,” or the grain ingredient includes a sub-listing of the five enrichment nutrients in parenthesis, e.g., “enriched flour (wheat flour, niacin, ferrous sulfate, thiamin mononitrate, riboflavin, folic acid).”

In addition to the criteria above, enriched grains credited toward the NSLP and SBP meal patterns for grades K-12 cannot exceed the limit for noncreditable grains (refer to [“Limit for noncreditable grains in the NSLP and SBP meal patterns for grades K-12”](#) in this document).

Examples of creditable enriched grain products

The ingredients statements below show some examples of creditable commercial grain products. These products are creditable because they are enriched and do not contain noncreditable grains. Enriched grains are in *italics*.

- **Example 1: Saltine crackers (group A)**
Ingredients: *Unbleached enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate riboflavin folic acid)*, canola oil, palm oil, sea salt, salt, baking soda, yeast.
- **Example 2: Oat bran bread (group B)**
Ingredients: *Unbleached enriched wheat flour [flour, malted barley flour, reduced iron, niacin, thiamin mononitrate (vitamin B1), riboflavin (vitamin B2), folic acid]*, water, *oat bran*, sugar, oats, wheat gluten, soybean oil, salt, yeast, molasses, preservatives (calcium propionate, sorbic acid), monoglycerides, natural flavor, calcium sulfate, grain vinegar, datem, soy lecithin.
- **Example 3: Pancakes (group C)**
Ingredients: Water, *enriched flour (wheat flour, niacin, ferrous sulfate, thiamin mononitrate, riboflavin, folic acid)*, high fructose corn syrup, canola oil. Contains 2% or less of: leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), eggs, salt, buttermilk, artificial flavor.

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- **Example 3: Spanish rice (group H)**

Ingredients: *Enriched long grain parboiled rice (rice, iron, niacin, thiamine mononitrate, folic acid)*, onion, salt, red & green bell pepper, spices (including red pepper), sugar, yeast extract, tamari soy sauce (soybean, salt) & garlic.

The serving of a creditable enriched grain product must provide the required weight (groups A-G) or volume (groups H and I) for the appropriate Exhibit A grain group or contain the minimum creditable grains (refer to “[Required Servings for Grain Products and Recipes](#)” in this document).

Determining if enriched grain products with noncreditable grains credit in the NSLP and SBP meal patterns for grades K-12

Noncreditable grains in commercial enriched grain products cannot exceed 3.99 grams per portion for groups A-G or 6.99 grams per portion for groups H-I. The examples below show how to determine if commercial enriched grain products that contain noncredible grains are creditable. Enriched grains are in *italics* and noncreditable grains are in **bold**.

- **Example 1: Two noncreditable grains listed before “contains 2% or less”**

Ingredients: Water, *enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, enzyme, folic acid)*, brown sugar, corn oil, nonfat dry milk, yeast, cinnamon, **soy flakes**, **modified food starch**, salt, wheat gluten and 2% or less of each of the following: sodium benzoate (to protect flavor), corn syrup solids, potassium sorbate, vanilla flavor [propylene glycol, water, sodium benzoate (as a preservative)].

To credit as an enriched grain, the manufacturer’s PFS must indicate that the combined weight of the two noncreditable grains (soy flakes and modified food starch) does not exceed 3.99 grams per portion (groups A-G).

- **Example 2: Three noncreditable grain listed after “contains 2% or less”**

Ingredients: *Enriched flour (flour, malted barley flour, niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid)*, sugar, eggs, water, blueberries, invert sugar, soybean oil, contains 2% or less of: palm oil, canola oil, propylene glycol mono- and diesters of fats and fatty acids, **oat fiber**, leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), mono- and diglycerides, **modified food starch**, potassium sorbate (preservative), sodium alginate, salt, soy lecithin, natural and artificial flavor, sodium stearoyl lactylate, **wheat starch**, blueberry juice concentrate, malic acid, enzymes.

This product credits as an enriched grain. The three noncreditable grains (oat fiber, modified food starch, and wheat starch) do not count toward the limit for

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noncreditable grains in the NSLP and SBP meal patterns for grades K-12 because they are listed after the statement, “contains 2% or less.”

- **Example 3: Noncreditable grain listed without statement “contains 2% or less”**

Ingredients: *Unbleached enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid)*, canola oil, palm oil, sea salt, salt, **malted barley flour**, baking soda, yeast.

To credit as an enriched grain, the manufacturer’s PFS must indicate that the noncreditable grain (malted barley flour) does not exceed 3.99 grams per portion (groups A-G).

- **Example 4: Noncreditable grains listed in non-grain ingredient**

Ingredients: *Enriched flour (flour, malted barley flour, niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid)*, **apple filling** (corn syrup, **modified food starch**, evaporated apples, cinnamon, lemon juice), water, margarine (palm oil, soybean oil, whey [milk], soybean lecithin [soy], vitamin A palmitate added), sugar, **dough conditioner (rye flour, malted barley flour, ascorbic acid, enzymes, guar gum, wheat flour)**, nonfat dry milk (nonfat dry milk, whey [milk]), salt, eggs, egg replacer (whole soy flour, wheat gluten, corn syrup solids, algin), yeast (leavening).

This product credits as an enriched grain. The noncreditable grain in the apple filling (modified cornstarch) and the three noncreditable grains in the dough conditioner (rye flour, malted barley flour, and wheat flour) do not count toward the limit for noncreditable grains in the NSLP and SBP meal patterns for grades K-12 because they are listed as part of non-grain ingredients.

- **Example 5: Noncreditable grains listed in non-grain portion**

Ingredients: **Filling**: Fat-free ricotta cheese (whey, skim milk [made from nonfat dry milk powder], vinegar, xanthan gum, carrageenan), egg, low moisture part skim mozzarella cheese (cultured part skim milk, salt, enzymes), whey protein isolate, sodium caseinate, Romano cheese made from cow’s milk (cultured milk, salt, enzymes), **bleached wheat flour**, garlic salt (salt, dehydrated garlic), salt, **modified cornstarch**, sugar, dehydrated garlic. **Pasta**: *Enriched durum wheat flour (wheat flour, niacin, ferrous sulfate, thiamin mononitrate, riboflavin, folic acid)*, water, egg.

The grain portion (pasta) of this commercial combination food credits as an enriched grain. The two noncreditable grains (bleached wheat flour and modified cornstarch) in the non-grain portion (cheese filling) do not count toward the noncreditable grains limit.

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Crediting Criteria for Commercial Combination Foods with Enriched Grains

Combination foods are foods that contain more than one of the five meal components (meats/meat alternates (MMA), grains, vegetables, fruits, and milk). Commercial combination foods that contain an enriched grain portion (such as pizza, breaded fish sticks, and lasagna) credit as grains component if the first grain ingredient is an enriched grain. If the grain portion is listed separately, the first ingredient in the grain portion (excluding water) must be an enriched grain.

To credit as the grains component in the NSLP and SBP meal patterns for grades K-12, the enriched grain portion of a commercial combination food must meet the limit for noncreditable grains (refer to “[Limit for noncreditable grains in the NSLP and SBP meal patterns for grades K-12](#)” in this document).

Examples of ingredients statements for breaded chicken nuggets

The examples below show how grain ingredients might be listed in a commercial combination food. Enriched grains are in *italics* and noncreditable grain are in **bold**.

- **Example 1: Grain ingredients listed together with other ingredients**

Ingredients: Boneless, skinless chicken breast with rib meat, water, *enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid)*, contains 2% or less of the following: dried garlic, dried onion, salt, sea salt, soybean oil, spice, sugar, torula yeast, turmeric, yeast, yeast extract. Breading set in vegetable oil.

This product credits as an enriched grain because the first grain ingredient is enriched flour. This product meets the noncreditable grains limit for the NSLP and SBP meal patterns for grades K-12 because it does not contain any noncreditable grains.

- **Example 2: Grain ingredients listed as separate grain portion**

Ingredients: Chicken, water, salt, and natural flavor. Breading with: *enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid)*, water, wheat starch, salt, contains 2% or less of the following: **yellow corn flour, corn starch**, dried onion, dried garlic, dried yeast, brown sugar, extractives of paprika, and spices. Breading set in vegetable oil.

The grain portion of this product credits as an enriched grain because the first ingredient in the breading is enriched flour. The two noncreditable grains (yellow corn flour and corn starch) do not count toward the noncreditable grains limit for the NSLP and SBP meal patterns for grades K-12 because they are listed after the statement, “contains 2% or less.”

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If a commercial combination food meets the crediting requirements, the SFA must determine the ounce equivalents (oz eq) contribution of the grain portion (refer to “[Required Servings for Grain Products and Recipes](#)” in this document).

Grain Products that are Not Enriched

Not all refined grains are enriched. For example, when corn is processed into cornmeal, the germ of the grain is removed. The resulting cornmeal is not enriched unless the product states “enriched cornmeal,” or the ingredients statement lists the five enrichment nutrients, e.g., “enriched cornmeal (cornmeal, niacin, iron, thiamine mononitrate, riboflavin, folic acid).” The example below shows a product that is not enriched.

- **Example: Commercial breaded chicken patty**

Ingredients: Boneless chicken breast with rib meat, water. Contains less than 2% of salt, onion powder, garlic powder. Breaded with: wheat flour, water, dextrose, sugar, salt, yeast. Contains less than 2% of spice, extractives of paprika, soybean oil, guar gum, garlic powder, natural flavors.

This product does not credit as the grains component because the first ingredient in the breading is wheat flour. Wheat flour is a noncreditable grain because it is not enriched or whole grain.

Menu planners must check the ingredients statement to ensure that commercial grain products are enriched. Grain products that are not enriched do not credit in the school nutrition programs.



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Required Crediting Documentation

SFAs must be able to document that all grain menu items served in reimbursable meals and afterschool snacks meet the crediting requirements for the grains component. The guidance below summarizes the required documentation for commercial grain products and grain foods made from scratch. Documentation must be based on the food yields and crediting information in the USDA's [Food Buying Guide for Child Nutrition Programs](#) (FBG).

Documentation for commercial grain products

A PFS from the manufacturer is required if the product's ingredients statement and packaging do not provide sufficient information to determine if the grain product meets the crediting criteria.

The SFA must obtain and verify the PFS for accuracy prior to purchasing, serving, and claiming the grain product in reimbursable meals and afterschool snacks. For guidance on when a PFS is required and the information it must include, refer to the CSDE's resource, [When Commercial Grain Products Require a Product Formulation Statement to Credit in the School Nutrition Programs](#).

For more information on PFS forms, refer to the CSDE's resources, [Using Product Formulation Statements in the School Nutrition Programs](#) and [Accepting Processed Product Documentation in the School Nutrition Programs](#), and the USDA's resources, [USDA Memo SP 05-2025, CACFP 04-2025, SFSP 02-2025: Guidance for Accepting Processed Product Documentation for Meal Pattern Requirements](#) and [Tips for Evaluating a Manufacturer's Product Formulation Statement](#).

Additional guidance is available on the CSDE's [Crediting Documentation for the Child Nutrition Programs](#) webpage. Training on the requirements for PFS forms is available in Module 6: Meal Pattern Documentation Part B – Crediting Commercial Processed Products, of the CSDE's training program, [What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#).

SFAs may also document meal pattern compliance with a Child Nutrition (CN) label if the enriched grain is part of a CN-labeled meat or meat alternate product, such as pizza or breaded chicken nuggets. For more information, refer to the CSDE's resource, [Using Child Nutrition \(CN\) Labels in the School Nutrition Programs](#).

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Documentation for grain foods made from scratch

SFAs must have standardized recipes on file that document the crediting information for all grain foods made from scratch, including foods made on site by the SFA and foods prepared by vendors. Menu planners should use the USDA's [Food Buying Guide for Child Nutrition Programs](#) (FBG) to determine food yields and crediting information for school recipes.

Standardized recipes for enriched grain foods credit as the grains component based on the grams of enriched grains per serving. If the standardized recipe indicates the weight of the prepared (cooked) serving, menu planners may use the required weight (groups A-G) or volume (groups H-I) for the applicable grain group in the USDA's Exhibit A chart (refer to "[Required Servings for Grain Products and Recipes](#)" in this document). For guidance on determining oz eq, refer to the CSDE's resource, [Calculation Methods for Grain Ounce Equivalents for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#).

For more information on standardized recipes, refer to section 2 of the CSDE's [Menu Planning Guide for Grades K-12 in the National School Lunch Program and School Breakfast Program](#) and [Menu Planning Guide for the Preschool Meal Patterns of the School Nutrition Programs](#), and visit the "[Standardized Recipes](#)" section of the CSDE's [Crediting Documentation for the Child Nutrition Programs](#) webpage.

Storing crediting documentation

SFAs must maintain all crediting documentation on file in accordance with the records retention requirements for the school nutrition programs (refer to the CSDE's [Records Retention Requirements for the School Nutrition Programs](#)). This documentation must be current and will be reviewed by the CSDE during the [Administrative Review](#) of the school nutrition programs.

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Required Servings for Grain Products and Recipes

The required quantities for the grains component are in oz eq for the NSLP and SBP meal patterns for grades K-12, and the NSLP, SBP, and ASP preschool meal patterns. The required quantities for the grains/breads component are in servings for the ASP meal pattern for grades K-12. The minimum amount that credits toward the grains component is $\frac{1}{4}$ oz eq or $\frac{1}{4}$ serving.

Effective with school year 2025-26 (beginning July 1, 2025), the USDA final rule, [Child Nutrition Programs: Meal Patterns Consistent with the 2020-2025 Dietary Guidelines for Americans](#), aligns the ASP meal pattern for grades K-12 with the [Child and Adult Care Food Program \(CACFP\) snack meal pattern](#). The grains/bread component will change to the grains component and grains/bread servings will change to grain oz eq.

The amount of an enriched grain food that provides 1 oz eq varies because different types of foods contain different amounts of creditable grains. For example, to credit as 1 oz eq of the grains component, an enriched roll (group B) must weigh 28 grams (1 ounce), an enriched corn muffin (group C) must weigh 34 grams (1.2 ounces), and an enriched blueberry muffin (group D) must weigh 55 grams (2 ounces).

The USDA allows two methods for determining the oz eq or servings of creditable grain products and standardized recipes. SFAs may use either method but must document how the crediting information was obtained. These methods are summarized below.



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Method 1: USDA's Exhibit A chart

Method 1 uses the USDA's [Exhibit A: Grain Requirements for Child Nutrition Programs](#) chart to determine the required weight (groups A-G) or volume (groups H-I) for the grain group where the food belongs. This method is used for commercial grain products and may also be used for standardized recipes if the menu planner knows the weight (grams or ounces) of the prepared (cooked) serving.

The Exhibit A grain quantities are not the same for all Child Nutrition Programs because the meal patterns are different. The required quantities for each program are summarized below.

- **Oz eq for grades K-12 in the NSLP and SBP:** The CSDE's [Grain Ounce Equivalents for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#) indicates the Exhibit A oz eq that apply to the NSLP and SBP meal patterns for grades K-12. For detailed guidance on determining the oz eq of a grain menu item, refer to the CSDE's resources, [Calculation Methods for Grain Ounce Equivalents for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#) and [How to Use the Grain Ounce Equivalents Chart for the National School Lunch Program and School Breakfast Program](#).
- **Oz eq for preschoolers in the NSLP, SBP, and ASP:** The CSDE's [Grain Ounce Equivalents for the Preschool Meal Patterns of the School Nutrition Programs](#) indicates the Exhibit A oz eq that apply to the preschool meal patterns. Groups F and G (grain-based desserts) are not included because grain-based desserts do not credit in the preschool meal patterns. For detailed guidance on determining the oz eq of a grain menu item, refer to the CSDE's resources, [Calculation Methods for Grain Ounce Equivalents for the Preschool Meal Patterns of the School Nutrition Programs](#) and [How to Use the Grain Ounce Equivalents Chart for the National School Lunch Program and School Breakfast Program](#).
- **Grain servings for grades K-12 in the ASP:** The CSDE's [Servings for Grains/Breads in the Afterschool Snack Program Meal Pattern for Grades K-12](#) indicates the required Exhibit A grains/breads servings that apply to grades K-12 in the ASP. For detailed guidance on determining the grains/breads servings of a grain menu item, refer to the CSDE's resources, [Calculation Methods for Servings for Grains/Breads in the Afterschool Snack Program Meal Pattern for Grades K-12](#) and [How to Use the Grains/Breads Servings Chart for the Afterschool Snack Program Meal Pattern for Grades K-12](#).

Training on oz eq is available in Module 13: Grain Ounce Equivalents" of the CSDE's training program, [What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#).

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Method 2: creditable grains

Method 2 determines the oz eq from the weight (grams) of creditable grains per serving. This method is used for standardized recipes and may also be used for commercial grain products with a PFS stating the weight of creditable grains per serving.

There are some situations when SFAs must use method 2 and a PFS is required. For more information, refer to the CSDE's resource, [When Commercial Grain Products Require a Product Formulation Statement to Credit in the School Nutrition Programs](#).

- **Oz eq for grades K-12 in the NSLP and SBP:** To credit as 1 oz eq of enriched grains, foods in groups A-G must contain 16 grams of enriched grains and foods in groups H-I must contain 28 grams of enriched grains. For detailed guidance, refer to the CSDE's resource, [Calculation Methods for Grain Ounce Equivalents for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#).
- **Oz eq for preschoolers in the NSLP, SBP, and ASP:** To credit as 1 oz eq of enriched grains, foods in groups A-E must contain 16 grams of enriched grains and foods in groups H-I must contain 28 grams of enriched grains. (Groups F and G are grain-based desserts and do not credit in the preschool meal patterns.) For detailed guidance, refer to the CSDE's resource, [Calculation Methods for Grain Ounce Equivalents for the Preschool Meal Patterns of the School Nutrition Programs](#).
- **Grains/breads servings for grades K-12 in the ASP:** To credit as 1 serving of enriched grains, foods in groups A-G must contain 14.75 grams of enriched grains grain foods in group H must contain 25 grams of enriched grains. For detailed guidance, refer to the CSDE's resource, [Calculation Methods for Servings for Grains/Breads in the Afterschool Snack Program Meal Pattern for Grades K-12](#).

The grams of creditable grains are listed in the commercial product's PFS or calculated from the grain quantities in the SFA's standardized recipe.

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Grain crediting tools

The tools below help menu planners determine the meal pattern contribution of creditable grain products and recipes.

- **USDA’s Exhibit A Grains Tool for commercial grain products:** This [online tool](#) of the USDA’s *Food Buying Guide for Child Nutrition Programs* (FBG) determines the oz eq of commercial grain products. For more information, watch the USDA’s webinars, [Exhibit A Grains Tool to the Rescue](#) and [How to Maximize the Exhibit A Grains Tool](#).
- **USDA’s Recipe Analysis Workbook:** The FBG’s online [Recipe Analysis Workbook](#) allows menu planners to search for ingredients, develop a standardized recipe, and determine the recipe’s meal pattern contribution per serving. To access this tool, users must create a free account on the USDA’s FBG website.
- **CSDE’s Resources on How to Use the Exhibit A Grain Chart:** The CSDE’s resources, [How to Use the Grain Ounce Equivalents Chart for the National School Lunch Program and School Breakfast Program](#) and [How to Use the Grains/Breads Servings Chart for the Afterschool Snack Program Meal Pattern for Grades K-12](#), review the steps for using the Exhibit A quantities to determine the meal pattern contribution of three types of commercial products and standardized recipes. These include grain menu items in groups A-G that contain multiple small pieces per serving (e.g., crackers, hard pretzels, and animal crackers), multiple large pieces per serving (e.g., pancakes, slices of bread, and waffles), and one piece per serving (e.g., muffins, bagels, and rolls).
- **CSDE’s CACFP crediting worksheets** (for preschool meal patterns only): These Excel worksheets determine if grain products and recipes meet the CACFP crediting requirements and WGR criteria (which are the same as the preschool meal patterns) and calculate the oz eq contribution per serving.

These worksheets apply only to the preschool meal patterns. They cannot be used to determine a grain item’s compliance with the WGR requirements for the NSLP and SBP meal patterns for grades K-12.

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Enrichment Exception for Jewish Institutions

During the religious observance of Passover, the USDA allows Jewish schools, institutions, and sponsors to have a religious exemption for the enrichment requirement of the meal patterns for Child Nutrition Programs. Unenriched matzo may be substituted during Passover only. Matzo used as the grains component must be WGR at all other times of the year. The USDA grants these exemptions for entities (schools, institutions, and sponsors) not individuals. SFAs must receive approval from the CSDE before implementing this option. For more information, refer to the USDA's [FNS instruction 783-13 \(Revision 3\): Variations in Meal Requirements for Religious Reasons: Jewish Schools, Institutions and Sponsors](#).

Considerations for Reducing Choking Risks for Young Children

Children younger than 4 are at the highest risk of choking. Examples of grain foods that may cause choking include hard pretzels; pretzel chips; corn chips; breakfast cereals that contain nuts, whole-grain kernels (such as wheat berries), and hard chunks (such as granola); and crackers or breads with seeds, nut pieces, or whole-grain kernels. Consider children's age and developmental readiness when deciding what types of grain foods to offer in preschool menus and modify foods and menus as appropriate. For additional guidance, visit the "[Choking Prevention](#)" section of the CSDE's [Food Safety for Child Nutrition Programs](#) webpage.



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Resources

CACFP Crediting Worksheets (“Grains” section of the CSDE’s Crediting Foods in School Nutrition Programs webpage):

<https://portal.ct.gov/sde/nutrition/crediting-foods-in-school-nutrition-programs/grains#CACFPCreditingWorksheets>

Calculation Methods for Grain Ounce Equivalents for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12 (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/grain_calculation_snp_grades_k-12.pdf

Calculation Methods for Grain Ounce Equivalents for the Preschool Meal Patterns of the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/grain_calculation_snp_preschool.pdf

Calculation Methods for Grains/Breads Servings for Grades K-12 in the ASP (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/asp/grain_calculation_asp_grades_k-12.pdf

Comparison of Meal Pattern Requirements for the Grains Component in the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/comparison_grain_crediting_snp.pdf

Crediting Breakfast Cereals in the Meal Patterns for Grades K-12 in the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/credit_cereals_snp_grades_k-12.pdf

Crediting Breakfast Cereals in the Preschool Meal Patterns for the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/credit_cereals_snp_preschool.pdf

Crediting Grain-based Desserts for Grades K-12 in the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/credit_grain_based_desserts_grades_k-12_snp.pdf

Crediting Whole Grains in the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/credit_whole_grains_snp.pdf

Exhibit A Grains Tool (USDA’s Food Buying Guide for Child Nutrition Programs):

<https://foodbuyingguide.fns.usda.gov/ExhibitATool/Index>

Exhibit A Grains Tool to the Rescue (USDA webinar):

<https://www.fns.usda.gov/tn/exhibit-grains-tool-rescue>

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Exhibit A: Grain Requirements for Child Nutrition Programs (USDA):

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

Grain Ounce Equivalents for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12 (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/grain_oz_eq_snp_grades_k-12.pdf

Grain Ounce Equivalents for the Preschool Meal Patterns of the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/preschool/grain_oz_eq_snp_preschool.pdf

Grains Component (CSDE's Crediting Foods in School Nutrition Programs webpage):

<https://portal.ct.gov/sde/nutrition/crediting-foods-in-school-nutrition-programs/grains>

How to Identify Creditable Grains for Preschoolers in the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/identify_creditable_grains_snp_preschool.pdf

How to Use the Grain Ounce Equivalents Chart for the National School Lunch Program and School Breakfast Program (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/how_to_use_ounce_equivalents_chart.pdf

How to Use the Grains/Breads Servings Chart for the Afterschool Snack Program Meal Pattern for Grades K-12 (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/how_to_use_grains_breads_servings_chart_asp_k-12.pdf

Recipe Analysis Workbook (USDA's Food Buying Guide for Child Nutrition Programs):

<https://www.fns.usda.gov/tn/food-buying-guide-interactive-web-based-tool>

Records Retention Requirements for the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/records_retention_snp.pdf

Servings for Grains/Breads in the Afterschool Snack Program Meal Pattern for Grades K-12 (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/asp/grain_servings_asp_grades_k-12.pdf

Standardized Recipes (CSDE's Crediting Documentation for the Child Nutrition Program webpage):

<https://portal.ct.gov/sde/nutrition/crediting-documentation-for-the-child-nutrition-programs/standardized-recipes>

Tips for Evaluating a Manufacturer's Product Formulation Statement (USDA):

<https://www.fns.usda.gov/sites/default/files/resource-files/manufacturerPFStipsheet.pdf>

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USDA Memo CACFP 05-2025: Grain Requirements in the Child and Adult Care Food Program; Questions and Answers:

<https://fns-prod.azureedge.us/sites/default/files/resource-files/CACFP05-2025-grainrequirements.pdf>

USDA Memo CACFP 16-2017: Grain-Based Desserts in the Child and Adult Care Food Program:

<https://www.fns.usda.gov/cacfp/grain-based-desserts-child-and-adult-care-food-program>

USDA Memo SP 05-2025, CACFP 04-2025, and SFSP 02-2025: Guidance for Accepting Processed Product Documentation for Meal Pattern Requirements:

<https://www.fns.usda.gov/cn/labeling/guidance-accepting-processed-product-documentation>

USDA Memo SP 34-2019, CACFP 15-2019, and SFSP 15-2019: Crediting Coconut, Hominy, Corn Masa, and Masa Harina in the Child Nutrition Programs:

<https://www.fns.usda.gov/cn/crediting-coconut-hominy-corn-masa-and-masa-harina-child-nutrition-programs>

Using Child Nutrition (CN) Labels in the School Nutrition Programs (CDSE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/cn_labels_snp.pdf

Using Product Formulation Statements in the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/product_formulation_statements.pdf

What's in a Meal Module 6: Meal Pattern Documentation Part B – Crediting Commercial Processed Products (CSDE's Training Program, What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12):

<https://portal.ct.gov/sde/nutrition/meal-pattern-training-materials>

What's in a Meal Module 11: Grains Component (CSDE's Training Program, What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12):

<https://portal.ct.gov/sde/nutrition/meal-pattern-training-materials>

What's in a Meal Module 13: Grains Ounce Equivalents (CSDE's Training Program, What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12):

<https://portal.ct.gov/sde/nutrition/meal-pattern-training-materials>

Crediting Enriched Grains in the School Nutrition Programs

When Commercial Grain Products Require a Product Formulation Statement to Credit in the School Nutrition Programs (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/when_commercial_grain_products_require_pfs_snp.pdf

Worksheet to Calculate the Weekly Percentage of Whole Grain-rich Menu Items in School Lunch and Breakfast Menus for Grades K-12 (CSDE):

https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/worksheet_calculate_wgr_percentage_snp_grades_k-12.xlsx

Crediting Enriched Grains in the School Nutrition Programs

For more information, visit the “Grains” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage or contact the [school nutrition programs staff](#) at the Connecticut State Department of Education, Bureau of Child Nutrition Programs, 450 Columbus Boulevard, Suite 504, Hartford, CT 06103-1841. This document is available at https://portal.ct.gov/-/media/sde/nutrition/nslp/crediting/credit_enriched_grains_snp.pdf.

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