

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the National School Lunch Program and School Breakfast Patterns

This guidance applies to the meal patterns for grades K-12 in the U.S. Department of Agriculture’s (USDA) National School Lunch Program (NSLP), School Breakfast Program (SBP), and Seamless Summer Option (SSO) of the NSLP, which follows the NSLP and SBP meal patterns. For additional guidance on the NSLP and SBP meal patterns and crediting requirements for the grains component, refer to the Connecticut State Department of Education’s (CSDE) [Menu Planning Guide for School Meals for Grades K-12](#) and visit the CSDE’s [Meal Patterns for Grades K-12 in School Nutrition Programs](#) and [Crediting Foods in School Nutrition Programs](#) webpages.

**Note:** The grains/breads component of the ASP meal pattern for grades K-12 requires different quantities. For guidance on the calculation methods for grains/breads servings in the ASP, refer to the CSDE’s resource, [Calculation Methods for Grains/Breads Servings for Grades K-12 in the Afterschool Snack Program](#).



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# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Overview of Crediting Requirements for Grains

To credit as the grains component in the meal patterns for school nutrition programs, commercial grain products and foods made from scratch must be made with creditable grains. Creditable grains include whole grains, enriched grains, bran (such as oat bran, wheat bran, corn bran, rice bran, and rye bran), and germ (such as wheat germ). Bran and germ credit the same as enriched grains.

Creditable grain foods include commercial grain products and foods made from scratch that are whole grain-rich (WGR) or enriched. Creditable cooked and ready-to-eat (RTE) breakfast cereals include products that are WGR, enriched, or fortified.



At least 80 percent of the weekly grains offered at lunch and breakfast must be WGR. Grains that are not WGR must be enriched and cannot exceed 20 percent of the offered grains. Products that are 100 percent whole grain, such as whole-wheat bread and brown rice, provide the best nutrition and should be served most often.

For guidance on identifying WGR and enriched grains, refer to the CSDE's resources, *Meeting the Whole Grain-rich Requirement for the NSLP and SBP Meal Patterns for Grades K-12*, *Crediting Whole Grains in the National School Lunch Program and School Breakfast Program*, *Crediting Enriched Grains in the National School Lunch Program and School Breakfast Program*, and *Crediting Breakfast Cereals for Grades K-12 in the National School Lunch Program and School Breakfast Program*, and modules 11-12 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*.

## Overview of Ounce Equivalents (Oz Eq)

The required quantities for the grains component are in oz eq. The minimum amount that credits toward the grains component is  $\frac{1}{4}$  oz eq.

The USDA allows two methods for determining the oz eq of creditable commercial grain products and standardized recipes. Method 1 (weight or volume) is used for commercial grain products and may also be used for standardized recipes that indicate the weight of the prepared (cooked) serving. Method 2 (creditable grains) is used for standardized recipes and may also be used for commercial grain products that have a product formulation statement (PFS) indicating the weight of creditable grains per serving.

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

School food authorities (SFAs) may use either method but must document how the crediting information is determined for each grain product and recipe (refer to “[Choosing a Calculation Method](#)” in this document). For some commercial products, method 2 is required (refer to “[When Method 2 is Required for Commercial Products](#)” in this document).

SFAs are not required to use these methods for commercial products with a Child Nutrition (CN) label. CN-labeled products credit toward the grains component based on the stated crediting information for grain oz eq.

CN labels are available only for main dish entrees that contain at least  $\frac{1}{2}$  oz eq of the meat/meat alternates component. Some examples include pizza, breaded chicken nuggets, and cheese ravioli. CN-labeled foods also typically indicate the contribution of grains, vegetables, and fruits that are part of these products.

For more information on CN labels, refer to the CSDE’s resource, [Using Child Nutrition \(CN\) Labels in the School Nutrition Programs](#), and “Module 6: Meal Pattern Documentation” 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](#).

Before determining the oz eq per serving, make sure the commercial grain product or standardized recipe is creditable, i.e., WGR or enriched.



# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Method 1: Weights or Volumes (USDA's Exhibit A Chart)

Method 1 uses the USDA's chart, *Exhibit A: Grain Requirements for Child Nutrition Programs*, 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. Some commercial grain products require method 2 and the SFA must obtain a PFS (refer to "[When Method 2 is Required for Commercial Products](#)" in this document).

The required amounts for the grains component listed in Exhibit A are not the same for all Child Nutrition Programs because the meal patterns are different. The CSDE's resource, *Grain Ounce Equivalents for Grades K-12 in the National School Lunch Program and School Breakfast Program*, indicates the Exhibit A grain oz eq that apply to the NSLP and SBP meal patterns for grades K-12.

The amount of a creditable 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, a roll (group B) must weigh 28 grams (1 ounce), a corn muffin (group C) must weigh 34 grams (1.2 ounces), and a blueberry muffin (Group D) must weigh 55 grams (2 ounces).

- **Groups A-G (baked goods)** include foods such as crackers, breads, rolls, taco shells, muffins, waffles, pancakes, and grain-based desserts, e.g., cookies, cake, granola bars, and pastries. The amount of a food that provides 1 oz eq varies from 22 grams (0.8 ounce) for foods in group A to 125 grams (4.4 ounces) for foods in group G.
- **Group H (cereal grains)** includes foods such as pasta, cooked breakfast cereals, and other cereal grains, e.g., amaranth, barley, buckwheat, cornmeal, corn grits, farina, kasha, millet, oats, quinoa, wheat berries, and rolled wheat. These foods require  $\frac{1}{2}$  cup cooked or 28 grams (1 ounce) dry to credit as 1 oz eq of the grains component. Cereal grains typically credit based on the cooked serving, but menu planners may choose to credit cereal grains using the dry uncooked weight. Dry cereal grains used as an ingredient in a recipe (such as rolled oats in bread) require 16 grams of creditable grains to credit as 1 oz eq of the grains component. For guidance on crediting cooked breakfast cereals, refer to the CSDE's resource, *Crediting Breakfast Cereals for Grades K-12 in the National School Lunch Program and School Breakfast Program*.

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

- **Group I (RTE breakfast cereals)** includes cold breakfast cereals such as puffed cereals, round or flaked cereals, and granola. These foods require 1 ounce (28 grams) to credit as 1 oz eq of the grains component. A 1-ounce serving equals 1 cup of flaked or round cereal, 1¼ cups of puffed cereal, and ¼ cup of granola. For guidance on crediting RTE breakfast cereals, refer to the CSDE’s resource, *Crediting Breakfast Cereals for Grades K-12 in the National School Lunch Program and School Breakfast Program*.

## Using method 1 for commercial products

The product’s Nutrition Facts label or PFS must indicate the weight (ounces or grams) of the manufacturer’s serving. The tools below help menu planners determine the oz eq contribution of creditable commercial grain products.

- **USDA’s Exhibit A Grains Tool:** 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, refer to the USDA’s webinars, *Exhibit A Grains Tool to the Rescue* and *How to Maximize the Exhibit A Grains Tool*.
- **How to Use the Grain Oz Eq Chart for the NSLP and SBP:** The CSDE’s resource, *How to Use the Grain Ounce Equivalents Chart for the NSLP and SBP*, reviews 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). This guidance is also provided in “Module 13: Grain Oz eq” 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*.

## Using method 1 for foods made from scratch

SFAs must have a standardized recipe on file that indicates the weight of the prepared (cooked) serving. If the standardized recipe does not provide this information, SFAs could determine the average weight per serving by weighing several servings of the recipe. For more information, refer to the CSDE’s *Yield Study Data Form for Child Nutrition Programs*.

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Method 2: Creditable Grains

Method 2 determines the oz eq for creditable commercial grain products and standardized recipes by calculating the total weight (grams) of creditable grains per serving. The grams of creditable grains are obtained from the commercial product's PFS or calculated from the grain quantities in the SFA's standardized recipe. The required grams of creditable grains are different for creditable foods and WGR foods.

- **Creditable foods:** To credit as 1 oz eq of the grains component, foods in groups A-G must contain 16 grams of creditable grains and foods in groups H-I must contain 28 grams of creditable grains.
- **WGR foods:** To credit as 1 oz eq of a WGR food, foods in groups A-G must contain 16 grams of creditable grains (including at least 8 grams of whole grains) and foods in groups H-I must contain 28 grams of creditable grains (including at least 14 grams of whole grains).

There are some situations when SFAs must use method 2 to determine if a commercial product meets the crediting or WGR criteria for grain menu items. Refer to "[When Method 2 is Required for Commercial Products](#)" in this document.

## Using method 2 for commercial products

SFAs must obtain a PFS from the manufacturer that documents the weight of the creditable grains per serving. For 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 National School Lunch Program and School Breakfast Program](#), and the USDA's [Product Formulation Statement for Documenting Grains in the Child Nutrition Programs](#) and [Tips for Evaluating a Manufacturer's Product Formulation Statement](#). Additional guidance on documentation for commercial products is available in the "[Crediting Commercial Processed Products](#)" section of the CSDE's Crediting Foods in School Nutrition Programs webpage.

For guidance on evaluating a grain product's PFS, refer to section 6 of the CSDE's guide, [Meeting the Whole Grain-rich Requirement for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12](#). Training on the PFS requirements and how to evaluate a PFS is available in "Module 6: Meal Pattern Documentation" 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](#).

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Using method 2 for foods made from scratch

SFAs must have a standardized recipe on file that indicates the weight of each grain ingredient. The grams of creditable grains per serving are determined from the weight of each grain ingredient listed in the standardized recipe. For assistance with recipe calculations, such as converting fractions to decimals, refer to the Institute of Child Nutrition’s (ICN) *Basics at a Glance Portion Control Poster* and the decimal equivalents of fractions in the “[Introduction](#)” section of the USDA’s FBG.

If the recipe lists grain ingredients by volume (e.g., cups and quarts) instead of weight (pound and ounces), each measurement must be converted to grams. For more information, refer to “[Method 2 calculation for recipes listing the volume of grain ingredients](#)” and [table 7](#) in this document.

Menu planners may use the FBG’s online [Recipe Analysis Workbook](#) 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. For additional guidance on determining the grain servings of recipes, visit the “[Crediting Foods Made from Scratch](#)” section of the CSDE’s Crediting Foods in School Nutrition Programs webpage.





# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## When Method 2 is Required for Commercial Products

SFAs must use method 2 and obtain a PFS from the manufacturer if the product's ingredients statement and packaging do not provide sufficient information to determine if the product meets the crediting requirements or WGR criteria for the school meal patterns. A PFS is required for commercial products when any of the situations below apply.

**Note:** When reviewing the first ingredient on the product's label, water is ignored. For combination foods such as pizza or breaded chicken nuggets, these requirements apply only to the grain portion.

1. The first ingredient is not a creditable grain, but the product contains more than one creditable grain. The PFS must indicate that the combined weight of all creditable grains is the greatest ingredient by weight.
2. *Applies only to WGR foods:* The first ingredient is not a whole grain, but the product contains more than one whole grain. The PFS must indicate that the combined weight of all whole grains is the greatest ingredient by weight.
3. *Applies only to WGR foods:* The first ingredient is a whole grain, and the product contains two or more enriched grains. The PFS must indicate that the weight of the whole grain is equal to more than the combined weight of the enriched grains.
4. *Applies only to WGR foods:* The first ingredient is a flour blend of whole and enriched flour. The PFS must indicate one of the following: the whole grain content is at least 8 grams per oz eq (groups A-G); or the weight of the whole grain in the flour blend is more than the first ingredient (excluding water) listed after the flour blend.
5. The product contains noncreditable grains that are not listed in any of the following ways: after the statement, "contains 2% or less;" in a non-grain ingredient; or in the non-grain portion of a combination food. The PFS must indicate that the total weight of noncreditable grains does not exceed 3.99 grams per portion for groups A-G or 6.99 grams per portion for groups H-I.
6. A combination food that contains a grain portion does not have a CN label. The PFS must indicate the following: 1) the weight (grams) of each creditable grain per serving; 2) how the product provides that amount according to the USDA's [Food Buying Guide for Child Nutrition Programs](#) (FBG) or USDA's regulations, guidance, or policies; and 3) if applicable, the total weight of any noncreditable grains.

## Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

7. The manufacturer claims that the product's serving size is less than the required weight or volume in the USDA's Exhibit A chart. The PFS must indicate the following: 1) the weight (grams) of each creditable grain per serving; 2) how the product provides that amount according to the FBG or USDA's regulations, guidance, or policies; and 3) if applicable, the total weight of noncreditable grains.
8. The product is not listed in the USDA's Exhibit A chart. The PFS must indicate the following: 1) the weight (grams) of each creditable grain per serving; 2) how the product provides that amount according to the FBG or USDA's regulations, guidance, or policies; and 3) if applicable, the total weight of noncreditable grains.

For specific guidance and examples of each situation, refer to the CSDE's resource, *When Commercial Grain Products Require a Product Formulation Statement to Credit in the School Nutrition Programs*.

If the manufacturer will not supply a PFS or the PFS does not provide the appropriate documentation, the product cannot credit as the grains component in school meals.

SFAs must verify the accuracy of the PFS before including the commercial grain product in reimbursable meals. An example of how to evaluate a grain PFS is available in the CSDE's resource, *When Commercial Grain Products Require a Product Formulation Statement to Credit in the School Nutrition Programs*, and section 6 of the CSDE's guide, *Meeting the Whole Grain-rich Requirement for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12*.

SFAs must maintain crediting documentation on file. The CSDE will review this information during the Administrative Review of the school nutrition programs.



# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Choosing a Calculation Method

SFAs may choose to use either method to determine the oz eq contribution of a grain menu item but must document which method is used for each grain menu item. For some commercial grain products, each method results in a different crediting contribution. For example, a 1-ounce whole-grain bagel might credit as 1 oz eq of the grains component using method 1 (USDA's Exhibit A chart) but might credit as 1½ oz eq using method 2 (creditable grains).

SFAs should use the same calculation method each time the same product is on the menu. For example, if the menu planner uses method 2 (creditable grains) to determine the crediting of a whole-grain bagel, that same bagel should always be credited using method 2. The CSDE strongly recommends choosing one calculation method for consistent crediting. This simplifies menu planning and assists SFAs with documenting compliance for the grains component.



# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Sample Calculations for Commercial Products

This section demonstrates how to calculate the oz eq of commercial grain products using either the appropriate weight (groups A-G) or volume (groups H-I) in the USDA’s Exhibit A chart (method 1) or the weight of creditable grains per serving (method 2). SFAs may also use the USDA’s [Exhibit A Grains Tool](#) to automatically calculate this information (refer to “[Using Method 1 for commercial products](#)” in this document).

### Calculations for commercial products in groups A-G

Table 1 shows how to use method 1 to calculate the oz eq of commercial grain products in groups A-G. This example is for whole-wheat pancakes, a commercial product in group C. Table 2 shows a sample calculation for this same product using method 2.



These examples show how each method can result in a different crediting contribution for the same product. For some products, each method results in the same crediting contribution. SFAs may use either method but must document how the crediting information was determined (refer to “[Choosing a Calculation Method](#)” in this document).

To determine the meal pattern contribution of a commercial grain product using method 1, menu planners must use the weight (ounces or grams) of one serving from the product’s Nutrition Facts label or PFS. If the product lists the serving size in ounces and grams, menu planners may choose to use either one. To convert ounces to grams, multiply ounces by 28.35.

For additional guidance on determining the oz eq contribution of a grain menu item in groups A-G, refer to the CSDE’s resource, [How to Use the Grain Ounce Equivalents Chart for the National School Lunch Program and School Breakfast Program](#).

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

**Table 1. Using method 1 (USDA’s Exhibit A chart) to calculate  
oz eq for commercial products in groups A-G**

## Mini Whole-Wheat Pancakes <sup>1</sup>

**Manufacturer’s serving size:**  
5 pancakes (1.75 ounces)

**Group C (USDA’s Exhibit A chart):**  
1 oz eq = 34 grams or 1.2 ounces

**Ingredients:** Water, whole-wheat flour, enriched flour (wheat flour, niacin, ferrous sulfate, thiamin mononitrate, riboflavin, folic acid), sugar, canola oil. Contains 2% or less of: leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), eggs, salt, buttermilk.

<p>1. List the weight of the <b>manufacturer’s serving</b> from the product’s Nutrition Facts label or PFS (1 ounce = 28.35 grams).</p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 10%; font-weight: bold;">A</td> <td style="width: 10%; font-weight: bold;">1.75</td> <td style="width: 80%;">ounces</td> </tr> </table>	A	1.75	ounces
A	1.75	ounces		
<p>2. List the required weight for <b>1 oz eq</b> for the product’s group (A-G) in the USDA’s Exhibit A chart. <sup>2</sup></p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 10%; font-weight: bold;">B</td> <td style="width: 10%; font-weight: bold;">1.2</td> <td style="width: 80%;">ounces</td> </tr> </table>	B	1.2	ounces
B	1.2	ounces		
<p>3. Determine the <b>oz eq</b> in one serving of the product: Divide A by B.</p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 10%; font-weight: bold;">C</td> <td style="width: 10%; font-weight: bold;">1.46</td> <td style="width: 80%;">oz eq per manufacturer’s serving</td> </tr> </table>	C	1.46	oz eq per manufacturer’s serving
C	1.46	oz eq per manufacturer’s serving		
<p>4. Round <b>down</b> the number in C to the <b>nearest ¼ oz eq</b>. For example, 1.49 and 1.27 round down to 1.25 and 1.24 rounds down to 1.</p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 10%; font-weight: bold;">D</td> <td style="width: 10%; font-weight: bold;">1.25</td> <td style="width: 80%;">oz eq per manufacturer’s serving (rounded)</td> </tr> </table>	D	1.25	oz eq per manufacturer’s serving (rounded)
D	1.25	oz eq per manufacturer’s serving (rounded)		

**Summary of crediting information using method 1:** The manufacturer’s serving size (5 mini-pancakes) credits as **1¼ oz eq** of the grains component.

<sup>1</sup> This product is WGR because whole-wheat flour is the first ingredient (excluding water), enriched flour is the only other grain ingredient, and the product does not contain any noncreditable grains. For guidance on identifying WGR foods, refer to the CSDE’s guide, *Meeting the Whole Grain-rich Requirement for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12*.

<sup>2</sup> Pancakes are in group C, which requires 34 grams or 1.2 ounces to credit as 1 oz eq of the grains component (refer to the CSDE’s resource, *Grain Ounce Equivalents for Grades K-12 in the National School Lunch Program and School Breakfast Program*).

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

**Table 2. Using method 2 (creditable grains) to calculate  
oz eq for commercial products in groups A-G**

## Mini Whole-Wheat Pancakes <sup>1</sup>

<b>Manufacturer’s serving size:</b> 5 pancakes (1.75 ounces)	<b>Creditable grains per serving (from product’s PFS):</b> Whole-wheat flour: 16 grams Enriched flour: 14 grams Noncreditable grains: 0 grams
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**Ingredients:** Water, whole-wheat flour, enriched flour (wheat flour, niacin, ferrous sulfate, thiamin mononitrate, riboflavin, folic acid), sugar, canola oil. Contains 2% or less of: leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), eggs, salt, buttermilk.

1. List the **combined weight (grams)** of whole and enriched grains in one serving from the product’s PFS (1 ounce = 28.35 grams). <sup>2</sup>

16 grams of whole-wheat flour +  
14 grams of enriched flour =  
**30 grams** of creditable grains

<b>A</b>	<b>30</b>	grams
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2. Determine the **oz eq** in one serving of the product: Divide A by 16 (1 oz eq for groups A-G = **16 grams** of creditable grains).

<b>B</b>	<b>1.88</b>	oz eq per manufacturer’s serving
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3. Round **down** the number in B to the **nearest ¼ oz eq**. For example, 1.49 and 1.27 round down to 1.25 and 1.24 rounds down to 1.

<b>C</b>	<b>1.75</b>	oz eq per manufacturer’s serving (rounded)
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**Summary of crediting information using method 2:** The manufacturer’s serving size (five mini-pancakes) credits as **1¾ oz eq** of the grains component.

<sup>1</sup> This product is WGR because the whole-wheat flour (16 grams) weighs more than the enriched flour (14 grams) and the product does not contain any noncreditable grains. For guidance on identifying WGR foods, refer to the CSDE’s guide, *Meeting the Whole Grain-rich Requirement for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12*.

<sup>2</sup> To credit a product using method 2, SFAs must obtain a manufacturer’s PFS stating the weight (grams) of all creditable and noncreditable grains in the serving

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Calculations for commercial products in group H

Table 3 shows how to use method 1 to calculate the oz eq for a commercial whole-grain pasta product in group H. Table 4 shows a sample calculation for this same product using method 2.

These examples show how each method can result in the same crediting contribution for a commercial grain product. For some products, each method results in a different crediting contribution. SFAs may use either method but must document how the crediting information was determined (refer to “[Choosing a Calculation Method](#)” in this document).

Cereal grains in group H typically credit based on the **cooked** serving, i.e.,  $\frac{1}{2}$  cup of cooked cereal credits as 1 oz eq of the grains component. However, menu planners may choose to calculate the product’s oz eq based on the **dry uncooked weight**, i.e., 1 ounce (28 grams) of dry cereal grains credits as 1 oz eq of the grains component. The weight (ounces or grams) of one serving must be determined from the commercial product’s Nutrition Facts label or the manufacturer’s PFS. If the product lists the serving size in ounces and grams, the menu planner may choose to use either one.



# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

**Table 3. Using method 1 (USDA’s Exhibit A chart) to calculate  
oz eq for commercial products in group H**

### Whole-grain Pasta <sup>1</sup>

**Manufacturer’s serving size:**  
32 grams dry (½ cup cooked)

**Group H (USDA’s Exhibit A chart):**  
1 oz eq = ½ cup cooked or 28 grams dry

**Ingredients:** Whole-grain durum wheat flour, enriched wheat flour.

1. List the weight of the **manufacturer’s serving** from the product’s Nutrition Facts label or PFS (1 ounce = 28.35 grams).

<b>A</b>	<b>32</b>	grams
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2. List the required uncooked (dry) weight for **1 oz eq** for the product’s group in the USDA’s Exhibit A chart (group H). <sup>1</sup>

<b>B</b>	<b>28</b>	grams
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3. Determine the **oz eq** in one serving of the product: Divide A by B.

<b>C</b>	<b>1.14</b>	oz eq per manufacturer’s serving
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4. Round **down** the number in C to the nearest ¼ **oz eq**. For example, 1.49 and 1.27 round down to 1.25, and 1.24 rounds down to 1.

<b>D</b>	<b>1</b>	<b>oz eq per manufacturer’s serving (rounded)</b>
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**Summary of crediting information using method 1:** The manufacturer’s serving size (32 grams dry) credits as **1 oz eq** of the grains component.

<sup>1</sup> This product is WGR because whole-grain flour is the first and only ingredient. For guidance on identifying WGR foods, refer to the CSDE’s guide, *Meeting the Whole Grain-rich Requirement for the National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12*.  
<sup>2</sup> Pasta is in group H, which requires 28 grams dry to credit as 1 oz eq of the grains component (refer to the CSDE’s resource, *Grain Ounce Equivalents for Grades K-12 in the National School Lunch Program and School Breakfast Program*).



# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

**Table 4. Using method 2 (creditable grains) to calculate  
oz eq for commercial products in group H**

### Whole-grain Pasta <sup>1</sup>

**Manufacturer’s serving size:**

32 grams dry (½ cup cooked)

**Group H (USDA’s Exhibit A chart):**

1 oz eq = ½ cup cooked or 28 grams dry

**Creditable grains per serving  
(from product’s PFS):**

Whole-wheat flour: 15 grams

Enriched flour: 14 grams

Noncreditable grains: 0 grams

**Ingredients:** Whole-grain durum wheat flour, enriched wheat flour.

1. List the **combined weight (grams)** of whole and enriched grains in one serving from the product’s PFS (1 ounce = 28.35 grams). <sup>2</sup>

15 grams of whole-wheat flour +  
14 grams of enriched flour =  
**29 grams of creditable grains**

<b>A</b>	<b>29</b>	grams
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2. Determine the **oz eq** in one serving of the product:  
Divide A by 28 (1 oz eq for group H= **28 grams**  
of creditable grains).

<b>B</b>	<b>1.04</b>	oz eq per manufacturer’s serving
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3. Round **down** the number in B to the **nearest**  
¼ **oz eq**. For example, 1.49 and 1.27 round down  
to 1.25 and 1.24 rounds down to 1.

<b>C</b>	<b>1.0</b>	<b>oz eq per manufacturer’s serving (rounded)</b>
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**Summary of crediting information using method 2:** The manufacturer’s serving size (½ cup cooked) credits as **1 oz eq** of the grains component.

<sup>1</sup> This product is WGR because the whole-wheat flour (15 grams) weighs more than the enriched flour (14 grams) and the product does not contain any noncreditable grains.

<sup>2</sup> To credit a product using method 2, SFAs must obtain a manufacturer’s PFS stating the weight (grams) of all creditable and noncreditable grains in the serving.

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Sample Calculations for Foods Made from Scratch

SFAs must have standardized recipes on file to document the meal pattern contribution of grain foods made from scratch, such as breads, rolls, muffins, pizza dough, and pancakes. This section demonstrates how to calculate the oz eq of recipes using either:

- the appropriate weight (groups A-E) or volume (groups H-I) in the USDA’s Exhibit A chart (method 1); or
- the weight of creditable grains per serving (method 2).

SFAs may also use the USDA’s [Recipe Analysis Workbook](#) to automatically calculate this information (refer to “[Using method 2 for foods made from scratch](#)” in this document).

SFAs do not need to calculate oz eq for grain foods prepared from the USDA’s recipes for Child Nutrition Programs. These standardized recipes specify the meal pattern crediting information per serving. For links to the USDA’s recipes, visit the Institute of Child Nutrition’s (ICN) [Child Nutrition Recipe Box](#) and the “[Recipes](#)” section of the CSDE’s [Menu Planning for Child Nutrition Programs](#) webpage. For information on standardized recipes, visit the “[Crediting Foods Made from Scratch](#)” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage.

## Method 2 calculation for recipes listing the weight of grain ingredients

Table 5 shows how to use method 2 to calculate the oz eq for a standardized recipe for multi-grain bread that lists the weight of the grain ingredients. Bread is in group B of the USDA’s Exhibit A chart and requires 16 grams of creditable grains to credit as 1 oz eq of the grains component. To credit as 1 oz eq of a WGR food, the 16 grams of creditable grains must include at least 8 grams of whole grains.



# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

**Table 5. Using method 2 (creditable grains) to calculate oz eq  
for recipes listing the weight of the grain ingredients**

WGR standardized recipe for multi-grain bread <sup>1</sup>		
<b>Yield:</b> 100 servings <b>Serving size:</b> 1 piece	<b>Grain ingredients:</b> Whole-wheat flour: 8 ounces (0.5 pound) Rolled oats: 1 pound 2 ounces (1.125 pounds) <sup>2</sup> Enriched flour: 1 pound Enriched cornmeal: 8 ounces (0.5 pound) <sup>2</sup>	
1. Determine the <b>total weight (pounds)</b> of all <b>creditable grains</b> in the recipe (16 ounces = 1 pound). Convert fractions to decimals, e.g., 1¾ pounds equals 1.75 pounds.  1.625 pounds of whole grains (whole-wheat flour and rolled oats) + 1.5 pounds of enriched grains (enriched flour and enriched cornmeal) = <b>3.125 pounds</b> of creditable grains	<div style="background-color: #800000; color: white; padding: 5px; width: 30px; margin: 0 auto;"><b>A</b></div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>3.125</b> pounds of creditable grains         </div>
2. Determine the <b>total grams of creditable grains</b> in the recipe: Multiply A by 453.6 (1 pound = 453.6 grams).	<div style="background-color: #800000; color: white; padding: 5px; width: 30px; margin: 0 auto;"><b>B</b></div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>1417.5</b> grams of creditable grains         </div>
3. List the <b>number of servings</b> in the recipe.	<div style="background-color: #800000; color: white; padding: 5px; width: 30px; margin: 0 auto;"><b>C</b></div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>100</b> servings per recipe         </div>
4. Determine the <b>grams of creditable grains</b> per recipe serving: Divide B by C.	<div style="background-color: #800000; color: white; padding: 5px; width: 30px; margin: 0 auto;"><b>D</b></div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>14.175</b> grams of creditable grains per recipe serving         </div>
5. Determine the <b>oz eq</b> per recipe serving: Divide D by 16 (1 oz eq = <b>16 grams</b> of creditable grains). <sup>2</sup>	<div style="background-color: #800000; color: white; padding: 5px; width: 30px; margin: 0 auto;"><b>E</b></div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>0.89</b> oz eq         </div>
6. Round <b>down</b> the number in E to the <b>nearest ¼ oz eq</b> . For example, 1.49 and 1.27 round down to 1.25 and 1.24 rounds down to 1.	<div style="background-color: #800000; color: white; padding: 5px; width: 30px; margin: 0 auto;"><b>F</b></div>	<div style="border: 1px solid black; padding: 5px; display: inline-block; background-color: #ffff00;"> <b>0.75</b> oz eq (rounded)         </div>
<b>Summary of crediting information using method 2:</b> The recipe’s serving (one piece) credits as ¾ oz eq of the grains component.		
<sup>1</sup> This recipe is WGR because the whole grains (1.625 pounds) weigh more than the enriched grains (1.5 pounds), and the recipe does not contain any noncreditable grains.		
<sup>2</sup> Dry cereal grains used as an ingredient in a recipe (such as rolled oats and cornmeal) credit the same as groups A-G. They require 16 grams of creditable grains to credit as 1 oz eq.		

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Method 2 calculation for recipes listing the volume of grain ingredients

Standardized recipes list ingredients by volume (e.g., cups and quarts) and weight (e.g., pounds and ounces). Weight is the most accurate measure. Recipes that are not standardized (such as recipes used at home) typically list ingredients only by volume. SFAs may use any of the methods below to convert the volume of a recipe's grain ingredients to weight (grams).

1. **Nutrition Facts label:** Use the manufacturer's serving size information on the Nutrition Facts label for the grain ingredient, e.g., whole-wheat flour, enriched flour, or whole-grain cornmeal. Multiply the grams per cup (indicated on the Nutrition Facts label) by the number of cups used in the recipe. The example below shows how to use the Nutrition Facts label to determine the weight of the grain ingredients in a recipe that contains 2 cups of whole-wheat flour and 2 cups of enriched flour.



- o **Whole wheat flour:** The Nutrition Facts label for the whole-wheat flour states that  $\frac{1}{4}$  cup weighs 32 grams, which equals 128 grams per cup. Multiply the grams per cup (128 grams) by the number of cups used in the recipe (2 cups) to determine the total weight of the grain ingredient in the recipe (256 grams).
  - o **Enriched flour:** The Nutrition Facts label for the enriched flour states that  $\frac{1}{4}$  cup weighs 30 grams, which equals 120 grams per cup. Multiply the weight per cup (120 grams) by the amount of enriched flour used in the recipe (2 cups) to determine the weight of the enriched flour used in the recipe (240 grams).
2. **Nutrient database:** Search the USDA's [FoodData Central](#) nutrient database for grain ingredients, such as whole-wheat flour or yellow cornmeal. Enter "1" in the data field for the cup measurement, and the database will provide the weight of 1 cup of that ingredient.
3. **Volume equivalent chart:** Use volume equivalent charts that list the weight of 1 cup of grain ingredients. Table 6 shows the weight per cup for some common grain ingredients.
4. **Yield study:** Determine the average weight of 1 cup of the grain ingredient by measuring and weighing several samples. For more information, refer to the CSDE's [Yield Study Data Form for Child Nutrition Programs](#).

## Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

Table 7 shows how to use method 2 to calculate the oz eq for a recipe that lists the grain ingredients in cups.

<b>Table 6. Weights of 1 cup of common grain ingredients <sup>1</sup></b>	
<b>Food item</b>	<b>Weight (grams) per cup</b>
Barley, flour or meal <sup>2</sup>	148
Barley, hulled <sup>2</sup>	184
Barley, pearled, uncooked <sup>2</sup>	200
Barley, pearled, cooked <sup>2</sup>	157
Breadcrumbs, dry, grated, plain <sup>2</sup>	108
Breadcrumbs, plain, dry, grated, seasoned <sup>2</sup>	120
Breadcrumbs, plain soft, white <sup>2</sup>	45
Bulgur, uncooked <sup>2</sup>	140
Bulgur, cooked <sup>2</sup>	182
Cereal, General Mills Cheerios <sup>3</sup>	28
Cereal, General Mills Corn Chex <sup>3</sup>	31
Cereal, General Mills Rice Chex <sup>3</sup>	27
Cereal, General Mills Wheat Chex <sup>3</sup>	47
Cereal, General Mills Wheaties <sup>3</sup>	36
Cereal, Kellogg's All-Bran Bran Buds <sup>4</sup>	90
Cereal, Kellogg's All-Bran Original <sup>4</sup>	62
Cereal, Kellogg's Corn Flakes crumbs <sup>4</sup>	88
Cereal, Kellogg's Corn Flakes, whole <sup>4</sup>	28
Cereal, Kellogg's Rice Krispies <sup>5</sup>	26
Cereal, Quaker Puffed Rice <sup>5</sup>	14
Cereal, Quaker Puffed Wheat <sup>5</sup>	28
Cornmeal, enriched, uncooked, yellow, degerminated <sup>2</sup>	157
Cornmeal, enriched, uncooked, yellow, whole grain <sup>2</sup>	122
Cracker crumbs, graham, crushed <sup>2</sup>	84
Cracker crumbs, snack, standard snack-type, regular, crushed <sup>2</sup>	52

## Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

**Table 6. Weights of 1 cup of common grain ingredients <sup>1</sup>, continued**

Food item	Weight (grams) per cup
Flour, buckwheat, whole groats <sup>2</sup>	120
Flour, corn, whole grain, yellow <sup>2</sup>	117
Flour, rice, brown <sup>2</sup>	158
Flour, rice, white <sup>2</sup>	158
Flour, rye, dark <sup>2</sup>	128
Flour, rye, light <sup>2</sup>	102
Flour, wheat, white, all-purpose enriched, bleached <sup>2</sup>	125
Flour, wheat, white, all-purpose enriched, unbleached <sup>2</sup>	125
Flour, wheat, white, bread, enriched <sup>2</sup>	137
Flour, wheat, white, cake, enriched, unsifted, dipped <sup>2</sup>	137
Flour, wheat, white, self-rising, enriched <sup>2</sup>	125
Flour, wheat, whole grain <sup>2</sup>	120
Wheat germ, uncooked, plain <sup>2</sup>	88
Wheat germ, toasted, plain <sup>2</sup>	115
Oat bran, raw <sup>2</sup>	94
Oat bran, cooked <sup>2</sup>	219
Oats, rolled, quick, uncooked <sup>2</sup>	81
Oats, rolled, regular, uncooked <sup>2</sup>	81

<sup>1</sup> The use of brand-name products is solely for clarification regarding serving sizes and does not constitute approval or endorsement by the USDA or CSDE. The actual weight of 1 cup may be more or less than the weights in this chart, depending on the measuring method used, e.g., stirred or unstirred, sifted or unsifted, spooned or dipped, and coarsely or finely crushed. For the most accurate conversion of volume to weight, calculate the average weight of 1 cup of the ingredient by measuring and weighing several samples. For more information, refer to the CSDE's *Yield Study Data Form for Child Nutrition Programs*.

<sup>2</sup> USDA's FoodData Central database (Standard Reference (SR) Legacy Data):

<https://fdc.nal.usda.gov/>

<sup>3</sup> General Mills Cereals: <https://www.generalmills.com/en/Brands/Cereals>

<sup>4</sup> Kellogg's Cereals: [https://www.kelloggs.com/en\\_US/home.html](https://www.kelloggs.com/en_US/home.html)

<sup>5</sup> Quaker Cereals: <https://www.quakeroats.com/products>

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

**Table 7. Using method 2 (creditable grains) to calculate oz eq  
for recipes listing the volume of grain ingredients**

### Multi-grain bread <sup>1</sup>

25 servings (one piece)		Convert cups to grams	
Grain ingredient	Measure	Grams per cup <sup>2</sup>	Weight (grams)
Whole-wheat flour	2 cups	X 120 =	240.00 grams
Rolled oats <sup>3</sup>	<sup>3</sup> / <sub>4</sub> cup	X 181 =	60.75 grams
All-purpose enriched flour	2 cups	X 125 =	250.00 grams
Enriched cornmeal	<sup>1</sup> / <sub>4</sub> cup	X 138 =	34.50 grams
<b>Total weight of creditable grains:</b>			<b>585.25 grams</b>

1. Determine the **combined weight (grams)** of all creditable grains in the recipe.

<b>A</b>	<b>585.25</b>	grams
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300.75 grams of whole grains (whole-wheat flour and rolled oats) + 284.5 grams of enriched grains (all-purpose enriched flour and enriched cornmeal) = **585.25 grams** of creditable grains

2. List the **number of servings** in the recipe.

<b>B</b>	<b>25</b>	servings
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3. Determine the **grams of creditable grains** per serving: Divide A by B.

<b>C</b>	<b>23.41</b>	grams
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4. Determine the **oz eq** per serving:  
Divide C by 16 (1 oz eq = **16 grams** of creditable grains). <sup>3</sup>

<b>D</b>	<b>1.46</b>	oz eq
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5. Round **down** the number in D to the **nearest <sup>1</sup>/<sub>4</sub> oz eq**. For example, 1.49 and 1.27 round down to 1.25 and 1.24 rounds down to 1.

<b>E</b>	<b>1.25</b>	oz eq
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**Summary of crediting information:** The recipe's serving (one piece) credits as **1<sup>1</sup>/<sub>4</sub> oz eq** of the grains component.

<sup>1</sup> This recipe is WGR because the whole grains (300.75 grams) weigh more than the enriched grains (284.5 grams) and the recipe does not contain any noncreditable grains.  
<sup>2</sup> Grams per cup are from the USDA's [FoodData Central](#) database (Standard Reference (SR) Legacy Data).  
<sup>3</sup> Dry cereal grains used as an ingredient in a recipe (such as rolled oats and cornmeal) credit the same as groups A-G. They require 16 grams of creditable grains to credit as 1 oz eq and at least 8 grams of whole grains per oz eq to be WGR.

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

## Resources

Accepting Processed Product Documentation in the National School Lunch Program and School Breakfast Program (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Accepting\\_Processed\\_Product\\_Documentation\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Accepting_Processed_Product_Documentation_SNP.pdf)

Basics at a Glance Portion Control Poster (Institute of Child Nutrition):

<https://theicn.org/icn-resources-a-z/basics-at-a-glance/>

Calculating the Weekly Percentage of Whole Grain-rich Menu Items in the National School Lunch Program and School Breakfast Program (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Calculate\\_WGR\\_Percentage\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Calculate_WGR_Percentage_SNP.pdf)

Crediting Breakfast Cereals for Grades K-12 in the National School Lunch Program and School Breakfast Program (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Cereals\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Cereals_SNP_grades_K-12.pdf)

Crediting Enriched Grains in the National School Lunch Program and School Breakfast Program (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Enriched\\_Grains\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Enriched_Grains_SNP.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](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Grain_Based_Desserts_grades_K-12_SNP.pdf)

Crediting Whole Grains in the National School Lunch Program and School Breakfast Program (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Whole\\_Grains\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Whole_Grains_SNP.pdf)

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

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

Food Buying Guide Exhibit A Grains Tool (USDA):

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

Food Buying Guide Section 4: Overview of Crediting Requirements for the Grains Component (USDA):

[https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA\\_FBG\\_Section4\\_Grains.pdf](https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA_FBG_Section4_Grains.pdf)



# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

Food Buying Guide Section 4: Yield Table for Grains (USDA):

[https://foodbuyingguide.fns.usda.gov/files/Reports/USDA\\_FBG\\_Section4\\_GrainsYieldTable.pdf](https://foodbuyingguide.fns.usda.gov/files/Reports/USDA_FBG_Section4_GrainsYieldTable.pdf)

FoodData Central (USDA):

<https://fdc.nal.usda.gov/>

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

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Grain\\_Oz\\_Eq\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Grain_Oz_Eq_SNP_grades_K-12.pdf)

Grains Component for Grades K-12 (CSDE's Crediting Foods in School Nutrition Programs webpage):

<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs/Documents#Grains>

How to Use the Grain Ounce Equivalents Chart for the NSLP and SBP (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/How\\_to\\_Use\\_Ounce\\_Equivalents\\_Chart.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/How_to_Use_Ounce_Equivalents_Chart.pdf)

Meal Patterns for Grades K-12 in School Nutrition Programs (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-School-Nutrition-Programs>

Meeting the Whole Grain-rich Requirement for the NSLP and SBP Meal Patterns for Grades K-12 (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/WGR\\_Requirement\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/WGR_Requirement_SNP_grades_K-12.pdf)

Menu Planning Guide for School Meals for Grades K-12 (CSDE):

<https://portal.ct.gov/SDE/Nutrition/Menu-Planning-Guide-for-School-Meals>

Product Formulation Statement for Documenting Grains in Child Nutrition Programs (USDA):

[https://www.fns.usda.gov/sites/default/files/resource-files/PFS\\_Grains\\_Oz\\_Eq\\_Fillable\\_508.pdf](https://www.fns.usda.gov/sites/default/files/resource-files/PFS_Grains_Oz_Eq_Fillable_508.pdf)

Product Formulation Statement for Documenting Grains in Child Nutrition Programs – Completed Sample (USDA):

[https://www.fns.usda.gov/sites/default/files/resource-files/PFS\\_Example\\_Grains\\_Oz\\_Eq.pdf](https://www.fns.usda.gov/sites/default/files/resource-files/PFS_Example_Grains_Oz_Eq.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>

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

Resources for the School Meal Patterns for Grades K-12 (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/MealPattern/Resources\\_School\\_Meal\\_Patterns\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/MealPattern/Resources_School_Meal_Patterns_grades_K-12.pdf)

Standardized Recipes (Documents/Forms section of the CSDE's Crediting Foods in CACFP Child Care Programs webpage):

<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs#StandardizedRecipes>

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

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

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](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](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Product_Formulation_Statements.pdf)

What's in a Meal Module 6: Meal Pattern Documentation (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 12: Whole Grain-rich (WGR) Requirement (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: Grain 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>

## Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP

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](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/When_Commercial_Grain_Products_Require_PFS_SNP.pdf)

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](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/When_Commercial_Grain_Products_Require_PFS_SNP.pdf)

Whole Grain Resource for the National School Lunch and Breakfast Programs (USDA):

<https://www.fns.usda.gov/tn/whole-grain-resource-national-school-lunch-and-breakfast-programs>

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](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Worksheet_Calculate_WGR_Percentage_SNP_grades_K-12.xlsx)

Yield Study Data Form for Child Nutrition Programs (CSDE):

[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Yield\\_Study\\_Form.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Yield_Study_Form.pdf)

# Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP



For more information, visit the “[Grains Component](#)” 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/Grain\\_Calculation\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Grain_Calculation_SNP_grades_K-12.pdf).

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Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication to obtain program information (e.g., Braille, large print, audiotape, American Sign Language), should contact the responsible state or local agency that administers the program or USDA’s TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339.

To file a program discrimination complaint, a Complainant should complete a Form AD-3027, USDA Program Discrimination Complaint Form which can be obtained online at: <https://www.usda.gov/sites/default/files/documents/ad-3027.pdf>, from any USDA office, by calling (866) 632-9992, or by writing a letter addressed to USDA. The letter must contain the complainant’s name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights (ASCR) about the nature and date of an alleged civil rights violation. The completed AD-3027 form or letter must be submitted to USDA by:

1. mail: U.S. Department of Agriculture  
Office of the Assistant Secretary for Civil Rights  
1400 Independence Avenue, SW  
Washington, D.C. 20250-9410; or
2. fax: (833) 256-1665 or (202) 690-7442; or
3. email: [program.intake@usda.gov](mailto:program.intake@usda.gov)

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