

How to Use the Grain Ounce Equivalents Chart for the Child and Adult Care Food Program (CACFP)

This guidance applies to the grains component of the U.S. Department of Agriculture’s CACFP meal patterns for child care centers, family day care homes, emergency shelters, at-risk afterschool care centers, and adult day care centers that participate in the CACFP. For guidance on the CACFP meal patterns for children and crediting requirements for the grains component, visit the Connecticut State Department of Education’s (CSDE) [Meal Patterns for CACFP Child Care Programs](#) webpage and the “[Grains Component for CACFP Child Care Programs](#)” section of the CSDE’s Crediting Foods in CACFP Child Care Programs webpage. For guidance on the CACFP adult meal patterns and crediting requirements for the grains component, visit the CSDE’s [Meal Patterns for CACFP Adult Day Care Centers](#) webpage and the “[Grains Component for CACFP Adult Day Care Centers](#)” section of the CSDE’s Crediting Foods in CACFP Adult Day Care Centers webpage.

Before determining the ounce equivalents (oz eq) per serving, make sure the commercial grain product or recipe is creditable, i.e., whole grain-rich (WGR) or enriched. For information on identifying creditable grain foods, refer to the CSDE’s [Guide to Meeting the Whole Grain-rich Requirement for the CACFP](#) and [Crediting Enriched Grains in the CACFP](#).

Exhibit A: Grain Requirements for Child Nutrition Programs

The USDA’s chart, [Exhibit A: Grain Requirements for Child Nutrition Programs](#), summarizes the required quantities for nine groups (A-I) of grain foods. The Exhibit A grain quantities are not the same for all Child Nutrition Programs because the meal patterns are different. The CSDE’s resource, [Grain Ounce Equivalents for the CACFP](#), lists the Exhibit A oz eq that are required for the CACFP meal patterns. Groups F and G (grain-based desserts) are not included because grain-based desserts do not credit as the grains component in the CACFP.

This document summarizes how to use the Exhibit A quantities in the CSDE’s oz eq charts to determine the required serving for a grain menu item in groups A-E. This method is commonly used for commercial grain products and may also be used for recipes if the menu planner knows the weight of the prepared (cooked) serving.

The Exhibit A quantities are one of the two methods for determining the oz eq contribution of a grain menu item. For guidance on the creditable grains method for determining oz eq, refer to the CSDE’s resource, [Calculation Methods for Grain Ounce Equivalents in the CACFP](#).

How to Use the Grain Ounce Equivalents Chart for the CACFP

Exhibit A Oz Eq Calculation Method

The oz eq calculation method using the Exhibit A quantities requires the applicable weight or volume of the grain menu item. For commercial products, this information is determined from the serving information listed on the Nutrition Facts label or product formulation statement (PFS).

For foods made from scratch, this information is determined from the weight or volume of the serving in the recipe. The oz eq contribution is calculated by dividing the *serving weight or volume* by the *required weight or volume for 1 oz eq* of the applicable grain group listed in Exhibit A.



Note: To use this method for foods made from scratch in groups A-E, CACFP facilities must have a recipe on file that indicates the weight of the prepared (cooked) serving. Many recipes do not list the serving weight. If this information is not available, the menu planner may determine the average weight per serving by weighing several servings of the recipe. Alternatively, the creditable grains method may be used. For more information, refer to the CSDE's resources, [Yield Study Data Form for Child Nutrition Programs](#) and [Calculation Methods for Grain Ounce Equivalents in the CACFP](#).

Rounding Rules

CACFP facilities must follow the rounding rules below when calculating the oz eq of a commercial grain product or recipe.

- **Oz eq contribution:** When determining the oz eq contribution of a grain food, always round down to the nearest $\frac{1}{4}$ oz eq. For example, if the calculation indicates that a bagel contains 1.49 oz eq., round down to 1.25 oz eq.
- **Number of pieces per serving:** When determining the number of pieces needed to credit as 1 oz eq., always round up to the next whole number. For example, if the calculation indicates that 6.7 pretzels credit as 1 oz eq., round up to 7 pretzels.

Make sure to use the appropriate rounding rule to correctly calculate the grain item's oz eq contribution.

Crediting Examples

This document reviews the steps for commercial products and recipes that contain multiple small pieces per serving, such as crackers, hard pretzels, and animal crackers (example 1); multiple large pieces per serving, such as pancakes, slices of bread, and waffles (example 2); and one piece per serving, such as muffins, bagels, and rolls (example 3). The calculation steps are different for each type of grain item.

How to Use the Grain Ounce Equivalents Chart for the CACFP

Example 1: Multiple Small Pieces per Serving

For grain items that contain multiple small pieces per serving (such as crackers, hard pretzels, and animal crackers), calculate the number of pieces per oz eq by dividing the *required weight (grams) for 1 oz eq* of the applicable grain group listed in Exhibit A by the *grams per piece*.



**Whole grain-rich crackers
(group A)**

Nutrition Facts

About 9 Servings per container

Serving Size 6 crackers (28g)

Amount per serving

Calories **120**

The example below shows this calculation for whole grain-rich crackers in group A. Five crackers credit as 1 oz eq (refer to table 1).

| Group A | Oz Eq for Group A |
|--|--|
| Bread sticks, hard Bread-type coating Chow Mein noodles Crackers, savory, e.g., saltines and snack crackers Croutons Pretzels, hard Stuffing, dry Note: weights apply to bread in stuffing | 1 oz eq = 22 grams or 0.8 ounce $\frac{3}{4}$ oz eq = 17 grams or 0.6 ounce $\frac{1}{2}$ oz eq = 11 grams or 0.4 ounce $\frac{1}{4}$ oz eq = 6 grams or 0.2 ounce |

| Table 1. Steps for determining oz eq of grain item with multiple small pieces per serving | | | |
|---|--|---|----------------------|
| 1. <i>Required weight for 1 oz eq:</i> List the required weight for 1 oz eq for the product’s group (A-G) in Exhibit A. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">A</td> <td style="padding: 5px;">22 grams</td> </tr> </table> | A | 22 grams |
| A | 22 grams | | |
| 2. <i>Grams per serving:</i> List the serving size in grams (g) from the Nutrition Facts label, PFS, or recipe. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">B</td> <td style="padding: 5px;">28 grams</td> </tr> </table> | B | 28 grams |
| B | 28 grams | | |
| 3. <i>Pieces per serving:</i> List the number of pieces per serving from Nutrition Facts label, PFS, or recipe. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">C</td> <td style="padding: 5px;">6 pieces</td> </tr> </table> | C | 6 pieces |
| C | 6 pieces | | |
| 4. Calculate the grams per piece (divide B by C). | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">D</td> <td style="padding: 5px;">4.67 grams per piece</td> </tr> </table> | D | 4.67 grams per piece |
| D | 4.67 grams per piece | | |
| 5. Calculate pieces per oz eq (divide A by D) | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">E</td> <td style="padding: 5px;">4.7 pieces per oz eq</td> </tr> </table> | E | 4.7 pieces per oz eq |
| E | 4.7 pieces per oz eq | | |
| 6. Round up to next whole number. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">F</td> <td style="padding: 5px;">5 pieces per oz eq</td> </tr> </table> | F | 5 pieces per oz eq |
| F | 5 pieces per oz eq | | |

How to Use the Grain Ounce Equivalents Chart for the CACFP

Example 2: Multiple Large Pieces per Serving

For grain items that contain multiple large pieces per serving (such as pancakes, slices of bread, and waffles), calculate the oz eq contribution per piece by dividing the *required weight (grams) for 1 oz eq* of the applicable grain group listed in Exhibit A by the *grams per piece*.



**Enriched pancakes
(group C)**

Nutrition Facts

4 Servings per container

Serving Size 3 pancakes (116g)

Amount per serving

Calories **280**

The example below shows this calculation for enriched pancakes in group C. One pancake credits as 1 oz eq (refer to table 2).

| Group C | Oz Eq for Group C |
|---|---|
| Cornbread Corn muffins Croissants Pancakes Piecrust (only in meat/meat alternate pies) Waffles | <div style="background-color: yellow; padding: 2px;">1 oz eq = 34 grams or 1.2 ounces</div> ¾ oz eq = 26 grams or 0.9 ounce ½ oz eq = 17 grams or 0.6 ounce ¼ oz eq = 9 grams or 0.3 ounce |

| Table 2. Steps for determining oz eq of grain item with multiple large pieces per serving | | | |
|---|---|---|-----------------------|
| 1. <i>Required weight for 1 oz eq:</i> List the required weight for 1 oz eq for the product’s group (A-G) in Exhibit A. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">A</td> <td style="padding: 5px;">34 grams</td> </tr> </table> | A | 34 grams |
| A | 34 grams | | |
| 2. <i>Grams per serving:</i> List the serving size in grams (g) from the Nutrition Facts label, PFS, or recipe. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">B</td> <td style="padding: 5px;">116 grams</td> </tr> </table> | B | 116 grams |
| B | 116 grams | | |
| 3. <i>Pieces per serving:</i> List the number of pieces per serving from Nutrition Facts label, PFS, or CACFP recipe. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">C</td> <td style="padding: 5px;">3 pieces</td> </tr> </table> | C | 3 pieces |
| C | 3 pieces | | |
| 4. Calculate the grams per piece (divide B by C). | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">D</td> <td style="padding: 5px;">38.67 grams per piece</td> </tr> </table> | D | 38.67 grams per piece |
| D | 38.67 grams per piece | | |
| 5. Calculate oz eq per piece (divide B by A) | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">E</td> <td style="padding: 5px;">1.14 oz eq per piece</td> </tr> </table> | E | 1.14 oz eq per piece |
| E | 1.14 oz eq per piece | | |
| 6. Round down to the nearest ¼ oz eq. | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #8B4513; color: white;"> <td style="width: 20px; font-weight: bold;">F</td> <td style="padding: 5px;">1 oz eq per piece</td> </tr> </table> | F | 1 oz eq per piece |
| F | 1 oz eq per piece | | |

How to Use the Grain Ounce Equivalents Chart for the CACFP

Example 3: One Piece per Serving

For grain items that contain one piece per serving (such as muffins, bagels, and rolls), calculate the oz eq contribution per serving by dividing the *grams per serving* by the *required weight (grams)* for 1 oz eq of the applicable grain group listed in Exhibit A.



Whole grain-rich blueberry muffin (group D)

Nutrition Facts

Serving Size 1 muffin (57g)
Servings per container 6

Amount per serving

Calories **210**

The example below shows this calculation for a whole grain-rich blueberry muffin in group D. One muffin credits as 1 oz eq (refer to table 3).

| Group D | Oz Eq for Group D |
|--------------------------|---|
| Muffins, all except corn | <p>1 oz eq = 55 grams or 2 ounces</p> <p>$\frac{3}{4}$ oz eq = 42 grams or 1.5 ounces</p> <p>$\frac{1}{2}$ oz eq = 28 grams or 1.0 ounce</p> <p>$\frac{1}{4}$ oz eq = 14 grams or 0.5 ounce</p> |

| Table 3. Steps for determining oz eq of grain item with one piece per serving | | | |
|---|---|----------|------------------------|
| 1. <i>Required weight for 1 oz eq:</i> List the required weight for 1 oz eq for the product’s group (A-G) in Exhibit A. | <table border="1" style="margin: auto;"> <tr> <td style="background-color: #8B4513; color: white; padding: 5px;">A</td> <td style="padding: 5px;">55 grams</td> </tr> </table> | A | 55 grams |
| A | 55 grams | | |
| 2. <i>Grams per serving:</i> List the serving size in grams (g) from Nutrition Facts label, PFS, or CACFP recipe. | <table border="1" style="margin: auto;"> <tr> <td style="background-color: #8B4513; color: white; padding: 5px;">B</td> <td style="padding: 5px;">57 grams</td> </tr> </table> | B | 57 grams |
| B | 57 grams | | |
| 3. Calculate oz eq per serving (divide B by A) | <table border="1" style="margin: auto;"> <tr> <td style="background-color: #8B4513; color: white; padding: 5px;">C</td> <td style="padding: 5px;">1.04 oz eq per serving</td> </tr> </table> | C | 1.04 oz eq per serving |
| C | 1.04 oz eq per serving | | |
| 4. Round down to the nearest $\frac{1}{4}$ oz eq. | <table border="1" style="margin: auto;"> <tr> <td style="background-color: #8B4513; color: white; padding: 5px;">D</td> <td style="padding: 5px;">1 oz eq per serving</td> </tr> </table> | D | 1 oz eq per serving |
| D | 1 oz eq per serving | | |

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Grain Crediting Tools

The tools below help menu planners determine the meal pattern contribution (including grain oz eq) of creditable products and recipes.

- **CSDE’s CACFP crediting worksheets:** These Excel worksheets determine if grain products and recipes meet the CACFP crediting requirements and WGR criteria, and calculate the ounce equivalents contribution of the serving.
 - Adult Center Worksheet 1: Crediting Commercial Grains in the CACFP
 - Adult Center Worksheet 4: Crediting Family-size Recipes for Grains in the CACFP
 - Adult Center Worksheet 5: Crediting Quantity Recipes for Grains in the CACFP
 - Child Care Worksheet 1: Crediting Commercial Grains in the CACFP
 - Child Care Worksheet 4: Crediting Family-size Recipes for Grains in the CACFP
 - Child Care Worksheet 5: Crediting Quantity Recipes for Grains in the CACFP

The grain crediting worksheets for CACFP adult day care centers are available in the “[Documents/Forms](#)” section of the CSDE’s Crediting Foods in CACFP Adult Day Care Centers webpage. The grain crediting worksheets for CACFP child care programs are available in the “[Documents/Forms](#)” section of the CSDE’s Crediting Foods in CACFP Child Care Programs webpage.

- **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.

For more information on oz eq, refer to the “Ounce Equivalents” section of the CSDE’s [Crediting Foods in CACFP Child Care Programs](#) or [Crediting Foods in CACFP Adult Day Care Centers](#) webpages.

How to Use the Grain Ounce Equivalents Chart for the CACFP

Resources

Calculation Methods for Grain Ounce Equivalents in the CACFP (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/Grain_Calculation_CACFP_Oz_Eq.pdf

Crediting Breakfast Cereals in the CACFP (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/Credit_Cereals_CACFP.pdf

Crediting Enriched Grains in the CACFP (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/Credit_Enriched_Grains_CACFP.pdf

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

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

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

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

Grain Ounce Equivalents for the CACFP (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/Grain_Oz_Eq_CACFP.pdf

Grains Component for CACFP Adult Day Care Centers (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-CACFP-Adult-Day-Care-Centers/Documents#Grains>

Grains Component for CACFP Child Care Programs (CSDE webpage):

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

Guide to Meeting the Whole Grain-rich Requirement for the CACFP (CSDE):

https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/WGR_Requirement_CACFP.pdf

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

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

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

Using Product Formulation Statements in the CACFP (CSDE):

http://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/Using_Product_Formulation_Statements_CACFP.pdf

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

https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/When_Commercial_Grain_Products_Require_PFS_CACFP.pdf

How to Use the Grain Ounce Equivalents Chart for the CACFP



For more information, visit the CSDE's [Crediting Foods in CACFP Child Care Programs](#) and [Crediting Foods in CACFP Adult Day Care Centers](#) webpages or contact the [CACFP 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/CACFP/Crediting/How_to_Use_Ounce_Equivalents_Chart_CACFP.pdf.

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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

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