

# Crediting Enriched Grains in the National School Lunch Program and School Breakfast Program

This guidance applies to the meal patterns for preschoolers (ages 1-4) and grades K-12 in the U.S. Department of Agriculture's (USDA) National School Lunch Program (NSLP), School Breakfast Program (SBP), Seamless Summer Option (SSO) of the NSLP, and Afterschool Snack Program (ASP) of the NSLP. For a comparison of the USDA's requirements for the grains component in the meal patterns for grades K-12 and preschoolers in the NSLP, SBP, SSO, and ASP, see the Connecticut State Department of Education's (CSDE) handout, [Comparison of Meal Pattern Requirements for the Grains Component in the School Nutrition Programs](#).

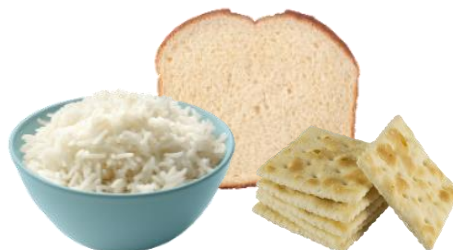


Enriched grains are refined grains (such as wheat, rice, and corn) and grain products (such as cereal, pasta, and bread) that have certain vitamins and minerals added to replace some of the nutrients lost during processing. The five enrichment nutrients are defined by the Food and Drug Administration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

- thiamin (vitamin B<sub>1</sub>, thiamin mononitrate, or thiamin hydrochloride);
- riboflavin (vitamin B<sub>2</sub>);
- niacin (vitamin B<sub>3</sub> or niacinamide);
- folic acid (folate); and
- iron (reduced iron, ferrous sulfate, or ferric orthophosphate).

If the 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](#)).

Enriched products are not nutritionally equivalent to whole-grain products because enrichment does not replace all of the nutrients originally present in the whole grain.



# Crediting Enriched Grains in the NSLP and SBP

## Identifying Enriched Products

The ingredients statement for commercial products lists ingredients by weight, from most to least. The closer an ingredient is to the beginning of the ingredients statement, the more of it the food contains. A commercial product is enriched if it meets at least one of the two criteria below.

1. The food is labeled as “enriched.” For example, long grain rice that is enriched will have the product name “enriched long grain rice.”
2. An enriched grain is the first ingredient (or water is the first ingredient and an enriched grain is the second ingredient) in the food’s ingredients statement. 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. The ingredients statements below show some examples of enriched products.

*Ingredients: Water, enriched flour (wheat flour, niacin, reduced iron, vitamin B1 [thiamin mononitrate], vitamin B2 [riboflavin], folic acid), water, sugar, soybean and/or canola oil, buttermilk, eggs, contains 2% or less of leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate), salt, fructose, soy lecithin.*

*Ingredients: Enriched flour (wheat flour, niacinamide, reduced iron, thiamin mononitrate [vitamin B1], riboflavin [vitamin B2], folic acid), soybean oil with TBHQ for freshness, salt, contains two percent or less of corn syrup, baking soda, yeast, soy lecithin.*

**Note:** For guidance on identifying enriched ready-to-eat (RTE) and cooked breakfast cereals, see the CSDE’s handout, [\*Crediting Breakfast Cereals for Grades K-12 in the NSLP and SBP\*](#).

Not all refined products are enriched. For example, when manufacturers process corn into cornmeal, they remove the germ of the grain. 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).”

School food authorities (SFAs) must check the ingredients statement to ensure that a product is enriched. If the ingredients statement does not provide sufficient information, SFAs must obtain a product formulation statement (PFS) from the manufacturer to document the amount of creditable grains in the product.

# Crediting Enriched Grains in the NSLP and SBP

## Crediting Enriched Grains in School Meals

The meal patterns for grades K-12 and preschoolers have different requirements for enriched grains. For a summary of these requirements, see the CSDE's handout, [Comparison of Meal Pattern Requirements for the Grains Component in the School Nutrition Programs](#).

### Grades K-12 in the NSLP, SBP, and SSO

Effective July 1, 2019, products that contain only enriched grains credit as the grains component in the NSLP, SBP, and SSO meal patterns for grades K-12. SFAs must determine the ounce equivalents of enriched grains using either the appropriate grain group in the USDA's ounce equivalent chart, summarized in the CSDE's handout, [Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP](#); or the creditable grains per serving, based on the manufacturer's product formulation statement (PFS) for commercial foods or the SFA's standardized recipe for foods made on site. For more information, see the CSDE's handout, [Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP](#).

- For information on PFS forms, see the CSDE's handouts, [Product Formulation Statements](#), and [Accepting Processed Product Documentation](#), and the USDA's handouts, [Product Formulation Statement for Grains](#), [Sample Completed Product Formulation Statement for Grains](#), and [Tips for Evaluating a Manufacturer's Product Formulation Statement](#).
- For information on standardized recipes, see section 2 of the CSDE's [Menu Planning Guide for School Meals for Grades K-12](#), chapter 4 of the USDA's [Menu Planner for School Meals](#), the CSDE's [Standardized Recipe Form](#), and the "Crediting Foods Prepared On Site" section of the CSDE's [Crediting Foods in School Nutrition Programs](#) webpage.

Effective July 1, 2019, the USDA's final rule, [Child Nutrition Programs: Flexibilities for Milk, Whole Grains, and Sodium Requirements](#), requires that at least half of the weekly grains offered at lunch and breakfast must be WGR. Previously, the NSLP and SBP meal patterns for grades K-12 required that all grains were WGR. The CSDE strongly encourages SFAs to continue to serve only WGR grains, and offer 100 percent whole grains most often. This provides the best nutrition for children. For information on the WGR criteria, see the CSDE's handout, [Whole Grain-rich Criteria for Grades K-12 in the NSLP and SBP](#) and the CSDE's guide, [Menu Planning Guide for School Meals for Grades K-12](#).



# Crediting Enriched Grains in the NSLP and SBP

SFAs that choose to offer enriched grains must document that at least half of the weekly grains offered at lunch and breakfast are WGR. SFAs must maintain this documentation on file for the Administrative Review of school nutrition programs. SFAs may calculate the menu's percentage of WGR grains using the CSDE's Excel worksheet, *Calculating Weekly Percentage of Whole Grain-rich Menu Items in the NSLP and SBP*. For more information, see *CSDE Operational Memorandum No. 11-19: Weekly Whole Grain-rich (WGR) Requirement for the NSLP and SBP Meal Patterns for Grades K-12*.

## Grades K-12 in the ASP

Enriched grains credit as the grains component in the ASP meal pattern for grades K-12. For best nutrition, the CSDE encourages SFAs to serve only WGR grains, and offer 100 percent whole grains most often. For more information on the grains component in the ASP, see the CSDE's *Afterschool Snack Program Handbook*.

## Preschoolers in the NSLP, SBP, SSO, and ASP

Enriched grains credit as the grains component in the preschool meal patterns for the NSLP, SBP, SSO, and ASP. However, preschool menus must include at least one serving of WGR grains per day, between all meals and ASP snacks served to preschoolers. The USDA's *CACFP Best Practices* recommends at least two servings of WGR grains per day. For best nutrition, the CSDE encourages SFAs to serve only WGR grains, and offer 100 percent whole grains most often. For more information on the grains component for preschoolers, see the CSDE's handout, *Whole Grain-rich Criteria for Preschoolers in the NSLP, SBP, and ASP*, and the CSDE's guide, *Menu Planning Guide for Preschoolers in the NSLP, SBP, and ASP*.

## Resources

Afterschool Snack Program Handbook (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/ASPHandbook.pdf>

Calculating Weekly Percentage of Whole Grain-rich Menu Items in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/PercentageWGRCalculation.xlsx>

Calculation Methods for Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/GrainCalc.pdf>

Calculation Methods for Grain Servings for Preschoolers in the NSLP, SBP, and ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/GrainCalcPreschool.pdf>

## Crediting Enriched Grains in the NSLP and SBP

Comparison of Meal Pattern Requirements for Preschool and Grades K-12 in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Preschool/ComparisonPreschoolK12.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/ComparisonGrainCrediting.pdf>

Crediting Breakfast Cereals for Grades K-12 in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/CreditCereals.pdf>

Crediting Foods in School Nutrition Programs (CSDE webpage):

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

Crediting Whole Grains in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/CreditWholeGrains.pdf>

CSDE Operational Memorandum No. 11-19: Weekly Whole Grain-rich (WGR) Requirement for the NSLP and SBP Meal Patterns for Grades K-12

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Memos/OM2019/OM11-19.pdf>

Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Grainsozeq.pdf>

Grain Ounce Equivalents for Preschool Meals (Effective October 1, 2019) (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Preschool/Preschoolozeq.pdf>

Grain Serving Sizes for Preschoolers in the NSLP, SBP, and ASP (October 1, 2017, through September 30, 2019) (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Preschool/PreschoolGrains.pdf>

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

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

Meal Patterns for Preschoolers in School Nutrition Programs (CSDE webpage):

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

Menu Planning Guide for Preschoolers in the NSLP, SBP, and ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Preschool/MPGpreschool.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 Grains: Ounce Equivalents (USDA):

[https://fns-prod.azureedge.net/sites/default/files/resource-files/PFS\\_Documenting\\_Grains\\_oz\\_eq.pdf](https://fns-prod.azureedge.net/sites/default/files/resource-files/PFS_Documenting_Grains_oz_eq.pdf)

## Crediting Enriched Grains in the NSLP and SBP

Product Formulation Statements (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/PFS.pdf>

Sample Completed Product Formulation Statement for Grains: Ounce Equivalents (USDA):

[https://fns-prod.azureedge.net/sites/default/files/resource-files/PFS\\_Sample\\_oz\\_eq.pdf](https://fns-prod.azureedge.net/sites/default/files/resource-files/PFS_Sample_oz_eq.pdf)

USDA Final Rule: Child Nutrition Programs: Flexibilities for Milk, Whole Grains, and Sodium Requirements (83 FR 63775):

<https://www.govinfo.gov/content/pkg/FR-2018-12-12/pdf/2018-26762.pdf>

USDA Memo CACFP 09-2018: Grain Requirements in the Child and Adult Care Food Program; Questions and Answers:

<https://www.fns.usda.gov/cacfp/grain-requirements-child-and-adult-care-food-program-questions-and-answers-0>

USDA Memo SP 30-2012: Grain Requirements for the National School Lunch Program and School Breakfast Program:

<https://www.fns.usda.gov/school-meals/grain-requirements-national-school-lunch-program-and-school-breakfast-program>

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>

Whole Grain Resource for the National School Lunch and School Breakfast Programs

(USDA): <https://www.fns.usda.gov/tn/whole-grain-resource-national-school-lunch-and-school-breakfast-programs-0>

Whole Grain-rich Criteria for Grades K-12 in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/WGRCriteria.pdf>

Whole Grain-rich Criteria for Preschoolers in the NSLP, SBP, and ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/WGRCriteriaPreschool.pdf>

## Crediting Enriched Grains in the NSLP and SBP



For more information, review the CSDE's guides, *Menu Planning Guide for School Meals for Grades K-12*, *Menu Planning Guide for Preschoolers in the NSLP, SBP, and ASP*, and *Afterschool Snack Program Handbook*, or contact the [school nutrition programs staff](#) in the CSDE's Bureau of Health/Nutrition, Family Services and Adult Education, 450 Columbus Boulevard, Suite 504, Hartford, CT 06103-1841.

This document is available at <https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/CreditEnrichedGrains.pdf>.

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