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# Menu Planning Guide for School Meals for Grades K-12



## 3 — Meal Components

Each component of the NSLP and SBP meal patterns has specific criteria for determining how foods credit toward reimbursable meals. All foods (including commercial products, foods prepared from scratch, and foods prepared by vendors) must meet these requirements to credit toward the meal pattern components of reimbursable meals.

The menu planning guidance in this section assists SFAs with meeting the crediting requirements for the five components of the NSLP and SBP meal pattern for grades K-12. These components include milk, MMA, vegetables, fruits, and grains. For additional guidance on crediting foods, visit the CSDE's [Crediting Foods in School Nutrition Programs](#) webpage.



### Creditable Foods

Creditable foods are foods and beverages that count toward the meal pattern requirements for reimbursable meals in the USDA's Child Nutrition Programs. The USDA considers the following factors when determining if a food credits in school meals:

- nutrient content;
- function in a meal;
- regulations concerning the USDA's Child Nutrition Programs (quantity requirements and definition);
- FDA standards of identity;
- USDA's standards for meat and meat products; and
- administrative policy decisions on the crediting of specific foods.

### Minimum creditable amounts

Each component requires a minimum amount to credit toward the meal patterns. A food item must include at least the minimum creditable amount. Food items that contain less than the minimum amount do not credit

- **Milk component:** The minimum creditable amount is the full serving (1 cup) of fluid milk. For smoothies only, the minimum creditable amount is  $\frac{1}{4}$  cup. If the amount of milk in a smoothie is less than 1 cup, the meal must include the additional amount of milk required to provide the full 1-cup serving for each grade group. SFAs must offer

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a variety of milk. For more information, refer to “[Crediting Milk in Smoothies](#)” and “[Milk Variety](#)” in the “Milk Component” section.

- **MMA component:** The minimum creditable amount is  $\frac{1}{4}$  oz eq. At lunch, the MMA component must be served in a main dish or in a main dish and one other food item. For more information, refer to “[Main Dish Requirement for Lunch](#)” in the “Meat/Meat Alternates (MMA) Component” section.
- **Vegetables component:** The minimum creditable amount is  $\frac{1}{8}$  cup. Smaller amounts of vegetables used for flavorings or garnishes do not credit. The meal may include more than one food item to meet the full serving of the vegetable component for each grade group if each food item contains at least  $\frac{1}{8}$  cup of vegetable.
- **Fruits component:** The minimum creditable amount is  $\frac{1}{8}$  cup. Smaller amounts of fruits used for flavorings or garnishes do not credit. The meal may include more than one food item to meet the full serving of the fruits component for each grade group if each food item contains at least  $\frac{1}{8}$  cup of fruit.
- **Grains component:** The minimum creditable amount is  $\frac{1}{4}$  oz eq. The meal may include more than one food item to meet the full serving of the grains component for each grade group if each food item contains at least  $\frac{1}{4}$  oz eq.

If a food provides at least the minimum creditable amount of a component, but less than the full serving, the meal must include additional foods from that component to provide the full serving for each grade group. For example, the lunch meal pattern for grades K-5 requires  $\frac{3}{4}$  cup of the vegetables component. If a food item provides  $\frac{1}{2}$  cup of vegetables, the lunch menu must include another food item with  $\frac{1}{4}$  cup of vegetables to provide the full vegetables component.

Menu items that contain less than the minimum creditable amount still count toward the weekly dietary specifications. They must contain zero trans fat and their inclusion cannot cause the menu to exceed the weekly limits for calories, saturated fats, and sodium. For more information, refer to “Dietary Specifications” in section 1.

### Requirement for visible components

The USDA requires that foods must be visible (recognizable) to credit toward the NSLP and SBP meal patterns for grades K-12. For example, SFAs cannot credit peanut butter in smoothies, pureed tofu in soups, applesauce in muffins, and pureed fruits and vegetables in entrees and other foods.

The intent for this requirement is to ensure that children can easily identify the foods in school menus. The USDA emphasizes the importance of the nutrition education aspect of the Child Nutrition Programs, which includes the goal of helping children easily recognize the key food groups that contribute to a healthy meal.

The USDA allows some exceptions to this requirement, including yogurt blended in fruit or vegetable smoothies, pureed fruits and vegetables in smoothies, and pasta made with 100 percent vegetable flour. For more information, refer to “[Yogurt in smoothies](#)” and “[Crediting Legume Flour Pasta Products as MMA](#)” in the “Meat/Meat Alternates (MMA) Component” section; “[Crediting Fruit and Vegetable Smoothies](#)” and “[Unrecognizable pureed fruits](#)” in the “Fruits Component” section; and “[Unrecognizable pureed vegetables](#)” and “[Crediting Pasta Products Made of Vegetable Flour](#)” in the “Vegetables Component” section.



### Resources for creditable foods

The websites and resources below address the requirements for crediting foods in the NSLP and SBP meal patterns for grades K-12. For a list of resources with guidance on meeting the NSLP and SBP meal pattern and crediting requirements, refer to the CSDE's *Resources for the School Meal Patterns for Grades K-12*.

- Crediting Foods for Grades K-12 in School Nutrition Programs (CSDE):  
<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs>
- Crediting Summary Charts for the Meal Patterns for Grades K-12 in the School Nutrition Programs (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Crediting\\_Summary\\_Charts\\_SNP\\_Grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Crediting_Summary_Charts_SNP_Grades_K-12.pdf)
- Crediting Updates for Child Nutrition Programs: Be in the Know! Webinar Series (USDA):  
<https://www.fns.usda.gov/tn/crediting-updates-child-nutrition-programs-be-know-webinar-series>
- CSDE Operational Memos for School Nutrition Programs:  
<https://portal.ct.gov/SDE/Lists/Operational-Memoranda-for-School-Nutrition-Programs>
- Food Buying Guide for Child Nutrition Programs (USDA):  
<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>
- USDA FNS Instructions for Child Nutrition Programs:  
<https://portal.ct.gov/SDE/Nutrition/FNS-Instructions-for-Child-Nutrition-Programs>
- USDA Policy Memos:  
<https://www.fns.usda.gov/resources>
- USDA Program Legislation and Regulations:  
<https://www.fns.usda.gov/school-meals/program-legislation-regulations>
- What's in a Meal: National School Lunch Program and School Breakfast Program Meal Patterns for Grades K-12 (CSDE Training Program):  
<https://portal.ct.gov/SDE/Nutrition/Meal-Pattern-Training-Materials>

For additional guidance on the USDA's requirements for the NSLP and SBP, visit the CSDE's [Laws and Regulations for Child Nutrition Programs](#) webpage.

## Noncreditable Foods

Noncreditable foods are foods and beverages that do not count toward the food components of the NSLP and SBP meal patterns. Noncreditable foods include:

- foods and beverages in amounts too small to credit (refer to “[Minimum creditable amounts](#)” in this section);and
- foods and beverages that do not belong to the meal pattern components.

Examples of noncreditable foods include potato chips, pudding, ice cream, gelatin, cream cheese, bacon, condiments (e.g., syrup, jam, ketchup, mustard, mayonnaise, and butter), and water. Noncreditable foods for each meal pattern component are listed in Section 3. For more examples, refer to the CSDE’s resource, [Noncreditable Foods for Grades K-12 in the NSLP and SBP](#).

SFAs may serve noncreditable foods in addition to the meal components to add variety, help improve acceptability in the meal, and satisfy appetites. Some examples include maple syrup on pancakes, salad dressing on tossed greens, and condiments such as ketchup or mustard on sandwiches and other entrees.

To ensure that meals meet children’s nutritional needs, the CSDE encourages SFAs to use discretion when serving noncreditable foods. Noncreditable foods typically contain few nutrients and are higher in added sugars, saturated fats, and sodium. Menu planners should read labels, be aware of the ingredients in foods, and limit the frequency and amount of less nutritious choices.

Noncreditable foods offered as part of reimbursable meals for grades K-12 must fit within the weekly dietary specifications. They must contain zero trans fat and their inclusion cannot cause the menu to exceed the average weekly limits for calories, saturated fat, and sodium. For information on the dietary specifications for each grade group, refer to the meal patterns in section 1. For information on planning school meals to meet the dietary specifications, refer to section 6.

### Prohibited noncreditable foods

Federal and state requirements prohibit sales of some noncreditable foods, such as candy, coffee, tea, soda, and sports drinks. For more information, refer to the CSDE’s competitive foods guides ([Guide to Competitive Foods in HFC Public Schools](#), [Guide to Competitive Foods in Non-HFC Public Schools](#), and [Guide to Competitive Foods in Private Schools and Residential Child Care](#)

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*Institutions*) and visit the CSDE’s [Competitive Foods](#) webpage and [Beverage Requirements](#) webpage.

Snack foods sold a la carte (separately from reimbursable meals) must meet the [Connecticut Nutrition Standards](#) (CNS) or the USDA’s [Smart Snacks](#) nutrition standards. The CNS applies to public school districts that participate in the healthy food option of [Healthy Food Certification](#) (HFC). The USDA’s Smart Snacks nutrition standards apply to non-HFC public school districts, private schools, and residential child care institutions (RCCIs).



## Milk Component

Milk must be pasteurized, meet all state and local requirements, and contain vitamins A and D at levels specified by the FDA. Fluid milk is required at breakfast and lunch. Meals with breakfast cereals may include fluid milk as a beverage, on cereal, or both.

### Required Daily and Weekly Servings

The lunch and breakfast meal patterns require daily and weekly servings (cups) of the milk component. Table 3-1 summarizes the required servings of the milk component for each grade group.

Grades	Lunch				Breakfast			
	Five-day week		Seven-day week		Five-day week		Seven-day week	
	Daily	Weekly	Daily	Weekly	Daily	Weekly	Daily	Weekly
<b>K-5</b>	1 cup	5 cups	1 cup	7 cups	1 cup	5 cups	1 cup	7 cups
<b>6-8</b>	1 cup	5 cups	1 cup	7 cups	1 cup	5 cups	1 cup	7 cups
<b>9-12</b>	1 cup	5 cups	1 cup	7 cups	1 cup	5 cups	1 cup	7 cups

### Allowable Types of Milk

Allowable types of milk for the meal patterns for grades K-12 include low-fat (1%) milk and fat-free milk, either unflavored or flavored. SFAs may serve any of the following types of milk that meet the fat content restrictions:

- lactose-reduced and lactose-free milk;
- acidified milk;
- cultured milk;
- cultured buttermilk; and
- Ultra High Temperature (UHT) milk.

SFAs cannot serve milk that does not meet the required fat content. For example, whole milk and reduced-fat (2%) milk do not credit in reimbursable meals.

If a child has a disability that requires milk with a fat content that is different from the NSLP and SBP meal patterns for grades K-12, the SFA must make the substitution prescribed in the medical statement signed by a recognized medical authority. For more information, refer to “[Meal Modifications for Children with Special Dietary Needs](#)” in section 1.

## Milk Variety

SFAs must offer at least two different choices of milk at both lunch and breakfast. Choices may include unflavored or flavored low-fat milk and unflavored or flavored fat-free milk. At least one choice must be unflavored.

### Milk variety exemption for RCCIs

RCCIs that are juvenile detention centers or correctional facilities may meet the milk variety requirement over the week, rather than daily, if there are potential legitimate safety concerns about offering different types of milk to students. For example, a RCCI may offer all students flavored fat-free milk on some days of the week and unflavored low-fat milk on other days.

This provision also applies to other RCCIs that can demonstrate operational limitations to separating the grade groups and can show legitimate safety concerns if students are served different portions. To implement this provision, the RCCI must submit a waiver request to the CSDE. For more information, refer to “[Exception for grade groups in correctional facilities](#)” in section 1.

## Additional Milk Requirements for Public Schools

Public schools must meet additional state requirements for the milk component. Milk sold anywhere on school premises in Connecticut public schools must comply with the state beverage requirements of [Section 10-221q](#) of the Connecticut General Statutes (C.G.S.). The state beverage requirements apply to milk sold as part of, and separately from, reimbursable meals and snacks. The state beverage statute does not apply to private schools or RCCIs.

The state beverage statute requires that milk cannot contain more than 4 grams of sugars per ounce. Products that meet the federal and state requirements for milk are in [list 16](#) on the CSDE’s [List of Acceptable Foods and Beverages](#) webpage, which includes brand-specific lists of foods that meet the Connecticut Nutrition Standards and beverages that meet the requirements of the state beverage statute. For more information on the state beverage statute, visit the CSDE’s [Beverage Requirements](#) webpage.



## Milk Substitutes for Children without Disabilities

SFAs may choose, but are not required, to offer allowable milk substitutes for children whose special dietary needs do not constitute a disability. The two types of allowable milk substitutes for children without disabilities include:

- nondairy milk substitutes that meet the USDA’s nutrition standards for fluid milk substitutes (refer to [table 3-2](#)); and
- lactose-reduced or lactose-free milk with the appropriate fat content, i.e., low-fat or fat-free, either unflavored or flavored.

SFAs cannot offer any other beverages (including water and juice) as a choice instead of milk with reimbursable meals. Juice and water are **never** allowable milk substitutes for children without a disability.

Parents or guardians must submit a written request for a nondairy milk substitute for their child. A medical statement signed by a recognized medical authority is not required. For more information, refer to the CSDE’s resource, *Allowable Milk Substitutes for Children without Disabilities in School Nutrition Programs*, and the CSDE’s guide, *Accommodating Special Diets in School Nutrition Programs*.

A written request is not required for lactose-reduced or lactose-free milk. SFAs may offer lactose-free and lactose-reduced milk as a substitute for regular milk at any time. For more information, refer to “[Lactose-reduced and lactose-free milk](#)” in this section.

Milk substitutes offered as part of reimbursable meals must fit within the weekly dietary specifications. For information on the dietary specifications for each grade group, refer to the meal patterns in section 1. For information on planning school meals to meet the dietary specifications, refer to section 6.

### USDA’s nutrition standards for fluid milk substitutes

SFAs that choose to offer a milk substitute as part of reimbursable meals for children without disabilities must use products that meet the USDA’s nutrition standards for fluid milk substitutes (refer to [table 3-2](#)). SFAs cannot offer other nondairy milk substitutes.

Menu planners cannot determine if a product meets the USDA’s nutrition standards for fluid milk substitutes by reading the product’s packaging. The Nutrition Facts label lists only a few of the nine nutrients required by the USDA for allowable fluid milk substitutes. To determine if a product meets the USDA’s nutrition standards, SFAs must obtain documentation from

the manufacturer that includes the nutrition information for the nine required nutrients. Product information might list nutrient values, % Daily Value (DV) (unrounded or rounded), or both. If any nutrient values are missing, the SFA must obtain this information from the manufacturer.

For guidance on how to determine if nondairy beverages credit as milk substitutes, refer to the CSDE's *Determining if Nondairy Beverages Meet the USDA's Nutrition Standards for Fluid Milk Substitutes in School Nutrition Programs*.

Table 3-2. USDA's nutrition standards for fluid milk substitutes		
Column 1	Column 2	
Nutrients per cup (8 fluid ounces)	% DV Unrounded <sup>1</sup>	% DV Rounded <sup>2</sup>
<b>Calcium:</b> 276 milligrams (mg)	21.23%	20%
<b>Protein:</b> 8 grams (g)	16%	16%
<b>Vitamin A:</b> 500 international units (IU) or 150 micrograms (mcg) retinol activity equivalent (RAE) <sup>3</sup>	16.67%	20%
<b>Vitamin D:</b> 100 IU or 2.5 micrograms (mcg) <sup>3</sup>	12.5%	15%
<b>Magnesium:</b> 24 mg	5.71%	6%
<b>Phosphorus:</b> 222 mg	17.76%	20%
<b>Potassium:</b> 349 mg	7.43%	10%
<b>Riboflavin:</b> 0.44 mg	33.85%	35%
<b>Vitamin B12:</b> 1.1 mcg	45.83%	45%

<sup>1</sup> The unrounded % DV is the minimum nutrients per cup (column 1) divided by the current daily value for each nutrient (refer to the FDA's [Reference Guide: Daily Values for Nutrients](#)).

<sup>2</sup> The rounded % DV is based on the FDA labeling laws and is listed on the Nutrition Facts label (refer to Appendix H of the FDA's [A Food Labeling Guide: Guidance for Industry](#)).

<sup>3</sup> The 2016 FDA final rule, [Food Labeling: Revision of the Nutrition and Supplement Facts Labels](#), updated the Nutrition Facts label to change IUs to mcg for vitamins A and D.

### **Additional nondairy milk substitute requirements for public schools**

Public schools must meet additional state requirements for nondairy milk substitutes. The state beverage statute does not apply to private schools or RCCIs.

Nondairy milk substitutes sold anywhere on school premises in Connecticut public schools must comply with the state beverage requirements of C.G.S. [Section 10-221q](#). The state beverage requirements apply to nondairy milk substitutes sold as part of, and separately from, reimbursable meals and snacks. Nondairy milk substitutes cannot contain artificial sweeteners and cannot exceed 4 grams of sugar per ounce; 35 percent of calories from fat; and 10 percent of calories from saturated fats.

Products that meet the federal and state requirements for nondairy milk substitutes are included in [list 17](#) on the CSDE's [List of Acceptable Foods and Beverages](#) webpage. For more information, refer to the CSDE's resource, *Allowable Milk Substitutes for Children without Disabilities in School Nutrition Programs*, and the CSDE's guide, *Accommodating Special Diets in School Nutrition Programs*.

### **Lactose-reduced and lactose-free milk**

Children who cannot digest the lactose found in regular milk may be able to drink lactose-free (e.g., Lactaid) or lactose-reduced milk. These types of milk are regular fluid milk modified by the addition of lactase enzymes to reduce or eliminate the lactose (milk sugar). Lactose-reduced milk has part of the lactose removed, while lactose-free milk has all the lactose removed.

Lactose-free and lactose-reduced milk credits the same as regular milk. SFAs may substitute unflavored or flavored low-fat or fat-free lactose-reduced or lactose-free milk for regular milk.

A written request from parents/guardians is not required for lactose-reduced or lactose-free milk. The CSDE encourages SFAs to make lactose-reduced or lactose-free milk available to children as needed.

In addition to meeting the meal patterns, lactose-reduced and lactose-free milk sold in Connecticut public schools must comply with the sugar limit of the state beverage requirements of the state beverage requirements (C.G.S. [Section 10-221q](#).) [List 16](#) of the CSDE's [List of Acceptable Foods and Beverages](#) webpage includes lactose-reduced and lactose-free milk that meets the federal and state requirements. SFAs cannot sell lactose-reduced and lactose-free milk that does not meet the state requirements, either as part of

reimbursable meals or a la carte. For more information, refer to “[Additional Milk Requirements for Public Schools](#)” in this section.

### Crediting Milk in Smoothies

Low-fat milk or fat-free milk (unflavored or flavored) credits as the milk component when served in smoothies. For smoothies only, the minimum creditable amount of milk is  $\frac{1}{4}$  cup. If a smoothie contains less than the full 1-cup serving of milk, the lunch or breakfast menu must include the additional amount of milk to provide the full milk component.

Crediting an amount of milk that is less than the required 1-cup serving applies only to smoothies.

When smoothies include milk, SFAs must also offer a variety of fluid milk on the serving line to meet the USDA’s requirement to offer a variety of milk options. For more information, refer to “[Serving Milk](#)” in this section.

For more information on crediting smoothies, refer to “[Crediting Fruit in Smoothies](#)” in the “Fruits Component” section, “[Crediting Vegetables in Smoothies](#)” in the “Vegetables Component” section, and “[Crediting yogurt in smoothies](#)” in the “Meat/Meat Alternates (MMA) Component” section.

### Milk in Prepared Foods

Only fluid milk meets the USDA’s definition for milk and the FDA’s standard of identity for milk. The breakfast and lunch meal patterns require fluid milk as a beverage. Meals with breakfast cereals may include fluid milk as a beverage, on cereal, or both.

Milk does not credit when cooked in cereals, puddings, cream sauces, or other foods. For example, milk does not credit when used to make quiche or macaroni and cheese.

Foods made from milk (such as cheese, yogurt, and ice cream) cannot credit as the milk component. For information on crediting cheese and yogurt as MMA, refer to the “[Meat/Meat Alternates \(MMA\) Component](#)” section.



## Serving Milk from Coolers

Milk coolers cannot contain any beverages other than milk. For example, schools cannot sell water and juice from the milk cooler. SFAs cannot promote or offer water, juice, or any other beverage as an alternative selection to fluid milk throughout the food service area.

## Keeping Milk Cold

Implementing procedures to keep milk cold is important for food safety and helps make milk more appealing to children. Milk must be kept at 40°F or below but tastes best at 35°F. SFAs should develop procedures to maintain milk at 35°F during all points of the meal service (receiving, storing, and serving).

New England Dairy's [Keep Milk Cold](#) webpage contains resources to help staff serve cold milk. The U.S. Dairy's [Milk Quality Checklist](#) helps evaluate current practices and implement procedures for keeping milk cold.

## Noncreditable Foods in the Milk Component

Some examples of foods that do not credit as the milk component include:

- reduced fat (2%) milk, unflavored or flavored;
- whole milk, unflavored or flavored;
- nondairy milk substitutes that do not meet the USDA's nutrition standards for fluid milk substitutes, e.g., almond milk, cashew milk, rice milk, some brands of soy milk, and most brands of oat milk;
- for public schools only, milk and nondairy milk substitutes that do not meet the state beverage requirements of [Connecticut General Statute Section 10-221q](#);
- milk that is cooked or baked in prepared foods, such as cereals, puddings, cream sauces, and macaroni and cheese;
- foods made from milk, such as cheese, yogurt, and ice cream;
- nutrition supplement beverages, such as Abbott's Pediasure; and
- powdered milk beverages, such as Nestle's NIDO.

For more examples and additional information, refer to "Noncreditable Foods" at the beginning of section 3 and the CSDE's resource, [Noncreditable Foods for Grades K-12 in the NSLP and SBP](#).

## Common Compliance Issues for the Milk Component

School menus must comply with the USDA’s requirements for the milk component. The common compliance issues indicated below are based on the CSDE’s Administrative Review of the school nutrition programs. SFAs must plan menus to avoid these compliance issues.

- **No milk variety:** Lunch and breakfast menus must always offer at least two different types of milk with all meals, one of which must be unflavored. A lack of milk variety occurs most often when serving breakfast in the classroom. For more information, refer to “[Milk Variety](#)” in this section.
- **Incorrect milk substitutes:** The USDA allows only two substitutions for fluid milk: 1) lactose-reduced and lactose-free milk; and 2) nondairy milk products that meet the USDA’s nutrition standards for milk substitutes. SFAs cannot offer any other beverages as milk substitutes, such as juice and water. For more information, refer to “[Milk Substitutes for Children without Disabilities](#)” in this section.
- **Offering other beverages such as water and juice in milk cooler:** Milk coolers must contain only milk. SFAs cannot promote or offer water, juice, or any other beverages as an alternative selection to fluid milk throughout the food service area. For more information, refer to “[Milk Variety](#)” in this section.



For more information, refer to [CSDE Operational Memorandum No. 06-19: Summary of Federal and State Milk Requirements for the NSLP, SBP, SSO of the NSLP, ASP of the NSLP, and Special Milk Program \(SMP\)](#) and the CSDE’s resource, [Comparison of Meal Pattern Requirements for the Milk Component in School Nutrition Programs](#).

## Resources for Crediting Milk

The resources below assist menu planners with crediting the milk component in the breakfast and lunch meal patterns for grades K-12.

- Allowable Milk Substitutes for Children without Disabilities in School Nutrition Programs (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/SpecDiet/Milk\\_Substitutes\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/SpecDiet/Milk_Substitutes_SNP.pdf)
- Comparison of Meal Pattern Requirements for the Milk Component in School Nutrition Programs (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Comparison\\_Milk\\_Requirements\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Comparison_Milk_Requirements_SNP.pdf)
- CSDE Operational Memorandum No. 06-19: Summary of Federal and State Milk Requirements for the National School Lunch Program (NSLP), School Breakfast Program (SBP), Seamless Summer Option (SSO) of the NSLP, Afterschool Snack Program (ASP) of the NSLP, and Special Milk Program (SMP):  
<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Memos/OM2019/OM06-19.pdf>
- Determining if Nondairy Beverages Meet the USDA's Nutrition Standards for Fluid Milk Substitutes in School Nutrition Programs (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/SpecDiet/Determining\\_Allowable\\_Nondairy\\_Milk\\_Substitutes\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/SpecDiet/Determining_Allowable_Nondairy_Milk_Substitutes_SNP.pdf)
- Food Buying Guide Section 5: Overview of Crediting Requirements for the Milk Component (USDA):  
[https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA\\_FBG\\_Section5\\_Milk.pdf](https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA_FBG_Section5_Milk.pdf)
- Food Buying Guide Section 5: Yield Table for Milk (USDA):  
[https://foodbuyingguide.fns.usda.gov/files/Reports/USDA\\_FBG\\_Section5\\_MilkYieldTable.pdf](https://foodbuyingguide.fns.usda.gov/files/Reports/USDA_FBG_Section5_MilkYieldTable.pdf)
- Milk 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#Milk>
- USDA Memo SP 07-2010, CACFP 04-2010, and SFSP 05-2010: Questions and Answers: Fluid Milk Substitutions:  
<https://www.fns.usda.gov/qas-milk-substitution-children-medical-or-special-dietary-needs-non-disability>

- USDA Memo SP 39-2019: Clarification on the Milk and Water Requirements in the School Meal Program:  
<https://www.fns.usda.gov/school-meals/clarification-milk-and-water-requirements-school-meal-program>
- USDA Memo SP 40-2019, CACFP 17-2019, and SFSP 17-2019: Smoothies Offered in the Child Nutrition Programs:  
<https://www.fns.usda.gov/cn/smoothies-offered-child-nutrition-programs>
- What's in a Meal Module 7: Milk 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>

For additional crediting resources, visit the “[Milk Component for Grades K-12](#)” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage. Training on the milk component is available in “Module 7: Milk Component” 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*.





## Meat/Meat Alternates (MMA) Component

Meats include cooked lean meat, poultry, and fish. Meat alternates are foods that provide a similar protein content to meat, such as alternate protein products (APPs), cheese, eggs, cooked dry beans or peas (legumes), nuts and seeds and their butters, yogurt, soy yogurt, tofu, and tempeh. Legumes credit as the vegetables component or the MMA component but cannot credit as both components in the same meal.

### MMA versus Protein

The NSLP and SBP meal patterns require a specific amount of the MMA component, not a specific amount of protein. The terms “protein” and “meat/meat alternates” are often used interchangeably, but they are not the same. “Meat/meat alternates” refers to the meal component of the USDA meal patterns for the Child Nutrition Programs. “Protein” refers to one of the key nutrients found in meats and meat alternates.

Except for commercial tofu and tofu products, protein content is not an indicator that a commercial product credits as the MMA component because the grams of protein listed on the product’s Nutrition Facts label do not correspond to the ounces of the MMA component contained in the product. A serving of meat or meat alternate contains other components in addition to protein, such as water, fat, vitamins, and minerals. Protein is also found in varying amounts in other ingredients (such as cereals, grains, and many vegetables) that may be part of a commercial meat or meat alternate product.

Menu planners cannot use the Nutrition Facts label or ingredients statement to determine the amount of the MMA component in a commercial product. The only exception is commercial tofu and tofu products, which must contain at least 5 grams of protein in a 2.2-ounce serving by weight. For more information, refer to “[Crediting Commercial Tofu and Tofu Products](#)” in this section.

<b>Nutrition Facts</b>	
8 servings per container	
<b>Serving Size</b>	<b>1 burger (64 g)</b>
Amount Per Serving	
<b>Calories</b>	<b>130</b>
% Daily Value*	
<b>Total Fat</b> 5 g	8%
Saturated Fat 0.5g	3%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 390 mg	17%
<b>Total Carbohydrates</b> 8g	3%
Dietary Fiber 4g	15%
Sugars 1g	
Including <1g Added Sugars	
<b>Protein</b> 16 g	21%
Vitamin D 0.1 mcg	
Calcium 6 0mg	
Iron 1.1mg	
Potassium 120mg	
* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice	

To credit as the MMA component, commercial products that are processed or contain added ingredients (such as pizza, chicken nuggets, veggie burgers, and cheese ravioli) require a CN label or PFS to document the amount of the MMA component per serving. For more information, refer to “[Crediting MMA in Commercial Products](#)” in this section.

### Required Daily and Weekly Servings

The lunch meal pattern requires daily and weekly servings (oz eq) of the MMA component. Table 3-3 summarizes the required oz eq of the MMA component for each grade group.

The MMA component is not required at breakfast. However, SFAs may substitute MMA for the grains component after offering 1 oz eq of grains. For more information, refer to “[MMA at Breakfast](#)” in this section.

**Table 3-3. Required daily and weekly oz eq of the MMA component at lunch**

Grades	Five-day week		Seven-day week	
	Daily	Weekly <sup>1</sup>	Daily	Weekly <sup>1</sup>
<b>K-5</b>	1	8-10	1	11-14
<b>6-8</b>	1	9-10	1	12½-14
<b>9-12</b>	2	10-12	2	14-17

<sup>1</sup> SFAs cannot offer less than the minimum weekly serving. The maximum weekly serving is not required but provides a guide for planning age-appropriate meals that meet the weekly limits for calories, saturated fats, and sodium. For information on planning school meals to meet the dietary specifications, refer to section 6.

### Daily servings of MMA

Lunch menus for grades K-5 or 6-8 must offer more than the minimum daily serving (1 oz eq) on some days to meet the minimum weekly requirement. Offering only the minimum daily 1 oz eq does not meet the minimum weekly requirement for grades K-5 and 6-8. However, lunch menus for grades 9-12 that offer the minimum daily serving (2 oz eq) each day meet the minimum weekly requirement.

**Weekly servings of MMA at lunch**

Menu planners must calculate the weekly servings of the MMA component for all lunch menus. The weekly servings of the MMA component are the sum of the daily MMA servings. For example, a five-day lunch menu that offers  $1\frac{3}{4}$  oz eq of the MMA component each day provides a weekly total of  $8\frac{3}{4}$  oz eq of the MMA component. This meets the weekly requirement for grades K-5 but does not meet the weekly requirement for grades 6-8 or 9-12.

When lunch menus offer multiple MMA choices on an individual day, SFAs must use the daily item with the smallest oz eq to count toward the weekly requirement. For example, if the daily lunch menu for grades 6-8 offers a  $1\frac{1}{2}$ -oz eq item and a 2-oz eq item, SFAs must count the  $1\frac{1}{2}$ -oz eq item toward the weekly requirement.

If the lunch menu includes different serving sizes of the MMA component each day or over the week, SFAs must pay careful attention to the combinations of daily choices. SFAs must review all weekly MMA choices to determine compliance with the weekly meal pattern requirements.

For more information on meeting the weekly servings for the MMA component, refer to “Weekly Grains and MMA at Lunch” in section 4.

**Minimum creditable amount of MMA**

The minimum creditable amount of MMA is  $\frac{1}{4}$  oz eq. MMA offered in amounts less than  $\frac{1}{4}$  oz eq are not included in the calculation of the daily and weekly MMA servings, but count toward the weekly dietary specifications. For more information, refer to “[Minimum creditable amounts](#)” in the beginning of section 3 and “Dietary Specifications” in section 1.

When crediting menu items toward the MMA component, menu planners must round down to the nearest  $\frac{1}{4}$  ounce. For example, a standardized recipe or commercial product that contains 0.9 ounces of cooked chicken per serving credits as 0.75 oz eq of the MMA component.

### Serving Size for MMA

The amounts in the MMA component refer to the edible portion of cooked lean meat, poultry, or fish, e.g., cooked lean meat without bone, breading, binders, extenders, or other ingredients. A 1-oz eq serving of the MMA component equals:

- 1 ounce of lean meat, poultry, or fish;
- 1 ounce of cheese (low-fat recommended);
- 2 ounces of cottage or ricotta cheese, cheese food/spread, or cheese substitute (low-fat recommended);
- ¼ cup of cooked beans and peas (legumes), e.g., kidney beans, chickpeas (garbanzo beans), lentils, and split peas;
- ½ large egg;
- 2 tablespoons of nut or seed butters, e.g., peanut butter, almond butter, cashew butter, and sunflower seed butter;
- 1 ounce of nuts or seeds, e.g., almonds, Brazil nuts, cashews, filberts, macadamia nuts, peanuts, pecans, pine nuts, pistachios, soy nuts, and walnuts;
- ¼ cup (2.2 ounces by weight) of commercial tofu containing at least 5 grams of protein;
- 1 ounce of tempeh that contains specific ingredients (refer to “[Crediting Tempeh](#)” in this section);
- 3 ounces of surimi;
- ½ cup of yogurt or soy yogurt; and
- 1 ounce of APP that meets the USDA’s APP requirements (refer to “[Crediting Alternate Protein Products \(APPs\)](#)” in this section).

The serving must contain the appropriate edible portion of MMA, excluding any other ingredients. For example, to credit as 2 oz eq of the MMA component, tuna salad must contain 2 ounces of tuna fish, before added ingredients such as mayonnaise, celery, and seasonings.

Menu planners should consult the USDA’s FBG to determine the specific crediting information for meats and meat alternates (refer to “Food Buying Guide for Child Nutrition Programs” in section 2).

## Crediting Documentation for Commercial Processed Products

SFAs must obtain crediting documentation for commercial products that are processed or contain added ingredients, such as pizza, chicken nuggets, and cheese ravioli. This documentation must state the amount of the MMA component per serving. For example, to credit a commercially prepared cheese pizza as 2 oz eq of the MMA component, the product's CN label or PFS must indicate that the serving contains 2 ounces of cheese. For more information, refer to "Documentation for Commercial Products" in section 2 and the CSDE's resource, *Accepting Processed Product Documentation in the NSLP and SBP*.

## Signage to Identify MMA Servings for Students

SFAs must use meal identification signage to instruct students on how much food to select from each component daily for a reimbursable meal, based on the planned serving sizes for each grade group. The example below shows how a school could meet this requirement.

A high school allows students to select two ½-cup containers of yogurt to meet the minimum daily 2 oz eq of the MMA component for grades 9-12. The cafeteria signage must clearly communicate that students are allowed to select two containers of yogurt with each meal. This signage must be at or near the beginning of the serving line and located where the food component is available.

For more information, refer to "Meal Identification Signage" in section 5.

## Main Dish Requirement for Lunch

The daily MMA component at lunch must be served in a main dish, or in a main dish and one other food item. The main dish is generally considered the main food item in the menu, which is complemented by the other food items. For example, a lunch menu for grades 9-12 could provide the required 2 ounces of the MMA component from:

- a sandwich containing 2 ounces of tuna; or
- a sandwich containing 1 ounce of tuna (1 oz eq of MMA) served with soup that contains ¼ cup of legumes (1 oz eq of MMA).

SFAs cannot serve the daily MMA component for lunch in more than two food items.

SFAs must consider how these menu-planning decisions affect students' selection of reimbursable meals when implementing OVS. For example, when a lunch menu provides the daily MMA component as two separate food items, students must select both items to credit as the full component for OVS. For information on OVS, refer to the CSDE's *Offer versus Serve Guide for School Meals*.

### Requirement for recognizable main dish

The USDA requires the meat or meat alternate must be recognizable (visible) to credit toward the MMA component. Foods that are not a recognizable main dish do not credit. For example, SFAs cannot credit peanut butter in a muffin or smoothie, pureed beans in a spice cake, or blended soft tofu in soup. The USDA's intent for this requirement is to ensure that school menus offer meats and meat alternates in a form that is recognizable to children. For more information, refer to "[Requirement for visible components](#)" at the beginning of section 3.

The USDA allows two exceptions to the requirement for a recognizable main dish. These include yogurt blended in fruit or vegetable smoothies and pasta made with 100 percent legume flours.

- Yogurt blended in fruit or vegetable smoothies credits as a meat alternate. Other MMA (such as peanut butter) served in smoothies do not credit. For more information, refer to "[Yogurt in smoothies](#)" in this section and "[Crediting Smoothies](#)" in the "Fruits Component" section.
- Pasta made with 100 percent legume flours may credit as a meat alternate if the menu also includes an additional meat or meat alternate, such as tofu, cheese, or meat. For more information, refer to "[Crediting Legume Flour Pasta Products as MMA](#)" in this section.

### MMA at Breakfast

The MMA component is not required at breakfast. SFAs may choose to offer a food from the MMA component in place of the grains component if the breakfast menu includes at least 1 oz eq of the grains component. For example, a breakfast menu that includes a 1-ounce slice of whole-grain toast (1 oz eq of the grains component) may also include 1 ounce of low-fat cheese (1 oz eq of the MMA component) as a grain substitution.

MMA substitutions credit as the grains component and count toward the weekly requirements for grains and the weekly dietary specifications.

SFAs cannot serve MMA in place of grains if the breakfast menu does not include at least 1 oz eq of the grains component. Table 3-4 shows two breakfast menus that offer a MMA substitution. Menu 1 meets the SBP meal pattern requirements because it includes 1 oz eq of the grains component (toast). Menu 2 does not meet the SBP meal pattern requirements because it does not include at least 1 oz eq of the grains component.

**Table 3-4. Examples of breakfast menus with MMA substitutions**

Acceptable	Not acceptable <sup>1</sup>
<p><b>Menu 1</b>            Scrambled eggs (1 egg)            Whole-grain toast (1 ounce)            Cantaloupe (½ cup)            Blueberries (½ cup)            Milk choice (1 cup)</p>	<p><b>Menu 2</b>            Scrambled eggs (1 egg)            Cantaloupe (½ cup)            Blueberries (½ cup)            Milk choice (1 cup)</p>
<p><sup>1</sup> SFAs may offer a serving of the MMA component in place of a serving of the grains component only after offering the minimum daily 1 oz eq of grains.</p>	

MMA used as grain substitutions credit on an oz eq basis. For example, 1 oz eq of the MMA component credits as 1 oz eq of the grains component. For information on the serving sizes for MMA, refer to “[Serving Size for MMA](#)” in this section. For guidance and menu ideas, refer to the USDA’s *Offering Meats and Meat Alternates at School Breakfast*.

**Options for crediting MMA at breakfast**

For all grade groups, breakfast must include at least 1 oz eq of the grains component before serving a MMA as a grain substitute. SFAs may choose from two options for crediting MMA at breakfast.

- **Option 1:** Offer a serving of the MMA component in place of a serving of the grains component and count the MMA toward the weekly servings of the grains component. MMA offered in place of the grains component credit as grain food items for OVS.
- **Option 2:** Offer a serving of the MMA component as an extra food that does not count toward the weekly servings of the grains component. MMA offered as extra foods do not credit as food items for OVS. For more information, refer to “Extra Foods” in section 1.

The USDA allows these options to offer additional menu planning flexibility for SFAs. For both options, MMA substituted for grains must count toward the weekly dietary specifications. They must contain zero trans fats and their inclusion cannot cause the breakfast menu to exceed the weekly limits for calories, saturated fats, and sodium. For information on planning school meals to meet the dietary specifications, refer to section 6.

SFAs must consider how each option affects students’ selection of reimbursable meals when implementing OVs. For examples of OVS with these options, refer to section 3 of the CSDE’s *Offer versus Serve Guide for School Meals*.





## Crediting Alternate Protein Products (APPs)

APPs credit as meat alternates in the meal patterns for the school nutrition programs. A 1-ounce serving of a creditable APP provides 1 oz eq of the MMA component. The total MMA contribution cannot exceed the weight of product.

APPs are food ingredients that may be used alone or in combination with meat, poultry, or seafood. They are processed from soy or other vegetable protein sources and may be dehydrated granules, particles, or flakes. Some examples include soy flours, soy concentrates, soy isolates, whey protein concentrate, whey protein isolates, and casein. APPs may be used in the dry (nonhydrated), partially hydrated, or fully hydrated form.

APPs are generally used as part of a formed meat patty or in a vegetarian patty resembling a meat product. Examples of foods that might contain added APPs include beef patties, beef crumbles, pizza topping, meat loaf, meat sauce, taco filling, burritos, and tuna salad.

### Criteria for APPs

APPs must meet the USDA's requirements specified in [appendix A](#) of the NSLP regulations (7 CFR 210) and [appendix A](#) of the SBP regulations (7 CFR 220). These regulations specify that APPs may credit for part or all the MMA requirement if they meet the three criteria below.

1. The APP must be processed so that some portion of the non-protein constituents of the food is removed. This refers to the manufacturing process for APP. APPs must be safe and suitable edible products produced from plant or animal sources.
2. The biological quality of the protein in the APP must be at least 80 percent of casein (milk protein), determined by performing a Protein Digestibility Corrected Amino Acid Score (PDCAAS). The PDCAAS is a method of evaluating protein quality.
3. The APP contains at least 18 percent protein by weight when fully hydrated or formulated. "When hydrated or formulated" refers to a dry APP and the amount of water, fat, oil, colors, flavors, or any other substances that have been added.

Menu planners cannot determine if an APP product meets these criteria by reading the product's label. The labeling laws of the USDA's Food Safety Inspection Service (FSIS) and Food and Drug Administration (FDA) require manufacturers to list product ingredients, but percentage labeling is voluntary. For example, a product may list whey protein concentrate and hydrolyzed soy protein in the ingredients but will not indicate the percentage of these protein ingredients by weight. Therefore, manufacturers must provide the appropriate crediting documentation.

**Required documentation for APPs**

The FBG does not contain yield information for APP. SFAs must obtain documentation from the manufacturer that the product meets the APP criteria. Without appropriate documentation, APPs cannot credit in the school nutrition programs.

Acceptable documentation includes a CN label, or a PFS from the manufacturer with supporting documentation on company letterhead that the APP ingredient meets the USDA's requirements. Sample APP documentation is on page 6 of the USDA's *Questions and Answers on Alternate Protein Products*.

The manufacturer's documentation should include information on the percent protein contained in the dry alternate protein product and in the prepared product. For an APP product mix, manufacturers should provide information on the amount by weight of dry APP in the package, hydration instructions, and instructions on how to combine the mix with meat or other meat alternates.

If the PFS for a commercial product lists APP ingredients that are being credited as the MMA component, the manufacturer must provide supporting documentation to indicate that the APP ingredients meet the USDA's APP requirements. APP ingredients without this supporting documentation cannot credit in the school nutrition programs.

The USDA's *Questions and Answers on Alternate Protein Products (APP)* provides additional guidance on documenting the APP requirements. For information on CN labels and PFS forms, to "Child Nutrition (CN)" labels and "Product formulation statements" in section 2. For more information on crediting APPs, refer to the CSDE's resource, *Requirements for Alternate Protein Products in the NSLP and SBP*.

## Crediting Cheeses

Cheeses credit as meat alternates in the meal patterns for the school nutrition programs. The USDA recommends serving only low-fat or reduced-fat cheeses (for ages 2 and older) and choosing natural cheeses. Natural cheeses are produced directly from milk, such as cheddar, Colby, Monterey Jack, mozzarella, Muenster, provolone, Swiss, feta, and brie. Natural cheeses also include pasteurized blended cheeses made by blending one or more different kinds of natural cheeses.

Natural cheeses do not include pasteurized process cheeses such as American cheese, pasteurized process cheese food, pasteurized process cheese spread, and pasteurized process cheese products. Imitation cheese and cheese products do not credit as the MMA component.

Table 3-5 shows the amount of different types of cheeses required to credit as 1 oz eq of the MMA component.

<b>Type of cheese</b>	<b>1 oz eq of MMA =</b>
Natural cheese, e.g., cheddar and Swiss	1 ounce
Grated cheese, e.g., Parmesan or Romano	1 ounce ( $\frac{3}{8}$ cup)
Process cheese, e.g., American	1 ounce
Cottage or ricotta cheese	$\frac{1}{4}$ cup
Process cheese food	2 ounces
Process cheese spread	2 ounces
Process cheese substitute, cheese food substitute, or process cheese spread substitute <sup>1</sup>	2 ounces
<p><sup>1</sup> Cheese substitutes include reduced fat, low fat, nonfat, and lite versions of cheese substitute, cheese food substitute, and cheese spread substitute. These foods must meet the FDA's standard of identity for substitute foods and must be labeled as "cheese substitute," "cheese food substitute," or "cheese spread substitute." The FDA's standard of identity requires that a cheese substitute is not nutritionally inferior to the standardized cheese for which it is substituting.</p>	

**Menu items that contain cheese**

SFAs must maintain appropriate crediting documentation for menu items that contain cheese as an ingredient, such as pizza, lasagna, or macaroni and cheese. This documentation must indicate the meal pattern contribution per serving.

Commercial products require a CN label or a PFS stating the amount of cheese per serving. Adult day care centers are responsible for checking the manufacturer's PFS for accuracy prior to including the commercial product in reimbursable meals. For more information, refer to "[Documentation for Commercial Products](#)" in section 2.

Menu items made from scratch must have a recipe that documents the amount of cheese per serving. For more information, refer to "[Standardized Recipes](#)" and "[Food Buying Guide for Child Nutrition Programs](#)" in section 2.



## Crediting Deli Meats, Hot Dogs, and Sausages

Deli meats (such as turkey, chicken, ham, roast beef, salami, and bologna), hot dogs, and sausages credit as the MMA component in the meal patterns for the school nutrition programs. SFAs must ensure that the serving of a commercial meat product provides the amount of the MMA component being credited. The serving of deli meat or sausage that provides 1 oz eq of the MMA component depends on the product's ingredients and varies between different brands and types of deli meats.

- **100 percent meat:** Products that are 100 percent meat without added liquids (such as water or broth), binders, or extenders credit on an ounce-per-ounce basis (actual serving weight). For example, 1 ounce of deli meat that is 100 percent meat credits as 1 oz eq of the MMA component.
- **Added liquids, binders, and extenders:** Products with added liquids, binders, and extenders credit based on the percentage of meat in the product formula. A 1-ounce serving of these products does **not** credit as 1 oz eq of the MMA component. The crediting depends on the amount of meat per serving, excluding added ingredients. For example, one brand of deli meat might require 1.6 ounces to credit as 1 oz eq of the MMA component, while another brand might require 2.3 ounces to credit as 1 oz eq of the MMA component.

SFAs must obtain appropriate crediting documentation for all meats with added liquids, binders, and extenders. Acceptable documentation includes a CN label or a manufacturer's PFS stating the amount of the MMA component contained in one serving of the product. SFAs must obtain a PFS for all commercial processed products that are not CN labeled.



The USDA's [Authorized Labels and Manufacturers](#) webpage lists approved CN-labeled products and manufacturers. For more information, refer to "Child Nutrition (CN) Labels" and "Product Formulation Statements" in section 2.

Products with added liquids, binders, and extenders cannot credit as the MMA component without a CN label or PFS stating the amount of the MMA component per serving. Menu planners must review product labels and ingredients to determine if commercial products contain added liquids, binders, and extenders.

### Liquids, binders, and extenders

Products with added liquids, binders, and extenders cannot credit as the MMA component without a CN label or PFS that states the amount of the MMA component per serving. The ingredients statements below show some examples of turkey breast products that contain added liquid, binders, and extenders.

- Ingredients: Turkey breast, **water, modified cornstarch**, contains less than 2% of sodium lactate, salt, sugar, sodium phosphates, **carrageenan**, natural flavor, sodium diacetate, potassium chloride, sodium ascorbate, sodium nitrite, caramel color.
- Ingredients: Turkey breast meat, **turkey broth**, contains 2% or less salt, sugar, **carrageenan**, sodium phosphate, sodium acetate, sodium diacetate, flavoring.

Table 3-6 lists examples of ingredients that are binders and extenders.

Table 3-6. Examples of binders and extenders <sup>1</sup>		
Agar-agar	Dried milk	Reduced minerals
Algin (a mixture of sodium alginate, calcium carbonate and calcium gluconate/lactic acid)	Dry or dried whey Enzyme (rennet) treated calcium-reduced dried skim milk and calcium lactate	Sodium caseinate Soy flour (APP) <sup>2</sup> Soy protein concentrate (APP) <sup>2</sup> Starchy vegetable flour
Bread	Gums, vegetable	Tapioca dextrin
Calcium-reduced dried skim milk	Isolated soy protein (APP) <sup>2</sup>	Vegetable starch Wheat gluten
Carrageenan	Locust bean gum	Whey
Carboxymethyl cellulose (cellulose gum)	Methyl cellulose Modified food starch	Whey protein concentrate (APP) <sup>2</sup>
Cereal	Reduced lactose whey	Xanthan gum
<p><sup>1</sup> Binders and extenders are defined by the USDA’s regulations for the Food Safety and Inspection Service (FSIS) (9 CFR 318.7).</p> <p><sup>2</sup> Products may contain these ingredients if they meet the USDA’s APP requirements. For more information, refer to “<a href="#">Crediting Alternate Protein Products (APPs)</a>” in this section.</p>		

For more information, refer to “Documentation for Commercial Products” in section 2, and the CSDE’s resources, *Crediting Deli Meats in the NSLP and SBP*, *Crediting Commercial Meat/Meat Alternate Products in the NSLP and SBP*, *Using Child Nutrition (CN) Labels in the School Nutrition Programs*, and *Using Product Formulation Statements in the School Nutrition Programs*.

### Developing recipes for deli meats

Different brands and types of deli meat credit differently. To ensure proper crediting, SFAs should develop standardized recipes for menu items that contain deli meats, such as sandwiches and other entrees.

These standardized recipes should indicate the deli meat's contribution to the MMA component based on a specific weight of a specific brand. To make portioning simple for food service staff and ensure that the serving provides the proper crediting amount, round up the weight of the deli meat in the standardized recipe to the nearest  $\frac{1}{4}$  ounce. For example, the standardized recipe should list 1.2 ounces of deli meat as 1.25 ounces and 1.6 ounces of deli meat as 1.75 ounces.

If the SFA makes the same food item using different brands of deli meats that credit differently, the standardized recipe should include the specific weight of each brand. For example, if a school makes a turkey sandwich using either ABC brand turkey breast or XYZ brand turkey breast, the standardized recipe should include the required weight of ABC brand for 1 ounce of MMA and the required weight of XYZ brand for 1 ounce of MMA. Alternatively, the SFA could also choose to develop a separate standardized turkey sandwich recipe for each brand of deli meat.

For information on standardized recipes, refer to “[Standardized Recipes](#)” in section 2. Training on standardized recipes 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*.



### Crediting Dried Meat, Poultry, and Seafood Products

Shelf-stable, dried, and semi-dried meat, poultry, and seafood (such as jerky or summer sausage) credit as the MMA component. The USDA indicates that these products are most useful in meals served off-site, such as during field trips or picnics. However, SFAs may also credit these products in meals served on site.

Crediting of dried meat, poultry, and seafood products must follow the same crediting principles used for all other products made from meat, poultry, or seafood. SFAs must obtain a CN label or manufacturer's PFS to document the product's meal pattern contribution. The FBG does not include crediting information for dried meat, poultry, or seafood products because industry production standards for these products vary widely.

Menu planners must evaluate the dried meat product's PFS to ensure that it complies with the USDA's crediting principles below.

1. The creditable meat ingredient listed on the product's PFS must match or have a similar description as the ingredient listed in the product's ingredients statement. The ingredients statement below shows an example.

Ingredients: **Ground beef (not more than 30% fat)**, water, salt, less than 2% brown sugar, spices, monosodium glutamate, sugar, flavorings, sodium nitrate.

Since this dried beef stick product lists "Ground beef (not more than 30% fat)" as the first ingredient, the product's PFS must also list the crediting information for "Ground beef (not more than 30% fat)."

2. The creditable meat ingredient listed on the product's PFS must have a similar description to a food item in the FBG. For the example above, "Ground beef (not more than 30% fat)" matches the description for "Beef, Ground, fresh or frozen, Market Style, no more than 30% fat (Like IMPS #136), cooked lean meat" on page 1-17 of the FBG.
3. The creditable amount cannot exceed the finished weight of the product, i.e., the cooked weight ready for serving. For example, a 1-ounce serving of beef jerky cannot credit for more than 1 oz eq of the MMA component.



Ground pork and beef ingredients must include the percent fat because the fat content has a direct correlation to the cooking yield. To credit in Child Nutrition Programs, the fat content of ground beef or ground pork in dried meat products cannot exceed 30 percent. Products that do not indicate the fat percentage do not credit. The ingredients statement below shows an example.

Ingredients: **Pork**, cane sugar, garlic (garlic, citric acid, ascorbic acid), contains 2% or less of: Spanish smoked paprika (paprika, rosemary extract), sea salt, natural flavors, sherry wine vinegar, red pepper chili flakes, celery powder, in collagen casing.

This dried pork stick product does not credit as the MMA component because the creditable ingredients (pork) does not list the fat percentage and does not match a description in the FBG.

For information on CN labels and PFS forms, refer to “Documentation for Commercial Products” in section 2. The requirements for crediting dried meat are summarized in [USDA Memo SP 21-2019](#), [CACFP 08-2019](#), and [SFSP 07-2019: Crediting Shelf-Stable, Dried and Semi-Dried Meat, Poultry, and Seafood Products in the Child Nutrition Programs](#). For additional guidance on crediting dried meat products, watch the USDA’s webinar, [Moving Forward: Update on Food Crediting in Child Nutrition Programs with Guidance for Dried Meat Products](#).

## Crediting Eggs

Eggs credit as the MMA component in the meal patterns for the school nutrition programs. Only whole eggs are creditable. Half of a large egg credits as 1 oz eq of the MMA component. Liquid egg substitutes are not whole eggs and are not creditable. Egg whites do not credit if served without the yolks.

### Menu items that contain eggs

SFAs must maintain appropriate crediting documentation for menu items that contain eggs as an ingredient, such as quiche, scrambled eggs, frittatas, breakfast sandwiches, pre-cooked egg patties, and scrambled egg breakfast burritos. This documentation must indicate the meal pattern contribution per serving.

Commercial products require a CN label or a PFS stating the amount of eggs per serving. SFAs are responsible for checking the manufacturer’s PFS for accuracy prior to including the commercial product in reimbursable meals. For more information, refer to “Documentation for Commercial Products” in section 2.

Menu items made from scratch must have a recipe that documents the amount of eggs per serving. For more information, refer to “Standardized Recipes” and “Food Buying Guide for Child Nutrition Programs” in section 2.

### Crediting Hummus as MMA

Hummus may credit as either the MMA component or the vegetables component, but one serving cannot credit as both components in the same meal. To credit as the MMA component, the serving must contain at least  $\frac{1}{4}$  oz eq of MMA from the chickpeas/garbanzo beans (legumes) and tahini (sesame paste) combined.

- A  $\frac{1}{4}$ -cup serving of legumes credits as 1 oz eq of the MMA component. The minimum creditable amount is 1 tablespoon ( $\frac{1}{4}$  oz eq).
- Tahini credits the same as nut/seed butters. Two tablespoons of tahini credit as 1 oz eq of the MMA component. The minimum creditable amount is  $\frac{1}{2}$  tablespoon ( $\frac{1}{4}$  oz eq).

SFAs must maintain crediting documentation for hummus that indicates the amount of legumes and tahini per serving. Commercial products require a CN label (if available) or PFS. Hummus made from scratch requires a standardized recipe (refer to “[Crediting legumes in recipes as MMA](#)” in this section).

For information on crediting hummus as the vegetables component, refer to “[Crediting hummus as vegetables](#)” in the “Vegetables Component” section.

### Crediting Legumes as MMA

Legumes include cooked dry beans and peas, such as black beans, black-eyed peas (mature, dry), edamame (soybeans), garbanzo beans (chickpeas), kidney beans, lentils, navy beans, soybeans, split peas, and white beans. Legumes may credit as either the MMA component or the vegetables component, but one serving cannot credit as both components in the same meal. Menu planners must determine in advance how to credit legumes in school menus.

Legumes may credit as the MMA component or the vegetables component in different meals. For example, refried beans may credit as the MMA component at one lunch and as the vegetables component at another lunch.

If a meal includes two servings of legumes, the menu planner may choose to credit one serving as the MMA component and one serving as the vegetables component. For example,  $\frac{1}{4}$  cup of garbanzo beans in a salad may credit as  $\frac{1}{4}$  cup of the vegetables component and  $\frac{1}{2}$  cup of kidney beans in chili may credit as 2 ounces of the MMA component.

### Serving size for legumes as MMA

Legumes credit as the MMA component based on volume. A ¼-cup serving (4 tablespoons) of legumes credits as 1 ounce of the MMA component. The minimum creditable amount of legumes is 1 tablespoon. Table 3-7 shows the MMA contribution for different serving sizes of cooked legumes. For information on crediting legumes as vegetables, refer to “[Crediting Legumes as Vegetables](#)” in the “Vegetables Component” section.

The serving size refers to the amount of cooked legumes excluding other ingredients, such as the sauce and pork fat in baked beans. For example, to credit baked beans as 1 oz eq of the MMA component, the serving must contain ¼ cup of beans, not including the sauce and pork fat.

**Table 3-7. MMA contribution of cooked legumes**

Serving size	MMA contribution
1 tablespoon	¼ oz eq (minimum creditable amount)
2 tablespoons (⅓ cup)	½ oz eq
3 tablespoons	¾ oz eq
<b>4 tablespoons (¼ cup)</b>	<b>1 oz eq</b>
5 tablespoons	1¼ oz eq
6 tablespoons (⅔ cup)	1½ oz eq
7 tablespoons	1¾ oz eq
8 tablespoons (½ cup)	2 oz eq

### Crediting legumes in recipes as MMA

SFAs must have standardized recipes on file to document the crediting information for all legume-based foods made from scratch, such as lentil soup, bean burritos, chili, and hummus. For more information on, refer to “[Standardized Recipes](#)” in section 2.

Legume-based foods made from scratch credit based on the volume (cups) of legumes in the recipe serving. A standardized recipe must provide at least 1 tablespoon (¼ ounce) of legumes per serving to credit toward the MMA component.

The menu planner must determine the recipe’s crediting information for the MMA component by dividing the cups of legumes in one serving of the standardized recipe by 0.25, then rounding down to the nearest ¼ ounce. For guidance on how to calculate the contribution of legumes in a recipe, refer to the CSDE’s resource, *Crediting Legumes in the NSLP and SBP*.

### **Crediting roasted or dried legumes as MMA**

Roasted or dried legumes (such as roasted soybeans or roasted chickpeas) credit as the MMA component the same as nuts and seeds. A 1-ounce serving of roasted or dried legumes credits as 1 oz eq of the MMA component.

At lunch, roasted or dried legumes cannot credit for more than half of the MMA component; they must be combined with another meat or meat alternate to meet the full serving for each grade group. For more information, refer to “[Main Dish Requirement for Lunch](#),” “[Minimum creditable amounts](#),” and “[Crediting Nuts and Seeds](#)” in this section.

For information on crediting roasted or dried legumes as the vegetables component, refer to “[Crediting Roasted or Dried Legumes as Vegetables](#)” in the “Vegetables Component” section.

### **Resources for legumes**

The recipes and resources below assist SFAs with incorporating legumes into school meals.

- Beans and Peas are Unique Foods (USDA):  
<https://www.choosemyplate.gov/eathealthy/vegetables/vegetables-beans-and-peas>
- Recipes for Healthy Kids Cookbook for Schools (USDA):  
<https://www.fns.usda.gov/tn/recipes-healthy-kids-cookbook-schools>
- Pulses in Schools (USDA Pulses):  
<https://www.usapulses.org/schools/school-nutrition>

For additional resources, refer to “Recipe Resources” in section 2 and “Legumes (Dried Beans and Peas)” in the CSDE’s *Resource List for Menu Planning and Food Production in Child Nutrition Programs*.

### Crediting Legume Flour Pasta Products as MMA

Pasta products made of 100 percent legume flours (such as chickpea flour or lentil flour) may credit as the MMA component but must be offered with additional MMA, such as tofu, cheese, or meat. The USDA’s intent for this requirement is to ensure that school menus offer MMA in a form that is recognizable to children. For more information, refer to “[Requirement for visible components](#)” at the beginning of section 3.

Table 3-8 shows the MMA contribution (oz eq) for different amounts of 100 percent legume pasta. A  $\frac{1}{4}$ -cup serving of cooked legume flour pasta credits as 1 oz eq of the MMA component.

Serving size	MMA contribution
1 tablespoon	$\frac{1}{4}$ oz eq (minimum creditable amount)
$\frac{1}{8}$ cup	$\frac{1}{2}$ oz eq
$\frac{3}{8}$ cup	$\frac{3}{4}$ oz eq
<b><math>\frac{1}{4}</math> cup</b>	<b>1 oz eq</b>
$\frac{1}{2}$ cup	2 oz eq

Alternatively, manufacturers and SFAs may credit legume flour pasta using the bean flour yield information on page C-1 of the FBG's [Appendix C](#), or with appropriate documentation on the manufacturer’s PFS. For more information, refer to “Product Formulation Statements” in section 2 and the USDA’s resources, *Product Formulation Statement (Product Analysis) for Meat/Meat Alternate (M/MA) Products in Child Nutrition Programs* and *Tips for Evaluating a Manufacturer’s PFS*.

Pasta made of 100 percent legumes may also credit as the vegetables component but cannot credit as both the vegetables component and MMA component in the same meal. For more information, refer to “[100 percent vegetable flours crediting as a vegetable](#)” in the Vegetables section.

The requirements for crediting pasta products made of vegetable flours are summarized in [USDA Memo SP 26-2019](#), [CACFP 13-2019](#), and [SFSP 12-2019: Crediting Pasta Products Made of Vegetable Flour in the Child Nutrition Programs](#).

### Crediting MMA in Combination Entrees

Combination entrees (such as tacos, lasagna, and chicken stir-fry) contain more than one food component. For example, beef lasagna contains the grains component (pasta), the MMA component (ground beef and cheese), and the vegetables component (tomato sauce). Most combination entrees cannot be separated (such as pizza or a burrito) or are not intended to be separated (such as hamburger on a bun or turkey sandwich).

For foods made from scratch, SFAs must have a standardized recipe that documents the amount of meat or meat alternates per serving based on the yields listed in the FBG. For more information, refer to “[Standardized Recipes](#)” and “[Food Buying Guide for Child Nutrition Programs](#)” in section 2.

For commercial products, SFAs must obtain a CN label (if available) or a PFS stating the amount of the MMA component per serving. SFAs are responsible for checking the manufacturer’s PFS for accuracy prior to including the combination entree in school meals. For more information, refer to “[Documentation for Commercial Products](#)” in section 2.

### Considerations for OVS

If the components of a combination entree can be separated, SFAs may choose whether to allow students to select the individual food components for OVS. For example, if the menu includes a turkey sandwich on a WGR roll, the SFA could allow students to select only the WGR roll or only the turkey. This option works best with made-to-order foods such as sandwiches from a deli bar. It may not be practical for assembled foods such as pre-made sandwiches. These menu-planning decisions affect students’ selection of reimbursable meals when implementing OVS. For more information, refer to the CSDE’s [Offer versus Serve Guide for School Meals](#).



### Crediting MMA in Commercial Products

To credit as the MMA component, commercial products that are processed or contain added ingredients (such as pizza, chicken nuggets, and cheese ravioli) require documentation stating the amount of the MMA component per serving. For example, to credit a commercial breaded chicken patty as 1½ ounces of the MMA component, the product's CN label or PFS must state that one serving of the product contains 1½ ounces of cooked chicken. Commercial products cannot credit as the MMA component without this documentation.

SFAs must have a CN label or manufacturer's PFS to document the meal pattern contribution of all commercial MMA products used in preschool menus. Commercial products without this documentation cannot credit in preschool meals and snacks. For more information, refer to "[Documentation for Commercial Products](#)" in section 2.

The CSDE's resource, *Crediting Commercial Meat/Meat Alternate Products in the NSLP and SBP*, summarizes the requirements for crediting commercial MMA in school menus.



### Crediting Nuts and Seeds

Nuts and seeds and their butters credit as meat alternates in the meal patterns for the school nutrition programs. Creditable nuts and seeds include almonds, Brazil nuts, cashews, filberts, macadamia nuts, peanuts, pecans, walnuts, pine nuts, pistachios, pumpkin seeds, soy nuts, and sunflower seeds. Roasted or dried soybeans credit the same as soy nuts, which credit as meat alternates. However, fresh soybeans (edamame) are legumes and credit as the vegetables component. For more information, refer to “[Vegetable Subgroups at Lunch](#)” in the “Vegetables Component” section.

A 1-ounce serving of nuts and seeds credits as 1 oz eq of the MMA component. Refer to the crediting guidance below and in the CSDE’s resource, [Crediting Nuts and Seeds in the NSLP and SBP](#).

#### Limit for nuts and seeds at lunch

Nuts and seeds cannot credit for more than half of the MMA component at lunch. They must be combined with another meat or meat alternate to meet the full requirement for each grade group. The example below illustrates this requirement.

- The lunch meal pattern for grades 9-12 requires 2 oz eq of the MMA component. A lunch for this grade group cannot contain more than 1 ounce of nuts or seeds and must also include 1 oz eq of another meat or meat alternate, such as  $\frac{1}{2}$  cup of yogurt, 1 ounce of lean meat or cheese,  $\frac{1}{4}$  cup of cottage cheese, or  $\frac{1}{4}$  cup of cooked legumes.

The limit for nuts and seeds does not apply to nut or seed butters.

#### Crediting nut and seed butters

Examples of creditable nut and seed butters include almond butter, cashew nut butter, peanut butter, sesame seed butter, soy nut butter, and sunflower seed butter. Reduced-fat peanut butter credits if it meets the FDA’s standard of identity for peanut butter ([21 CFR 164.150](#)), which requires that products contain at least 90 percent peanuts.

Table 3-9 shows the MMA contribution for different amounts of nut and seed butters. The serving for nut and seed butters is based on volume (tablespoons). Two tablespoons credit as 1 oz eq of the MMA component. This crediting is the same for all types of nut and seed butters, e.g., smooth, crunchy, and natural.



Table 3-9. MMA contribution of nut and seed butters

Serving size	MMA contribution
1 tablespoon	¼ oz eq (minimum creditable amount)
2 tablespoons (⅛ cup)	¾ oz eq
3 tablespoons	½ oz eq
<b>4 tablespoons (¼ cup)</b>	<b>1 oz eq</b>
5 tablespoons	1½ oz eq
6 tablespoons (¾ cup)	2 oz eq

The required volume measure (tablespoons) for nut and seed butters is not the same as weight (ounces). A 1-ounce serving (weight) of a nut or seed butter does not provide 1 oz eq of the MMA component. Nut and seed butters that are portioned by weight instead of volume must use the appropriate weight conversion in the USDA’s FBG. The FBG indicates that 1.1 ounces of nut or seed butters credit as 1 oz eq (2 tablespoons) of the MMA component. For more information, refer to “Volume versus weight” in section 2.

### Serving size considerations

Menu planners should consider the appropriateness of the required serving for each grade group. It may be unreasonable to provide the full serving of a nut or seed butter in one menu item, such as a peanut butter sandwich. For example, the lunch meal pattern for grades 9-12 requires 4 tablespoons (¼ cup) of peanut butter to credit as 2 oz eq of the MMA component. This is a large amount for two slices of bread.



The CSDE recommends providing a smaller portion of peanut butter and supplementing with another meat or meat alternate to provide the full serving. For example, a lunch menu could provide 2 oz eq of MMA from a sandwich containing 2 tablespoons of peanut butter (1 oz eq of MMA) served with 1 oz eq of another meat or meat alternate, such as ½ cup of yogurt. Another option is providing the required 4 tablespoons of peanut butter in three half-sandwiches that each contain 4 teaspoons of peanut butter.

### Crediting nut, seed, and nut/seed butter ingredients in commercial products

Nuts and seeds and their butters that are ingredients in commercial products must be visible and easily recognizable as meat substitutes to credit toward the school meal patterns. Commercial products that are not easily recognizable as meat substitutes cannot credit as the

MMA component. Some examples include peanut butter blended into other foods (such as muffins or smoothies), peanut butter in granola bars, and chopped nuts in muffins.

The USDA’s intent for this requirement is to ensure that school menus offer MMA in a form that is recognizable to children. For more information, refer to “[Requirement for visible components](#)” at the beginning of section 3.

### Noncreditable nuts and seeds

Acorns, chestnuts, and coconuts do not credit as the MMA component.

## Crediting Surimi Seafood

Surimi seafood is a pasteurized, ready-to-eat, restructured seafood product usually made from pollock (fish). Surimi seafood is available in many forms and shapes, including chunks, shredded, and flaked. It does not require additional preparation. Surimi seafood can be incorporated into a variety of menu items, such as seafood salads, sushi-style rolls, sandwiches, tacos, and ramen.

The amount of fish in surimi varies depending on the manufacturer and product. Surimi seafood may contain as little as one-third seafood ingredient and may include other creditable food ingredients. A 3-ounce serving of surimi credits as 1 oz eq of the MMA component. Table 3-10 shows the MMA contribution (oz eq) for different amounts of surimi seafood.

<b>Serving size</b>	<b>MMA contribution</b>
1 ounce	¼ oz eq
2 ounces	½ oz eq
<b>3 ounces</b>	<b>1 oz eq</b>
4.4 ounces	1½ oz eq
6 ounces	2 oz eq
<sup>1</sup> The crediting ratio for surimi seafood differs based on portion size due to USDA rounding rules that require rounding down to the nearest 0.25 ounce.	

SFAs must have a standardized recipe that documents the amount of MMA per serving based on these yields. For more information, refer to “Standardized Recipes” and “Food Buying Guide for Child Nutrition Programs” in section 2.

To credit surimi seafood differently from the amounts in table 3-10, SFAs must obtain a CN label or manufacturer's PFS that documents how the crediting is determined. For example, a manufacturer's PFS might document that 1 ounce of a surimi seafood product credits as ½ oz eq of the MMA component. For more information, refer to "Documentation for Commercial Products" in section 2.

The requirements for crediting surimi are summarized in [USDA Memo SP 24-2019](#), [CACFP 11-2019](#), and [SFSP 10-2019: Crediting Surimi Seafood in the Child Nutrition Programs](#). For additional guidance on crediting surimi, watch the USDA's webinar, [Additional Meat/Meat Alternate Options for CNPs: Crediting Tempeh and Surimi](#).

## Crediting Tempeh

Tempeh is a highly nutritious fermented soybean cake traditionally made from whole soybeans. Tempeh may be used as a meat alternate in a variety of recipes, including stir-fries, sandwiches, and salads.

A 1-ounce serving of tempeh credits as 1 ounce of the MMA component. This method of crediting applies only to tempeh products whose ingredients are limited to soybeans (or other legumes), water, tempeh culture, and for some varieties, vinegar, seasonings, and herbs. If a tempeh product contains other ingredients SFAs must obtain a CN label or PFS to document crediting. For more information, refer to "[Documentation for Commercial Products](#)" in section 2.

Varieties of tempeh that include other creditable foods as ingredients (such as brown rice, sunflower seeds, sesame seeds, flax seed, and vegetables) may also credit as the MMA component, grains component, and vegetables component. To credit in the preschool meal patterns, this type of tempeh product must provide the minimum creditable quantities, i.e., ¼ ounce of MMA, ¼ oz eq of grains, and ¼ cup of vegetables. SFAs must obtain a CN label or manufacturer's PFS to document how much tempeh and other creditable foods these products contain.

The requirements for crediting tempeh are summarized in [USDA Memo SP 25-2019](#), [CACFP 12-2019](#), and [SFSP 11-2019: Crediting Tempeh in the Child Nutrition Programs](#). For additional guidance on crediting tempeh, refer to the USDA's webinar, [Additional Meat/Meat Alternate Options for CNPs: Crediting Tempeh and Surimi](#).



### Crediting Tofu and Tofu Products

Tofu does not have a Food and Drug Administration (FDA) [standard of identity](#). To credit as a meat alternate in the school nutrition programs, tofu must be commercially prepared and meet the following definition in [7 CFR 210.2](#) and [7 CFR 226.2](#): “a soybean-derived food, made by a process in which soybeans are soaked, ground, mixed with water, heated, filtered, coagulated, and formed into cakes. Basic ingredients are whole soybeans, one or more food-grade coagulants (typically a salt or an acid), and water.” In addition, tofu and tofu products must meet the two crediting criteria below.

1. **Must be easily recognizable:** The tofu or tofu product must be easily recognizable as a meat substitute to credit as the MMA component. The USDA’s intent for this requirement is to ensure that children can easily recognize that the foods in CACFP meals are part of the food groups that contribute to healthy meals. Tofu is widely recognized as a meat substitute and comes in a variety of textures such as silken, soft, firm, and extra firm. Some examples of recognizable tofu and tofu products include firm or extra firm tofu in stir-fries, omelets, miso soup, and minced in lasagna as a substitute for ricotta cheese; and commercial meat substitute products like tofu burgers and tofu sausage.

Tofu products that are not easily recognizable as meat substitutes cannot credit as the MMA component. Some examples include tofu blended into other foods (like smoothies, soup, and sauces), tofu baked in desserts, and tofu that does not represent a meat substitute, such as tofu noodles. For more information, refer to “[Requirement for visible components](#)” at the beginning of section 3.

2. **Meets protein requirement:** The tofu ingredient must contain at least 5 grams of protein in a 2.2-ounce serving by weight (¼ cup volume equivalent) to credit as 1 oz eq of the MMA component. Menu planners must use the Nutrition Facts panel or PFS to determine if commercial tofu meets this protein requirement. Table 3-11 shows the MMA contribution for different serving sizes of tofu and the minimum grams of protein required to credit in the school meal patterns.

SFAs must maintain documentation on file to indicate that tofu products comply with these requirements. For guidance on calculating the grams of protein per serving, refer to the CSDE’s resource, [Crediting Tofu and Tofu Products in the NSLP and SBP](#).

In addition, the SFA's standardized recipe must document the amount of MMA per serving. For more information, refer to "[Standardized Recipes](#)" and "[Food Buying Guide for Child Nutrition Programs](#)" in section 2.

**Table 3-11. MMA contribution of tofu**

Serving size	MMA contribution	Minimum protein (grams) per serving
0.55 ounce (1 tablespoon)	¼ ounce (minimum creditable amount)	1.25 grams
1.1 ounces (⅛ cup)	½ ounce	2.5 grams
<b>2.2 ounces (¼ cup)</b>	<b>1 ounce</b>	<b>5 grams</b>
3.3 ounces (⅜ cup)	1½ ounces	7.5 grams
4.4 ounces (½ cup)	2 ounces	10 grams



### Crediting Yogurt and Soy Yogurt

Commercial yogurt and soy yogurt credit as meat alternates in the school nutrition programs. Yogurt may be plain or flavored; sweetened or unsweetened; contain any fat content; and contain added fruit, either blended or on the bottom. Yogurt must meet the Food and Drug Administration's (FDA) standard of identity for yogurt (21 CFR 131.200).

#### Serving size for yogurt

The required serving size for yogurt is based on volume (cups) or weight (ounces) and is the same for all types, flavors, and fat contents. A ½-cup serving (volume) or 4 ounces (weight) credits as 1 oz eq of the MMA component in the school meal patterns. Table 3-12 shows the MMA contribution for different amounts of yogurt.

<b>Serving size</b>	<b>MMA contribution</b>
⅛ cup or 1 ounce	¼ oz eq (minimum creditable amount)
¼ cup or 2 ounces	½ oz eq
<b>½ cup or 4 ounces</b>	<b>1 oz eq</b>
¾ cup or 6 ounces	1½ oz eq
1 cup or 8 ounces	2 oz eq

#### Crediting fruits in yogurt

Fruits in commercially prepared yogurt (either blended or on the bottom or top) do not credit toward the fruits component. Menu planners may credit fruits offered as a separate component, such as yogurt topped with fresh blueberries or sliced strawberries in a yogurt-fruit parfait.

#### Crediting yogurt in smoothies

Yogurt and soy yogurt may credit toward the MMA component when used as an ingredient in smoothies. A ½-cup serving of yogurt credits as 1 oz eq of the MMA component.

SFAs must document the amount of yogurt per serving with a standardized recipe for smoothies made from scratch, and a CN label or PFS for commercial products. For example, to credit a smoothie as 1 oz eq of the MMA component, the SFA's standardized recipe or the commercial product's CN label or PFS must indicate that each serving contains ½ cup of

yogurt. For more information, refer to “Standardized Recipes” and “Documentation for Commercial Products” in section 2.

The addition of yogurt to a smoothie is not a substitution for fluid milk. SFAs must offer a variety of fluid milk at breakfast and lunch to meet the milk component requirement of the NSLP and SBP meal patterns for grades K-12.

For more information on crediting smoothies, refer to “[Crediting Fruit in Smoothies](#)” in the “Fruits Component” section, “[Crediting Vegetables in Smoothies](#)” in the “Vegetables Component” section, and “[Crediting Milk in Smoothies](#)” in the “Milk Component” section.

### **Nutrition guidance**

The CSDE encourages SFAs to read labels and consider fat and sugar content when purchasing yogurt for school meals. The *Dietary Guidelines for Americans* recommends serving low-fat and fat-free yogurt for ages 2 and older. These types of yogurts provide the same nutrients as whole milk yogurt but contain less saturated fat and fewer calories.

Many types of yogurts are high in added sugars. For guidance on choosing yogurt with fewer added sugars, visit the USDA’s [Choose Yogurts that are Lower in Sugar](#) webpage and watch the USDA’s webinar, *Choose Yogurts that are Lower in Added Sugars*.

The CSDE encourages SFAs to choose yogurts without nonnutritive sweeteners (such as aspartame, acesulfame potassium, sucralose, and stevia) or sugar alcohols. These products are often labeled as “light” or “lite.”

### **Noncreditable yogurt**

Drinkable or squeezable yogurt and frozen yogurt do not credit in the NSLP and SBP meal patterns. The FDA’s definition and standard of identity requires that yogurt must be “coagulated,” not liquid. The FDA does not have a standard of identity for frozen yogurt.

Homemade yogurt does not credit for food safety reasons. Yogurt-flavored products (such as yogurt bars and yogurt-covered fruit or nuts) do not meet the FDA’s definition and standard of identity for yogurt, and do not credit.

### Serving the same yogurt to grades K-12 and preschoolers

The meal patterns for grades K-12 do not limit sugars in yogurt and soy yogurt. However, the meal patterns for preschoolers require that yogurt and soy yogurt cannot exceed 23 grams of total sugars per 6 ounces (no more than 3.83 grams per ounce).

When SFAs serve the same types of yogurt or soy yogurt to grades K-12 and preschoolers, these foods must comply with the preschool sugar limit unless the meals are co-mingled, i.e., meals are served to preschoolers and older grades in the same service area at the same time. For more information, refer to “Preschoolers eating with other grades (co-mingling)” in section 1 and the CSDE’s resource, *Crediting Yogurt for Preschoolers in the NSLP and SBP*.

For detailed guidance on the preschool meal patterns, refer to the CSDE’s guide, *Menu Planning Guide for Preschoolers in the NSLP and SBP*, and visit the CSDE’s *Meal Patterns for Preschoolers in School Nutrition Programs*. For more information on the differences between the meal patterns for preschoolers and grades K-12, refer to the CSDE’s resources, *Comparison of Meal Pattern Requirements for Preschoolers and Grades K-12 in the NSLP and SBP* and *Comparison of ASP Meal Pattern Requirements for Preschoolers and Grades K-12*.

### Resources for crediting yogurt

The resources below assist menu planners with crediting yogurt as the MMA component in the NSLP and SBP meal patterns for grades K-12.

- Crediting Smoothies for Grades K-12 in the NSLP and SBP in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Smoothies\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Smoothies_SNP.pdf)
- Crediting Yogurt for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Yogurt\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Yogurt_SNP_grades_K-12.pdf)
- USDA Memo SP 40-2019, CACFP 17-2019, and SFSP 17-2019: Smoothies Offered in the Child Nutrition Programs:  
<https://www.fns.usda.gov/cn/smoothies-offered-child-nutrition-programs>



## Noncreditable Foods in the MMA Component

Some examples of foods that do not credit as the MMA component include:

- bacon (pork);
- commercial canned soups, e.g., beef barley, beef noodle, turkey or chicken noodle, and turkey or chicken rice;
- cream cheese;
- drinkable yogurt;
- egg whites;
- frozen yogurt;
- imitation cheese;
- pork fat;
- products made with tofu that are not easily recognized as meat substitutes;
- sour cream;
- tofu that contains less than 5 grams of protein in 2.2-ounce serving by weight; and



For more examples and additional information, refer to “[Noncreditable Foods](#)” at the beginning of section 3 and the CSDE’s resource, [Noncreditable Foods for Grades K-12 in the NSLP and SBP](#).

Menu planners should use the FBG to identify foods that credit as the MMA component. For more information, refer to “[Food Buying Guide for Child Nutrition Programs](#)” in this section.

## Common Compliance Issues for the MMA Component

School menus must comply with the USDA’s requirements for the MMA component. The common compliance issues indicated below are based on the CSDE’s Administrative Review of the school nutrition programs. SFAs must plan menus to avoid these compliance issues.

- **Insufficient serving of MMA:** The daily lunch menu cannot provide less than the minimum serving of MMA for each grade group. For each lunch choice, SFAs must offer at least 1 oz eq of the MMA component for grades K-5 and 6-8, and at least 2 oz eq of the MMA component for grades 9-12. For more information, refer to “[Required Daily and Weekly Servings of Grains](#)” in Part A: Crediting Requirements.

- **Incorrect crediting of commercial combination foods:** SFAs must use a CN label or PFS to determine the crediting information for commercial combination foods, such as chicken nuggets and pizza. Commercial products without appropriate crediting documentation cannot credit in school meals. For more information, refer to [“Crediting MMA in Commercial Products”](#) in this section.
- **Incorrect crediting of deli meats:** SFAs cannot credit commercial meat products (such as deli meats and hotdogs) based on weight. Commercial meat products credit based on the specified serving weight in the product’s CN label or PFS. For more information, refer to [“Crediting Deli Meats, Hot Dogs, and Sausage”](#) and [“Crediting MMA in Commercial Products”](#) in this section.
- **Incorrect crediting of peanut butter:** The meal pattern serving size for peanut butter is based on volume (tablespoons) not weight (ounces). A 1-ounce serving (weight) of peanut butter does not provide 1 oz eq of the MMA component. SFAs must serve 2 tablespoons of peanut butter (1.1 ounces) to credit as 1 oz eq of the MMA component. For more information, refer to [“Crediting Nut and Seed Butters”](#) in this section.
- **Crediting bacon and cream cheese:** Bacon and cream cheese are high in fat and low in protein and do not contribute to the MMA component. Some types of turkey bacon might credit depending on the product’s CN label or PFS. For more information, refer to [“Noncreditable MMA,”](#) [“Crediting Deli Meats, Hot Dogs, and Sausage”](#) and [“Crediting MMA in Commercial Products”](#) in this section.
- **Using the wrong standardized recipe:** The recipe that the menu planner uses to determine crediting information must be the same recipe that kitchen staff use to prepare the food. Crediting errors can occur when kitchen staff use a different recipe. SFAs must maintain accurate standardized recipes on file that reflect the foods being prepared in the kitchen. For more information, refer to [“Standardized Recipes”](#) in section 2.

## Resources for Crediting MMA

The resources below assist menu planners with crediting foods as the MMA component in the NSLP and SBP meal patterns.

- Accepting Processed Product Documentation in the NSLP and SBP (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)
- Crediting Commercial Meat/Meat Alternate Products in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Commercial\\_MMA\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Commercial_MMA_SNP.pdf)
- Crediting Deli Meats in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Deli\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Deli_SNP.pdf)
- Crediting Legumes in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Legumes\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Legumes_SNP.pdf)
- Crediting Nuts and Seeds in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Nuts\\_Seeds\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Nuts_Seeds_SNP.pdf)
- Crediting Tofu and Tofu Products in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Tofu\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Tofu_SNP.pdf)
- Crediting Yogurt for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Yogurt\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Yogurt_SNP_grades_K-12.pdf)
- Food Buying Guide Section 1: Overview of Crediting Requirements for the Meat/Meat Alternates Component (USDA):  
[https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA\\_FBG\\_Section1\\_MeatsAndMeatAlternates.pdf](https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA_FBG_Section1_MeatsAndMeatAlternates.pdf)
- Food Buying Guide Section 1: Yield Table for Meat/Meat Alternates (USDA):  
[https://foodbuyingguide.fns.usda.gov/files/Reports/USDA\\_FBG\\_Section1\\_MeatsAndMeatAlternatesYieldTable.pdf](https://foodbuyingguide.fns.usda.gov/files/Reports/USDA_FBG_Section1_MeatsAndMeatAlternatesYieldTable.pdf)
- Meat/Meat Alternates 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#MMA>

- Moving Forward: Update on Food Crediting in Child Nutrition Programs with Guidance for Dried Meat Products (USDA webinar):  
<https://www.fns.usda.gov/tn/moving-forward-update-food-crediting-dried-meat-products>
- Questions and Answers on Alternate Protein Products (USDA):  
<https://www.fns.usda.gov/questions-and-answers-alternate-protein-products-app>
- Requirements for Alternate Protein Products in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/APP\\_Requirements\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/APP_Requirements_SNP.pdf)
- Reviewer's Checklist for Evaluating Manufacturer Product Formulation Statements for Meat/Meat Alternates (USDA):  
[https://fns-prod.azureedge.us/sites/default/files/reviewer\\_checklist.pdf](https://fns-prod.azureedge.us/sites/default/files/reviewer_checklist.pdf)
- Tips for Evaluating a Manufacturer's Product Formulation Statement (USDA):  
<https://www.fns.usda.gov/sites/default/files/resource-files/manufacturerPFStipsheet.pdf>
- USDA Memo SP 21-2019, CACFP 08-2019, and SFSP 07-2019: Crediting Shelf-Stable, Dried and Semi-Dried Meat, Poultry, and Seafood Products in the Child Nutrition Programs:  
<https://www.fns.usda.gov/crediting-shelf-stable-dried-and-semi-dried-meat-poultry-and-seafood-products-child-nutrition>
- USDA Memo SP 24-2019, CACFP 11-2019, and SFSP 10-2019: Crediting Surimi Seafood in the Child Nutrition Programs:  
<https://www.fns.usda.gov/cn/crediting-surimi-seafood-child-nutrition-programs>
- USDA Memo SP 25-2019, CACFP 12-2019, and SFSP 11-2019: Crediting Tempeh in the Child Nutrition Programs:  
<https://www.fns.usda.gov/cn/crediting-tempeh-child-nutrition-programs>
- USDA Memo SP 26-2019, CACFP 13-2019, and SFSP 12-2019: Crediting Pasta Products Made of Vegetable Flour in the Child Nutrition Programs:  
<https://www.fns.usda.gov/crediting-pasta-products-made-vegetable-flour-child-nutrition-programs>
- USDA Memo SP 53-2016 and CACFP 21-2016: Crediting Tofu and Soy Yogurt Products in the School Meal Programs and the CACFP:  
<https://www.fns.usda.gov/crediting-tofu-and-soy-yogurt-products-school-meal-programs-and-cacfp>

- What’s in a Meal Module 8: Meat/Meat Alternates 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>

For additional crediting resources, visit the “Meat/Meat Alternates Component for Grades K-12” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage. Training on the MMA component is available in “Module 8: Meat/Meat Alternates Component” 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*.



## Vegetables Component

The vegetables component includes fresh, frozen, canned, and rehydrated dried vegetables; and pasteurized full-strength vegetable juice. Legumes credit as the vegetables component or the MMA component but cannot credit as both components in the same meal.

### Required Daily and Weekly Servings at Lunch

The lunch meal pattern requires a daily serving of the vegetables component and weekly servings of five vegetable subgroups. Table 3-13 summarizes the required servings of the vegetables component for each grade group.

The vegetables component is not required at breakfast. However, SFAs may substitute vegetables for the fruits component at any breakfast. For more information, refer to “[Vegetables at Breakfast](#)” in this section.

Table 3-13. Required daily and weekly servings of the vegetables component at lunch				
Grades	Five-day week		Seven-day week	
	Daily	Weekly <sup>1</sup>	Daily	Weekly <sup>1</sup>
<b>K-5</b>	¾ cup	3¾ cups	¾ cup	5¼ cups
<b>6-8</b>	¾ cup	3¾ cups	¾ cup	5¼ cups
<b>9-12</b>	1 cup	5 cups	1 cup	7 cups

<sup>1</sup> The weekly amounts include minimum servings of five vegetable subgroups. For more information, refer to “[Vegetable Subgroups at Lunch](#)” in this section.



### Daily servings of vegetables

SFAs may choose to serve a combination of several vegetables to meet the daily requirement if each serving contains at least  $\frac{1}{8}$  cup of vegetables (refer to “[Minimum creditable amounts](#)” in the beginning of section 3). For example, a lunch menu for grades K-5 could meet the required  $\frac{3}{4}$ -cup serving of the vegetables component with  $\frac{1}{2}$  cup of broccoli and  $\frac{1}{4}$  cup of carrots. Servings that contain less than  $\frac{1}{8}$  cup of vegetables do not credit.

These menu-planning decisions affect students’ selection of reimbursable meals when implementing OVS. The CSDE encourages SFAs to offer all vegetables in  $\frac{1}{2}$ -cup servings and allow students to choose two servings. This makes it easier for students to choose the required  $\frac{1}{2}$ -cup serving of vegetables or fruits for a reimbursable meal. For more information, refer to the CSDE’s *Offer versus Serve Guide for School Meals*.

### Weekly servings of vegetables

The NSLP meal pattern requires minimum weekly servings of the five vegetable subgroups: dark green; red/orange; beans and peas (legumes); starchy; and “other.” For more information, refer to “[Vegetable Subgroups at Lunch](#)” in this section.

### Serving Size for Vegetables

The amounts for the vegetables component refer to the edible portion after any applicable preparation techniques, such as peeling, trimming, and cooking. All vegetables credit based on volume (cups) with the exceptions below.

- Raw leafy greens credit as half the volume served (refer to “[Crediting Raw Leafy Greens](#)” in this section).
- Dried or dehydrated vegetables (such as potato flakes and dried soup mix) credit based on the amount of vegetables per serving in the rehydrated volume (refer to “[Crediting Dried Vegetables](#)” in this section).



Menu planners should consult the USDA’s FBG to determine the number of servings provided by a specific quantity of vegetables. For more information, refer to “[Food Buying Guide for Child Nutrition Programs](#)” in section 2.



**Meeting the required vegetable servings**

If a menu item contains less than the full serving of the vegetables component, the meal must include additional vegetables to meet the full serving for each grade group. For example, the daily lunch meal pattern for grades K-5 requires  $\frac{3}{4}$  cup of the vegetables component. If a menu item contains  $\frac{1}{4}$  cup of vegetables, SFAs must include another menu item with at least  $\frac{1}{2}$  cup of vegetables to provide the full serving.

When crediting vegetables toward the daily and weekly meal pattern requirements, menu planners must round down to the nearest  $\frac{1}{8}$  cup. For example, a standardized recipe or commercial product that contains  $2\frac{1}{2}$  tablespoons of corn per serving credits as 2 tablespoons ( $\frac{1}{8}$  cup) of the vegetables component.

Vegetables offered in amounts less than  $\frac{1}{8}$  cup are not included in the calculation of the daily and weekly vegetable servings, but count toward the weekly dietary specifications. For more information, refer to “[Minimum creditable amounts](#)” in the beginning of section 3 and “Dietary Specifications” in section 1.

**Required signage to identify vegetable servings for students**

SFAs must use meal identification signage to instruct students on how much food to select from each component daily for a reimbursable meal, based on the planned serving sizes for each grade group. For example, if a high school allows students to select two  $\frac{1}{2}$ -cup servings of vegetables to meet the minimum daily 1-cup serving for grades 9-12, the cafeteria signage must clearly communicate that students may select up to two servings of vegetables with each meal. This signage must be on the serving line where the vegetable selections are located. For more information, refer to “Meal Identification Signage” in section 5.

**Vegetables at Breakfast**

The SBP meal pattern does not require the vegetables component. Per Section 740, Division A of the Consolidated Appropriations Act, 2023 ([Public Law 117-328](#)), SFAs may substitute any vegetables (including potatoes and other starchy vegetables) for the fruits component at any breakfast, without including vegetables from other subgroups in the weekly menu. This flexibility is in effect for school years 2022-23 and 2023-24. For more information, refer to [USDA Memo SP 06-2023](#), [CACFP 05-2023](#), and [SFSP 02-2023](#): *Consolidated Appropriations Act, 2023: Effect on Child Nutrition Programs*.

## Vegetable Subgroups at Lunch

The lunch meal pattern requires weekly servings of the five vegetable subgroups based on the recommendations of the *Dietary Guidelines for Americans* and the [vegetables group](#) in Choose MyPlate. The five vegetable subgroups include:

- **dark green** such as bok choy, broccoli, collard greens, dark green leafy lettuce, kale, mesclun, mustard greens, romaine lettuce, spinach, turnip greens, and watercress;
- **red/orange** such as acorn squash, butternut squash, carrots, pumpkin, tomatoes, tomato juice, and sweet potatoes;
- **beans/peas (legumes)** such as black beans, black-eyed peas (mature, dry), garbanzo beans (chickpeas), kidney beans, lentils, navy beans, soybeans, split peas, and white beans;
- **starchy** such as black-eyed peas (not dry), corn, cassava, green bananas, green peas, green lima beans, whole hominy (canned, drained), jicama, parsnips, plantains, taro, water chestnuts, and white potatoes; and
- **other**, a distinct grouping of food items classified by the *Dietary Guidelines for Americans*, including all other vegetables such as artichokes, asparagus, avocado, cooked bean sprouts (raw sprouts cannot be served for food safety reasons), beets, Brussels sprouts, cabbage, cauliflower, celery, cucumbers, eggplant, green beans, green peppers, iceberg lettuce, mushrooms, okra, onions, turnips, wax beans, and zucchini. SFAs may meet the “other” vegetables requirement with any additional amounts from the dark green, red/orange, and beans/peas (legumes) vegetable subgroups but not the starchy subgroup.



SFAs may offer the vegetable subgroups in any order and amount throughout the week if the lunch menu meets the minimum weekly requirements. There is no daily requirement for the vegetable subgroups. SFAs may choose to break up the subgroup requirements throughout the week and offer the same vegetable subgroup several different times during the week if:

- the weekly menu meets the full vegetable subgroup requirements; and
- each day’s lunch includes the minimum serving of vegetables.

For example, for a five-day menu, SFAs can meet the weekly ½-cup requirement for legumes by offering a black bean salsa on Monday that provides ¼ cup of beans and a bean burrito on Thursday that provides ¼ cup of beans. The menu must also include additional vegetable servings so that each meal meets the minimum daily vegetables for each grade group (¾ cup for grades K-5 and 6-8, and 1 cup for grades 9-12).

All students must have access to the appropriate quantities of all vegetable subgroups each week. If a school has multiple serving lines, each serving line must offer all vegetable subgroups on a weekly basis, in at least the minimum required amounts. For more information, refer to “[Avoiding Vegetable Subgroup Conflicts](#)” in this section.

For information on the vegetable subgroups, refer to the CSDE’s resource, *Vegetable Subgroups in the NSLP*. For guidance and examples of how to use the FBG to determine purchasing and crediting information for vegetables, refer to chapter 2 of the USDA’s *Menu Planner for School Meals*.



### Additional Vegetables

In addition to the five subgroups, the lunch meal pattern includes another category of “additional” vegetables that are required to meet the minimum weekly amounts of vegetables for each grade group. The serving sizes for the five subgroups do not add up to the total weekly vegetables requirement for lunch. The additional vegetables category makes up the difference.

Table 3-14 shows the weekly lunch meal pattern requirements for the vegetable subgroups and the amount of additional vegetables needed for each grade group. For example, the vegetable subgroups in the five-day meal pattern for grades K-5 and 6-8 add up to  $2\frac{3}{4}$  cups per week. Since both grade groups require  $3\frac{3}{4}$  cups of vegetables per week, SFAs must provide 1 cup of additional vegetables to meet the minimum weekly total. These additional vegetables can come from any of the five subgroups.

Vegetables (cups)	Five-day week		Seven-day week	
	Grades K-5 and 6-8	Grades 9-12	Grades K-5 and 6-8	Grades 9-12
Dark green	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Red/orange	$\frac{3}{4}$	$1\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{4}$
Beans/peas (legumes)	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Starchy	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Other	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
<b>Subtotal</b>	<b><math>2\frac{3}{4}</math></b>	<b><math>3\frac{1}{2}</math></b>	<b><math>2\frac{3}{4}</math></b>	<b><math>3\frac{1}{2}</math></b>
<b>Additional vegetables required for weekly total <sup>1</sup></b>	<b>1</b>	<b><math>1\frac{1}{2}</math></b>	<b><math>2\frac{1}{2}</math></b>	<b><math>3\frac{1}{2}</math></b>
<b>Total weekly vegetables</b>	<b><math>3\frac{3}{4}</math></b>	<b>5</b>	<b><math>5\frac{1}{4}</math></b>	<b>7</b>

<sup>1</sup> Additional vegetables may be from any of the five subgroups (dark green, red/orange, legumes, starchy, and other).

## Ensuring Compliance with the Vegetable Subgroups

SFAs must ensure that lunch menus offer students access to the required amounts of the vegetable subgroups each week. The guidance below helps SFAs meet this requirement.

### Offering vegetable subgroups on multiple serving lines

When SFAs have multiple serving lines or offer a variety of meals, the USDA requires that all food components must be available to all students on every serving line, in at least the minimum required amounts. For example, when schools have multiple serving lines with different menu items, each serving line must offer all the vegetable subgroups during the week and provide the minimum weekly servings of the grains and MMA components.

For the purposes of meeting the NLSLP meal pattern requirements, menu planners should think of each serving line as its own entity. The daily and weekly requirements must be in place for each serving line.

The example below shows how this requirement applies to the weekly vegetable subgroups.

A school has three different lunch lines, including a hot lunch line, a deli line, and a grill line. Monday's hot lunch menu features baked beans (legumes subgroup) as the daily vegetables. To meet the weekly vegetable subgroups requirement, baked beans (or another vegetable from the legumes subgroup) must also be available on the other two serving lines. For example, Monday's menu for the deli line and grill line must include baked beans or another legume, such as garbanzo beans or lentils. It is not acceptable for the SFA to post signs on the deli line and grill line directing students to select the vegetable subgroup choice from a different serving line. Each serving line must offer the full meal, including all vegetable subgroups on a weekly basis.

A best practice to ensure that school lunch menus meet the weekly vegetable subgroups is for each serving line to offer a daily vegetable subgroup "rainbow" tray that contains a vegetable from each subgroup, such as carrots (red/orange), broccoli (dark green), corn (starchy), sliced cucumbers (other), and kidney beans (legumes). Offering a daily rainbow tray on each serving line meets the NLSLP meal pattern requirements for the weekly vegetable subgroups.

**Offering vegetable subgroups on one serving line with multiple meal choices**

When SFAs offer a variety of meals on the same serving line, all food components must be available to all students for every meal, in at least the minimum required amounts. Each lunch choice on the serving line must offer students access to the same daily vegetable subgroups, unless the school offers that subgroup again later in the week or offers a daily rainbow tray.

For example, a school offers a hot lunch choice and cold lunch choice on the same lunch line. Tuesday's menu offers corn (starchy subgroup) as the daily vegetables component for the hot lunch menu and baby carrots (red/orange subgroup) as the daily vegetables component for the cold lunch menu. If the cold lunch menu does not offer corn (or another starchy vegetable) later in the week, it must offer corn (or another starchy vegetable) on Tuesday. Otherwise, the students selecting cold lunch on Tuesday do not have access to all the required weekly vegetable subgroups.

As with multiple serving lines, offering a daily rainbow tray is a best practice to meet the NSLP meal pattern requirements for the weekly vegetable subgroups.

**Avoiding vegetable subgroup conflicts**

School menus must meet the vegetable subgroup requirements on a weekly basis. The vegetable subgroup requirements do not apply to each individual day. Menu planners may choose what combinations of vegetable subgroups to offer each day. Each subgroup must be available to all students in at least the minimum quantities during the week.

The lunch menu cannot require students to choose one subgroup over another on a single day if these subgroups are not offered again during the week. If the daily lunch menu requires students to choose between two different subgroups, there is a vegetable subgroup conflict. To resolve this conflict, the SFA must make these subgroups available for student selection on another day that week. Table 3-15 shows an example of a vegetable subgroup conflict.



Table 3-15. Example of vegetable subgroup conflict		
Entree item (student chooses one)	Portion size	Subgroup contribution
Chili con carne with beans	1 cup (contains ½ cup of kidney beans)	½ cup of legumes
Chicken Caesar salad	2 cups of romaine lettuce 2 oz eq of grilled chicken	1 cup of dark green vegetables <sup>1</sup>
<sup>1</sup> Raw leafy greens credit as half the volume served, e.g., 1 cup of romaine lettuce credits as ½ cup of the vegetables component (dark green subgroup).		

In this example, the lunch menu offers a choice of two entrees with different vegetable subgroups on the same day. The dark green vegetable subgroup (romaine lettuce) is offered in one entree item (chicken Caesar salad) and the beans/peas subgroup (kidney beans) is offered in another entree item (chili con carne). Since students may choose only one entree, this lunch menu has a vegetable subgroup conflict. To resolve this conflict, the lunch menu must provide another opportunity later in the week for students to select either dark green vegetables or legumes. The lunch menu will meet the vegetable subgroup requirement if the SFA:

- serves a legume and a dark green vegetable on another day (not as part of the entree); or
- chooses to credit the kidney beans (legumes) as the MMA component and serves legumes on another day as the vegetables component.

SFAs should review all lunch menus to ensure that each serving line offers the minimum weekly amount of each vegetable subgroup. For more information, refer to “[Vegetable Subgroups at Lunch](#)” in this section.

### Vegetable subgroup substitutions

SFAs must train school food service staff on how to make appropriate substitutions within each vegetable subgroup. Substitutions must be from the **same** vegetable subgroup, unless the SFA offers a daily rainbow tray that contains all five subgroups. For example, if the kitchen runs out of broccoli, school food service staff must substitute another vegetable from the dark green vegetables subgroup. If the SFA does not offer all vegetable subgroups each day, a vegetable substitution from a different subgroup could cause the menu to be noncompliant with the weekly vegetable subgroups requirement.

### Menu Planning Tips for Vegetable Subgroups

The simplest strategy to ensure that menus meet the weekly vegetable subgroups requirement is to develop a vegetable subgroup cycle menu. SFAs may offer the weekly vegetable subgroup choices in a variety of ways, such as:

- one choice from a different vegetable subgroup each day;
- more than one choice from a different vegetable subgroup each day;
- one choice from each of the five subgroups every day;
- more than one choice from each of the five subgroups every day.

SFAs may also choose to offer the same foods from a particular subgroup each week. For example, the red/orange subgroup could be carrots and sweet potatoes every week. However, the USDA encourages schools to include a variety of choices from the vegetable subgroups for best nutrition.

The following examples show how SFAs could develop a vegetable subgroup cycle menu that meets the weekly vegetable subgroups. Table 3-16 shows a sample cycle menu that includes two daily choices from a different subgroup each day. SFAs could also decide to offer only one daily choice or more than one daily choice. Another option is to allow the kitchen manager the flexibility to select the daily vegetable choice or choices for that day's specified subgroup. This allows for more flexibility based on the planned menu items, and the cost, seasonality, and availability of the vegetables within the daily subgroup.

The disadvantages of serving vegetables from only one subgroup each day include less variety and less colorful meals. Since colorful meals are more attractive and eye appealing to students, SFAs may want to offer choices from at least two different vegetable subgroups each day.





Table 3-16. Sample cycle menu 1: Daily vegetable subgroups					
Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	<b>Dark green</b>	<b>Red/orange</b>	<b>Legumes</b>	<b>Starchy</b>	<b>Other</b>
	Broccoli Red leaf lettuce	Carrots Sweet potato	Chickpeas Edamame	Corn Peas	Cucumbers Green beans
2	<b>Red/orange</b>	<b>Legumes</b>	<b>Starchy</b>	<b>Other</b>	<b>Dark green</b>
	Orange peppers Butternut squash	Lentils Kidney beans	Water chestnuts Red potatoes	Cauliflower Cabbage	Spinach Romaine lettuce
3	<b>Legumes</b>	<b>Starchy</b>	<b>Other</b>	<b>Dark green</b>	<b>Red/orange</b>
	Split peas Black beans	Corn Potatoes	Celery Green peppers	Boston lettuce Kale	Acorn squash Tomatoes
4	<b>Starchy</b>	<b>Other</b>	<b>Dark green</b>	<b>Red/orange</b>	<b>Legumes</b>
	Peas Lima beans	Beets Zucchini	Broccoli Mesclun	Carrots Tomatoes	Split peas Navy beans

Table 3-17 shows a sample cycle menu that includes choices from all five subgroups every day. SFAs could choose to do this in a variety of ways that include some or all of the following:

- allowing students to self-serve from a vegetable bar, if a salad bar unit is available;
- allowing students to self-serve from vegetable “rainbow trays” on the serving line that contain pre-portioned vegetables from each subgroup; and
- serving hot vegetable choices to students from the lunch lines.

SFAs can include all required subgroups every day or throughout the week if all students have access to each vegetable subgroup on a weekly basis. These options provide extensive variety and more colorful and attractive meals.

As with the previous example, SFAs could also decide to offer only one daily choice or more than one daily choice and allow the kitchen manager the flexibility to select the daily vegetable choice or choices.

**Table 3-17. Sample cycle menu 2: Daily vegetable bar or rainbow trays**

Vegetable subgroup	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Dark green</b>	Broccoli Red leaf lettuce	Spinach Romaine lettuce	Boston lettuce Kale	Broccoli Mesclun	Bok choy Green leaf lettuce
<b>Red/orange</b>	Carrots Sweet potato	Orange peppers Butternut squash	Acorn squash Tomatoes	Carrots Tomatoes	Red peppers Sweet potato
<b>Legumes</b>	Chickpeas Edamame	Lentils Kidney beans	Split peas Navy beans	Pinto beans Black beans	Garbanzo beans Kidney beans
<b>Starchy</b>	Corn Peas	Water chestnuts Red potatoes	Jicama Potatoes	Peas Lima beans	Plantains Cassava
<b>Other</b>	Cucumbers Green beans	Cauliflower Cabbage	Celery Green peppers	Beets Zucchini	Snow peas Summer squash

## Salad Bars

The USDA encourages the use of salad bars in school nutrition programs. SFAs can use a daily salad bar line to meet the weekly vegetable subgroups requirement if the salad bar is available to all students each day and offers all required subgroups every day or over the week.

### Point-of-service positioning

Students must select all the components for a reimbursable meal, including the vegetable subgroups, from the regular lunch lines before the point of service. The point of service is the point in the food service operation where staff can accurately determine that a reimbursable free, reduced-price, or paid lunch has been served to an eligible child. To ensure that each student's selections from the salad bar meet the required portions for a reimbursable meal, the salad bar should be located before the point of service.

If a school cannot position the salad bar in a location prior to the point of service, the SFA may request approval from the CSDE for an alternative system. The alternative system must ensure that all students who use the salad bar select the required food components to meet the meal pattern and OVS requirements.

The SFA must submit a written request to the CSDE and receive approval before using any salad bars positioned after the point of service. This request must describe the specific procedures the school will use to ensure that all reimbursable meals include at least  $\frac{1}{2}$  cup of fruits or vegetables.

Without CSDE approval, foods served on an unmonitored salad bar after the point of service are considered "extras" that are not part of the reimbursable meal but count toward the dietary specifications. These foods must contain zero trans fats and their inclusion cannot cause the menu to exceed the weekly limits for calories, saturated fats, and sodium. For more information, refer to "Extra Foods" in section 1.

### OVS with salad bars

If a school implements OVS, salad bars must follow the OVS requirements. Schools may pre-portion foods to ensure that students take the minimum required portion sizes from a salad bar and to allow staff to quickly identify if the student has a reimbursable meal under OVS. Without pre-portioning, SFAs must train cashiers to accurately judge the quantities of self-serve items on student trays to determine if food items credit toward a reimbursable meal. For information on implementing OVS, refer to the CSDE's *Offer versus Serve Guide for School Meals*.

### Vegetable subgroups and salad bars

Vegetable subgroups offered on a daily salad bar must be itemized on the school's production records. The NSLP regulations (210.10(a)(3)) require that production records and menu records show how the meals offered contribute to the required food components and food quantities. For more information, refer to "Menus" and "Production Records" in section 2. For additional guidance on implementing salad bars in schools, refer to [USDA Memo SP 31-2013: Salad Bars in the National School Lunch Program](#) and the USDA's [Fruits & Vegetables Galore: Helping Kids Eat More](#).

For guidance and resources on implementing salad bars for the school nutrition programs, visit the "[Salad Bars](#)" section of the CSDE's Menu Planning for Child Nutrition Programs webpage.



## Crediting Canned Vegetables

Canned vegetables must be drained. A serving of canned vegetables cannot include the packing liquid, such as the water in canned corn or the sauce in baked beans. For example, to credit as  $\frac{1}{2}$  cup of the vegetables component, a  $\frac{1}{2}$ -cup serving of canned peas cannot include the water in which it is packed, and a  $\frac{1}{2}$ -cup serving of baked beans cannot include the sauce in which it is packed. The serving must contain  $\frac{1}{2}$  cup of vegetables before any added liquid.

Many canned vegetables are high in sodium. To help school menus comply with the weekly sodium limits, menu planners should read product labels and purchase varieties of canned vegetables that are lower in sodium. For information on the dietary specifications for sodium, refer to “Limiting Sodium” in section 6.

## Crediting Dried Vegetables

Dried or dehydrated vegetables (such as potato flakes and dried soup mix) credit as the vegetables component based on their rehydrated volume. Dried vegetables used for seasonings (such as dried onion and dried parsley) do not credit in the school meal patterns.

The FBG lists yields for some dehydrated vegetables, such as pinto beans, refried beans, onions, bell peppers, potatoes, seaweed, and sweet potatoes. Dried vegetables not listed in the FBG require a PFS to determine crediting information. The PFS must provide specific documentation on the amount of vegetables per serving in the rehydrated volume. Menu planners should check the accuracy of the PFS prior to including foods with dehydrated vegetables in reimbursable meals. For more information, refer to “Documentation for Commercial Products” in section 2.

### Determining rehydrated volume for dried vegetables

The rehydration volume of dried vegetables often varies from brand to brand. Menu planners must use the procedures below to determine and document the rehydrated volume of dehydrated vegetable products.

1. Rehydrate (add water or liquid to) a purchase unit of the dehydrated vegetable according to the manufacturer’s directions. If the container does not include directions, request rehydration directions from the manufacturer.
2. Measure the rehydrated volume.

3. Measure the number of ¼-cup servings of rehydrated product that one purchase unit provides.
4. Keep records on file as verification. Records should include information on the size of the purchase unit, the number of ¼-cup servings of rehydrated product per purchase unit, the name of the manufacturer, and the manufacturer's directions for rehydrating the product.

Since product rehydration volumes often vary from brand to brand, SFAs should use this procedure for each brand of dehydrated product. For more information, refer to [“Determining in-house product yields”](#) in section 2.

### Crediting Hominy as Vegetables

Hominy is a traditional food in Mexican and Native American cultures that is commonly served as a vegetable or milled grain product, e.g., hominy grits. Hominy is made from whole kernels of maize (dried field corn) that have been soaked in an alkaline solution (nixtamalized). This process removes the hull and germ, causes the corn to puff up to about double its normal size, and increases the bioavailability of certain nutrients, such as calcium and niacin.

Hominy is available dried and in a fully cooked canned form. Drained canned hominy or cooked whole hominy (from dried hominy) credits toward the vegetables component as a starchy vegetable. For example, ¼ cup of canned drained hominy credits as ¼ cup of the starchy vegetables subgroup.

For information on crediting hominy as the grains component, refer to [“Crediting Hominy as Grains”](#) in the “Grains Component” section.

## Crediting Legumes as Vegetables

Legumes may credit as either MMA component or the vegetables component, but one serving cannot credit as both components in the same meal. SFAs must determine in advance how to credit legumes in a meal. For information on crediting legumes as the MMA component, refer to “[Crediting Legumes as MMA](#)” in the “Meat/Meat Alternates (MMA) Component” section.

Legumes credit as the vegetables component based on the volume (cups) served. For example,  $\frac{1}{2}$  cup of kidney beans credits as  $\frac{1}{2}$  cup of the vegetables component.

A serving of cooked legumes must contain the minimum required amount of beans, excluding other ingredients such as sauce and pork fat. For example, a  $\frac{1}{2}$ -cup serving of baked beans that contains  $\frac{1}{8}$  cup of sauce and pork fat credits as  $\frac{3}{8}$  cup of the vegetables component. For more information, refer to “[Vegetables with Added Ingredients](#)” in this section.

A menu item must provide at least  $\frac{1}{8}$  cup of legumes to credit toward part of the vegetables component. If the amount is less than the full serving, the meal must include additional vegetables to meet the full serving for each grade group. For more information, refer to “[Minimum creditable amounts](#)” in the beginning of section 3 and “[Serving Size for Vegetables](#)” in this section.

Peanuts are legumes that credit only as the MMA component. For more information, refer to “[Nuts and Seeds](#)” in the “Meat/Meat Alternates (MMA) Component” section.

### Crediting roasted or dried legumes as vegetables

Roasted or dried legumes, such as chickpeas and soybeans, credit as the vegetables component based on the volume (cups) served. For example,  $\frac{1}{4}$  cup of roasted or dried legumes credits as  $\frac{1}{4}$  cup of the vegetables component.

The USDA recommends using discretion when offering snack-type legumes (such as individually wrapped soy nuts) as part of reimbursable meals because they may be perceived as snack foods. While these types of products credit in school meals, they may be better suited for meals served off site, such as bagged lunches for field trips. When offering snack-type legumes as either the MMA component or the vegetables component, make sure that school menus clearly identify how they contribute to the reimbursable meal.

For information on crediting roasted or dried legumes as the MMA component, refer to “[Crediting roasted or dried legumes as MMA](#)” in the “Meat/Meat Alternates (MMA) Component” section.

### **Crediting hummus as vegetables**

The legumes (e.g., chickpeas/garbanzo beans) in hummus may credit as either the MMA component or the vegetables component (legumes subgroup), but one serving cannot credit as both components in the same meal. Crediting as the vegetables component is based on the amount of legumes per serving. For example, hummus that contains  $\frac{1}{4}$  cup of chickpeas per serving credits as  $\frac{1}{4}$  cup of the legumes subgroup. The minimum creditable amount is  $\frac{1}{8}$  cup.

To credit hummus as the vegetable component, SFAs must maintain crediting documentation that indicates the amount of legumes per serving. Commercial products require a CN label (if available) or PFS. Hummus made from scratch requires a standardized recipe (refer to “[Crediting legumes in recipes as vegetables](#)” in this section).

For information on crediting hummus as the MMA component, refer to “[Crediting Legumes as MMA](#)” in the “Meat/Meat Alternates (MMA) Component” section.

### **Crediting legumes in recipes as vegetables**

SFAs must have standardized recipes on file to document the crediting information for all legume-based foods made from scratch, such as lentil soup, bean burritos, hummus, and chili. A standardized recipe must provide at least  $\frac{1}{8}$  cup of legumes per serving to credit toward the vegetables component. The menu planner must determine the recipe’s crediting information for the vegetables component by dividing the total volume (cups) of beans in the recipe by the number of servings, then rounding down to the nearest  $\frac{1}{8}$  cup. For guidance on how to calculate the contribution of legumes in a recipe, refer to the CSDE’s resource, [Crediting Legumes in the NSLP and SBP](#).

### **Crediting documentation for commercial legume products**

Commercial processed products that contain legumes (such as black bean burritos and vegetarian chili) require documentation stating the amount of the MMA component per serving (refer to “Documentation for Commercial Products” in section 2).



## Crediting Mixed Vegetables at Lunch

The crediting of mixed vegetables (such as carrots, peas, and corn; three-bean salad; and a California mix of broccoli, cauliflower, and carrots) depends on whether the menu planner knows the amount of each type of vegetable in the mixture.

- **Same subgroup:** Vegetable combinations from the same subgroup credit toward that vegetable subgroup. For example, a mixture of carrots and sweet potatoes credits as red/orange vegetables because both are from the red/orange subgroup. A mixture of corn and green peas credits as starchy vegetables because both are from the starchy subgroup.
- **Different subgroup:** Vegetable combinations that contain at least  $\frac{1}{8}$  cup each of different vegetable subgroups credit each vegetable toward the appropriate subgroups. For example, a mixture of  $\frac{1}{4}$  cup of carrots (red/orange) and  $\frac{1}{4}$  cup of corn and peas (starchy) credits as  $\frac{1}{4}$  cup of red/orange vegetables and  $\frac{1}{4}$  cup of starchy vegetables.
- **Unknown quantities:** If the menu planner does not know the quantities of the different vegetables in a mixture such as a frozen vegetable blend of peas, carrots, and corn, it credits as “additional” vegetables.

SFAs can use manufacturer data (such as a PFS) to determine the amount of each type of vegetable in a vegetable mixture. This information must clearly document the ratio of the vegetable mixture in the ingredients. For example, if a vegetable blend provides 25 percent broccoli, 25 percent carrots, and 50 percent cauliflower, a 1-cup serving credits as  $\frac{1}{4}$  cup of broccoli (dark green subgroup),  $\frac{1}{4}$  cup of carrots (red/orange subgroup), and  $\frac{1}{2}$  cup of cauliflower (other subgroup). SFAs are not required to monitor that each portion contains the documented ratios.

The SBP meal pattern does not require the vegetable subgroups. If the menu planner chooses to substitute mixed vegetables for the fruits component, they credit based on the amount served. For example,  $\frac{1}{2}$  cup of mixed vegetables credits as  $\frac{1}{2}$  cup of the fruits component (vegetable substitution) at breakfast. For more information, refer to “[Vegetables at Breakfast](#)” in this section.

## Crediting Pasta Products Made of Vegetable Flour

Pasta products made of vegetable flours credit as the vegetables component if they meet the specific requirements in [USDA Memo SP 26-2019](#), [CACFP 13-2019](#), and [SFSP 12-2019](#): *Crediting Pasta Products Made of Vegetable Flour in the Child Nutrition Programs*. These requirements are summarized below.

Pasta made of 100 percent legumes credits as the MMA component but cannot credit as the vegetables component and the MMA component in the same meal or ASP snack. For more information, refer to “[Crediting Legume Flour Pasta Products as MMA](#)” in the “Meat/Meat Alternates (MMA) Component” section.

### Crediting vegetable flours as vegetables

Pasta made of one or more 100 percent vegetable flours credits toward the vegetables component, even when it is not served with another recognizable vegetable. These products credit the same as vegetables, e.g., ½ cup of pasta made of 100 percent vegetable flour credits as ½ cup of the vegetables component. The ingredients statements below show examples of pasta products that contain 100 percent vegetable flour.

- Ingredients: Red lentil flour.
- Ingredients: Green lentils, cauliflower, parsnips.

### Crediting vegetable flours from one vegetable subgroup

Pasta products made of one or more vegetable flours from one vegetable subgroup may credit toward the appropriate vegetable subgroup. For example, pasta made of 100 percent red lentil flour credits as ½ cup of the legumes subgroup.

Pasta made of 100 percent legumes may also credit as the MMA component but cannot credit as the legumes subgroups and the MMA component in the same meal. For more information, refer to “[Crediting Legume Flour Pasta Products as MMA](#)” in the “Meat/Meat Alternates (MMA) Component” section.

### Crediting vegetable flours with other non-vegetable ingredients

Pasta products made of vegetable flour with other non-vegetable ingredients may credit toward the vegetables component (or in the case of 100 percent legume pasta, the MMA component) with a PFS that details the actual volume of vegetable flour per serving. This crediting does not apply to grain-based pasta products that contain small amounts of vegetable powder for color, such as spinach pasta or sun-dried tomato pasta.

The example below shows an ingredients statement for a pasta product that does not credit toward the vegetables component.

Ingredients: Semolina (wheat), durum flour (wheat), **dried spinach**, niacin, ferrous sulfate (iron), thiamin mononitrate, riboflavin, folic acid.

This product contains dried spinach in an amount that is too small to credit.

The example below shows an ingredients statement for a vegetable pasta product that might credit toward the vegetables component.

Ingredients: Semolina (wheat), durum flour (wheat), **dried carrots, dried tomato, dried spinach**, niacin, ferrous sulfate (iron), thiamin mononitrate, riboflavin, folic acid.

This product might credit toward the vegetables component depending on the amount of dried carrots, dried tomato, and dried spinach per serving. The SFA must obtain a PFS from the manufacturer to determine the crediting information for this product.

### Signage and staff training for vegetable flour pastas

Nutrition education, including signs in cafeterias and other meal service areas, helps children understand what foods are in their meals and snacks. SFAs must use signs or other nutrition education to indicate that pasta made of vegetable flour is a “vegetable,” and not a grain component of the meal. For example, a 100 percent chickpea flour pasta could be labeled as “chickpea pasta” with a symbol showing it to be part of the vegetables component of the meal.

Menu planners should inform food service staff when meals include pasta made with vegetable flours. Food service staff must understand how the pasta contributes to the reimbursable meal and be able to identify reimbursable meals with OVS.

### Crediting Pureed Vegetables

Pureed vegetables must be visible (recognizable) to credit in the NSLP and SBP meal patterns for grades K-12. Examples include pureed foods made from one vegetable such as tomato sauce, split pea soup, mashed potatoes, mashed sweet potatoes, and pureed butternut squash. For more information, refer to “[Requirement for visible components](#)” at the beginning of section 3.

Pureed vegetables credit based on the volume (cups) after pureeing. For example, to determine the volume of pea puree obtained from 1 cup of green peas, food service staff would puree the whole peas and measure the resulting amount of puree. Pureed vegetables typically have a smaller volume than the whole vegetable pieces. For more information, refer to “[Determining in-house product yields](#)” in section 2.



SFAs must document crediting information with a standardized recipe, PFS, or CN label (available only for foods that contain the MMA component). For more information, refer to “[Standardized Recipes](#)” and “[Documentation for Commercial Products](#)” in section 2.

### Unrecognizable pureed vegetables

Foods made with pureed vegetables that are not visible (such as pureed carrots in macaroni and cheese) cannot credit as the vegetables component unless they also provide at least  $\frac{1}{8}$  cup of a visible creditable vegetable. For example, a serving of macaroni and cheese that contains  $\frac{1}{8}$  cup of diced butternut squash (visible) and  $\frac{1}{8}$  cup of pureed carrots (not visible) credits as  $\frac{1}{4}$  cup of the red/orange vegetables subgroup.

Pureed vegetables that are not recognizable can be from a different subgroup from the visible vegetables. For example, a serving of school-made vegetable soup that contains  $\frac{1}{8}$  cup of pureed tomatoes (red/orange subgroup) and  $\frac{1}{8}$  cup of onion pieces (“other” subgroup) credits toward the red/orange and “other” subgroups. As an educational tool for students, the USDA encourages SFAs to make pureed vegetables in a blended dish from the same subgroup as the recognizable vegetables, whenever possible.

Pureed vegetables do not credit when used to improve the nutrient profile of a food. For example, pureed legumes in brownies cannot credit toward the legumes subgroup or the MMA component, and pureed sweet potatoes in a spice cake cannot credit toward the red/orange vegetables subgroup. The USDA emphasizes the importance of the nutrition education aspect of the Child Nutrition Programs, which includes the goal of helping children easily recognize the key food groups that contribute to a healthy meal.

### Pureed vegetables in smoothies

Pureed vegetables in smoothies credit only as juice toward the vegetables component and counts toward the weekly juice limit for the NSLP and SBP. For information on the weekly juice limit, refer to [“Weekly limit for vegetable juice”](#) in this section.

Crediting is based on the volume (cups) of pureed vegetables per serving. For example, a smoothie that contains  $\frac{1}{2}$  cup of pureed carrots credits as  $\frac{1}{2}$  cup of vegetable juice. For additional guidance on crediting smoothies, refer to [“Crediting Smoothies”](#) in the “Fruits Component” section.

### Crediting Raw Leafy Greens

Raw leafy greens credit as half the volume served. For example,  $\frac{1}{2}$  cup of raw leafy greens credits as  $\frac{1}{4}$  cup of the vegetables component. Examples of raw leafy greens include kale, greens (e.g., beet, collard, mustard, and turnip), spinach, arugula, and lettuce such as iceberg, romaine, Boston, Bibb, red leaf, and spring mix.

Cooked leafy greens (such as spinach and kale) and roasted or dried leafy greens (such as roasted kale) credit based on the volume served. For example,  $\frac{1}{2}$  cup of cooked spinach or roasted kale credits as  $\frac{1}{2}$  cup of the vegetables component.

### Crediting Vegetable and Fruit Mixtures

Mixtures of vegetables and fruits may credit toward both the vegetables component and fruits component if the serving contains at least  $\frac{1}{8}$  cup of visible vegetables and at least  $\frac{1}{8}$  cup of visible fruits. For example, a carrot-raisin salad that contains  $\frac{1}{2}$  cup of carrots and  $\frac{1}{8}$  cup of raisins credits as  $\frac{1}{2}$  cup of the vegetables component and  $\frac{1}{4}$  cup of the fruits component. Dried fruits credit as twice the volume served. For more information, refer to [“Crediting Dried Fruits”](#) in the “Fruits Component” section.

## Crediting Soups

Vegetable soups made from scratch credit based on the volume (cups) of each vegetable subgroup contained in one serving. SFAs must document this information with a standardized recipe based on the yields listed in the FBG. For more information, refer to “[Standardized Recipes](#)” and “[Food Buying Guide for Child Nutrition Programs](#)” in section 2.

Table 3-18 summarizes the types of commercial vegetable soups that credit in the school meal patterns. Creditable commercial vegetable soups include lentil, pea, and bean (legumes); minestrone; tomato; tomato with other basic components such as rice; vegetable (contains only vegetables); and vegetable with other basic components such as meat or poultry.

The FBG indicates that 1 cup of a commercial legume soup credits as  $\frac{1}{2}$  cup of vegetables, and 1 cup of commercial vegetable soup credits as  $\frac{1}{4}$  cup of vegetables. The serving refers to the amount of cooked soup, e.g., heated canned or frozen ready-to-serve soup, reconstituted dried soup, and reconstituted condensed soup. To credit a commercial soup that is not listed in the FBG, SFAs must obtain a PFS stating the specific contribution of vegetables (refer to “[Documentation for Commercial Products](#)” in section 2).

<b>Table 3-18. Allowable commercial vegetable soups in the NSLP and SBP</b>	
<b>Vegetable soups</b> 1 cup credits as $\frac{1}{4}$ cup of additional vegetables	<b>Legume soups</b> 1 cup credits as $\frac{1}{2}$ cup of legumes subgroup
Minestrone soup Tomato soup Tomato soup with other basic components such as rice Vegetable soup (contains only vegetables) Vegetable soup with other basic components such as meat or poultry	Lentil soup Pea soup, e.g., split pea Bean soup, e.g., black bean, navy bean, and mixed bean

**Considerations for serving size**

Menu planners should consider the appropriateness of the serving size. The large serving of a commercial soup needed to provide the full vegetables component might be unreasonable, especially for younger children. For example, to provide  $\frac{1}{2}$  cup of the vegetables component requires 2 cups of a commercial vegetable soup and 1 cup of a commercial legume soup. For additional guidance, refer to the CSDE's resource, *Crediting Soups in the NSLP and SBP*.

**Considerations for container size**

The served portion of soup (commercial or made from scratch) must be sufficient to provide the amount of each component being credited toward the meal patterns. For example, SFAs must offer 1 cup of a commercial vegetable soup to credit as  $\frac{1}{4}$  cup of the vegetables component.

Menu planners should consider the size of the container used to serve the soup. A 1-cup container (8 fluid ounces) does not provide 1 cup of soup unless it is filled to the top, which is impractical. To avoid spilling and ensure that the served portion meets the meal pattern requirements, the container should be larger than the planned serving size of soup. For example, SFAs could use a 10-fluid ounce bowl to hold 8 fluid ounces (1 cup) of soup and a 6-fluid ounce bowl to hold 4 fluid ounces ( $\frac{1}{2}$  cup) of soup.

**Noncreditable soups**

Commercial beef barley soup, chicken or turkey noodle soup, chicken or turkey rice soup, and cream vegetable soups (such as cream of broccoli and cream of mushroom) do not credit in the NSLP and SBP meal patterns for grades K-12.



## Crediting Vegetable Juice

Vegetable juice must be pasteurized 100 percent full-strength juice or a combination of vegetable and fruit juices. It can be fresh, frozen, or made from concentrate. The name of the full-strength juice on the label must include one of the following terms: “juice,” “full-strength juice,” “100 percent juice,” “reconstituted juice,” or “juice from concentrate.”

### Crediting vegetable juice toward the vegetable subgroups at lunch

Vegetable juice credits toward the vegetable subgroups based on the type of vegetables it contains. For example, tomato juice credits toward the red/orange subgroup. The crediting of juice blends containing two or more different vegetable juices depends on whether the vegetables are from the same or different subgroups.

- **Same subgroup:** Full-strength vegetable juice blends that contain vegetables from the same subgroup contribute toward that vegetable subgroup. For example, a full-strength carrot/tomato vegetable juice blend credits toward the red/orange subgroup because both vegetables are from the red/orange vegetable subgroup.
- **Different subgroup:** Vegetable juice blends containing vegetables from more than one subgroup contribute to the “other” vegetable subgroup. For example, a full-strength vegetable juice blend containing carrots (red/orange), spinach (dark green), tomato (red/orange), and watercress (dark green) credits toward the “other” subgroup.

Vegetable and fruit juice blends credit if they are a combination of full-strength vegetable juices or full-strength vegetable and fruit juices. For information on crediting vegetable and fruit juice blends, refer to “[Juice Blends](#)” in the “Fruits Component” section.

### Weekly limit for vegetable juice

Vegetable juice cannot exceed half of the weekly amount of the vegetables offered at lunch. Vegetable juice together with fruit juice (including fruit/vegetable juice blends) cannot exceed half of the weekly amount (cups) of the fruits offered at breakfast. For more information, refer to “Weekly Juice Limits at Lunch” and “Weekly Juice Limits at Breakfast” in section 4.



## Crediting Vegetables in Smoothies

Vegetable juice and pureed vegetables in smoothies credit as juice toward the daily and weekly meal pattern requirements. At lunch, vegetable smoothies that contain one vegetable subgroup or one vegetable juice credit as that subgroup. For example, a smoothie made with pureed carrots or 100 percent carrot juice credits toward the red/orange subgroup.

The crediting of smoothies containing two or more different vegetables or vegetable juices depends on whether the vegetables are from the same or different subgroups.

- **Same subgroup:** Smoothies that contain vegetables or vegetable juices from the same subgroup credit toward that vegetable subgroup. For example, a smoothie containing carrots and tomatoes, or a 100 percent carrot/tomato juice blend, credits toward the red/orange vegetable subgroup because both vegetables are from the red/orange vegetable subgroup.
- **Different subgroup:** Smoothies that contain vegetables or vegetable juices from more than one subgroup credits only toward the “other” vegetable subgroup. For example, a smoothie containing carrots (red/orange), spinach (dark green), tomato (red/orange) and watercress (dark green); or a 100 percent vegetable juice blend containing carrots, spinach, tomato, and watercress; credits toward the “additional” vegetable subgroup.

SFAs must include smoothies with all other juices when determining if the menu meets the weekly juice limit. For more information, refer to “[Weekly Limit for Vegetable Juice](#)” in this section and “[Weekly Limit for Fruit Juice](#)” in the “Fruits Component” section.

### Mixed vegetables and fruits in smoothies

Smoothies that contain any combination of pureed fruits, pureed vegetables, and 100 percent fruit and vegetable juice blends credit based on the greatest vegetable or fruit ingredient. Commercial smoothies credit as the vegetables component if the first juice ingredient is vegetable juice or vegetable puree, and credit as the fruits component if the first juice ingredient is fruit juice or fruit puree.

Smoothies made from scratch credit as the vegetables component if vegetable juice or vegetable puree is the greatest juice ingredient in the standardized recipe, and credit as the fruits component if fruit juice or fruit puree is the greatest juice ingredient in the standardized recipe. For information on crediting smoothies as the fruits component, refer to “[Crediting Fruits in Smoothies](#)” in the “Fruits Component” section.

Vegetable juice and purees in smoothies credit as juice toward “additional” vegetables (refer to “[Additional Vegetables](#)” in this section). SFAs must document the total cups of vegetable juice (including pureed vegetables) and fruit juice (including pureed fruits) per serving with a standardized recipe for smoothies made from scratch or a PFS for commercial products. For more information, refer to “Standardized Recipes” and “Documentation for Commercial Products” in section 2.

### Crediting Vegetables in Combination Foods

Combination foods (such as pizza, lasagna, chili, vegetable egg rolls, hummus, and chicken-vegetable stir-fry) contain more than one food component. For example, cheese pizza contains the grains component (crust), the MMA component (cheese), and the vegetables component (tomato sauce).

The visible vegetable portion of a combination food credits based on the amount of vegetables per serving. For more information, refer to “[Requirement for visible components](#)” at the beginning of section 3.

For foods made from scratch, SFAs must have a standardized recipe that documents the cups of vegetables per serving based on the yields listed in the FBG. For more information, refer to “Standardized Recipes” and “Food Buying Guide for Child Nutrition Programs” in section 2.

For commercial products without a CN label, SFAs must obtain a PFS stating the specific contribution of vegetables. SFAs are responsible for checking the manufacturer’s PFS for accuracy prior to including commercial products in school meals. For more information, refer to “Documentation for Commercial Products” in section 2.



### Crediting Vegetables with Added Ingredients

If a commercial product or standardized recipe contains added ingredients (such as mayonnaise, yogurt, sugar, molasses, salad dressing, or breading), only the vegetable portion credits toward the school meal patterns. For example, to credit coleslaw as  $\frac{1}{2}$  cup of the vegetables component, the serving must contain  $\frac{1}{2}$  cup of shredded cabbage and carrots, before added ingredients such as mayonnaise, sugar, and spices.

Other examples of vegetables with added ingredients include tossed salad with dressing and croutons; potato salad; sweet potato casserole with marshmallows; mashed potatoes made with butter and milk; baked beans with sauce; carrot-raisin salad; breaded vegetables; and vegetables with cheese.



SFAs must document the amount of vegetables per serving with a standardized recipe for foods made from scratch (based on the vegetable yields listed in the FBG) or a PFS for commercial products. SFAs are responsible for checking the manufacturer's PFS for accuracy prior to including commercial products in school meals. For more information, refer to "Standardized Recipes," "Food Buying Guide for Child Nutrition Programs," and "Documentation for Commercial Products" in section 2.

Standardized recipes and PFS forms are not required for vegetables without added ingredients, such as whole or cut-up fresh vegetables, canned vegetables, and frozen vegetables.

### Produce Safety

SFAs must ensure that all food service personnel understand how to prepare produce safely. The ICN's [Produce Safety Resources](#) webpage includes resources that describe best practices for receiving, storing, handling, and purchasing fresh and fresh-cut produce. The USDA's [Best Practices for Handling Fresh Produce in Schools](#) summarizes the steps food service personnel can take to ensure that produce is prepared safely. For additional resources, visit the CSDE's [Food Safety for Child Nutrition Programs](#) and [Resources for Child Nutrition Programs](#) webpages.

SFAs must ensure that salad bars comply with Hazard Analysis and Critical Control Point (HACCP). The SFA’s standard operating procedures (SOP) for salad bars must include appropriate food safety procedures to ensure that foods stay at proper temperatures and are safe from contamination. For examples of SOPs, refer to the ICN’s sample SOPs, [Preventing Contamination at Food Bars](#), and visit the ICN’s [Standard Operating Procedures](#) webpage.

### Noncreditable Foods in the Vegetables Component

Some examples of foods that do not credit as the vegetables component include:

- chili sauce;
- dehydrated vegetables used for seasoning;
- cream vegetable soups, e.g., cream of broccoli and cream of mushroom;
- home-canned products (for food safety reasons);
- ketchup;
- pickle relish; and
- snack-type foods made from vegetables, such as potato chips and corn chips.

For more examples and additional information, refer to “[Noncreditable Foods](#)” at the beginning of section 3 and the CSDE’s resource, [Noncreditable Foods for Grades K-12 in the NSLP and SBP](#). Menu planners should use the FBG to identify foods that credit as the vegetables component. For more information, refer to “[Food Buying Guide for Child Nutrition Programs](#)” in section 2.



## Common Compliance Issues for the Vegetables Component

School menus must comply with the USDA's requirements for the vegetables component. The common compliance issues indicated below are based on the CSDE's Administrative Review of the school nutrition programs. SFAs must plan menus to avoid these compliance issues.

- **Insufficient serving of vegetables:** The daily lunch menu must provide the minimum serving of vegetables required for each grade group. For each lunch choice, SFAs must offer at least  $\frac{3}{4}$  cup of vegetables for grades K-5 and 6-8, and at least 1 cup of vegetables for grades 9-12. For more information, refer to "[Serving Size for Vegetables](#)" in this section.
- **Not meeting the weekly vegetable subgroups:** Each lunch choice must offer all students the minimum amount of each vegetable subgroup over the week. For more information, refer to "[Ensuring Compliance with the Vegetable Subgroups](#)" in this section.
- **Not offering vegetable subgroups on all serving lines:** When SFAs have multiple serving lines or offer a variety of meals, the vegetable subgroups must be available to all students on every serving line, in at least the minimum required amounts. SFAs cannot require students to access another serving line to get a particular vegetable subgroup. For more information, refer to "[Ensuring Compliance with the Vegetable Subgroups](#)" in this section.
- **Incorrect vegetable subgroup substitutions:** Vegetable substitutions must be from the same vegetable subgroup. If the lunch menu does not offer all vegetable subgroups each day, substituting a vegetable from a different subgroup (such as corn instead of broccoli) could result in a menu that does not meet the weekly vegetable subgroups requirement. For more information, refer to "[Vegetable subgroup substitutions](#)" in this section.
- **Incorrect crediting of raw leafy greens:** Raw leafy greens credit as half the volume served, e.g., 1 cup equals  $\frac{1}{2}$  cup of the vegetables component. For more information, refer to "[Crediting Raw Leafy Greens](#)" in this section.
- **Missing or inadequate serving line signage for vegetables:** SFAs must provide appropriate signage on the serving line where the vegetable selections are located. This signage must clearly explain the number of vegetable servings that students may select for a reimbursable meal. For more information, refer to "[Identifying vegetable servings for students](#)" in this section, and "Meal Identification Signage" in section 5.

SFAs must plan the vegetables component to avoid these compliance issues. For more information, refer to [CSDE Operational Memorandum No. 07-19: Compliance Issues with the Vegetables and Fruits Components for Grades K-12 in the NSLP and SBP](#).

### Resources for Crediting Vegetables

The resources below assist menu planners with crediting foods as the vegetables component in the NSLP and SBP meal patterns for grades K-12.

- Accepting Processed Product Documentation in the NSLP and SBP (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)
- Crediting Juice for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Juice\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Juice_SNP_grades_K-12.pdf)
- Crediting Legumes in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Legumes\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Legumes_SNP.pdf)
- Crediting Smoothies for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Smoothies\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Smoothies_SNP_grades_K-12.pdf)
- Crediting Soups in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Soups\\_SNP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Soups_SNP.pdf)
- Crediting Vegetable Noodles and Coconut in the Child Nutrition Programs (USDA webinar):  
<https://www.fns.usda.gov/tn/crediting-vegetable-noodles-and-coconut-child-nutrition-programs>
- CSDE Operational Memorandum No. 07-19: Compliance Issues with the Vegetables and Fruits Components for Grades K-12 in the National School Lunch Program (NSLP) and School Breakfast Program (SBP):  
<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Memos/OM2019/OM07-19.pdf>
- Food Buying Guide Section 2: Overview of Crediting Requirements for the Vegetables Component (USDA):  
[https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA\\_FBG\\_Section2\\_Vegetables.pdf](https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA_FBG_Section2_Vegetables.pdf)

- Food Buying Guide Section 2: Yield Table for Vegetables (USDA):  
[https://foodbuyingguide.fns.usda.gov/files/Reports/USDA\\_FBG\\_Section2\\_VegetablesYieldTable.pdf](https://foodbuyingguide.fns.usda.gov/files/Reports/USDA_FBG_Section2_VegetablesYieldTable.pdf)
- Start with Half a Cup: Fresh Vegetable Portioning Guide for Schools:  
<https://portal.ct.gov/-/media/SDE/Nutrition/SWHAC/PortionGuideVeg85x14.pdf>
- USDA Memo SP 26-2019, CACFP 13-2019, and SFSP 12-2019: Crediting Pasta Products Made of Vegetable Flour in the Child Nutrition Programs:  
<https://www.fns.usda.gov/crediting-pasta-products-made-vegetable-flour-child-nutrition-programs>
- USDA Memo SP 40-2019, CACFP 17-2019, and SFSP 17-2019: Smoothies Offered in the Child Nutrition Programs:  
<https://www.fns.usda.gov/cn/smoothies-offered-child-nutrition-programs>
- Vegetable Subgroups in the NSLP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Vegetable\\_Subgroups\\_NSLP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Vegetable_Subgroups_NSLP.pdf)
- Vegetables 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#Vegetables>
- What’s in a Meal Module 10: Vegetables 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>

For additional crediting resources, visit the “[Vegetables Component for Grades K-12](#)” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage. Training on the vegetables component is available in “Module 10: Vegetables Component” 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*.





## Fruits Component

The fruits component includes fresh, frozen, canned, and dried fruits, and pasteurized full-strength fruit juice.

### Required Daily and Weekly Servings

The lunch and breakfast meal patterns require daily and weekly serving of the fruits component. Table 3-19 summarizes the required servings of the fruits component for each grade group.

Grades	Lunch				Breakfast			
	Five-day week		Seven-day week		Five-day week		Seven-day week	
	Daily	Weekly	Daily	Weekly	Daily	Weekly	Daily	Weekly
<b>K-5</b>	½ cup	2½ cups	½ cup	3½	1 cup	5 cups	1 cup	7 cups
<b>6-8</b>	½ cup	2½ cups	½ cup	3½	1 cup	5 cups	1 cup	7 cups
<b>9-12</b>	1 cup	5 cups	1 cup	7 cups	1 cup	5 cups	1 cup	7 cups

### Daily servings of fruits

SFAs may choose to serve a combination of several fruits to meet the daily requirement if each serving contains at least ⅛ cup of fruit (refer to “[Minimum creditable amounts](#)” in the beginning of section 3). For example, a lunch menu for grades 9-12 could meet the required 1-cup serving of the fruits component with ½ cup of peaches and ½ cup of applesauce. Servings that contain less than ⅛ cup of fruit do not credit.

These menu-planning decisions affect students’ selection of reimbursable meals when implementing OVS. The CSDE encourages SFAs to offer all fruits in ½-cup servings and allow students to choose two servings; this makes it easier for students to choose a reimbursable meal. For more information, refer to the CSDE’s *Offer versus Serve Guide for School Meals*.

### Weekly servings of fruits

The weekly servings of the fruits component are the sum of the menu's daily servings. For example, a five-day lunch menu that offers 1 cup of fruit each day provides a weekly total of 4 cups.

### Serving Size for Fruits

The amounts for the fruits component refer to the edible portion after any applicable preparation techniques, such as peeling, removing seeds and pits, and cooking. All fruits credit based on volume (cups) except for dried fruits, which credit as twice the volume served. For more information, refer to “[Crediting Dried Fruits](#)” in this section.

Menu planners should consult the USDA's FBG to determine the crediting information for foods in the fruits component. For more information, refer to “[Food Buying Guide for Child Nutrition Programs](#)” in section 2.



### Meeting the required fruit servings

If a menu item contains less than the full serving of the fruits component, the meal must include additional fruit to meet the full serving for each grade group. For example, the daily lunch meal pattern for grades K-5 requires  $\frac{1}{2}$  cup of the fruits component. If a menu item contains  $\frac{1}{4}$  cup of fruit, SFAs must include another menu item with at least  $\frac{1}{4}$  cup of fruit to provide the full serving.

When crediting fruit toward the daily and weekly meal pattern requirements, menu planners must round down to the nearest  $\frac{1}{8}$  cup. For example, a standardized recipe or commercial product that contains  $2\frac{1}{2}$  tablespoons of strawberries per serving credits as 2 tablespoons ( $\frac{1}{8}$  cup) of the fruits component.

Fruits offered in amounts less than  $\frac{1}{8}$  cup are not included in the calculation of the daily and weekly fruit servings, but count toward the weekly dietary specifications. For more information, refer to “[Minimum creditable amounts](#)” in the beginning of section 3 and “[Dietary Specifications](#)” in section 1.

### Required signage to identify fruit servings for students

SFAs must use meal identification signage to instruct students on how much food to select from each component daily for a reimbursable meal, based on the planned serving sizes for each grade group. For example, if a high school allows students to select two ½-cup servings of fruit to meet the minimum daily 1-cup serving for grades 9-12 at lunch, the cafeteria signage must clearly communicate that students may select up to two servings of fruit with each meal. This signage must be on the serving line where the fruit selections are located. For more information, refer to “Meal Identification Signage” in section 5.

### Crediting Canned Fruits

Canned fruit may be packed in juice, water, or light syrup. The USDA recommends purchasing canned fruit in 100 percent juice or water instead of syrup.

A serving of canned fruit may include the 100 percent juice in which the fruit is packed but cannot include water or syrup. For example, ½ cup of canned peaches in juice credits as ½ cup of the fruits component. However, ½ cup of canned peaches in syrup does not credit as ½ cup of the fruits component. The menu planner can credit only the amount of peaches without the syrup.

The juice from canned fruit counts toward the weekly juice limit if the menu planner credits the juice toward the fruits component (refer to “[Weekly Limit for Fruit Juice](#)” in this section).

Juice from canned fruit does not count toward the juice limit if the menu planner offers the juice as an extra noncreditable food. For example, the juice from canned fruit does not count toward the juice limit if food service personnel portion ½ cup of canned fruit in a 5½-ounce container, and then add the juice after measuring the full ½-cup serving of fruit.

The FBG indicates the total amount of fruit and juice combined in canned fruit but does not provide information on the volume of juice in canned fruit. SFAs must request this information from the manufacturer. To ensure that the volume measurements provided by manufacturers are accurate, the USDA recommends conducting an on-site yield evaluation by measuring the actual fruit and juice content of each canned fruit item served in school meals. For more information, refer to “Determining In-house Product Yields” in section 2.

## Crediting Coconut

Fresh and frozen coconut credit as the fruits component based on the volume served. For example,  $\frac{1}{8}$  cup of fresh or frozen coconut credits as  $\frac{1}{8}$  cup of the fruits component. Dried coconut credits the same as other dried fruits (twice the volume served). For example,  $\frac{1}{8}$  cup of dried coconut credits as  $\frac{1}{4}$  cup of the fruits component. For more information, refer to “[Crediting Dried Fruits](#)” in this section.

Coconut is high in calories and saturated fat and should be limited in school menus. Coconut flour, coconut oil, and coconut milk do not credit.

Juices labeled as 100 percent juice, including coconut water, credit toward the fruits component based on the volume served. Menu planners must count coconut water with all other juices toward the weekly juice limit. For more information, refer to “[Coconut water](#)” and “[Weekly Limit for Fruit Juice](#)” in this section.

The requirements for crediting coconut are summarized in [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\*](#):

## Crediting Dried Fruits

Dried fruits (such as raisins, apricots, dried cherries, dried cranberries, dried blueberries, mixed dried fruit, and dried coconut) credits as twice the volume served. For example,  $\frac{1}{4}$  cup of raisins credits as  $\frac{1}{2}$  cup of the fruits component.

This crediting requirement does not apply to dried fruits in amounts less than  $\frac{1}{8}$  cup (the minimum creditable amount). For example,  $\frac{1}{16}$  cup (1 tablespoon) of raisins does not credit as  $\frac{1}{8}$  cup fruit.

Manufacturers sometimes process dried fruits with added sugar to keep the fruit pieces separated. The CSDE encourages menu planners to read labels and choose dried fruit without added sweeteners, including sugars and nonnutritive sweeteners, e.g., aspartame, acesulfame potassium, sucralose, and stevia. While the USDA allows dried fruit with added sweeteners in school meals, its inclusion cannot cause the breakfast or lunch menus to exceed the average weekly calorie limits. For information on planning school meals to meet the dietary specifications, refer to section 6.

## Crediting Fresh Fruits

The crediting contribution of one piece of fresh fruit (whole or cut-up) varies depending on the type and size, and ranges from  $\frac{1}{4}$  cup to  $1\frac{1}{4}$  cups. For example, the FBG indicates that:

- one 60-count plum, one 88-count peach, and one clementine each credit as  $\frac{3}{8}$  cup of fruit;
- one 100-120-count banana, one 150-count pear, one 80-count peach, one 138-count orange, and one 45-count plum each credit as  $\frac{1}{2}$  cup of fruit;
- one 113-count and 125-count orange each credit as  $\frac{5}{8}$  cup of fruit;
- one size 56-64 nectarine, one size 56 peach, and one 120-count pear each credit as  $\frac{3}{4}$  cup of fruit; and
- one 125-138-count apple credits as 1 cup of fruit.

Menu planners must ensure that an individual piece of fresh fruit (whole or cut up) provides the correct serving for each meal and grade group. If the amount is less than the full serving, the meal or ASP snack must include additional fruit to meet the full serving. The examples below illustrate this requirement.

- **Breakfast:** The breakfast meal pattern for grades K-12 requires 1 cup of the fruits component. One regular banana (100-120 count) credits as  $\frac{1}{2}$  cup of fruit, which does not provide the full-required 1-cup serving. To credit as the fruits component, the breakfast menu must include an additional  $\frac{1}{2}$  cup of the fruits component.
- **Lunch:** The lunch meal pattern for grades K-5 requires  $\frac{1}{2}$  cup of the fruits component. One clementine credits as  $\frac{3}{8}$  cup of fruit, which does not provide the full-required  $\frac{1}{2}$ -cup serving. To credit as the fruits component, the breakfast menu must include an additional  $\frac{1}{8}$  cup of the fruits component.

Table 3-20 lists the FBG's meal pattern contribution of some fresh fruits, and the additional amount needed to meet the minimum serving for each meal and grade group.



Table 3-20. Meal pattern contribution of whole fresh fruits

Fruit (one piece)	Meal pattern contribution from FBG	Required serving for fruits component		
		Breakfast K-12 (1 cup minimum)	Lunch K-5 and 6-8 (½ cup minimum)	Lunch 9-12 (1 cup minimum)
		Additional amount (cups) needed for full serving <sup>1</sup>		
Apple, 125 to 138 count	1 cup	0	0	0
Apricot, medium (1 ⅜-inch diameter)	¼ cup	¾ cup	¼ cup	¾ cup
Banana, 150 count, petite	⅜ cup	⅝ cup	⅛ cup	⅝ cup
Banana, 100-120 count, regular	½ cup	½ cup	0	½ cup
Clementine, 1 whole	⅜ cup	⅝ cup	⅛ cup	⅝ cup
Grapefruit, 27-32 count, large	1 cup	0	0	0
Kiwi, 33-39 count	¼ cup	¾ cup	¼ cup	¾ cup
Nectarine, size 88-96 (2 ¼-inch diameter)	½ cup	½ cup	0	½ cup
Nectarine, size 56-64 (2 ¾-inch diameter)	¾ cup	¼ cup	0	¼ cup
Orange, Arizona or California, 113 count	⅝ cup	⅜ cup	0	⅜ cup
Orange, Florida or Texas, 125 count	⅝ cup	⅜ cup	0	⅜ cup
Orange, Arizona or California, 138 count	½ cup	½ cup	0	½ cup

Table 3-20. Meal pattern contribution of whole fresh fruits, *continued*

Fruit (one piece)	Meal pattern contribution from FBG	Required serving for fruits component		
		Breakfast K-12 (1 cup minimum)	Lunch K-5 and 6-8 (½ cup minimum)	Lunch 9-12 (1 cup minimum)
		Additional amount (cups) needed for full serving <sup>1</sup>		
Peach, size 88 and 84 (2 ⅛-inch diameter)	⅔ cup	⅝ cup	⅛ cup	⅝ cup
Peach, size 64 and 60 (2 ½-inch diameter)	⅔ cup	⅓ cup	0	⅓ cup
Peach, size 80	½ cup	½ cup	0	½ cup
Peach, size 56	¾ cup	¼ cup	0	¼ cup
Pear, 150 count	½ cup	½ cup	0	½ cup
Pear, 120 count	¾ cup	¼ cup	0	¼ cup
Pear, D’Anjou, Bosc, or Bartlett, 100 count	1¼ cups	0	0	0
Plum, purple, red, or black, size 45 and 50 (2-inch diameter)	½ cup	½ cup	0	½ cup
Plum, Japanese or hybrid, size 60 and 65	⅔ cup	⅝ cup	⅛ cup	⅝ cup
Tangerine, 120 count	⅔ cup	⅝ cup	⅛ cup	⅝ cup

<sup>1</sup> The additional amount may be from the same fruit or a different fruit. At breakfast, the additional amount may also be from vegetables. For more information, refer to “[Vegetables at Breakfast](#)” in this section.

## Crediting Frozen Fruits

Frozen fruits credit based on the volume served. For some frozen fruits (such as frozen sliced strawberries and frozen apricots), the serving includes the thawed liquid. For other frozen fruits (such as frozen berry blends, frozen sweet cherries, and frozen mangoes), the serving is for the thawed, drained fruit. Check the FBG for the specific serving and crediting requirements for different types of frozen fruits.

Some frozen fruits contain added sugars. Menu planners should limit frozen fruits with added sugars to help school menus meet the weekly dietary specifications for calories.

## Crediting Fruits in Commercial Products

Commercial products that contain at least  $\frac{1}{8}$  cup of one or more visible fruits (such as mixed berries in a yogurt-fruit parfait) credit based on the amount (cups) of fruit per serving. For more information, refer to “[Requirement for visible components](#)” in the beginning of section 3 and “Documentation for Commercial Products” in section 2.

To credit in the school meal patterns, commercial products must have a CN label or PFS that documents the amount of fruits per serving. SFAs are responsible for checking the PFS for accuracy prior to including commercial products in school meals. For more information, refer to “[Requirement for visible components](#)” in the beginning of section 3 and “Documentation for Commercial Products” in section 2.

## Crediting Fruits in Desserts

The visible fruit portion of desserts (such as fruited gelatin, fruit pies, fruit cobblers, and fruit crisps) credits toward the fruits component based on the amount (cups) of fruit per serving. For example, a fruit turnover that contains  $\frac{1}{2}$  cup of apples credits as  $\frac{1}{2}$  cup of the fruits component. The minimum creditable amount is  $\frac{1}{8}$  cup. For more information, refer to “[Requirement for visible components](#)” at the beginning of section 3.

SFAs must document the cups of fruit per serving with a standardized recipe for desserts made from scratch, and a PFS for commercial products. SFAs are responsible for checking the manufacturer’s PFS for accuracy prior to including commercial products in school meals. For more information, refer to “Standardized Recipes,” “Food Buying Guide for Child Nutrition Programs” and “Documentation for Commercial Products” in section 2.

The grain portion of grain-based fruit desserts (such as piecrust and cobbler or crisp topping) may also credit toward the grains component based on the oz eq per serving. The minimum creditable amount is  $\frac{1}{4}$  oz eq. **Note:** The grain portion of grain-based fruit desserts counts



toward the weekly limit for grain-based desserts at lunch. For more information, refer to “[Limit for Grain-based Desserts](#)” under “Grains Component” in this section.

Lunches that contain sweetened fruit desserts or grain-based fruit desserts must fit within the weekly dietary specifications. They must contain zero trans fats and their inclusion cannot cause the menu to exceed the weekly limits for calories, saturated fats, and sodium. SFAs should offer these foods in moderation to stay under the weekly limits. For information on planning school meals to meet the dietary specifications, refer to section 6.

### Crediting Fruits in Yogurt

Fruits in commercially prepared yogurt (either blended or on the bottom or top) do not credit toward the fruits component. Menu planners may credit fruits offered as a separate component, such as yogurt topped with fresh blueberries or sliced strawberries in a yogurt-fruit parfait.

### Crediting Fruits with Added Ingredients

If a commercial product or school recipe contains added ingredients (such as yogurt, mayonnaise, sugar, butter, sauce, or toppings), only the fruit portion credits toward the meal patterns. For example, to credit Waldorf salad as  $\frac{1}{4}$  cup of the fruits component, the serving must contain  $\frac{1}{4}$  cup of fruit (e.g., diced apples, grapes, and raisins), before added ingredients such as mayonnaise, sugar, and spices. Other examples of fruits with added ingredients include yogurt-fruit parfaits, carrot-raisin salad, cottage cheese mixed with crushed pineapple, and baked apples.

SFAs must document the amount of fruits per serving with a standardized recipe for foods made from scratch (based on the yields listed in the FBG) or a PFS for commercial products. SFAs are responsible for checking the manufacturer’s PFS for accuracy prior to including commercial products in preschool meals and snacks. For more information, refer to “Standardized Recipes,” “Food Buying Guide for Child Nutrition Programs” and “Documentation for Commercial Products” in section 2.

Standardized recipes and PFS forms are not required for fruits without added ingredients, such as whole or cut-up fresh fruits; canned fruits in juice, water, or light syrup; frozen fruits; and dried fruits.

## Crediting Fruit Juice

Juice must be pasteurized 100 percent full-strength fruit juice or a combination of fruit and vegetable juices. The name of the full-strength fruit juice on the label must include one of the following terms: “juice,” “full-strength juice,” “100 percent juice,” “reconstituted juice,” or “juice from concentrate.” The statements “natural” and “organic” do not indicate that a juice is full strength.

Juice may be fresh, frozen, or made from concentrate; and may be served liquid or frozen, e.g., full-strength frozen juice pops. For more information, refer to the CSDE’s resource, *Crediting Juice for Grades K-12 in the NSLP and SBP* and *Crediting Smoothies for Grades K-12 in the NSLP and SBP*.



The USDA recommends serving whole fruits (fresh, frozen, canned, and dried) more often than juice, based on the *Dietary Guidelines for Americans*. Juice does not provide the same nutritional benefits as whole fruits and vegetables, which contain fiber, fewer calories, and more nutrients. School menus might exceed the weekly calorie limits if SFAs serve juice frequently. For more information, refer to “Weekly Juice Limits at Lunch” and “Weekly Juice Limits at Breakfast” in section 4.

### Juice concentrates

Juice concentrates credit only when reconstituted with water to 100 percent full-strength juice and served in the form of juice. Foods made with juice concentrate, such as gelatin or sherbet, do not credit as juice because they are no longer in the form of juice.

Juice made from concentrate is reconstituted with a volume of water that is several times the amount of the juice concentrate. A typical reconstitution ratio might be three parts water to one part concentrate, but this ratio may vary for different juice products.

Commercial juice products made from concentrate will list “water” as the first ingredient, followed by the type of juice concentrate, for example, “water, orange juice concentrate” and “filtered water, grape juice concentrate.” Juice made from concentrate that is labeled “100 percent juice” credits when the SFA follows the manufacturer’s specific instructions for reconstituting.

### Juice blends

Juice blends must be a combination of full-strength (100 percent) fruit juices, full-strength vegetable juices, or full-strength fruit and vegetable juices. Crediting depends on the information provided in the manufacturer's PFS. If the PFS indicates the amount of each type of juice in the blend, the SFA may credit each type accordingly. For example, if the PFS indicates that the product contains  $\frac{1}{8}$  cup of fruit juice and  $\frac{1}{8}$  cup of sweet potato juice, the product credits as  $\frac{1}{8}$  cup of the fruit component and  $\frac{1}{8}$  cup of the red/orange vegetable subgroup. The minimum creditable amount of juice is  $\frac{1}{8}$  cup.

Without a PFS (or if the PFS does not provide the specific crediting information for each type of juice), juice blends credit based on the first juice ingredient. If the first juice ingredient is fruit juice, the product credits as the fruits component. If the first juice ingredient is vegetable juice, the product credits as the "additional" vegetables requirement and cannot contribute to the vegetable subgroups.

The ingredients statement below shows an example of a vegetable and fruit juice blend.

Ingredients: **Reconstituted vegetable juice blend (water and concentrated juices of sweet potatoes, purple carrots, carrots)**, reconstituted fruit juices (water and concentrated juices of apples, white grapes, cranberries, blackberries), contains less than 2% of: natural flavoring, citric acid, lemon juice.

This product credits as either the "other" or "additional" vegetables subgroup because the first ingredient is a reconstituted vegetable juice blend. For more information, refer to "[Vegetable Subgroups at Lunch](#)" and "[Additional Vegetables](#)" under "Vegetables Component" in this section. For information on vegetable juice blends, refer to "[Vegetable Juice](#)" under "Vegetables Component" in this section.

### Frozen 100 percent juice products

Frozen fruit juice (such as full-strength frozen juice pops) credit based on the fluid volume prior to freezing. SFAs must request a PFS from the manufacturer to document this information. For more information, refer to "Product Formulation Statements" in section 2. Frozen fruit juice must meet the same requirements as juice and counts toward the weekly juice limit (refer to "[Weekly Limit for Fruit Juice](#)" in this section).

**Apple cider**

Apple cider credits as the fruits component if it is pasteurized 100 percent full-strength juice. Pasteurized juice has been heat-treated to kill harmful bacteria. Check labels, as some brands of apple cider are not pasteurized. SFAs cannot serve apple cider (or any other type of juice) that is not pasteurized. Apple cider must meet the same requirements as juice and counts toward the weekly juice limit (refer to [“Weekly Limit for Fruit Juice”](#) in this section).

**Coconut water**

Fruit juices labeled as 100 percent juice, including coconut water, credit toward the fruits component based on the volume served. Coconut water must meet the same requirements as juice and counts toward the weekly juice limit (refer to [“Weekly Limit for Fruit Juice”](#) in this section).

**Juice ingredients**

All pasteurized 100 percent juices meet the USDA’s requirements for the fruits component, but their ingredients may vary among manufacturers. The FDA’s labeling regulations allow 100 percent juice to contain added ingredients and still be labeled “100% juice.” Therefore, some 100 percent juices contain added ingredients such as artificial flavors, artificial colors (e.g., red 40, blue 1, yellow 5 and 6, and titanium dioxide), preservatives (e.g., sodium benzoate and potassium sorbate), flavor enhancers (e.g., ethyl maltol), and emulsifiers or thickeners (e.g., glycerol esters of wood rosin and xanthan gum). The CSDE encourages menu planners to read product ingredients statements and choose 100 percent juice without these added ingredients.



**Weekly limit for fruit juice**

Lunch and breakfast menus must meet the weekly juice limit. Fruit juice cannot exceed half of the weekly amount of fruits offered at lunch. For example, if a five-day lunch menu for grades K-5 offers 2½ cups of fruit over the week, it may offer up to 1¼ cups of juice over the week. If SFAs serve larger amounts of fruits and vegetables, the weekly juice limit also increases.

Fruit juice together with vegetable juice and vegetable/fruit juice blends cannot exceed half of the weekly amount (cups) of fruits offered at breakfast. For example, if the breakfast menu offers 5 cups of fruit over the week, it may offer up to 2½ cups of juice over the week.

Menu planners must count all sources of 100 percent juice available to students during the week toward the weekly juice limit, including:

- juice that is fresh, frozen, and made from concentrate (refer to “[Crediting fruit Juice](#)” in this section);
- frozen juice pops made from 100 percent juice (refer to “[Crediting frozen 100 percent juice products](#)” in this section);
- pureed fruits and vegetables in fruit/vegetable smoothies (refer to “[Crediting Smoothies](#)” in this section); and
- juice from canned fruit served in 100 percent juice (refer to “[Crediting Canned Fruits](#)” in this section).



## Crediting Pureed Fruits

Pureed fruits in foods must be visible (recognizable) to credit in the lunch and breakfast meal patterns. Pureed foods made from one fruit (such as applesauce) are visible creditable fruits.

Foods made with pureed fruits cannot credit as the fruits component unless they also provide an adequate amount of a visible creditable fruit. For example, a blueberry sauce on pancakes must contain at least  $\frac{1}{8}$  cup of visible blueberries to credit as the fruits component.

Pureed fruits credit based on the volume (cups) after pureeing. For example, to determine the volume of strawberry puree obtained from 1 cup of strawberries, food service staff would puree the whole strawberries and measure the resulting amount of puree. Pureed fruits typically have a smaller volume than the whole fruit pieces. For more information, refer to “Standardized Recipes,” and “Determining in-house product yields” in section 2.

### Unrecognizable pureed fruits

Foods made with pureed fruits cannot credit as the fruits component unless they also provide at least  $\frac{1}{8}$  cup of a visible creditable fruit. Some examples include pureed prunes in brownies, applesauce in muffins, and pureed bananas in banana bread.

The USDA emphasizes the importance of the nutrition education aspect of the Child Nutrition Programs, which includes the goal of helping children easily recognize the key food groups that contribute to a healthy meal. For more information, refer to “[Requirement for visible components](#)” at the beginning of section 3.



## Crediting Fruits in Smoothies

Fruit juice and pureed fruits in commercial smoothies and smoothie recipes credit as juice toward the fruits component. Crediting is based on the volume (cups) of juice and pureed fruits per serving. For example, a smoothie that contains  $\frac{1}{2}$  cup of pureed strawberries credits as  $\frac{1}{2}$  cup of fruit juice.

### Juice limit for smoothies

Juice and pureed fruits in smoothies count with all other fruit juices toward the weekly juice limit for the fruits component. For information on the juice limit, refer to [“Weekly limit for fruit juice”](#) in this section.

### Crediting fruits in commercial smoothies

Commercial smoothies made with pureed fruits credit based on the volume of fruits after pureeing and before freezing. The minimum creditable amount is  $\frac{1}{8}$  cup.

Concentrated fruit puree and concentrated juice are added sugars. They do not credit in smoothies unless they are reconstituted to full-strength fruit puree or full-strength juice.

The product label must include a statement regarding the “percent juice content,” which is required by the FDA for beverages made with fruit/vegetable juice or puree. For example, an 8-fluid ounce smoothie made from fruit puree labeled with “contains 50% juice” credits as 4 fluid ounces ( $\frac{1}{2}$  cup) of juice. SFAs may need to obtain a PFS from the manufacturer to document the amount of pureed fruit in the product.



**Mixed fruits and vegetables in smoothies**

Smoothies that contain any combination of pureed fruits, pureed vegetables, and 100 percent fruit and vegetable juice blends credit based on the greatest fruit or vegetable ingredient. Commercial smoothies credit as the fruits component if the first juice ingredient is fruit juice or fruit puree. They credit as the vegetables component if the first juice ingredient is vegetable juice or vegetable puree. For information on crediting smoothies as the vegetables component, refer to [“Crediting Vegetables in Smoothies”](#) in the “Vegetables Component” section.

Smoothies made from scratch credit as the fruits component if fruit juice or fruit puree is the greatest juice ingredient in the standardized recipe. They credit as the vegetables component if vegetable juice or vegetable puree is the greatest juice ingredient in the standardized recipe.

**Crediting other components in smoothies**

Other creditable ingredients in smoothies include vegetable juice, pureed vegetables, milk, and yogurt. For guidance on crediting vegetables in smoothies, refer to [“Crediting Vegetables in Smoothies”](#) in the “Milk Component” section. For guidance on crediting milk in smoothies, refer to [“Crediting Milk in Smoothies”](#) in the “Milk Component” section. For guidance on crediting yogurt in smoothies, refer to [“Crediting yogurt in smoothies”](#) in the “Meat/Meat Alternates (MMA) Component” section.

**Required documentation for smoothies**

SFAs must have documentation on file that indicates the quantity of all creditable ingredients per serving, such as pureed fruits and vegetables, juice, yogurt, and milk. The total creditable amount in a smoothie cannot exceed the volume served. For example, a ½-cup serving of a commercial smoothie cannot credit as 1 cup of juice.

Commercial smoothies require a PFS (or a CN label, if available, for commercial smoothies that contain yogurt). Smoothies made from scratch require a standardized recipe. For more information, refer to [“Documentation for Commercial Products”](#) and [“Standardized Recipes”](#) in section 2.

**Noncreditable commercial smoothies**

Commercial smoothies that contain dietary supplements (such as whey protein powder) or herbal supplements (such as ginkgo biloba, ginseng, and echinacea) do not credit in the school meal patterns. Noncreditable commercial smoothies also include probiotic dairy drinks, drinkable yogurt, and yogurt drinks.



**Required signage for smoothies**

The USDA requires school nutrition programs to identify the food components offered to students. SFAs must inform students about the components in a smoothie by listing the type of smoothie on the menu and serving line signage. For example, the menu could indicate “peach and milk smoothie” or “strawberry smoothie (made with fresh strawberries, low-fat milk, and yogurt).” For more information, refer to “Meal Identification Signage” in section 5. For sample signage templates, visit New England Dairy’s [Smoothies](#) webpage.

**Noncreditable commercial smoothies**

Probiotic dairy drinks, drinkable yogurt, and yogurt drinks are not smoothies, and do not credit in the school nutrition programs. Commercial smoothies that contain dietary supplements (such as whey protein powder) or herbal supplements (such as ginkgo biloba, ginseng, and echinacea) do not credit in the school meal patterns.

**Resources for crediting smoothies**

The resources below assist menu planners with crediting smoothies in the NSLP and SBP meal patterns for grades K-12.

- Crediting Smoothies for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Smoothies\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Smoothies_SNP_grades_K-12.pdf)
- Offering Smoothies as Part of Reimbursable School Meals Grades K-12 (USDA):  
<https://www.fns.usda.gov/tn/offering-smoothies-part-reimbursable-school-meals>
- USDA Memo SP 40-2019, CACFP 17-2019, and SFSP 17-2019: Smoothies Offered in the Child Nutrition Programs:  
<https://www.fns.usda.gov/school-meals/smoothies-offered-child-nutrition-programs>

For detailed guidance on all crediting requirements for smoothies, refer to the CSDE’s resource, *Crediting Smoothies for Grades K-12 in the NSLP and SBP*.

## Noncreditable Fruits

Some examples of foods that do not credit as the fruits component include:

- banana chips;
- fruit snacks (e.g., fruit roll-ups, fruit leathers, fruit wrinkles, fruit twists, yogurt-covered fruit snacks);
- home-canned products (for food safety reasons);
- jams, jellies, and preserves; and
- juice drinks that are not 100 percent juice such as grape juice drink, orange juice drink, pineapple-grapefruit drink, cranberry juice cocktail, and lemonade.

For more examples and additional information, refer to “[Noncreditable Foods](#)” at the beginning of section 3 and the CSDE’s resource, *Noncreditable Foods for Grades K-12 in the NSLP and SBP*. Menu planners should use the FBG to identify foods that credit as the fruits component. For more information, refer to “[Food Buying Guide for Child Nutrition Programs](#)” in this section.

## Common Compliance Issues for the Fruits Component

School menus must comply with the USDA’s requirements for the fruits component. The common compliance issues indicated below are based on the CSDE’s Administrative Review of the school nutrition programs. SFAs must plan menus to avoid these compliance issues.

- **Insufficient serving of fruit:** The daily menu must provide the minimum serving of fruit required for each grade group. For each lunch choice, SFAs must offer at least  $\frac{1}{2}$  cup of fruit for grades K-5 and 6-8, and at least 1 cup for grades 9-12. For each breakfast choice, SFAs must offer at least 1 cup of fruit for all grades. For more information, refer to “[Serving Size for Fruits](#)” and “[Crediting Fresh Fruit](#)” in this section.
- **Incorrect crediting of dried fruits:** Dried fruits (such as raisins and dried apricots) credit as twice the volume served, e.g., 1 cup of dried fruit equals  $\frac{1}{2}$  cup of the fruits component. For more information, refer to “[Crediting Dried Fruits](#)” in this section.
- **Incorrect crediting of fresh fruits:** One piece of fresh fruit does not always credit as  $\frac{1}{2}$  cup of the fruits component. Some types of fresh fruits provide less than  $\frac{1}{2}$  cup in one piece. Fresh fruit credits based on the amount indicated in the FBG. For more information, refer to “[Crediting Fresh Fruit](#)” in this section.

- **Missing or inadequate serving line signage for fruits:** SFAs must provide appropriate signage on the serving line where the fruit selections are located. This signage must clearly explain the number of fruit servings that students may select for a reimbursable meal. For more information, refer to “[Identifying fruit serving for students](#)” in this section, and “Meal Identification Signage” in section 5.

SFAs must plan the fruits component to avoid these compliance issues. For more information, refer to [CSDE Operational Memorandum No. 07-19: Compliance Issues with the Vegetables and Fruits Components for Grades K-12 in the NSLP and SBP](#).

## Resources for Crediting Fruits

The resources below assist menu planners with crediting foods as the fruits component in the NSLP and SBP meal patterns.

- Accepting Processed Product Documentation in the NSLP and SBP (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)
- Crediting Juice for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Juice\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Juice_SNP_grades_K-12.pdf)
- Crediting Smoothies for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit\\_Smoothies\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Credit_Smoothies_SNP_grades_K-12.pdf)
- Crediting Vegetable Noodles and Coconut in the Child Nutrition Programs (USDA webinar):  
<https://www.fns.usda.gov/tn/crediting-vegetable-noodles-and-coconut-child-nutrition-programs>
- CSDE Operational Memorandum No. 07-19: Compliance Issues with the Vegetables and Fruits Components for Grades K-12 in the National School Lunch Program (NSLP) and School Breakfast Program (SBP):  
<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Memos/OM2019/OM07-19.pdf>
- Food Buying Guide Section 3: Overview of Crediting Requirements for the Fruits Component (USDA):  
[https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA\\_FBG\\_Section3\\_Fruits.pdf](https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/USDA_FBG_Section3_Fruits.pdf)

- Food Buying Guide Section 3: Yield Table for Fruits (USDA):  
[https://foodbuyingguide.fns.usda.gov/files/Reports/USDA\\_FBG\\_Section3\\_FruitsYieldTable.pdf](https://foodbuyingguide.fns.usda.gov/files/Reports/USDA_FBG_Section3_FruitsYieldTable.pdf)
- Fruits 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#Fruits>
- Start with Half a Cup: Fresh Fruit Portioning Guide for Schools:  
<https://portal.ct.gov/-/media/SDE/Nutrition/SWHAC/PortionGuideFruit85x14.pdf>
- Start with Half a Cup: Fresh Fruit Portioning Guide for Schools:  
<https://portal.ct.gov/-/media/SDE/Nutrition/SWHAC/PortionGuideFruit85x14.pdf>
- USDA Memo SP 10-2014, CACFP 05-2014, and SFSP 10-2014 (v3): Smoothies Offered in Child Nutrition Programs:  
<https://www.fns.usda.gov/smoothies-offered-child-nutrition-programs>
- 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>
- USDA Memo SP 40-2019, CACFP 17-2019, and SFSP 17-2019: Smoothies Offered in the Child Nutrition Programs:  
<https://www.fns.usda.gov/cn/smoothies-offered-child-nutrition-programs>
- What’s in a Meal Module 9: Fruits 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>

For additional crediting resources, visit the “[Fruits Component for Grades K-12](#)” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage. Training on the fruits component is available in “Module 9: Fruits Component” 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*.

## Grains Component

The grains component of the NSLP and SBP meal patterns for grades K-12 includes a variety of foods, such as:

- breads, biscuits, bagels, rolls, tortillas, and muffins;
- snack products, such as crackers (including animal crackers and graham crackers), hard pretzels, hard bread sticks, tortilla chips, and popcorn;
- certain grain-based desserts, such as cookies, granola bars, cereal bars, cake, and pastries (subject to crediting restrictions);
- cereal grains, such as buckwheat, brown rice, bulgur, and quinoa;
- ready-to-eat (RTE) breakfast cereals;
- cooked breakfast cereals (instant and regular), such as oatmeal;
- bread products used as an ingredient in another menu item, such as combination foods, e.g., breading on fish or poultry and pizza crust in pizza; and
- pasta products, such as macaroni, spaghetti, noodles, orzo, and couscous.

To credit as the grains component in the NSLP and SBP meal patterns, grain menu items must be WGR or enriched and cannot exceed the limit for noncreditable grains. Breakfast cereals must be WGR, enriched, or fortified. Bran and germ credit the same as enriched grains.



## Overview of Crediting Requirements

There are two steps to determine if grain menu items credit in school meals. These steps apply to all commercial grain products and foods prepared from scratch using standardized recipes.

The first step is to determine if the grain menu item meets the crediting criteria. To credit as the grains component, the grain menu item must be WGR or enriched and cannot exceed the limit for noncreditable grains. These crediting criteria are addressed in [Part A: Crediting Requirements](#) and [Part B: WGR Criteria](#).

Once the menu planner has determined that the grain is creditable, the second step is to determine the oz eq contribution of the planned serving. Guidance on how to determine a grain menu item's oz eq contribution is provided in [Part C: Serving Size](#).

## Common Compliance Issues for the Grains Component

School menus must comply with the USDA's requirements for the grains component. The common compliance issues indicated below are based on the CSDE's Administrative Review of the school nutrition programs. SFAs must plan menus to avoid these compliance issues.

- **Insufficient serving of grains:** The daily lunch menu cannot provide less than the minimum serving of grains for each grade group. For each lunch choice, SFAs must offer at least 1 oz eq of the grains component for grades K-5 and 6-8, and at least 2 oz eq of the grains component for grades 9-12. For each breakfast choice, SFAs must offer at least 1 oz eq of the grains component for all grades. For more information, refer to "[Required Daily and Weekly Servings of Grains](#)" in Part A: Crediting Requirements.
- **Not offering the minimum weekly grains:** For grades K-5 and 6-8 at lunch and all grades at breakfast, SFAs must offer **more** than the minimum daily amount of the grains component on some days of the week to meet the minimum weekly requirement. If the menu offers a choice of more than one item on an individual day, SFAs must use the daily item with the **smallest** oz eq to count toward the weekly requirement. For more information, refer to "[Required Daily and Weekly Servings of Grains](#)" in Part C: Serving Size, and "Weekly Grains and MMA at Lunch" and "Weekly Grains at Breakfast" in section 4.
- **Incorrect crediting of commercial grain products:** SFAs must use one of the two allowable methods for determining grain oz eq (USDA's Exhibit A chart or creditable grains listed in the product's PFS). Except for bread products in group B, a 1-ounce serving of a commercial grain product does not equal 1 oz eq. For example, blueberry

muffins (group D of the USDA’s Exhibit A chart) require 2 ounces to credit as 1 oz eq. For more information, refer to “[Determining Oz eq per Serving](#)” in Part C: Serving Size.

- **Not verifying crediting compliance of grain products:** SFAs must verify that all grain products and standardized recipes met with the criteria for WGR or enriched grains. For more information, refer to “[Creditable Grains](#)” in Part A: Crediting Requirements.
- **Not meeting the minimum weekly WGR requirement:** SFAs must verify that at least 80 percent of grains offered in weekly lunch and breakfast menus are WGR. For more information, refer to [Part B: WGR Requirement](#).
- **Not obtaining a PFS to credit certain commercial products:** There are some situations when SFAs cannot use the USDA’s Exhibit A chart to determine the oz eq contribution of commercial grain products (refer to “[When method 2 is required for commercial products](#)” in Part C).

SFAs must plan the grains component to avoid these compliance issues.





## Part A: Crediting Requirements

## Part A: Crediting Requirements

This section addresses the crediting requirements for the grains component of the NSLP and SBP meal patterns. All grain items served in school menus must comply with these requirements, including commercial grain products, grain foods made from scratch by the SFA, and grain foods prepared by vendors for school meals.

### Crediting Grain Foods

To credit as the grains component, grain menu items must be WGR or enriched and cannot exceed the limit for noncreditable grains. Breakfast cereals must be WGR, enriched, or fortified. Bran and germ credit the same as enriched grains. For information on identifying whole and enriched grains, refer to the CSDE's resources, [Crediting Whole Grains in the NSLP and SBP](#) and [Crediting Enriched Grains in the NSLP and SBP](#). For guidance on the WGR criteria, refer to [Part B: WGR Criteria](#).

### Limit for noncreditable grains

Effective July 1, 2022, the WGR limit for noncreditable grains also applies to enriched grains. Noncreditable grains in commercial grain products or standardized recipes used to meet the grain requirements must be less than 2 percent of the product formula (or ¼ oz eq). To meet this limit, noncreditable grains cannot exceed 3.99 grams per portion for groups A-G or 6.99 grams per portion for groups H-I. For information on groups A-I, refer to [Part C: Serving Size](#).

Some examples of noncreditable grains include oat fiber, corn fiber, wheat starch, corn starch, and modified food starch (including potato, legume, and other vegetable flours). For detailed guidance on noncreditable grains, refer to the CSDE's guide, [Meeting the Whole Grain-rich Requirement for the NSLP and SBP Meal Patterns for Grades K-12](#).



## Part A: Crediting Requirements

### Crediting Commercial Grain Products

Commercial grain products (including the grain portion of combination foods) must be WGR or enriched and cannot exceed the limit for noncreditable grains. Examples of commercial grain products include breads, muffins, pancakes, and crackers (groups A-G) and cereal grains like rice, pasta, quinoa, and cooked breakfast cereals (group H). Examples of the grain portion in commercial combination foods include pizza crust in pizza, noodles in lasagna, and breading on chicken nuggets. For information on the WGR criteria for commercial grain products, refer to “[WGR Criteria for Commercial Grain Products](#)” in [Part B: WGR Criteria](#).

### Crediting Breakfast Cereals

The FDA regulations ([21 CFR 170.3\(n\)\(4\)](#)) define breakfast cereals as ready-to-eat (RTE) cereals (such as puffed cereals, round or flaked cereals, and granola) and instant and regular hot cereals (such as oatmeal, cream of wheat, and farina). RTE breakfast cereals can be eaten as sold and are typically fortified with vitamins and minerals. Breakfast cereals must be WGR, enriched, or fortified. For more information, refer to the CSDE’s resource, [Crediting Breakfast Cereals for Grades K-12 in the NSLP and SBP](#).

#### WGR cereals

WGR breakfast cereals credit as the grains component. There are different WGR criteria for RTE and cooked breakfast cereals. These criteria are described in more detail in [Part B: WGR Criteria](#).

- **Cooked breakfast cereals** such as oatmeal (including regular and instant) meet the WGR criteria if: 1) the cereal is 100 percent whole grain or contains a blend of whole and enriched grains that is at least 50 percent whole grain; and 2) noncreditable grains do not exceed 6.99 grams per portion (½ cup cooked or 28 grams dry).
- **RTE breakfast cereals** meet the WGR criteria if: 1) the first ingredient is a whole grain and the cereal is fortified, or the cereal is 100 percent whole grain; and 2) noncreditable grains do not exceed 6.99 grams per portion. Fortification is not required for RTE breakfast cereals that are 100 percent whole grain.

#### Enriched breakfast cereals

Enriched breakfast cereals that meet the limit for noncreditable grains (no more than 6.99 grams per portion) credit as the grains component. Enriched breakfast cereals count toward the weekly limit for enriched grains.

### Part A: Crediting Requirements

Enriched breakfast cereals contain five vitamins and minerals added in amounts required by the FDA to replace some of the nutrients lost during processing. The enrichment nutrients 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).

A breakfast cereal is enriched if the food is labeled as “enriched” or an enriched grain is the first ingredient. The ingredients statement below shows an example of an enriched breakfast cereal.

Ingredients: **Puffed rice**, ferrous sulfate (a source of iron), niacinamide, citric acid, thiamin mononitrate, riboflavin, folic acid.

This puffed rice breakfast cereal is enriched because the ingredients statement lists the five enrichment nutrients. It credits as an enriched grain and counts toward the weekly limit for enriched grains in the NSLP and SBP.

#### Fortified breakfast cereals

Fortified breakfast cereals that meet the limit for noncreditable grains (no more than 6.99 grams per portion) credit as the grains component. Fortified breakfast cereals that are not WGR count toward the weekly limit for enriched grains (no more than 20 percent) in the NSLP and SBP.



Fortified breakfast cereals contain nutrients added by the manufacturer that were not originally present, or that are at higher levels than originally present. Manufacturers may choose which additional nutrients to use for fortification. Fortified breakfast cereals typically contain the five enrichment nutrients plus other vitamins and minerals that do not exist naturally in grains.

Different cereal brands may list different fortification nutrients. The USDA does not specify a minimum number of nutrients or a minimum percentage for the level of fortification for breakfast cereals in the Child Nutrition Programs. A fortified breakfast cereal is not required to be enriched.

## Part A: Crediting Requirements

A breakfast cereal is fortified if the food is labeled as “fortified” or the ingredients statement lists the vitamins and minerals added to the product. These nutrients are typically listed after “Vitamins and Minerals.” The ingredients statement below shows an example of fortified breakfast cereals.

Ingredients: **Milled corn**, sugar, malt flavor, contains 2% or less of salt. **Vitamins and Minerals:** Iron, vitamin C (sodium ascorbate, ascorbic acid), niacinamide, vitamin B6 (pyridoxine hydrochloride), vitamin B2 (riboflavin), vitamin B1 (thiamin hydrochloride), vitamin A palmitate, folic acid, vitamin D, vitamin B12.

This breakfast cereal is fortified because it contains added nutrients listed after the statement, “Vitamins and Minerals.” This breakfast cereal is creditable because it is fortified and does not contain any noncreditable grains. However, it is not WGR because milled corn is not a whole grain.

This breakfast cereal credits as an enriched grain and counts toward the weekly limit for enriched grains in the NSLP and SBP.

### Crediting Foods Made from Scratch

Grains foods made from scratch must be WGR or enriched and cannot exceed the limit for noncreditable grains. SFAs must maintain standardized recipes on file for all food made from scratch to document the meal pattern contribution per serving. For additional guidance on standardized recipes, refer to section 2. For information on the WGR criteria for school recipes, refer to “[WGR Criteria for Foods Made from Scratch](#)” in [Part B: WGR Criteria](#).

### Crediting Grain-based Desserts

The lunch and breakfast meal patterns allow creditable grain-based desserts to credit as the grains component. Grain-based desserts must be WGR or enriched and cannot exceed the limit for noncreditable grains.

Some examples of grain-based desserts include brownies, cookies, cakes, cupcakes, coffee cakes, cinnamon streusel quick breads, piecrusts in sweet pies (e.g., apple, coconut, blueberry, and pecan), cinnamon rolls, doughnuts, cereal bars, granola bars, breakfast bars, sweet rolls, pastries, toaster pastries, sweet scones (e.g., blueberry, orange cranberry, and chocolate chip), sweet croissants (e.g., chocolate or almond filled), sweet rice puddings (e.g., cinnamon and

### Part A: Crediting Requirements

vanilla), sweet bread puddings (e.g., made with cinnamon, fruits, chocolate, or icing), and sweet pita chips (e.g., cinnamon sugar).

Grain-based desserts do not include quick breads such as banana bread and zucchini bread (except for cinnamon streusel), cornbread, pancakes, waffles, French toast, savory scones (such as cheese and herb), and piecrusts in entrees such as quiche, meat pies, and chicken potpie.

Grain-based desserts often contain more fat and added sugars than traditional grains. Grain-based desserts cannot cause the menu to exceed the weekly limits for calories, saturated fat, and sodium. The CSDE recommends offering nutrient-dense whole grains instead of grain-based desserts. For information on planning school meals to meet the dietary specifications, refer to section 6.

Not all grain-based desserts credit at both lunch and breakfast. The NSLP and SBP meal patterns allow different types of grain-based desserts and have different crediting restrictions. Table 3-21 summarizes which grain-based desserts credit at each meal. The CSDE's resource, [Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP](#), identifies creditable grain-based desserts with the footnote 1 (allowed for lunch and breakfast) or the footnote 2 (allowed only for lunch).



## Part A: Crediting Requirements

Food item (must be WGR or enriched)	Credits as grains component?	
	Lunch <sup>1,2</sup>	Breakfast <sup>1</sup>
Animal crackers	Yes	Yes
Breakfast bars, plain or with nuts, dried fruit, chocolate pieces, fruit purees, filling, and frosting	Yes	Yes
Brownies, frosted	No	No
Brownies, plain	Yes	No
Cakes and cupcakes, plain or frosted	Yes	No
Cereal bars, plain or with nuts, dried fruit, chocolate pieces, fruit purees, filling, and frosting	Yes	Yes
Coffee cakes, cinnamon streusel quick breads	Yes	Yes
Cookies, plain or with nuts, dried fruit, chocolate pieces, fruit purees, filling, and frosting	Yes	No
Doughnuts, cake and yeast raised, frosted or unfrosted, glazed or unglazed	Yes	Yes
Fruit cobblers (cobbler topping)	Yes	No
Fruit crisps (crisp topping)	Yes	No
Fruit dessert pies (piecrust)	Yes	No
Fruit turnovers	Yes	Yes
Graham crackers	Yes	Yes
Grain-fruit bars, e.g., cereal bars	Yes	Yes
Granola bars, plain or with nuts, dried fruit, chocolate pieces, fruit purees, filling, and frosting	Yes	Yes
Pastries, plain or frosted	Yes	Yes
Sweet rolls, plain or frosted	Yes	Yes
Toaster pastries, plain or frosted	Yes	Yes

<sup>1</sup> Grain-based desserts cannot cause the menu to exceed the weekly limits for calories, saturated fats, and sodium. For information on the dietary specifications, refer to section 6.

<sup>2</sup> Grain-based desserts at lunch cannot exceed 2 oz eq per week.

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### Limit for grain-based desserts at lunch

The lunch meal pattern requires a weekly limit for grain-based desserts. The total amount of grain-based desserts offered at lunch cannot exceed 2 oz eq per week. For example, the lunch menu may include a 2-oz eq grain-based dessert once per week or a 1-oz eq grain-based dessert twice per week. This limit applies to all WGR and enriched grain-based dessert menu items.

### Grain-based desserts at breakfast

The breakfast meal pattern does not require a weekly limit for grain-based desserts but restricts the types that are allowed. For example, cookies, brownies, cupcakes, and fruit cobblers do not credit at breakfast.

Some examples of allowable grain-based desserts at breakfast include animal crackers and graham crackers, cereal bars, granola bars, doughnuts, fruit turnovers, pastries, and sweet rolls (refer to table 3-21). The CSDE recommends limiting grain-based desserts at breakfast. Menus that frequently include grain-based desserts might not meet the weekly dietary specifications for calories, saturated fat, and sodium.

### Identifying grain-based desserts

The CSDE's resource, *Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP*, identifies creditable grain-based desserts in red with the footnote 1 or 2. A grain-based dessert with footnote 1 credits only at lunch. These foods count toward the weekly limit for grain-based desserts at lunch. A grain-based dessert with footnote 2 credits at either lunch or breakfast.

SFAs should not rely on a product's name to determine if it is grain-based dessert because cookies and similar grain-based desserts do not have an FDA standard of identity. This means that manufacturers may use terms in their product names or labels that might be misleading. For example, oatmeal raisin cookies might be called "breakfast rounds" and cereal bars might be called "breakfast bars." Regardless of the name on its label, these types of foods are still grain-based desserts. They must comply with the weekly limit for grain-based desserts at lunch (no more than 2 oz eq) and the crediting restrictions for grain-based desserts at breakfast (only certain types are allowed).

## Part A: Crediting Requirements

**Crediting graham crackers as a WGR food**

For graham crackers to credit as a WGR food in school meals, graham flour must be the first ingredient. Graham flour is a whole grain.

Some brands of graham crackers do not meet the WGR criteria because they contain enriched flour as the first ingredient. Table 3-22 shows some examples of graham cracker ingredients. Whole grains are in bold and enriched grains are in italics.



**Table 3-22. Examples of graham cracker ingredients**

WGR <sup>1</sup>	Enriched but not WGR <sup>2</sup>
Ingredients: <b>Graham flour (whole-grain wheat flour)</b> , <i>unbleached enriched flour [wheat flour, niacin, reduced iron, thiamine mononitrate (vitamin B1), riboflavin (vitamin B2), folic acid]</i> , sugar, canola oil, honey, baking soda, salt, artificial flavor.	Ingredients: <i>Unbleached enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate vitamin B1, riboflavin vitamin B2, folic acid)</i> , <i>graham flour (whole grain wheat flour)</i> , sugar, soybean and/or canola oil, honey, baking soda, salt, soy lecithin, artificial flavor.
<p><sup>1</sup> To credit as a WGR food, the first ingredient must be graham flour.</p> <p><sup>2</sup> Enriched grains cannot exceed 20 percent of the weekly grains offered at lunch and breakfast.</p>	

In addition to determining if graham crackers are WGR or enriched, menu planners must review the product's package weight and PFS to determine its oz eq contribution (refer to "[Crediting graham cracker packages](#)" in part C).

**Grain-based desserts served with daily alternate lunch choices**

SFAs cannot offer grain-based desserts (such as graham crackers or animal crackers) as the grains component of a daily alternate lunch choice. Here is an example of an alternate lunch menu that includes a grain-based dessert. A high school offers an alternate lunch choice for grades 9-12 that includes 1 cup of yogurt, 1 cup of fresh fruit, 1 cup of fresh vegetables, 2 oz eq of graham crackers, and 1 cup of milk. While this menu meets the lunch meal pattern, it cannot be offered as a daily lunch choice because offering 2 oz eq of graham crackers each day exceeds the weekly limit of 2 oz eq.



## Part A: Crediting Requirements

### Grain-based desserts served as extra foods

Grain-based desserts served as extra menu items at lunch and breakfast count toward the minimum daily and weekly servings of the grains component and the weekly dietary specifications for calories, saturated fat, and sodium. At lunch, grain-based desserts also count toward the weekly limit of no more than 2 oz eq. For more information, refer to “Creditable extra foods at lunch” in section 1.

For additional guidance on grain-based desserts, refer to the CSDE’s resource, [Crediting Grain-based Desserts for Grades K-12 in the School Nutrition Programs](#).

### Crediting Corn Masa, Masa Harina, Corn Flour, and Cornmeal

Corn ingredients credit as the grains component if they are whole grain, enriched, or nixtamalized. Nixtamalization is the process of soaking and cooking dried corn in an alkaline (slaked lime) solution. This process results in a product with a similar nutrition content to whole-grain corn.

Nixtamalized corn is used to make hominy, masa harina (corn flour), corn masa (dough from masa harina), and certain types of cornmeal. Masa harina is used for making corn products such as tortillas, tortilla chips, and tamales.

### Methods for identifying nixtamalized corn

SFAs may use either of the two methods below to identify commercial products made with nixtamalized corn.



1. **Corn is treated with lime:** If the ingredients statement indicates that the corn is treated with lime (such as “ground corn with trace of lime” and “ground corn treated with lime”), the corn ingredient is nixtamalized. The ingredients statements below show examples of commercial nixtamalized corn products. These products credit as 100 percent whole grains.
  - Ingredients: *Corn masa flour*, water, contains 2% or less of: cellulose gum, guar gum, amylase, propionic acid, benzoic acid, and phosphoric acid (to maintain freshness).
  - Ingredients: *Whole-white corn*, vegetable oil (contains soybean, corn, cottonseed, and/or sunflower oil), salt, *lime/calcium hydroxide* (processing aid).
  - Ingredients: *Limed whole-grain white corn*, palm oil, salt, TBHQ (preservative).
  - Ingredients: *Whole-grain yellow corn*, high oleic canola oil, water, *corn flour*, salt, *hydrated lime*.

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If the ingredients statement does not provide sufficient information (such as “cornmeal” and “yellow corn flour”), SFAs must obtain a PFS from the manufacturer stating that the ingredients are whole grain, enriched, or nixtamalized. For information on PFS forms, refer to “[Product Formulation Statements](#)” in section 2.

2. **Product includes FDA-approved whole grain health claim:** If a commercial product made with corn includes one of two FDA-approved whole grain health claims on its packaging, the corn in the product is nixtamalized and the product provides at least 50 percent whole grain. These health claims are not common.
  - **Low-fat claim:** “Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat, and cholesterol, may reduce the risk of heart disease and certain cancers.”
  - **Moderate-fat claim:** “Diets rich in whole grain foods and other plant foods, and low in saturated fat and cholesterol, may help reduce the risk of heart disease.”

Crediting information for corn masa, masa harina, corn flour, and cornmeal is summarized in [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*.

### Crediting Hominy as Grains

Hominy is a traditional food in Mexican and Native American cultures that is commonly served as a vegetable or milled grain product, e.g., hominy grits. Hominy is made from whole kernels of maize (dried field corn) that have been soaked in an alkaline solution (nixtamalized). This process removes the hull and germ, causes the corn to puff up to about double its normal size, and increases the bioavailability of certain nutrients, such as calcium and niacin.

Hominy is available dried and in a fully cooked canned form. Dried hominy (such as grits) credits as a whole grain. A ½-cup serving of cooked hominy grits or 1 ounce (28 grams) of dry hominy grits credits as one serving of the grains component.

For information on crediting hominy as the vegetables component, refer to “[Crediting Hominy as Vegetables](#)” in the “Vegetables” section.

## Part A: Crediting Requirements

## Crediting Popcorn

Popcorn is a whole-grain food. Three cups (1 ounce) of plain popped popcorn credit as 1 oz eq of the grains component. The minimum creditable amount is  $\frac{3}{4}$  cup ( $\frac{1}{4}$  oz eq). Table 3-23 summarizes the grains contribution of popped popcorn.

<b>Cups (popped)</b>	<b>Weight (popped)</b>	<b>Grains contribution</b>
$\frac{3}{4}$ cup	0.25 ounces or 7 grams	$\frac{1}{4}$ oz eq (minimum creditable amount)
1 $\frac{1}{2}$ cups	0.5 ounces or 14 grams	$\frac{1}{2}$ oz eq
2 $\frac{1}{4}$ cups	0.75 ounces or 21 grams	$\frac{3}{4}$ oz eq
<b>3 cups</b>	<b>1 ounce or 28 grams</b>	<b>1 oz eq</b>

## Crediting considerations for popcorn

Menu planners should consider the crediting requirements below when including popcorn in school meals.

- Consider the appropriateness of the serving size for each grade group. It may be unreasonable to provide the full serving of the grains component from popcorn, due to the large volume required for crediting. The CSDE recommends providing a smaller serving of popcorn and supplementing with another food from the grains component. For example, a snack mix that contains  $\frac{3}{4}$  cup of popcorn ( $\frac{1}{4}$  oz eq) mixed with  $\frac{1}{4}$  oz eq of WGR pretzels and  $\frac{1}{2}$  oz eq of WGR RTE breakfast cereal credits as 1 oz eq of the grains component.
- Foods that contain popcorn as an ingredient (such as a popcorn snack mix or popcorn balls) require documentation to determine the crediting information. SFAs must obtain a PFS for commercial foods and a standardized recipe for foods prepared from scratch. For more information, refer to “Product Formulation Statements” and “Standardized Recipes” in section 2.
- Popcorn sometimes includes ingredients and toppings such as salt, caramel, cheese, and butter. SFAs must ensure that these ingredients, as well as any oil or fat used to pop the popcorn, are included in the recipe’s nutrient profile. Popcorn products cannot cause the menu to exceed the weekly limits for calories, saturated fats, and

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sodium. The USDA strongly encourages healthier alternatives, such as seasoning the popcorn with herb blends or serving fresh, plain popcorn.

- Grain-based desserts that contain popcorn count toward the weekly limit of no more than 2 oz eq at lunch. For more information, refer to “[Limit for Grain-based Desserts](#)” in this section.

Crediting information for popcorn is summarized in [USDA Memo SP 23-2019, CACFP 10-2019, and SFSP 09-2019: Crediting Popcorn in the Child Nutrition Programs](#).

### Noncreditable Foods in the Grains Component

Some examples of foods that do not credit as the grains component include:

- commercial grain products that are not WGR or enriched;
- breakfast cereals that are not WGR, enriched, or fortified;
- enriched grain foods that exceed the limit for noncreditable grains;
- foods made from scratch that are not WGR or enriched; and
- certain grain-based desserts at breakfast, such as cookies, brownies, cupcakes, and fruit cobblers (refer to “[Grain-based Desserts](#)” in this section).

For more examples and additional information, refer to “[Noncreditable Foods](#)” at the beginning of section 3 and the CSDE’s resource, [Noncreditable Foods for Grades K-12 in the NSLP and SBP](#).

Menu planners should use the FBG to identify foods that credit as the grains component. For more information, refer to “[Food Buying Guide for Child Nutrition Programs](#)” in this section.

**Part A: Crediting Requirements****Resources for Crediting Grains**

The resources below assist menu planners with identifying foods that credit as the grains component in the NSLP and SBP meal patterns.

- Accepting Processed Product Documentation in the NSLP and SBP (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)
- Crediting Breakfast Cereals for Grades K-12 in the NSLP and SBP (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 NSLP and SBP (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 Whole Grains in the NSLP and SBP (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)
- 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)
- 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)
- 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>
- 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)

**Part A: Crediting Requirements**

- USDA Memo SP 23-2019, CACFP 10-2019, and SFSP 09-2019: Crediting Popcorn in the Child Nutrition Programs:  
<https://www.fns.usda.gov/cn/crediting-popcorn-child-nutrition-programs>
- USDA Memo SP 30-2012: Grain Requirements for the National School Lunch Program and School Breakfast Program:  
<https://www.fns.usda.gov/cn/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>
- 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>

For additional crediting resources, visit the “[Grains Component for Grades K-12](#)” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage. Training on the grains component is available in “Module 11: Grains Component” 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*.



## Part B: WGR Criteria

## Part B: WGR Criteria

At least 80 percent of the grains offered at lunch and breakfast must be WGR. The WGR criteria are different for commercial products and foods made from scratch. The section provides an overview of these requirements.

For comprehensive guidance on the WGR criteria, refer to the CSDE’s guide, *Meeting the Whole Grain-rich Requirement for the NSLP and SBP Meal Patterns for Grades K-12*. This document provides detailed information on the WGR requirements, including how to identify noncreditable grains, examples of evaluating commercial grain products and foods made from scratch, how to review PFS forms for accuracy, and common compliance issue with PFS forms for grains.

### WGR Criteria for Commercial Grain Products

The WGR criteria are different for commercial grain products in groups A-H (such as bread, rice, pasta, and breakfast cereals), RTE breakfast cereals in group I, and commercial combination foods that contain a grain portion from groups A-I (such as pizza crust in pizza, noodles in lasagna, tortilla shells in burritos, and breading on chicken nuggets).

Groups A-I refer to the grain groups in the USDA’s Exhibit A chart. For more information, refer to “[Determining Ounce Equivalents per Serving](#)” in Part C: Serving Size.

- **Commercial grain products (groups A-H):** Grain products in groups A-G (such as breads, muffins, pancakes, and crackers) and group H (such as rice, pasta, quinoa, and cooked breakfast cereals, e.g., oatmeal) must meet two criteria to be WGR: 1) the product is 100 percent whole grain or contains a blend of whole and enriched grains that is at least 50 percent whole grain; and 2) noncreditable grains cannot exceed 3.99 grams per portion for groups A-G or 6.99 grams per portion for group H.
- **RTE breakfast cereals (group I):** RTE breakfast cereals must meet two criteria to be WGR: 1) the first ingredient is a whole grain and the cereal is fortified or the cereal is 100 percent whole grain; and 2) noncreditable grains cannot exceed 6.99 grams per portion. Fortification is not required for 100 whole grain cereals. For more

## Part B: WGR Criteria

information, refer to the CSDE’s resource, *Crediting Breakfast Cereals for Grades K-12 in the NSLP and SBP*.

- **Commercial combination foods containing a grain portion from groups A-I:** The grain portion (such as pizza crust in pizza, noodles in lasagna, and breading on chicken nuggets) must meet two criteria to be WGR: 1) the grain portion is 100 percent whole grain or contains a blend of whole and enriched grains that is at least 50 percent whole grain; and 2) noncreditable grains in the grain portion cannot exceed 3.99 grams per portion for groups A-G or 6.99 grams per portion for groups H-I.

Menu planners must determine if commercial foods meet the applicable WGR criteria by reviewing the product’s ingredients statement and packaging. For some products, a PFS may be required to determine WGR compliance (refer to the CSDE’s resource, *When Commercial Grain Products Require a Product Formulation Statement to Credit in the School Nutrition Programs*).

If the product meets the WGR criteria, SFAs must determine the meal pattern contribution (oz eq) based on the required weight for the appropriate grain group in the USDA’s Exhibit A chart or the creditable grains per serving. For more information, refer to “Product formulation statements” in section 2 and “Part C: Serving Size” in this section.

A PFS is not required if the grain is part of a CN-labeled MMA product. CN-labeled products credit based on the stated crediting information for WGR oz eq. The USDA’s [Authorized Labels and Manufacturers](#) webpage lists approved CN-labeled products and manufacturers. For more information, refer to “Child Nutrition (CN) labels” in section 2.





## Part B: WGR Criteria

### WGR Criteria for Foods Made from Scratch

Grain foods prepared from scratch must have a standardized recipe that documents the weight of creditable grains in one serving. This includes foods made by the SFA and foods prepared by vendors for school meals.

A standardized recipe is WGR if 1) the combined amount of all whole grains is equal to or more than the combined amount of all other creditable grains (enriched grains, bran, and germ; and 2) noncreditable grains (such as bran, germ, and cornstarch) do not exceed 3.99 grams per oz eq for groups A-G or 6.99 grams per oz eq for groups H and I. For example, a pizza dough recipe that contains 6 pounds of whole-wheat flour, 5 pounds of enriched flour, and no noncreditable grains is WGR because the whole-wheat flour weighs more than the enriched flour.

For combination foods made from scratch that contain a grain portion (such as pizza crust in pizza and breading on chicken), the WGR criteria apply only to the grain portion of the standardized recipe.

### Resources for WGR Criteria

The resources below assist menu planners with meeting the WGR criteria for the NSLP and SBP meal patterns for grades K-12.

- Calculating the Weekly Percentage of Whole Grain-rich Menu Items in the NSLP and SBP (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)
- 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)
- Tools for Schools: Serving Whole Grain-rich (USDA):  
<https://www.fns.usda.gov/school-meals/tools-schools-serving-whole-grain-rich>
- USDA Memo SP 30-2012: Grain Requirements for the National School Lunch Program and School Breakfast Program:  
<https://www.fns.usda.gov/cn/grain-requirements-national-school-lunch-program-and-school-breakfast-program>

## Part B: WGR Criteria

- 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>
- 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)
- What's in a Meal Module 12: Whole Grain-rich 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>
- 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-rich Requirement (CSDE's Crediting Foods in School Nutrition Programs webpage):  
<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs/Documents#WGR>
- 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)

For additional crediting resources, visit the “Grains Component for Grades K-12” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage. Training on the WGR criteria is available in “Module 12: Whole Grain-rich Requirement” 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*.

## Part C: Serving Size

## Part C: Serving Size

The required quantities for the grains component are in oz eq. Oz eq are a weight-based unit of measure for the grains component that account for dry versus cooked grains. The amount of a creditable grain food that provides 1 oz eq varies because different types of foods contain different amounts of creditable grains.

### Required Daily and Weekly Servings

The meal patterns for grades K-12 require daily and weekly servings of the grains component at breakfast and lunch. Table 3-24 summarizes the required grain oz eq for each grade group.

Grades	Lunch <sup>1</sup>				Breakfast <sup>1</sup>			
	Five-day week		Seven-day week		Five-day week		Seven-day week	
	Daily	Weekly <sup>2</sup>	Daily	Weekly <sup>2</sup>	Daily	Weekly <sup>2</sup>	Daily	Weekly <sup>2</sup>
<b>K-5</b>	1	8-9	1	11-12.5	1	7-10	1	10-14
<b>6-8</b>	1	8-10	1	11-14	1	8-10	1	11-14
<b>9-12</b>	2	10-12	2	14-17	1	9-10	1	12.5-14

<sup>1</sup> At least 80 percent of grains must be WGR. For more information, refer to [Part B: WGR Criteria](#).

<sup>2</sup> SFAs cannot offer less than the minimum weekly serving. The maximum weekly serving is not required but provides a guide for planning age-appropriate meals that meet the weekly limits for calories, saturated fats, and sodium. For information on planning school meals to meet the dietary specifications, refer to section 6.

## Part C: Serving Size

**Daily servings of grains**

SFAs may choose to serve one grain or a combination of several grains to meet the minimum daily requirement if each serving contains at least  $\frac{1}{4}$  oz eq of grains (refer to “[Minimum creditable amounts](#)” in the beginning of section 3). For example, a lunch menu for grades 9-12 could provide the required 2 oz eq of the grains component from 1 cup of brown rice (2 oz eq), or  $\frac{1}{2}$  cup of brown rice (1 oz eq) and a 1-ounce whole-grain roll (1 oz eq).

These menu-planning decisions affect students’ selection of reimbursable meals when implementing OVS. For information on OVS, refer to the CSDE’s [Offer versus Serve Guide for School Meals](#) and visit the CSDE’s [Offer versus Serve for Grades K-12 in School Nutrition Programs](#) webpage.

Depending on the meal and grade group, SFAs must offer more than the minimum daily amount of the grains component on some days to meet the minimum weekly requirement. This applies to lunch for grades K-5 and 6-8, and breakfast for all grades. The examples below illustrate this requirement.

- **Lunch for grades K-5 and 6-8:** The minimum weekly requirement is 8 oz eq for five-day weeks and 11 oz eq for seven-day weeks. SFAs must offer more than 1 oz eq of grains on some days because serving the minimum amount provides only 5 oz eq for five-day weeks and 7 oz eq for seven-day weeks.
- **Breakfast for grades 9-12:** The minimum weekly requirement is 9 oz eq for five-day weeks and  $12\frac{1}{2}$  oz eq for seven-day weeks. SFAs must offer more than 1 oz eq of grains on some days because serving the minimum amount provides only 5 oz eq for five-day weeks and 7 oz eq for seven-day weeks.

Lunch menus for grades 9-12 that offer the minimum daily serving (2 oz eq) each day meet the minimum weekly requirement. For more information on meeting the weekly minimums for the grains component, refer to “Weekly Grains and MMA at Lunch” and “Weekly Grains at Breakfast” in section 4.

**Part C: Serving Size****Weekly servings of grains**

Menu planners must determine the weekly servings of the grains component separately for lunch and breakfast menus. The weekly grain servings are the sum of the daily grain servings. For example, a five-day lunch menu that offers 1¾ oz eq of grains each day provides a weekly total of 8¾ oz eq of the grains component. This meets the weekly requirement for grades K-5, but not grades 6-8 or 9-12.

When menus offer multiple grain choices on an individual day, SFAs must use the daily item with the smallest oz eq to count toward the weekly requirements. For example, if the daily lunch menu offers a 1½-oz eq item and a 2-oz eq item, SFAs must count the 1½-oz eq item toward the weekly requirements.

If the lunch menu includes different serving sizes of the grains component each day or over the week, SFAs must pay careful attention to the combinations of daily choices. SFAs must review all weekly grain choices to determine compliance with the weekly meal pattern requirements.

For more information on meeting the weekly servings for the grains component, refer to “Weekly Grains and MMA at Lunch” and “Weekly Grains at Breakfast” in section 4.

**Meeting the required grain servings**

If a menu item contains less than the full serving, the meal must include additional grains to meet the meal pattern requirement for each grade group. For example, the daily lunch meal pattern for grades 9-12 requires 2 oz eq of the grains component. If a menu item contains 1 oz eq of grains, SFAs must include another menu item with at least 1 oz eq of grains to provide the full serving for grades 9-12.

When crediting grains toward the daily and weekly requirements, menu planners must round down to the nearest ¼ oz eq. For example, a standardized recipe or commercial product that contains 1.49 oz eq of grains per serving credits as 1.25 oz eq of the grains component.

### Part C: Serving Size

Grains offered in amounts less than  $\frac{1}{4}$  oz eq are not included in the calculation of the daily and weekly grain servings, but count toward the weekly dietary specifications. For more information, refer to “[Minimum creditable amounts](#)” in the beginning of section 3 and “Dietary Specifications” in section 1.

### USDA’s Exhibit A Chart

The USDA’s document, *Exhibit A: Grain Requirements for Child Nutrition Programs*, summarizes the grain oz eq for nine groups (A-I) of creditable grain foods. Each group contains products with similar grain content.

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 must weigh 28 grams (1 ounce), a corn muffin must weigh 34 grams (1.2 ounces), and a blueberry muffin must weigh 55 grams (2 ounces). The minimum amount that credits toward the grains component is  $\frac{1}{4}$  oz eq.

The required quantities for the grains component 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 NSLP and SBP*, lists the Exhibit A grain servings that apply to the lunch and breakfast meal patterns for grades K-12.



## Part C: Serving Size

### Methods to Determine Grain Oz Eq

The USDA allows two methods for determining the oz eq 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. For detailed guidance on both methods, refer to the CSDE’s resource, *Calculation Methods for Grain Ounce Equivalents for Preschoolers in the NSLP and SBP*.

#### Method 1: Weight or volume (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 section).

- **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 or 0.8 ounces for foods in group A to 125 grams or 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 ½ 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 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 NSLP and SBP*.

### Part C: Serving Size

Menu planners can use the USDA’s online [Exhibit A Grains Tool](#) to determine a product’s grain oz eq and the required amount to obtain a specific meal pattern contribution. 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](#).

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 commercial products and standardized recipes. This guidance is also provided 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](#).

#### 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).

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 NSLP and SBP 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](#)



### Part C: Serving Size

#### When method 2 is required for commercial products

SFAs may need to obtain additional information to determine the crediting information for some commercial grain products. A PFS is required for commercial products when any of the situations below apply.

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: 1) the whole grain content is at least 8 grams per oz eq (groups A-G); or 2) 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.
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.

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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, 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.

**Crediting Considerations for Serving Size**

Some grain foods have additional serving size considerations. Menu planners should consider the crediting requirements below when determining the appropriate serving size for breads, cereal bars, granola bars, and graham crackers.

**Crediting one slice of bread**

Bread is in group B of the USDA’s Exhibit A chart and requires 1 ounce (28 grams) to credit as 1 oz eq of the grains component. The weight of one slice of bread varies greatly among different types of bread products. For many types of breads, one slice weighs more or less than 1 ounce.

Menu planners must check the serving size on the Nutrition Facts label to determine the weight of one slice of bread, which is required to calculate the oz eq contribution per slice. To determine the weight of one slice, divide the serving weight by the number of slices per serving, the round down to the nearest  $\frac{1}{4}$  oz eq (refer to “[Meeting the required grain servings](#)” in this section). The example below illustrates this calculation.

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The serving size for a multigrain bread is 2 slices and weighs 44 grams, which equals 22 grams per slice. Since 22 grams is less than 28 grams, one slice of bread does not credit as 1 oz eq of the grains component.

To determine the grain oz eq per slice, divide the grams per slice by 28. For this multigrain bread, 22 grams divided by 28 grams equals 0.78 oz eq, which rounds down to 0.75 oz eq of the grains component.

## Multigrain Bread

## Nutrition Facts

**Serving Size** 2 slices (44g)  
Servings per container about 26

## Amount per serving

**Calories** 45



## Crediting menu items with two slices of bread

For sandwiches that contain 2 slices of breads, the total oz eq are determined before rounding down to the nearest  $\frac{1}{4}$  oz eq. The example below illustrates this calculation.

A sandwich contains two slices of WGR bread. Each slice weighs 26 grams. To determine the total weight of the bread, multiply 26 grams by 2, which equals 52 grams.



Bread (group B) requires 1 ounce (28 grams) to credit as 1 oz eq of the grains component. Divide the weight of the bread (52 grams) by 28, which equals 1.86 oz eq. Round down to the nearest  $\frac{1}{4}$  oz eq, which equals 1.75 oz eq.

If the menu planner rounds down the weight of each slice first, the crediting is incorrect. This would equal 1.5 oz eq per sandwich (26 grams divided by 28 equals 0.93, which rounds down to 0.75 oz eq per slice).

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**Crediting cereal bars and granola bars**

SFAs must consider the appropriateness of the required serving for cereal bars and granola bars. Plain cereal bars and granola bars (group D) require 2 ounces (55 grams) to credit as 1 oz eq of the grains component. Cereal bars and granola bars with additional ingredients such as nuts, dried fruit, and chocolate pieces (group E) require 2.4 ounces (69 grams) to credit as 1 oz eq of the grains component.

Some types of cereal bars and granola bars require more than one bar to credit as 1 oz eq. For example, a fruit-filled cereal bar that weighs 37 grams credits as  $\frac{1}{2}$  oz eq of the grains component. SFAs must serve two fruit-filled cereal bars to provide 1 oz eq of the grains component at breakfast. This serving size may not be practical or cost-effective.

Cereal bars and granola bars count toward the limit for grain-based desserts at lunch. Grain-based desserts cannot exceed 2 oz eq per week. For more information, refer to “[Limit for grain-based desserts at lunch](#)” in this section.

**Crediting graham cracker packages**

SFAs that offer graham crackers as a 1-oz eq grain menu item must make sure that the serving weighs 1 ounce or 28 grams. Many brands credit as less than 1 oz eq because the individual package does not weigh 1 ounce. Here are some examples.

- A two-count package of graham crackers that weighs 0.49 ounce credits as  $\frac{1}{4}$  oz eq of the grains component. The menu would need to offer four packages to provide 1 oz eq of the grains component. **Note:** The oz eq contribution of a grain menu item must always be rounded down to the nearest  $\frac{1}{4}$  oz eq (refer to the “[Meeting the required grain servings](#)” in this section).
- A three-count package of graham crackers that weighs 0.75 or  $\frac{3}{4}$  ounce credits as  $\frac{3}{4}$  oz eq of the grains component. The menu would need to offer two packages to provide at least 1 oz eq of the grains component.

SFAs must review the product’s PFS to determine the specific crediting for each brand of graham crackers and whether they credit as WGR or enriched (refer to “[Crediting graham](#)”

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crackers as a WGR food” in part A). Remember that graham crackers count toward the limit for grain-based desserts at lunch (refer to “[Crediting Grain-based Desserts](#)” in part A).

### Required Signage to Identify Grain Servings for Students

SFAs must use meal identification signage to instruct students on how much food to select from each component daily for a reimbursable meal, based on the planned serving sizes for each grade group. For example, if a high school allows students to select two 1-ounce whole-grain rolls to meet the minimum daily 2 oz eq of the grains component at lunch, the cafeteria signage must clearly communicate that students are allowed to select two rolls with each meal. This signage must be on the serving line where the rolls are located. For more information, refer to “Meal Identification Signage” in section 4.

### Resources for Grain Servings

The resources below assist menu planners with meeting the required grain oz eq for the NSLP and SBP meal patterns for grades K-12.

- 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/Grain\\_Calculation\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Grain_Calculation_SNP_grades_K-12.pdf)
- Exhibit A: Grain Requirements for Child Nutrition Programs (USDA):  
<https://foodbuyingguide.fns.usda.gov/Content/TablesFBG/ExhibitA.pdf>
- Exhibit A Grains Tool (USDA’s Food Buying Guide):  
<https://foodbuyingguide.fns.usda.gov/ExhibitATool/Index>
- Grain Ounce Equivalents for Grades K-12 in the NSLP and SBP (CSDE):  
[https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Grains\\_Oz\\_Eq\\_SNP\\_grades\\_K-12.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Grains_Oz_Eq_SNP_grades_K-12.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\\_Grain\\_Ounce\\_Equivalents\\_Chart\\_NSLP\\_SBP.pdf](https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/How_to_Use_Grain_Ounce_Equivalents_Chart_NSLP_SBP.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](https://www.fns.usda.gov/sites/default/files/resource-files/PFS_Grains_Oz_Eq_Fillable_508.pdf)

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- 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)
- Serving Size (CSDE’s Crediting Foods in School Nutrition Programs webpage):  
<https://portal.ct.gov/SDE/Nutrition/Crediting-Foods-in-School-Nutrition-Programs/Documents#ServingSize>
- What’s in a Meal Module 13: Grains Ounce Equivalent (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>
- 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)

For additional crediting resources, visit the “[Grains Component for Grades K-12](#)” section of the CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage. Training on grain oz eq is available in “Module 13: Grains Ounce Equivalent” 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*.