Vegetables are a required component for reimbursable meals in the National School Lunch Program (NSLP) including the Preschool Lunch Meal Pattern, as well as the Child and Adult Care Food Program (CACFP) lunch and supper meals. Vegetables may be served as part of a reimbursable meal for the School Breakfast Program (SBP), and to fulfill the combined fruits and vegetables requirement for Preschool and CACFP breakfasts, as well as in the Summer Food Service Program (SFSP). They may also be served as one of the two required meal components for a reimbursable snack in all Child Nutrition Programs.

**Vegetable Requirements**

- Vegetables must be fresh, frozen, canned, dried (including dried legumes), or 100% full-strength vegetable juice. Examples of creditable vegetables can be found in the *Food Buying Guide for Child Nutrition Programs (FBG)* at [https://foodbuyingguide.fns.usda.gov/](https://foodbuyingguide.fns.usda.gov/).

- Most vegetables credit as volume served; the minimum creditable serving size is \( \frac{1}{8} \) cup (exceptions are tomato paste, tomato puree, and raw leafy greens). **Note:** minimum creditable amounts do not apply to the infant meal pattern.
  - **Raw leafy greens** credit at half the volume served in Schools Meals Programs and CACFP (Example: In NLSP, \( \frac{1}{2} \) cup romaine lettuce contributes \( \frac{1}{4} \) cup toward the dark green vegetable subgroup). In SFSP and NSLP Afterschool Snack Service, raw leafy greens credit as volume served.
  - **Cooked leafy greens**, such as sautéed spinach, credit based on volume served.
  - **Tomato paste** and **tomato puree** can credit using the whole food equivalency (volume of tomatoes prior to pureeing) rather than on the actual volume served. All other vegetable purees credit based on the finished volume served.

- Beans and peas (legumes) may count toward the meats/meat alternates or vegetables component, but not as both in the same meal.

- In the School Meal Programs and CACFP, mixtures of fruits and vegetables (e.g., baked sweet potato with apples), must credit separately for the fruits and the vegetables components.

- Over the course of the week, schools must offer vegetables from specific vegetable subgroups.

More training, menu planning, and nutrition education materials can be found at [TeamNutrition.USDA.gov](https://www. TeamNutrition.USDA.gov).

FNS-932 • May 2022

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## Vegetable Subgroup

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Examples Include</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark Green</td>
<td>bok choy, broccoli, collard greens, dark green leafy lettuce, kale, mesclun, mustard greens, romaine lettuce, spinach, turnip greens, and watercress</td>
</tr>
<tr>
<td>Red/Orange</td>
<td>acorn squash, butternut squash, carrots, pumpkin, tomatoes, tomato juice, and sweet potatoes</td>
</tr>
<tr>
<td>Beans/Peas (legumes)</td>
<td>black beans, garbanzo beans (chickpeas), kidney beans, lentils, navy beans, pinto beans, soy beans, split peas, and white beans</td>
</tr>
<tr>
<td>Starchy</td>
<td>corn, cassava, hominy, green bananas, green peas, plantains, taro, water chestnuts, and white potatoes</td>
</tr>
<tr>
<td>Other Vegetables</td>
<td>all other fresh, frozen, and canned vegetables, cooked or raw, such as artichokes, asparagus, avocado, bean sprouts, beets, Brussels sprouts, cabbage, cauliflower, celery, cucumbers, eggplant, green beans, green peppers, iceberg lettuce, mushrooms, okra, onions, parsnips, turnips, wax beans, and zucchini</td>
</tr>
</tbody>
</table>

### Vegetable Juice

- In School Meal Programs, no more than ½ of the total weekly vegetables offered may be full-strength, 100% vegetable juice and is measured separately at lunch and breakfast.

- In CACFP or Preschool Meal Patterns, full-strength, 100% vegetable juice may be used to meet the vegetables component no more than once per day, including snack. Full-strength, 100% vegetable juice may be used as one component of a snack when the other component is not a beverage.

- In SFSP, full strength 100% vegetable or fruit juice may be counted to meet not more than ½ of the vegetable or fruits requirement at lunch or supper.

**Note:** Juice limit is measured by Program. For example, if a school serves lunch to preschoolers under NSLP and a snack through CACFP, the school can serve juice at both lunch and snack.

### Vegetable Smoothies

- Pureed vegetables (fresh, frozen, or canned), when served in a smoothie, credit as juice, and as such are subject to the limitations regarding juice service.

- Pureed vegetable included in a smoothie may count as the entire fruits/vegetables component in the NSLP Afterschool Snack Service and at breakfast and snack in CACFP and SFSP. At snack, a smoothie containing juice and milk can credit as either juice or milk as long as there is a separate, second component served in addition to the smoothie.

- Dry beans and peas may credit toward the vegetables component as vegetable juice when served in a smoothie.

- Juice does not credit when used as an ingredient in another food or beverage product with the exception of smoothies.
Newly Creditable Vegetables in Child Nutrition Programs

Hominy
- Hominy may credit towards the vegetables component in a reimbursable meal or snack.
  - ¼ cup of canned, drained hominy or cooked, whole hominy (from dried hominy) credits as ¼ cup vegetable (starchy vegetable for NSLP and SBP).

Pasta
- Pasta products made of one or more 100 percent vegetable flour(s) may credit toward the vegetables requirement in all Child Nutrition Programs. For example, ½ cup of pasta made of 100 percent vegetable flour(s) credits as ½ cup of vegetables.
- Pasta products made of flour(s) from one vegetable subgroup may credit toward the appropriate vegetable subgroup for school meals. Pasta made of legume flour (e.g., red lentil flour) may credit toward the legume vegetable subgroup or the meat alternates requirement.
- Pasta products made of a blend of 100 percent vegetable flours from multiple vegetable subgroups (e.g., lentils and cauliflower) may credit in two ways for school meals:

  1. With a Product Formulation Statement (PFS) from the food manufacturer detailing the actual volume of each vegetable flour per serving, the pasta product may credit toward specific vegetable subgroups; or

  2. If the actual volume of each vegetable flour is unknown, the pasta product may credit toward the additional vegetables to meet the overall weekly vegetables requirement.

Products That Do Not Contribute Toward Meal Pattern Requirements

- Snack-type foods made from vegetables, such as potato chips
- Condiments such as pickle relish, jam, jelly, tomato catsup, or chili sauce (tomato paste is creditable)
- Home-canned products (for food safety reasons)
- Freeze-dried vegetables
- Dehydrated vegetables used for seasoning
1. ___ cup is the minimum creditable amount for any single vegetable.
   - A. ½ cup
   - B. ¼ cup
   - C. ⅛ cup

2. For school meals, sweet potatoes belong to the ______________ subgroup.
   - A. Starchy vegetable
   - B. Red/Orange vegetable
   - C. Other vegetable

3. Raw, leafy salad greens credit at ______ the volume served in school meals and CACFP.
   - A. full
   - B. half
   - C. quarter

4. Cooked leafy greens like sautéed spinach, credit at ___________ served.
   - A. volume
   - B. double the volume
   - C. half the volume

5. Dehydrated vegetables used as seasoning ______ creditable.
   - A. are
   - B. are not

6. The combination of __________________________________________ makes a one-cup vegetable serving of fresh tomato, spinach, and bean salad.
   - A. ¼ cup fresh tomatoes, 1 cup fresh spinach, and ¼ cup drained garbanzo beans
   - B. ¼ cup fresh tomatoes, 2 cups fresh spinach, and ¼ cup drained garbanzo beans
   - C. ¼ cup fresh tomatoes, 1¼ cups fresh spinach, and ½ cup drained garbanzo beans
   - D. Both A and C
Does It Credit?
You are serving Kale and Sweet Potato Soup as one of the lunch menu items for high school. The manufacturer provided the following Product Formulation Statement (PFS). You need to review the documentation to make sure the vegetables credit as stated. Use the PFS and the Food Buying Guide (FBG) information below to answer the questions.

**Product Name:** Kale and Sweet Potato Soup  
**Product Code:** 987  
**Serving Size:** 1 cup (8.20 oz)  
**Date:** 7/21/2020

### Vegetables

<table>
<thead>
<tr>
<th>Description of Creditable Ingredients per FBG</th>
<th>Vegetable Subgroup</th>
<th>Ounce per Raw Portion of Creditable Ingredient (A)</th>
<th>FBG Yield (B)</th>
<th>Purchase Unit (C)</th>
<th>Creditable Amount (A x B / C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kale, fresh, Untrimmed, cooked, drained vegetable</td>
<td>Dark Green Vegetables</td>
<td>2.80 oz</td>
<td>11.80</td>
<td>16.00 oz</td>
<td>2.0650 1/4 cups</td>
</tr>
<tr>
<td>Sweet Potatoes, frozen, Center cuts, approx. 7/8 to 1-3/8-inch thick by 1-1/4 to 1-3/4 inch diameter, cooked vegetable</td>
<td>Red/Orange Vegetables</td>
<td>3.50 oz</td>
<td>9.70</td>
<td>16.00 oz</td>
<td>2.1218 1/4 cups</td>
</tr>
</tbody>
</table>

**Total Cups Dark Green Vegetables:** 0.5163 cups  
**Total Cups Red/Orange Vegetables:** 0.5305 cups

### Meal Pattern Contribution Statement
I certify that the above information is true and correct and that a 1 cup (8.20 oz) ounce serving of the above product (ready for serving) provides 1/2 cup(s) of Dark Green vegetables, 1/2 cup(s) of Red/Orange vegetables when prepared according to directions.

____________________________  
Signature

____________________________  
Title

____________________________  
Printed Name

____________________________  
Phone Number

### 1. Food As Purchased, AP  
2. Purchase Unit  
3. Servings per Purchase Unit, EP  
4. Serving Size per Meal Contribution  
5. Purchase Units for 100 Servings  
6. Additional Information

<table>
<thead>
<tr>
<th>Kale, fresh Untrimmed</th>
<th>Pound</th>
<th>11.80</th>
<th>1/4 cup cooked, drained vegetable</th>
<th>8.50</th>
<th>1 lb AP = 0.67 lb ready-to-cook</th>
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<td>Sweet Potatoes, frozen, Center cuts, approx. 7/8 to 1-3/8-inch thick by 1-1/4 to 1-3/4 inch diameter</td>
<td>Pound</td>
<td>9.70</td>
<td>1/4 cup cooked vegetable</td>
<td>10.40</td>
<td>1 lb AP = 0.98 lb (about 2-3/8 cups) cooked sweet potatoes</td>
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**True or False:**
1. The manufacturer correctly calculated the vegetable credit for this product.  
   ○ True  ○ False

2. The students do not need any additional vegetables for a reimbursable meal because this product meets the entire vegetables component.  
   ○ True  ○ False
1. _____ cup is the minimum creditable amount for any single vegetable.
   C: ¼ cup

2. For school meals, sweet potatoes belong to the _______________ subgroup.
   B: Red/Orange vegetable

3. Raw, leafy salad greens credit at ______ the volume served in school meals and CACFP.
   B: half

4. Cooked leafy greens like sautéed spinach, credit by ______ as served.
   A: volume

5. Dehydrated vegetables used as seasoning ______ creditable.
   B: are not

6. The combination of _______________________________ makes a one-cup vegetable serving of fresh tomato, spinach, and bean salad.
   D: Both A and C
   
   **Both A and C are correct.** Remember, raw leafy greens credit at half the volume served!

   A is correct because ¼ cup fresh tomatoes plus 1 cup fresh spinach (which credits as ½ cup) plus ¼ cup of drained garbanzo beans equals 1 cup serving of vegetables.
   (¼ cup + ½ cup + ¼ cup = 1 cup)

   C is correct because ¼ cup fresh tomatoes plus 1¼ cups fresh spinach (which credits as 5/8 cup) plus ½ cup drained garbanzo beans equals 1 cup serving of vegetables.
   (¼ cup + 5/8 cup + ½ cup = 1 cup)
1. The manufacturer correctly calculated the vegetable credit for this product.

### Kale and Sweet Potato Soup

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#### Total Cups Dark Green Vegetables: 0.5163 cups  
#### Total Cups Red/Orange Vegetables: 0.5305 cups

**Meal Pattern Contribution Statement**

I certify that the above information is true and correct and that a 1 cup (8.20 oz) ounce serving of the above product (ready for serving) provides ½ cup(s) of Dark Green vegetables, ½ cup(s) of Red/Orange vegetables when prepared according to directions.

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**True:** To calculate the contribution of the creditable ingredients for the soup, information from the FBG is entered into the PFS. Multiply the amount of Kale in column A (2.8 ounces per serving) by the FBG Yield in column B (11.80), which is the number of quarter-cup Servings per Purchase Unit. Since the FBG lists the purchase unit as pounds, the PFS must divide by 16.00 ounces (column C) as there are 16 ounces in one pound.

**Let’s check the calculations:**

**Kale**

1. 2.80 ounces of Kale x 11.80 for FBG Yield (Servings per Purchase Unit) ÷ 16 ounces per pound = 2.0650 quarter-cup servings.

To obtain the number of cups of Kale, divide the result by 4, as there are 4 quarter-cups in one cup:

2.0650 quarter cups ÷ 4 = 0.5163 cup, which rounds down to 0.5 or ½ cup vegetable.

Since Kale belongs to the dark green vegetable subgroup, it provides ½ cup of dark green vegetable.
Does it Credit? (continued)

Sweet Potato

3.50 ounces of Sweet Potato x 9.70 for FBG Yield (Servings per Purchase Unit) ÷ 16 ounces per pound = 2.1218 quarter-cup servings

To obtain the number of cups of Sweet Potato, divide the result by 4 to obtain number of cups: 2.1218 quarter-cups ÷ 4 = 0.5305 cup, which rounds down to 0.5 cup of vegetable.

Since Sweet Potato belongs to the red/orange subgroup, it provides ½ cup of red/orange vegetable.

This product provides

1 cup of total vegetables:

½ cup Kale + ½ cup Sweet Potato = 1 cup vegetable

2. The students do not need any additional vegetables for a reimbursable meal because this product meets the entire vegetables component.

True: 1 cup vegetable is the minimum amount a school must offer to meet the daily vegetables requirement for grades 9–12, and a serving of the Kale and Sweet Potato Soup provides 1 cup of total vegetable. Under Offer versus Serve, students must select ½ cup of fruit or vegetable, plus two additional meal components for the meal to be reimbursable.