

Using the Food Buying Guide



South Dakota
Department of Education
Child & Adult Nutrition
Services

(1)

Welcome to the SD Child and Adult Nutrition Services webinar on Using the Food Buying Guide.
The food buying guide is one of things a menu planner or food service manager will want to get acquainted with.

Food Buying Guide (FBG)

- Purpose: gives yield information for foods – this helps you know how much food you need to buy to make your goal number of servings
1. Meat/Meat Alternate
 2. Vegetables & Fruits
 3. Grain/Bread
 4. Milk
 5. Other Foods

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The Food Buying Guide (FBG) is a good resource for figuring out how much food you need to buy for the numbers you are serving. The yield information represents average yields based on research conducted by USDA. The yield information provided for a specific food is meant to be used as a planning and production tool.

The FBG is divided up into different sections to more easily navigate the site.

Section 1 is meat/meat alternate – this is where you will find your ground beef, beef roast, pork, and beans that you want to count as a meat. This will show servings of fresh and frozen meat, poultry, and fish. Some food items will say “includes USDA Foods” so you can use those if you are using the USDA Food item.

Items like chicken, beef, pork nuggets & patties are not provided in the FBG because they do not have a required standard of identify. If you use any of these types of products, you must obtain a CN label or product specification sheet to show how that item meets requirements for the meal pattern.

Section 2 is Vegetables and Fruits – remember that USDA has separated out the vegetables from the fruits. Previously they were all combined together but now that we have vegetable subgroups, all are listed with the subgroup they belong in. Many fruits and vegetables have fresh, canned, frozen, and dehydrated forms, and they are listed alphabetically. Yields will be in ¼ cups serving unless otherwise noted. Note that some soups are credited only a ¼ cup veg per one cup. For example, if you served 1 cup tomato soup you could count it as ¼ cup vegetable in the red/orange subgroup.

Section 3 – this is the grain/bread section – you will find your pasta, rice, cereal grains, and the grain/bread chart in this section.

Section 4 – Milk – This section contains a list of fluid milk available and their updated product names

Section 5 is Other Foods – The foods in this section do not meet the requirement for any component in the meal patterns. These items are included since they are often used as condiments and seasonings to

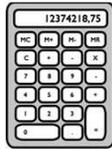
improve acceptability and customer satisfaction of the meal. Remember that any of these foods served will count toward the nutrition standards unless they are something that is purchased. Many of these foods are high in salt, sugar, and/or fat so you will want to be careful how you use them in menu planning.

What do you need?

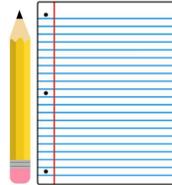
- Food Buying Guide
 - <http://www.fns.usda.gov/tn/food-buying-guide-school-meal-programs>
- Basic Internet Search



- Calculator



- Pencil & Scratch Paper



[3]

Before we get started, make sure you have these things on hand –

Food Buying Guide - The entire food buying guide can be found by following the link provided, however, a simple internet search for 'Food Buying Guide' will yield the same results.

Calculator – We will be using a calculator based on figures provided in the food buying guide

Pencil and Scratch Paper – Have a pencil and scratch paper handy, just in case.

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Fruits	Fruit and Fruit Juice APPLES	Apples, fresh 125-138 count Whole, Includes USDA Foods	Pound	14.80	1/4 cup raw, unpeeled fruit (about 1/4 apple)
Fruits	Fruit and Fruit Juice APPLES	Apples, fresh 125-138 count Whole, Includes USDA Foods	Pound	3.00	1 baked apple (about 1/2 cup cooked fruit)
Fruits	Fruit and Fruit Juice APPLES	Apples, fresh 125-138 count Whole, Includes USDA Foods	Pound	11.40	1/4 cup raw, cored, peeled fruit
Fruits	Fruit and Fruit Juice APPLES	Apples, fresh 125-138 count Whole, Includes USDA Foods	Pound	8.80	1/4 cup cored, peeled, cooked, unsweetened fruit
Fruits	Fruit and Fruit Juice APPLES	Apples, fresh 125-138 count Whole, Includes USDA Foods	Pound	5.80	1/4 cup cooked, sieved, unsweetened fruit
Fruits	Fruit and Fruit Juice APPLES	Apples, fresh Whole, Includes USDA Foods	Pound	14.58	1/4 cup raw, unpeeled, cored, sliced fruit
Fruits	Fruit and Fruit Juice APPLES	Apples, fresh 100 count Whole	Pound	15.80	1/4 cup raw, unpeeled fruit (about 1/5 apple)
Fruits	Fruit and Fruit Juice APPLES	Apples, canned Slices, Solid pack, Includes USDA Foods	No. 10 Can (100 oz)	60.40	1/4 cup fruit and liquid
Fruits	Fruit and Fruit Juice APPLES	Apples, canned Slices, Solid pack, Includes USDA Foods	No. 10 Can (100 oz)	47.50	1/4 cup drained fruit
Fruits	Fruit and Fruit Juice APPLES	Apples, canned Slices, Solid pack, Includes USDA Foods	Pound	8.08	1/4 cup fruit and liquid

1 2 3 4 5 6 7 8 9 10 ... » »

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Let's take a look at one of the pages in your FBG reference materials.

Notice that there are columns across the top containing labels. All foods are arranged in alphabetical order.

click

The first column is the **Meal Component**. This simply lists the meal component you are searching, i.e. fruits, vegetables, meat/meat alternates, grains, or milk.

click

The second column is the **Category/Subcategory**. This lists the specific component in the category such as apples, oranges, plums, etc.

click

The third column is **Food As Purchased, AP**. AP stands for As Purchased. When we are looking at apples on this page we see different sized apples, the yield changes a little with each different size. The FBG is an ESTIMATE and not an exact measurement.

click

The fourth column is **Purchase Unit**. The purchase unit is generally given as either pounds, #10 can, or smaller can sizes.

click

The fifth column is **Servings per Purchase Unit, EP**. EP stands for Edible Portion. This column shows the number of 1/4 cup servings you would get from each purchase unit. In the meat/meat alternate it would show the number of 1 or 1.5 oz eq lean meat servings you would get from each purchase unit.

The sixth column is **Serving size per meal contribution**. In the case of the apples the 1/4 cup is the serving size that counts toward the component contribution for fruit. Cups are also displayed for vegetables. For meat/meat alternate it would be recorded in 1 oz eq or 1.5 oz equivalent. We will learn more about how to use this column in just a few minutes.

These are the main columns in the food buying guide to use for calculations. There are two additional columns contained in the electronic FBG that you can use to compare items and add them to a favorites list. More information on these columns can be found in the trainings, found within the FBG itself.

Situation #1

You are planning to serve 1/4 cup servings of steamed carrot slices. You will be purchasing frozen, sliced carrots. How many pounds of frozen, sliced carrots will you need to buy?

Estimated Number of Servings: 195
 ¼ cup servings of cooked, sliced carrots

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Vegetables	Red/Orange Vegetables CARROTS	Carrots, frozen Sliced, Includes USDA Foods	Pound	9.87	1/4 cup cooked, drained vegetable

$$195 \text{ servings} \div 9.87 = 19.75$$

Round up to 20 lbs

(5)

The situation states that you plan to serve 1/4 cup of steamed carrot slices. You will purchase frozen sliced carrots. How many pounds of frozen, sliced carrots will you need to buy?

- You need to estimate the number of 1/4 cup servings you will need. In this case it is 195 1/4 cups of cooked sliced carrots.
- Next, go to the FBG and find the food in the form you intend to serve. Carrots, frozen, sliced can be located in the vegetable section of the food buying guide. The snippet is displayed on this slide for your convenience.
- There is only one selection for the frozen sliced form of carrots. We want to choose the one that is cooked, drained vegetable. Since you are using the serving size of 1/4 cup you do not need to do any other math.
- Look at column 4 for the purchase unit – this is the unit you will be purchasing the product in – pounds. Look at column 5 for the number of servings you will get from each pound of the frozen sliced carrots. For this item there are 9.87 1/4 cups per pound.
- **click** Divide the number of servings needed by the number of servings you will get per the purchase unit. 195 servings needed divided by 9.87 = 19.75 pounds. Always round **up** to the whole amount of a purchase unit to ensure enough food is available. Most likely, we will not be able to buy quarter pounds of frozen sliced carrots, so we would need 20 pounds of the frozen sliced carrots.

Situation #2

You are planning to serve boneless, cooked roast beef to 75 students of different grade levels. How many pounds of raw beef roast, without bone, will you need?

Estimated Number of Servings: 45
1.5 oz eq servings + **30** 2 oz eq servings

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF ROUND ROAST, fresh or frozen	Beef Round Roast, fresh or frozen** Without bone, 1/4-inch trim Footnote	Pound	9.75	1 oz cooked lean meat
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF ROUND ROAST, fresh or frozen	Beef Round Roast, fresh or frozen** Without bone, 1/4-inch trim Footnote	Pound	8.50	1-1/2 oz cooked lean meat

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Let's look at another situation. Here, you are planning to serve boneless, cooked roast beef to 75 students of different grade levels. How many pounds of raw beef roast, without bone, will you need?

- First, find the beef round roast without bone in the Meat/Meat Alternate section of the FBG – you always want to choose the item as it will be when served.
- Next, check the serving sizes listed and compare these to your planned serving sizes. In this case, there is both a 1 ounce and a 1.5 oz cooked lean meat option.

The next steps will continue on the next slide.

Situation #2 cont.

Estimated Number of Servings: 45
1.5 oz eq servings + 30 2 oz eq servings

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Meats/Meat Alternates/ Footnote	Beef and Beef Products BEEF ROUND ROAST, fresh or frozen	Beef Round Roast, fresh or frozen** Without bone, 1/4-inch trim Footnote	Pound	9.76	1 oz cooked lean meat
Meats/Meat Alternates/ Footnote	Beef and Beef Products BEEF ROUND ROAST, fresh or frozen	Beef Round Roast, fresh or frozen** Without bone, 1/4-inch trim Footnote	Pound	6.50	1-1/2 oz cooked lean meat

45 at 1.5 oz = 67.5 oz 1 lb = 9.76 1 oz servings
 30 at 2 oz = 60.0 oz
 Total = 127.5 oz needed

127.5 / 9.76 = 13.06 lbs.
Round up to 13.25 lbs needed

(7)

- Next, you will need to calculate the total ounces of cooked lean meat needed, so...

click

45 servings at 1.5 oz = 67.5 oz
 30 servings at 2 oz for the upper grades is 60.0 oz
 In total, you need 127.5 oz

Since this is now in units of one ounce you can use the serving size of **one ounce** cooked lean meat

click

Column 4 refers to the purchase unit which you will be purchasing this meat in, which is pounds. Column 5 shows the number of servings you will get from the purchased unit or 1 pound, which is 9.76 1 oz servings per pound.

So again, we can divide the total number of ounces we need by the number of servings we will get from the purchase unit.

click 127.5 divided by 9.76 = 13.06. Round up to the nearest quarter pound, which would be 13.25 pounds. So, 13.25 pounds of raw beef round roast without bone is needed for the required serving sizes for 75 people.

Situation #3

You are planning to serve 1.5 oz eq portions of cooked ground beef for 60 people. How many purchase units of frozen, ground beef, USDA Commodity, not more than 20% fat, do you need to buy?

Estimated Number of Servings: 60
1.5 oz eq portions

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF, GROUND, fresh or frozen	Beef, Ground, fresh or frozen ¹⁸ no more than 20% fat; includes USDA Foods. (Like IMPS #136) Footnote	Pound	11.80	1 oz cooked lean meat
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF, GROUND, fresh or frozen	Beef, Ground, fresh or frozen ¹⁸ no more than 20% fat; includes USDA Foods. (Like IMPS #136) Footnote	Pound	7.80	1-1/2 oz cooked lean meat

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Here is another situation to work through -

You are planning to serve 1.5 oz eq portions of cooked ground beef for 60 people. How many purchase units of frozen, ground beef, USDA Commodity, not more than 20% fat, do you need to buy?

Locate the product in the food buying guide. Since our serving size is 1.5 oz eq, and the food buying guide has this serving size as a Serving Size option, no conversion is needed.

We will continue on the next slide.

Situation #3 cont.

Estimated Number of Servings: 60

1.5 oz eq portions

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF, GROUND, fresh or frozen	Beef, Ground, fresh or frozen ¹⁰ no more than 20% fat, Includes USDA Foods, (Like /MPS #136) Footnote	Pound	11.80	1 oz cooked lean meat
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF, GROUND, fresh or frozen	Beef, Ground, fresh or frozen ¹⁰ no more than 20% fat, Includes USDA Foods, (Like /MPS #136) Footnote	Pound	7.89	1-1/2 oz cooked lean meat

1 lb = 7.89 1.5 oz eq servings

$60 \div 7.89 = 7.60$ lbs.

Round up to 7.75 lbs needed

(9)

We can clearly see that 1 lb of ground beef provides 7.89 1.5 oz eq servings (click)

The next step would be to divide the number of servings needed (60) by the number of servings per purchase unit (7.89). (click)

60 divided by 7.89 gives us 7.60. Round to to 7.75 lbs.

Situation #4

Assume that you need enough USDA Commodity ground beef (not more than 20% fat) to prepare meatloaf for 325 people.

Estimated Number of Servings:

K-5: 153 2 oz; 6-8: 157 2 oz; 9-12: 90 2 oz

$$\text{K-5: } 153 \times 2 \text{ oz} = 306 \text{ oz}$$

$$\text{6-8: } 157 \times 2 \text{ oz} = 314 \text{ oz}$$

$$\text{9-12: } 90 \times 2 \text{ oz} = 180 \text{ oz}$$



$$306 + 314 + 180 = 800 \text{ oz}$$

(10)

Situation #4.

Assume that you need enough USDA Commodity ground beef (not more than 20% fat) to prepare meatloaf for 325 people.

The estimated number of servings are **K-5: 153; 6-8: 157; 9-12: 90**

Multiply the total number of servings expected to be taken by each grade group by the serving size to determine the amount you need

After adding together the ounces needed per grade group, we can see that we would need 800 total ounces.

We will continue on the next slide.

Situation #4 cont.

**Estimated Number of Servings:
K-5: 153 2 oz; 6-8: 157 2 oz; 9-12: 90 2 oz**

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF, GROUND, fresh or frozen	Beef, Ground, fresh or frozen ¹⁸ no more than 20% fat, Includes USDA Foods, (Like #MPS #136) Footnote	Pound	11.80	1 oz cooked lean meat
Meats/Meat Alternates Footnote	Beef and Beef Products BEEF, GROUND, fresh or frozen	Beef, Ground, fresh or frozen ¹⁸ no more than 20% fat, Includes USDA Foods, (Like #MPS #136) Footnote	Pound	7.89	1-1/2 oz cooked lean meat

1 lb = 11.8 1 oz servings

**$800 \div 11.8 = 67.79$
Round up to 68 lbs**

(11)

We can see that 1 lb of ground beef contains 11.8 1oz servings. Since this is all in 1 ounce form, we can take 800 total ounces divided by 11.8 to determine the number of pounds needed.

67.79 lbs would be needed. Let's round up to 68 lbs.

Situation #5

Assume you have an offer-versus-serve school and need enough frozen cut green beans to serve 325 people. K-5 receives $\frac{3}{4}$ cup, 6-8 receives $\frac{3}{4}$ cup, and 9-12 receives 1 cup. How many pounds are needed?

Estimated Number of Servings:

K-5: $130 \frac{3}{4}$ c; 6-8: $125 \frac{3}{4}$ c; 9-12: 100 1 c

$$\text{K-5: } 130 \times 0.75 \text{ c} = 97.5 \text{ c}$$

$$\text{6-8: } 125 \times 0.75 \text{ c} = 93.75 \text{ c}$$

$$\text{9-12: } 100 \times 1 \text{ c} = 100 \text{ c}$$

$$97.5 + 93.75 + 100 = 291.25 \text{ c}$$

(12)

One last situation. Assume you have an offer-versus-serve school and need enough frozen cut green beans to serve 325 people. K-5 receives $\frac{3}{4}$ cup, 6-8 receives $\frac{3}{4}$ cup, and 9-12 receives 1 cup. How many pounds are needed?

We have estimated servings of **K-5: 130; 6-8: 125; 9-12: 100**

We will take the serving size per grade group and multiply by the number of servings. We will do this for each grade group, and then add our results. We add 97.5 (from K-5) + 93.75 (from 6-8) + 100 (from 9-12) to come up with a total of 291.25 cups needed. (click)

Situation #5 cont.

Estimated Number of Servings:

K-5: 130 3/4 c; 6-8: 125 3/4 c; 9-12: 100 1 c

Meal Component	Category / Subcategory	Food As Purchased, AP	Purchase Unit	Servings per Purchase Unit, EP	Serving Size per Meal Contribution
Vegetables	Other 'Vegetables' Footnote BEANS, GREEN	Beans, Green, frozen Cut, Includes USDA Foods	Pound	11.60	1/4 cup cooked, drained vegetable

$$11.6 / 4 = 2.9 \text{ cups per pound}$$

$$291.25 / 2.9 = 100.43 \text{ lbs}$$

Round up to 100.5 lbs needed

(13)

The food buying guide tells us that 1 lb of frozen green beans provides 11.60 1/4 c servings.
click

In order to make our division work, we need to divide 11.6 by 4 to convert the servings in the food buying guide to cup form. This is done to match the food buying guide with total number of cups we determined that we need.

11.6 divided by 4 equals 2.9 cups per pound.

click

We can now take our 291.25 cups and divide it by 2.9 cups per pound to determine the number of pounds needed.

Food Buying Guide

Food Buying Guide for Child Nutrition Programs Interactive Web-Based Tool

The interactive Food Buying Guide allows for easy searching, navigating, and displaying of content. In addition, users can compare yield information, create a favorite foods list, and access tools, such as:

- The FBG Calculator
- Exhibit A Grains Tool
- Download Food Buying Guide
- Recipe Analysis Workbook (RAW), and
- Product Formulation Statement (PFS) Workbook.

Create a profile in order to save the following: food items in your Favorites list, shopping lists created by the FBG Calculator, analyzed recipes using the RAW, and Product Formulation Statements.

PLEASE NOTE: An USDA eAuthentication account is needed to access the interactive sections of the guide. If you do not have an USDA eAuthentication account, go to the "Create Account" button on the top right of the page. If you do not have an email with a link to activate your account with one simple click.

Contact cnptab@usda.gov for assistance in accessing the tool.

Login or Create a Profile

OR

Continue as a Guest User

Select Organization Type

Enter

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The title of this slide is a link to the Food Buying Guide. Please click and login based on your choice. We highly recommend creating an account so that you can use the interactive sections of the guide. You can save food items, create shopping lists, and more, all within the FBG.

Food Buying Guide Tips

An official website of the United States government [Here's how you know](#)

USDA Food Buying Guide for Child Nutrition Programs
U.S. DEPARTMENT OF AGRICULTURE

HOME - MEAL COMPONENTS - FOOD ITEMS - TOOLS - APPENDIXES - HELP - LOG OUT

WELCOME TO THE FOOD BUYING GUIDE
The Interactive Food Buying Guide allows for easy display, search, and navigation of food yield information. In addition, users can compare yield information, create a favorite foods list, and access tools, such as the Recipe Analysis Workbook (RAW) and the Product Formulation Statement Workbook.

Food Items Search	Exhibit A Grains Tool	Download Food Buying Guide
FBG Calculator		Recipe Analysis Workbook (RAW)

MEATS/MEAT ALTERNATES

FRUITS

MILK

VEGETABLES

GRAINS

OTHER FOODS

FNS | CNPP | USDA | FOIA | USDA Policies and Links | Accessibility Statement | Privacy Policy | Information Quality | No Fear Act | Nondiscrimination Statement | USA.gov | Whitehouse.gov

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The tool bar at the top of the screen has lots of helpful information. Each heading has a drop down arrow that contains more options. The HELP option has training videos on how to use the interactive FBG. Each of the sections throughout the page will also take you to the same places, so there are various ways to get to each section of the FBG. We encourage you to use this and save data, watch the videos, and use the interactive FBG to your advantage.

Thank you!

Please feel free to contact the **CANS office**
with any questions!



Phone: 605-773-3413

Email: DOE.SchoolLunch@state.sd.us

Website: doe.sd.gov/cans/

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Thank you for attending this webinar on the food buying guide and the food buying guide calculator.

If you have any questions on this training, please feel free to contact our office. You can email us at DOE.SchoolLunch@state.sd.us or give us a call at 605-773-3413, or you can visit our website.

Food Buying Guide and FBG Calculator Training
Professional Standards Training Credit
Print, sign & date this certificate for your records.

This training credits for 30 minutes of training in
Key Area 1 – Menu Planning
1150 – Menu Planning – Menu Analysis
Key Area 2 – Operations
2150 – CN Labeling, Crediting

Your Name:
Date of Training:

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(2) Fax: (202) 690-7442; or

(3) Email: program.intake@usda.gov.

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