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.
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

• Basic Internet Search

• Calculator

• Pencil & Scratch Paper

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.
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

1/4 cup servings of cooked, sliced carrots

\[
\text{195 servings} \div 9.87 = 19.75
\]

Round up to 20 lbs

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

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

45 at 1.5 oz = 67.5 oz
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

• 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

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

<table>
<thead>
<tr>
<th>Meal Component</th>
<th>Category / Subcategory</th>
<th>Pound As Purchased, AP</th>
<th>Purchase Unit</th>
<th>Servings LP Purchase Unit</th>
<th>Servings Per Meal Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamburger</td>
<td>Beef, Ground, Fresh or Frozen</td>
<td>1.5 oz eq portions</td>
<td>1 lb = 7.89 1.5 oz eq servings</td>
<td>60 ÷ 7.89 = 7.60 lbs.</td>
<td>Round up to 7.75 lbs needed</td>
</tr>
</tbody>
</table>

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 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

K-5: 153 x 2 oz = 306 oz
6-8: 157 x 2 oz = 314 oz
9-12: 90 x 2 oz = 180 oz

306 + 314 + 180 = 800 oz

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.
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 3/4 cup, 6-8 receives 3/4 cup, and 9-12 receives 1 cup. How many pounds are needed?

**Estimated Number of Servings:**
- K-5: 130 3/4 c
- 6-8: 125 3/4 c
- 9-12: 100 1 c

\[
\begin{align*}
\text{K-5: } & \quad 130 \times 0.75 \text{ c} = 97.5 \text{ c} \\
\text{6-8: } & \quad 125 \times 0.75 \text{ c} = 93.75 \text{ c} \\
\text{9-12: } & \quad 100 \times 1 \text{ c} = 100 \text{ c}
\end{align*}
\]

\[97.5 + 93.75 + 100 = 291.25 \text{ c}\]

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 ¾ cup, 6-8 receives ¾ 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

<table>
<thead>
<tr>
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<th>Purchase Unit</th>
<th>Servings per Purchase Unit AP</th>
<th>Serving Size per Meal Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables</td>
<td>Other Vegetables</td>
<td>Frozen, canned</td>
<td>Pound</td>
<td>11.60</td>
<td>1/4 cup cooked, drained vegetables</td>
</tr>
</tbody>
</table>

11.6 / 4 = 2.9 cups per pound

291.25 / 2.9 = 100.43 lbs
Round up to 100.5 lbs needed

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.
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.
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 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.
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:

This training credits for 30 minutes of training in Key area 1- menu planning and key area 2-operations.
This is the certificate of training completion, please print and sign this slide for your records.
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(3) Email: program.intake@usda.gov.

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