FOOD BUYING GUIDE (FBG)

For Child Nutrition Programs
The Buy American Provision is a very important provision in the National School Lunch and Breakfast Programs (NSLP/SBP). This provision does not apply to Child and Adult Care Food Program (CACFP) sponsors who are not school food authorities operating the NSLP/SBP.

This provision requires that a school food authority purchase, to the maximum extent practicable, domestic commodities or products. The term “domestic commodity or product” means an agricultural commodity that is produced in the United States or a food product that is processed in the United States substantially using agricultural commodities that are produced in the United States.

The definition of “substantially” means that over 51% of the final processed product consists of agricultural commodities that were grown domestically; however, exceptions to purchase domestic foods are very limited. These limited exceptions are only permitted after first considering domestic alternatives and when domestic foods are unavailable or prohibitively expensive.
Objectives

- History
- Contents of the Food Buying Guide (FBG)
- How to use the FBG
  - Book
  - On-Line Version
  - Mobile Application
History

• 1947 - First titled “Quantities of Food for Serving School Lunches”
• 1955 – Updated to “Food Buying Guide”
• 1984 – Changed for all Child Nutrition Programs to Food Buying Guide for CN Programs
• NOW – Food Buying Guide is:
  – still a Book “Food Buying Guide”
  – On-Line
  – Mobile App
About the Food Buying Guide

• It is a big - and very important - job to plan, purchase, prepare, and serve nourishing meals for the U.S. Department of Agriculture's Child Nutrition Programs. Every day, your work helps fight hunger and improve the nutritional health of children and adults in America.

• Whether you are serving food to a small number of children or adults, or hundreds of students, you need to think carefully about each meal.
Questions to Ask Yourself

• Will the meal or snack meet the appropriate requirements of the various Child Nutrition Programs?
• What quantity of the raw product is needed to provide the amount of ready-to-cook food called for in a recipe?
• How many servings will you get from a specific quantity of food?
• How much food will you need to buy?
What is Included in the FBG?

Reflects the updated meal pattern requirements for the NSLP, SBP, and CACFP including:

- New grain items that are whole grain or whole-grain rich,
- The separation of vegetable and fruit components and
- The addition of vegetable subgroups (beans and peas, red/orange, dark green, starchy, and other vegetables).
- Offering specific amounts of vegetables from each vegetable subgroup weekly is only required in the school meal programs. However, other Child Nutrition Programs (CACFP and SFSP) may wish to use these subgroups as a guide for offering a variety of vegetables to program participants.
What is in FBG (cont.)?

• Is the most comprehensive to date. It includes over 2,100 food items or pack sizes, each carefully tested using the equipment and methods that would be used in a typical food service setting.

• Is packed with helpful information. For example, practical examples are included to serve as a how-to guide for working with the yield data tables.

• Contains the meal pattern requirement charts for each Child Nutrition Program.
Yields

Yield information is a valuable planning and production tool used to:

• estimate the amount of food to purchase;
• determine meal pattern contribution for each food component;
• control foods costs;
• prevent food waste; and
• ensure an adequate quantity of food is produced each meal.
What is Meant by Yields?

• Based on careful portioning and weighing

• Using tools such as scales, measuring cups, and measuring spoons
  – To get accurate yield you must weigh or measure portions carefully to ensure each serving size is appropriate for the grade group
Example of Yield

• If you purchase ground beef and plan to serve 275 portion of meatloaf, which provides 2 ounces of COOKED meat per portion, the yield is how you determine how many ounces of raw ground beef is necessary for the recipe to make 275 2-ounce servings of cooked lean meat.
Meal Patterns

• All Child Nutrition Program meal patterns follow a food-based mean planning approach
• Requires specific amounts of foods to be served
• Requires variety of foods to be served each day
Help Using Guide

This section contains a variety of information and reference tools, starting with a list of common abbreviations and symbols used. Also included are tips on portion control and tables showing:

➤ Common can and jar sizes
➤ How to substitute one can size for another
➤ How to convert customary units (such as pounds and ounces) to their metric equivalents
➤ How to convert parts of a unit (such as 1/2 gallon or 1/4 pound) to the correct decimal equivalent
Common Can and Jar Sizes – per Can
The tables on page I18 & I19 of the Introduction of the FBG provide helpful information on 10 common can and jar sizes. Table 2 lists: 1) the average total net weight or fluid measure per can; and 2) the average volume per can. Table 3 gives information on number of cans per case and principal products.
➤ Can sizes are industry terms and do not necessarily appear on the label.
➤ The net weight on can or jar labels differ according to the density of the contents. For example, a No. 10 can of sauerkraut weighs 6 lb 3 oz (2.81 kg), while a No. 10 can of cranberry sauce weighs 7 lb 5 oz (3.32 kg).
No. 10 cans of the same food item may have different net weights depending on the manufacturer.
➤ Canned meats, fish, and shellfish are known and sold by the weight (not volume) of the contents in the can.
Introduction (cont.)
How are Foods Listed?

- Individual foods
- Arranged Alphabetically within appropriate meal component
  - Examples: Section 1. Meat/Meat Alternate
  - Section 2. Vegetables
  - Section 3. Fruits
  - Section 4. Grains
  - Section 5. Milk
  - Section 6. Other Foods
Layout of FBG

• Column format that provides the following:
  – Foods as Purchased, AP
  – Servings per purchased units, EP
  – Serving size per meal contribution
  – Purchase units for 100 servings
  – Additional Information
Working with the FBG

• Calculating how much food is needed for a given number of servings
• How foods are purchased, by can, pounds, ounce etc.
  – May need to round up when calculating how much to buy
  – Round down when calculating the creditable amount of food towards meeting a meal pattern requirement
Working with FBG

• Methods used to Determine the quantity of food needed for a given number of servings
  – Method 1 Using Servings per Purchased Unit
    • Variation 1 – No conversion of serving size needed
    • Variation 2- Conversion of serving size required
  – Method 2 Using purchase units for 100 servings
Conversion

- If you are using the serving size in the FBG there is NO Conversion necessary
  – Simply use what it there
Example of Conversion

• **Method 1 Example D: Baked Beans, Vegetarian, Canned**
  You plan to serve 1/2 cup servings of canned, vegetarian baked beans. You purchase USDA Foods baked beans in sauce, vegetarian, in No. 10 cans (108 oz). How many No. 10 (108 oz) cans do you need?

• **Estimate the number of servings of prepared food you need.**
  You estimate that you need 120 1/2 cup servings.

• **Locate the food in the Food Buying Guide in the form you intend to serve.**
  For the listing Bean Products, dry beans, canned, Beans Baked in Sauce, Vegetarian (found in “Food As Purchased, AP” column) you look for:
Example of Conversion (cont.)

• Heated beans (found in “Serving Size per Meal Contribution” column)

• Check the serving size listed in “Serving Size per Meal Contribution” column. Compare this to your planned serving size.

“Serving Size per Meal Contribution” column reads: 1/4 cup heated beans with sauce

Since there is no serving size for 1/2 cup of heated beans with sauce, a conversion is needed.
Example of Conversion (cont.)

- Calculate the number of 1/4 cup servings of baked beans with sauce needed.
  - Divide 1/2 by 1/4. (convert fractions to decimals; 1/2 = 0.5, and 1/4 = 0.25)
    \[0.5 \div 0.25 = 2.0\]
  - Multiply the factor (2.0) by the number of servings needed (120)
    \[2.0 \times 120 = 240 \text{ 1/4 cup servings}\]

- You need a total of 240 1/4 cup servings of baked beans with sauce.
- Since this number is in units of 1/4 cup servings, you can now use the serving size of 1/4 cup baked beans with sauce as found in “Serving Size per Meal Contribution” column.
<table>
<thead>
<tr>
<th>Meal Component</th>
<th>Meats/Meat Alternates¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal Category</td>
<td>Legumes, Dry Beans and Peas</td>
</tr>
<tr>
<td>Subcategory</td>
<td>BEAN PRODUCTS</td>
</tr>
<tr>
<td>Food As Purchased, AP</td>
<td>Bean Products, dry beans, canned, Beans Baked in Sauce, Vegetarian</td>
</tr>
<tr>
<td></td>
<td>Includes USDA Foods</td>
</tr>
<tr>
<td>Purchase Unit</td>
<td>No. 10 Can (108 oz)</td>
</tr>
<tr>
<td>Servings per Purchase Unit, EP</td>
<td>47.10</td>
</tr>
<tr>
<td>Serving Size per Meal Contribution</td>
<td>1/4 cup heated beans with sauce</td>
</tr>
<tr>
<td>Purchase Units for 100 Servings</td>
<td>2.20</td>
</tr>
<tr>
<td>Additional Information</td>
<td>1 No. 10 can = about 11-3/4 cups heated beans with sauce</td>
</tr>
<tr>
<td>Footnote</td>
<td>¹ Information about Alternate Protein Products (APP) can be found in 7 CFR Parts 210, 215, 220, 225, and 226.</td>
</tr>
</tbody>
</table>
Conversion of Beans (cont)

- If you need 240 ¼ cup servings and one #10 can provides you with 47.10 ¼ cups
- To find how many cans you need, divide 240/47.1 equals 5.09 cans of beans needed for 240 ¼ cups or 120 ½ cups of beans
Simple Conversion

The $\frac{1}{2}$ cup serving is exactly double the $\frac{1}{4}$ cup that is listed in the FBG, simply divide the 47.1 (number of $\frac{1}{4}$ cup servings) by 2 (or $\frac{1}{2}$ of 47.1). This gives 23.55 $\frac{1}{2}$ cup servings from #10 can.

Now, knowing there are 23.55 $\frac{1}{2}$ cups in #10 can of beans, for the 120 servings of $\frac{1}{2}$ cups, how many #10 can will need to be purchased?

Take 120 servings divided by 23.55 =5.0955, the same number of cans when the 240 $\frac{1}{4}$ cups are divided by 47.1
Link to Food Buying Guide For Child Nutrition Programs

USDA Food and Nutrition Service Site

The Food Buying Guide Interactive Web-based Tool

The Food Buying Guide Mobile App

Food Buying Guide Brochure

Navigating the Food Buying Guide Calculator

Exhibit A Grains Tool to the Rescue!
Login or Create a Profile

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 tool. New and existing users who have an USDA eAuthentication account can proceed to the Tool by clicking on the ‘Login or Create a Profile’ button.

If you do not have an USDA eAuthentication Account, go to Create Account. You will immediately receive an email with a link to activate your account with one simple click.

Contact cnpntab@usda.gov for assistance in accessing the site.

Login or Create a Profile

OR
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.
Let's look at On-Line Guide

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

OKLAHOMA STATE DEPARTMENT OF EDUCATION
CHAMPION EXCELLENCE
Searching for Ground Beef

Search Food Items

Keywords:
ground beef

Meal Component:
All Meal Components

Category:
All Categories

Search
Reset Search
<table>
<thead>
<tr>
<th>Meal Component</th>
<th>Category / Subcategory</th>
<th>Food As Purchased, AP</th>
<th>Purchase Unit</th>
<th>Servings per Purchase Unit, EP</th>
<th>Serving Size per Meal Contribution</th>
<th>Add to Compare</th>
<th>Add to Favorites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef and Beef Products</td>
<td>BEEF, GROUND, fresh or frozen</td>
<td>Beef, Ground, fresh or frozen</td>
<td>Pound</td>
<td>11.20</td>
<td>1 oz cooked lean meat</td>
<td>Add</td>
<td>Add</td>
</tr>
<tr>
<td>Beef and Beef Products</td>
<td>BEEF, GROUND, fresh or frozen</td>
<td>Beef, Ground, fresh or frozen</td>
<td>Pound</td>
<td>7.46</td>
<td>1-1/2 oz cooked lean meat</td>
<td>Add</td>
<td>Add</td>
</tr>
<tr>
<td>Beef and Beef Products</td>
<td>BEEF, GROUND, fresh or frozen</td>
<td>Beef, Ground, fresh or frozen</td>
<td>Pound</td>
<td>11.50</td>
<td>1 oz cooked lean meat</td>
<td>Add</td>
<td>Add</td>
</tr>
</tbody>
</table>
## Ground Beef 80/20

<table>
<thead>
<tr>
<th>Meal Component</th>
<th>Category</th>
<th>Food As Purchased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meats/Meat</td>
<td>Beef and Beef Products</td>
<td>Beef, Ground, fresh or frozen&lt;sup&gt;3,10&lt;/sup&gt;</td>
</tr>
<tr>
<td>Alternates&lt;sup&gt;1&lt;/sup&gt;</td>
<td>BEEF, GROUND, fresh or frozen</td>
<td>no more than 20% fat, Includes USDA Foods, (Like IMPS #136)</td>
</tr>
<tr>
<td>Footnote</td>
<td></td>
<td>Footnote</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purchased Unit</th>
<th>Servings per Purchased Unit</th>
<th>Serving Size per Meal Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pound</td>
<td>11.80</td>
<td>Add</td>
</tr>
<tr>
<td></td>
<td>1 oz cooked lean meat</td>
<td>Add</td>
</tr>
</tbody>
</table>
I. How were the yields in the Food Buying Guide (FBG) determined? The yield information provided in FBG represents average yields based on research conducted by USDA. A variety of samples were procured from different vendors. Foods were prepared, portioned, and weighed in manner similar to an institutional setting (school foodservice). The appropriate measuring tools (scoops/ladles) and calibrated scales were used to obtain yield data.

II. How do I determine the meal contribution for a food that is not in the Food Buying Guide? If a food is not listed in the Food Buying Guide (FBG) you may choose a food that is similar and use the yield information for that food to determine the meal contribution. For example, if a recipe calls for pea tendrils which is not listed in the FBG, the yield information for watercress may be used because it is a similar food. If the State agency approves, in-house yields may be developed and used. Instructions for developing in-house yields are available in Yields in “About the Food Buying Guide”.
The yield value for my fruit or vegetable item is consistently higher or lower than the yield specified in the Food Buying Guide (FBG)?
If the State agency approves, in-house yields may be developed and used. Instructions for developing in-house yields are available in the FBG introduction. Please see Yields in “About the Food Buying Guide”.
Frequently Asked Questions (cont)

How do I use the “Additional Information” column of the Food Buying Guide (FBG)?

The “Additional Information” column provides the data used to calculate yields for foods purchased in a form different from the form listed in the “Food As Purchased, AP” column. 

Reminder: To determine the yield information for your food, it must be in the as purchased (AP) form as listed in the FBG.

Let’s look at an example using 5 pounds 8 ounces of ready-to-cook (RTC) butternut squash.

As shown below, butternut squash is listed in the FBG as Squash, Winter, fresh, Butternut Whole in the “Food As Purchased, AP” column. Since you purchased butternut squash in the RTC form, you must convert it to match the AP form in the FBG to determine the yield (meal pattern contribution) for your squash. Use the “Additional Information” column to convert as follows:

1. Refer to the yield information in the “Additional Information” column for Squash, Winter, fresh Butternut Whole:

   1 lb AP = 0.84 lb ready-to-cook pared squash

In other words, 1 pound of whole butternut squash as purchased (AP), yields 0.84 pounds of pared, ready-to-cook squash.
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Red/Orange Vegetables - SQUASH, WINTER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squash, Winter, fresh</td>
<td>Pound</td>
<td>7.50</td>
<td>1/4 cup cooked, drained, pared,</td>
<td>13.40</td>
<td></td>
<td>1 lb AP = 0.84 lb ready-to-cook pared squash</td>
</tr>
<tr>
<td>Butternut, Whole</td>
<td></td>
<td></td>
<td>cubed vegetable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pound</td>
<td>5.40</td>
<td>1/4 cup cooked, pared, drained,</td>
<td>18.60</td>
<td></td>
<td>1 lb AP = 0.84 lb ready-to-cook pared squash</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mashed vegetable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Divide the 5 pounds 8 ounces of the RTC squash by the yield information as follows:
   
   1. First convert 5 pounds 8 ounces of RTC squash to the decimal equivalent in pounds:

   $5 \text{ pounds } 8 \text{ ounces} = 5.5 \text{ pounds}.$ \hspace{1em} (8oz/16oz (is pound)=.5

   2. Divide the 5.5 pounds of your RTC squash by the weight of the RTC pared squash from the “Additional Information” column (0.84 pounds) to determine the quantity of AP whole butternut squash (6.54 pounds):

   $5.5 \text{ lb } \div 0.85 \text{ lb } = 6.54 \text{ lb}$

   In other words, 6.54 pounds of whole butternut squash are needed to provide 5.5 pounds of RTC butternut squash.

   Use the calculated quantity of whole butternut squash (6.54 pounds) to determine the yield (meal pattern contribution) of the 5 pounds 8 oz of RTC butternut squash you purchased.
The Food Buying Guide Mobile App

The Food Buying Guide Mobile App

Food Buying Guide Brochure
Mobile App

Search and locate yield information for foods typically served in child nutrition programs.

Compare yield information to determine the foods that best meet your program needs.

Create a favorites list of food items!

Email and print search results, food comparisons, and favorites list.
Mobile App (Cont)

- Works like the on-Line version
  - Search
  - Yield Tables
  - Favorites List
  - Meal Components
  - More
  - Appendixes
Brochure
Other FBG Resources

Recorded Webinar:
Food Buying Guide Goes Digital

Recorded Webinar:
Navigating the Food Buying Guide Calculator
USDA’s Training Video

Chapter 1: Introduction (last updated on 5/16/2019)
Chapter 2: Navigating via Home Page Buttons (last updated on 7/05/2019)
Chapter 3A: FBG Calculator (last updated on 3/28/2019)
Chapter 3B: Recipe Analysis Workbook (last updated on 3/28/2019)
Chapter 3C: Product Formulation Statement (last updated on 3/28/2019)
Chapter 3D: Exhibit A Grains Tool (last updated on 8/29/2019)
Chapter 4: Navigating via Top Navigation Menu (last updated on 8/15/2019)
Training Video Transcript (last updated on 8/29/2019)
THANK YOU!

Presented by:
Dana Parker
Director of Training
Dana.parker@sde.ok.gov
This institution is an equal opportunity provider
Office of Child Nutrition
State of Oklahoma

HAS COMPLETED 1 HOUR OF TRAINING
Attending the Food Buying Guide Webinar
2019-2020 School Year

November 14, 2019

DEBBIE HAMILTON
DIRECTOR OF CHILD NUTRITION PROGRAMS