3-1 Introduction to Lesson Plan
3-3 Overview of Lesson Plan
3-7 LA 3-1: Flow Chart for Determining G/B Creditability
3-10 LA 3-2: Calculate Creditability
3-10 LA 3-3: Review G/B Labels
3-16 LA 3-4: Credit G/B Servings Based on Grain Content of a Recipe
3-17 LA 3-5: Using FCS Instruction 783.1 Rev 2: Exhibit A
3-18 Evaluation: Section 3, Grains/Breads (G/B)
Lesson Plan: Section 3, Grains/Breads (G/B)

Goals
This lesson will

- provide an overview of the food products that contribute to the G/B component of the CNP meal patterns;
- review the types of information found in the FBG yield data tables, Columns 1–6;
- provide an overview of the regulations specific to the G/B component;
- introduce the use of FCS Instruction 783.1 Rev 2: Exhibit A for determining the required serving sizes of various G/B products;
- introduce the calculation used to determine the contribution of a food product to the G/B component, based on the grain content; and
- introduce the use of the Flow Chart for Determining G/B Creditability.

Objectives
The successful participant will demonstrate the ability to

- locate various foods in the FBG Section 3, G/B, and identify the defining characteristics between multiple entries in the same category (FBG yield data table, Column 1);
- use the FCS Instruction 783.1 Rev 2: Exhibit A to determine the portion size required to provide 1 serving of G/B;
- calculate the contribution of a G/B based on the grain content of the food product; and
- use the Flow Chart for Determining G/B Creditability.
Instructor Notes

- On page 3-2 of the FBG, reference is made to sweet food products including formulated grain-fruit products. You will find this information on the Title 7 Web site; however, it is not necessary for teaching the course.
- The instructor should provide labels for LA 3-3 or ask students to bring labels from commercially prepared G/B products to class.

Equipment

- LCD or overhead projector
- Flip chart, whiteboard or blackboard, and markers or chalk
- Calculators

Visual Aids

- PowerPoint presentation or overhead slides
- FBG Section 3, Grains/Breads (G/B)
- Assorted labels from commercially prepared G/B products for LA 3-3

Time

1 hour 10 minutes

Time indicated refers to teaching points. The actual time necessary to complete the lesson will vary dependent on the learning activities and/or evaluation selected by the instructor, as well as the skills and knowledge of the participants.
## Overview of Lesson Plan: Section 3, Grains/Breads (G/B)

<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pg. 3-1</td>
<td>3.1 Introduction to G/B</td>
<td>Slide 3-1</td>
</tr>
<tr>
<td></td>
<td><em>Time: 5 min.</em></td>
<td><img src="image" alt="Slide 3-1" /></td>
</tr>
<tr>
<td></td>
<td>▪ All food products typically credited as contributing to the G/B component of the meal patterns are represented.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Food products are arranged alphabetically.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Commonly used food products are represented on FCS Instruction 783.1 Rev 2: Exhibit A.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pg. 3-1</th>
<th>3.2 G/B and the Meal Patterns</th>
<th>Slide 3-2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Time: 2 min.</em></td>
<td><img src="image" alt="Slide 3-2" /></td>
</tr>
<tr>
<td></td>
<td>▪ G/B is required to be offered in almost every food-based menu planning approach under the NSLP, CACFP, and SFSP.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ G/B <em>may be offered</em> under the SBP and for CACFP, SFSP, and afterschool snacks.</td>
<td></td>
</tr>
</tbody>
</table>

Specific Serving Sizes for Grains/Breads (G/B) Are Indicated on Individual Program Meal Patterns
### Teaching Points

**Time:** 5 min.

Review bulleted definitions.

- Bran is the seed husk or outer coating of cereal grains.
- Breakfast cereal is any cereal served ready to eat (cold dry) or cooked.
- Creditable grains are enriched or whole-grain meal and/or flour, bran, and/or germ.
- Enriched means the product conforms to the Food and Drug Administration’s standard of identity for levels of iron, thiamin, riboflavin, niacin, and folic acid.
- The terms “enriched” and “fortified” are similar terms to indicate the addition of one or more vitamins or minerals or protein to a food unless an applicable Federal regulation requires the use of specific words or statements.
- “Enriched” adds back what was lost during processing. The exception for enrichment is folic acid.
- “Fortified” adds something not originally present.
- Flour is the product derived by finely grinding and bolting (sifting) grains. Flour may be made from all grains.
- Grains/Breads servings designates the contribution a given serving size makes toward the meal pattern.
- Germ is the vitamin-rich embryo of the grain kernel. The germ can be separated before milling for use as a cereal or food supplement.
- Primary grain ingredient is the first listed grain ingredient in the ingredient statement.
- Whole-grain flour or meal is the product derived by grinding the entire grain. If a flour or meal does not contain the bran and the germ, it is not whole grain.

### Equipment/Visual Aids

**Slide 3-4**

**Grains/Breads (G/B) Related Definitions**

- Bran is the seed husk or outer coating of cereal grains.
- Breakfast cereal is any cereal served ready to eat (cold dry) or cooked.
- Creditable grains are enriched or whole-grain meal and/or flour, bran, and/or germ.

**Slide 3-5**

**Grains/Breads (G/B) Related Definitions**

- Enriched means the product conforms to the Food and Drug Administration’s standard of identity for levels of iron, thiamin, riboflavin, niacin, and folic acid.
- The terms “enriched” and “fortified” are similar terms to indicate the addition of one or more vitamins or minerals or protein to a food unless an applicable Federal regulation requires the use of specific words or statements.
- “Enriched” adds back what was lost during processing. The exception for enrichment is folic acid.
- “Fortified” adds something not originally present.

**Slide 3-6**

**Grains/Breads (G/B) Related Definitions**

- Flour is the product derived by finely grinding and bolting (sifting) grains. Flour may be made from all grains.
- Grains/Breads servings designates the contribution a given serving size makes toward the meal pattern.

**Slide 3-7**

**Grains/Breads (G/B) Related Definitions**

- Germ is the vitamin-rich embryo of the grain kernel. The germ can be separated before milling for use as a cereal or food supplement.
- Primary grain ingredient is the first listed grain ingredient in the ingredient statement.
- Whole-grain flour or meal is the product derived by grinding the entire grain. If a flour or meal does not contain the bran and the germ, it is not whole grain.
### Teaching Points

**Time: 5 min.**

When you are determining whether or not a specific food product will contribute to the G/B component of the meal patterns, the first consideration is to determine whether the product is enriched or whole-grain or is made from enriched or whole-grain meal and/or flour. Bran and germ are credited the same as enriched or whole-grain flour or meal.

- Review bulleted list of G/B on FBG page 3-2.
- Formulated grain-fruit products can be served only as a component of a reimbursable breakfast in schools as authorized by 7 CFR Part 220, Appendix A.
- There is no authorization for serving formulated grain-fruit products for breakfast in the SFSP or the CACFP.

### Equipment/Visual Aids

#### Slide 3-8

<table>
<thead>
<tr>
<th>Examples of Foods That Qualify as Grains/Breads (G/B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breads</td>
</tr>
<tr>
<td>Tortillas</td>
</tr>
<tr>
<td>Cooked Cereal</td>
</tr>
<tr>
<td>Meat Pie</td>
</tr>
<tr>
<td>Sweet Rolls*</td>
</tr>
</tbody>
</table>

* Credit as G/B in NSLP only when using the Enhanced Meal Patterns.
<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
</table>
| Pg. 3-3  | 3.5 Criteria to Determine Which Food Products Contribute to the G/B Component  
_Equipment/Visual Aids_  
Slide 3-9  
[Criteria for Determining Acceptable Grains/Breads (G/B)]  
- Is the food product made from “whole grain,” “enriched” flour and/or meal, bran, or germ? In the case of cereal it may also be “fortified.”  
- Does the label indicate that the product is “whole grain,” “enriched,” or “fortified”? If not, further documentation may be necessary.  
- Is the food product provided in quantities specified in the appropriate program regulations?  
- Does the portion size credit at a minimum of 0.25 (1/4) of a serving, the smallest amount allowable to be credited as G/B? | |
| Pg. 3-3–3-7 | 3.6 Flow Chart for Determining G/B Creditability  
_Time: 10 min._  
Determine whether a specific food product may be credited to the G/B component of the meal patterns using the Flow Chart for Determining G/B Creditability on FBG page 3-7.  
- Review each element of the flow chart.  
- Emphasize that the creditability of most food products to the G/B component of the meal patterns will be determined through the use of questions A–E. | Slide 3-10  
[Flow Chart for Determining Grains/Breads (G/B) Creditability]  
Questions A–E will determine the creditability of most purchased G/B products used by schools to meet the G/B requirements of CNP.
### FBG Page

<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
</table>
| Pg. 3-3–3-7 | LA 3-1: Flow Chart for Determining G/B Creditability  
*Time: Variable*  
Use the ingredients on the label on slide 3-11 to move through the Flow Chart for Determining G/B Creditability, shown on FBG page 3-7 and in slide 3-10. The following is an enlarged copy of the ingredient statement:  
**Ingredient Statement**  
Joe’s 7 Grain Bread  
Ingredients: wheat, oats, rye, buckwheat, brown rice, corn, millet, water, wheat bran, sea salt.  
Determine whether the specific food product may be credited to the G/B component of the meal patterns by using the questions discussed on FBG pages 3-3–3-6 and summarized in the flow chart on page 3-7. These questions are also outlined in teaching point 3.7 and slides 3-12–3-16. | Slide 3-11  
Ingredient Statement: on the label of the product and often included on documentation provided by the manufacturer |

| Pg. 3-3–3-7 | 3.7 Use of the Flow Chart for Determining G/B Creditability  
*Time: 10 min.*  
- Following the flow chart, you see the following questions:  
  A. Is the food product labeled as whole grain? (Use audience participation to read and answer the questions.)  
    1. The name Joe’s 7 Grain Bread does not indicate that the product is a whole-grain product.  
    2. In order for the food product to be considered whole grain, it would have to be labeled as such.  
    3. Some examples of products that are labeled as whole grain are whole wheat bread, entire wheat bread, and whole wheat macaroni products. Since our answer to step A is “no,” we need to go to step B. | Slide 3-12  
*What is the product called?*  
A. Is the food product labeled as whole grain?  
   If yes, the food product is creditable. Stop!  
   If no, proceed.  
B. Is the food product labeled as enriched?  
   If yes, the food product is creditable. Stop!  
   If no, proceed.  
C. Is the food product labeled as fortified cereal?  
   If yes, the food product is creditable. Stop!  
   If no, proceed. |
**Teaching Points**

<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Use of the Flow Chart for Determining G/B Creditability (continued)</th>
</tr>
</thead>
</table>
| Pg. 3-3 – 3-7 | **B. Is the food product labeled as enriched?**  
1. No. Joe’s 7 Grain Bread is not labeled as enriched. If this product were labeled as enriched, the label would read Joe’s Enriched 7 Grain Bread.  
2. Some other examples of enriched products would read enriched bread, enriched grits, or enriched rolls. Since our answer to step B is “no,” we need to go to step C.  

**C. Is the food product a fortified cereal?**  
1. No. In this case the product is bread, not a fortified cereal.  
2. Since our answer to step C is “no,” we need to go to step D.  

**D. In the ingredient statement, is the primary grain ingredient labeled “enriched”?**  
1. The primary grain ingredient is not labeled “enriched.”  
2. Since our answer to step D is “no,” we need to go to step E.  

**E. In the ingredient statement, is the primary grain ingredient designated as a “whole grain”?**  
1. The primary grain ingredient is not labeled “whole grain.”  
2. Since our answer to step E is “no,” we need to go to step F.  

---

**Equipment/Visual Aids**

Slide 3-13

What does the ingredient statement say?

D. In the ingredient statement, is the primary grain ingredient labeled “enriched”?  
If yes, the food product is creditable. Stop!  
If no, proceed.

E. In the ingredient statement, is the primary grain ingredient designated as a whole grain?  
If yes, the food product is creditable. Stop!  
If no, proceed.
Section 3: Grains/Breads (G/B)

<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pg. 3-3 – 3-7</td>
<td>Use of the Flow Chart for Determining G/B Credibility (continued)</td>
<td></td>
</tr>
</tbody>
</table>

F. In the ingredient statement, does the primary grain ingredient appear to be whole grain but is not designated as whole grain? Do we have the manufacturer’s documentation that the primary grain ingredient used in the product is whole grain?
1. The primary grain ingredient does not appear to be whole grain.
2. The manufacturer’s documentation does not indicate that the primary ingredient is whole grain.
3. Since our answer to step F is “no,” we need to go to step G.

G. In the ingredient statement, is the primary grain ingredient bran and/or germ?
1. The primary grain ingredient is not bran and/or germ.
2. Since our answer to step G is “no,” we need to go to step H.

H1. Although the primary grain ingredient is not creditable, does the ingredient statement list other grains that are creditable?
1. Yes, some of the grain ingredients may be creditable.
2. Go to step H2.

H2. Do you have documentation from the manufacturer stating the gram weight of the creditable grain(s) in one serving of the product and, if needed, stating that the grain is whole grain? Let’s look at the manufacturer’s documentation (read the letter). The letter states the weight of the loaf, number of slices per loaf, and percentage of creditable grains. While the gram weight per serving is not given, the documentation provides enough information to calculate the gram weight per serving.
<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
</table>
| Pg. 3-12–3-13 | LA 3-2: Calculate Creditability  
*Time: Variable*  
Refer to FBG pages 3-12–3-13. As a class, calculate the creditability of one slice of Joe’s 7 Grain Bread.  
• Steps 1–4: We do not know the weight of each of the individual creditable grains, but we do know that the loaf weighs 1 lb 10 oz (737.1 g) and that 42% of the finished product is creditable grains (42% of 737.1 g = 309 g creditable grains).  
• Step 5: 309 g total creditable grains per loaf ÷ 20 slices per loaf = 15.45 g creditable grains per slice.  
• Step 6: 15.45 g per slice ÷ 14.75 g per G/B serving = 1.04 servings.  
• Step 7: Round down to the nearest 1/4 G/B serving = 1 creditable G/B serving.  
*Note: G/B food products are divided into groups by weight, based on 14.75 g of grain content in one serving of G/B. See FCS Instruction 783.1 Rev 2: Exhibit A, FBG pages 3-15–3-16.* | Slide 3-17  
Calculate the Contribution of Joe’s 7 Grain Bread Using FBG Page 3-13  
Steps 1–4  
• We do not know the weight of each of the individual creditable grains.  
• We do know that A. the loaf weighs 1 lb 10 oz (737.1 g) and B. 42% of the finished product is creditable (42% of 737.1 g = 309 g creditable grains).  
Slide 3-18  
Calculate the Contribution of Joe’s 7 Grain Bread Using FBG Page 3-13  
Step 5  
• 309 g total creditable grains per loaf  
• ÷ 20 slices per loaf  
• = 15.45 g creditable grains per slice  
Slide 3-19  
Calculate the Contribution of Joe’s 7 Grain Bread Using FBG Page 3-13  
Steps 6 and 7  
• 15.45 g per slice  
• ÷ 14.75 g per G/B serving  
• = 1.04 servings rounded down to the nearest 1/4 G/B serving  
• = 1 creditable G/B serving  
Flip chart, whiteboard or blackboard, and markers or chalk |
| None | LA 3-3: Review G/B Labels  
*Time: Variable*  
Gather a variety of labels from commercially prepared G/B products. As a class, use the Flow Chart for Determining G/B Creditability to make determinations as to whether the food product may be credited as G/B. Pass out additional labels to small groups of participants and allow them to make the determinations and report to the class. | None |
### Teaching Points

**3.8 Criteria for Determining Serving Size**

*Time: 5 min.*

- There are two different ways to determine the portion size required to provide one G/B serving.
  - A. Use Exhibit A of FCS Instruction 783.1 Rev 2.
  - B. Calculate the grams of creditable grains as we did with Joe’s 7 Grain Bread.

- Unlike the other components of the meal patterns, there is not any specific weight or measure that applies to all forms of food products contributing to the G/B component by grade or age group. Other component examples include the following:
  - A. M/MA (1-1/2 oz or 2 oz M/MA)
  - B. V/F (1/2 cup or 3/4 cup)
  - C. Milk (8 fl oz)

- Instead, G/B food products are divided into groups by weight, based on 14.75 grams of grain content in one serving of G/B. This information is represented in FCS Instruction 783.1 Rev 2: Exhibit A, FBG pages 3-15–3-16.

### Equipment/Visual Aids

- Slide 3-20

---

<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
</table>
| Pg. 3-8–3-11 | 3.8 Criteria for Determining Serving Size | Determine Serving Sizes
Once a product’s creditability is established, the next step is to determine the portion size necessary to credit as the targeted number of G/B servings.
There are two methods to determine portion size. They are based on the following:
1. Exhibit A
2. Creditable grains content |
<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
</table>
| Pg. 3-14–3-16 | 3.9 Determining Serving Sizes Based on Exhibit A  
*Time: 5 min.*  
Exhibit A of FCS Instruction 783.1 Rev 2 includes commonly available food products.  
- It is necessary to identify the group in which a G/B food product is listed before determining the weight that contributes one serving of G/B.  
- Groups are based on average grain content and similar concentrations of creditable grains.  
- Important point: Exhibit A is used for products that are whole grain, enriched, or fortified (if a cereal) or for products that have creditable grain as the primary grain ingredient.  
- Each group in Exhibit A provides the minimum serving size needed to supply 1 full G/B serving. | Slide 3-21  
Using FCS Instruction 783.1 Rev 2:  
Exhibit A Grains/Breads Groups A–I  
- It includes commonly available food products.  
- Groups are based on average grain content. Foods with similar concentrations of creditable grains are grouped together.  
- Exhibit A is used for products that have creditable grain as the primary ingredient. |
| Pg. 3-15–3-16 | 3.10 Exhibit A, Groups A–G  
*Time: 5 min.*  
The serving sizes or weights of food products in Exhibit A, Groups A–G will credit for one G/B serving based on 14.75 grams of enriched or whole-grain meal and/or flour, bran, and germ.  
- Exhibit A may be used for food products commercially prepared or prepared on-site.  
- The weights of 1, 3/4, 1/2, and 1/4 serving of G/B are also listed.  
- Purchased-prepared products that are labeled whole-grain or enriched and food products that have a creditable grain as the primary grain ingredient may be credited using Exhibit A without further manufacturer documentation. | Slide 3-22  
Using FCS Instruction 783.1 Rev 2:  
Exhibit A Grains/Breads Groups A–G  
- Minimum portion weight for crediting 1, 3/4, 1/2, and 1/4 serving of G/B is provided for each product.  
- One G/B serving provides not less than 14.75 grams of enriched or whole-grain meal and/or flour, bran, and/or germ.  
- The serving sizes (weights) given may be used for commercially prepared G/B products or products prepared on-site.  
- When serving sizes are met for products determined to be creditable, no additional manufacturer documentation is needed. |
<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Equipment/Visual Aids</th>
</tr>
</thead>
</table>
| Pg. 3-15–3-16 | Exhibit A, Groups A–G (continued)  
- If the purchased-prepared food product is not in a group shown in Exhibit A, is not whole-grain or enriched, or does not have a creditable grain for the primary grain ingredient, you must obtain manufacturer’s documentation showing the amount of creditable grain(s) in one portion of the product.  
- Once documentation is obtained, calculate the serving size based on the grams of creditable grains. | Slide 3-23 |
| Pg. 3-16 | 3.11 Exhibit A, Groups H and I  
*Time: 5 min.*  
- The types of food products listed in Group H of Exhibit A have cooked volume measures as well as uncooked dry weights. Either may be used for crediting G/B. Note that the minimum requirements for cereals and cereal grains are different for each program. See FBG pages 3-17–3-18 for specific information on crediting cooked cereal by program. When planning menus, be certain to consult the meal plan for cooked and dry cereal requirements.  
- When the food products in Group H such as dry oatmeal or cornmeal are used as an ingredient in a baked product, such as oatmeal bread or cornmeal muffins, credit the product using Groups A–G, or calculate the serving size needed to provide 14.75 grams of grain per serving.  
- The dry, ready-to-eat cereal listed in Group I offers both weight and volume.  
- One G/B serving of ready-to-eat (cold, dry) breakfast cereal is 3/4 cup or 1 ounce, whichever is less. | Using FCS Instruction 783.1 Rev 2: Exhibit A Grains/Breads Groups H & I  
- To count food products listed in H & I as one serving of G/B, the weights or volumes listed must be met. The weight and measure of ready-to-eat cereals (Group I) differ from those of cooked cereals (Group H).  
- When products such as oatmeal or cornmeal are used as an ingredient, determine contribution by using Groups A–G or calculate using 14.75 grams per one serving. |
### Teaching Points

**Pg. 3-10–3-11**

### Determining Serving Sizes Based on Creditable Grains Content

**Time:** 8 min.

Review the bulleted points including the steps to determine how many creditable G/B servings a recipe yields.

#### Note: The following may be found on FBG page 3-12.

If you do not know the weight per cup of the grain you are using, here are some commonly used conversions:

1. **Number of pounds of ingredient X**
   
   453.6 grams

2. **Number of ounces of ingredient X**
   
   28.35 grams

3. **Number of:**
   
   - c of enriched white flour X 125 g
   - c of regular rolled oats X 81 g
   - c of quick-cooking oats X 81 g
   - c of regular cornmeal X 122 g
   - c of degemer, enriched cornmeal X 138 g
   - c of stone ground cornmeal X 132 g
   - c of wheat bran X 58 g
   - c of wheat germ X 115 g
   - c of whole wheat flour X 120 g

### Equipment/Visual Aids

#### Slide 3-24

Determining Serving Sizes Based on Creditable Grain Content Calculation:

- **When is this method used?**
  1. A product is not whole grain, enriched, or fortified (if a cereal) and the primary grain ingredient is not a creditable grain but there are creditable grains in the product.
  2. A product is made on-site and you choose to calculate the serving size based on grams of creditable grains.
  3. A food product does not fit into one of the groups of Exhibit A.

#### Slide 3-25

**When is this method used? (continued)**

4. A manufacturer claims that a product can provide the minimum of 14.75 grams of creditable grains per portion using a serving size less than the weights given in Exhibit A; and other reasons requiring documentation as previously discussed.

   - A. Contact manufacturer and obtain the required documentation showing weight of creditable grain by portion.
   - B. If documentation is proprietary and cannot be secured, do not use the product credited as G/B to a reimbursable meal.

#### Slide 3-26

**How is this method used?**

5. When the exact or minimum amount of creditable grains can be documented, the grains/breads serving for a G/B product found in Groups A through G may be calculated using 14.75 grams of creditable grains as one grains/breads serving.

6. For manufacturer’s documentation which provides the gram weight of creditable grain(s) per portion, start the calculation at step 2 of the calculation demonstrated on FBG page 3-11 or step 6 of the worksheet on FBG page 3-13.
<table>
<thead>
<tr>
<th>FBG Page</th>
<th>Teaching Points</th>
<th>Visual Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pg. 3-11</td>
<td>LA 3-4: Credit G/B Servings Based on Grain Content of a Recipe</td>
<td>Slide 3-27</td>
</tr>
<tr>
<td></td>
<td>Time: Variable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Determine creditable servings of G/B based on grain content of a recipe.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This learning activity may be found in the instructor manual on page 3-16 and in the participant workbook on page 3-12. The answers for LA 3-4 are shown on slides 3-27 and 3-28.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slide 3-28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Divide the total grams of creditable grains in the recipe by the number of portions in the recipe to determine the number of grams of creditable grains per portion.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1503.85 ÷ 100 = 15.03 grams of creditable grains per portion</td>
</tr>
<tr>
<td></td>
<td>6. Divide the number of grams of creditable grains per portion (from Step 5) by 14.75 grams (reference amount of creditable grains in one serving of G/B) to determine the number of servings of G/B.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.03 ÷ 14.75 = 1.01 serving(s) of G/B</td>
</tr>
<tr>
<td></td>
<td>7. Round down to the nearest 1/4 G/B serving.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.01 rounded down to 1.00 serving(s) of G/B</td>
</tr>
<tr>
<td>Pg. 3-15–3-16</td>
<td>LA 3-5: Determine the G/B Contribution Using Exhibit A of FCS Instruction 783.1 Rev 2</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Time: Variable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This learning activity may be found in the instructor manual on page 3-17 and in the participant workbook on page 3-13.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evaluation: Section 3, Grains/Breads</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Time: Variable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This evaluation may be found in the instructor manual on page 3-18 and in the participant workbook on page 3-14.</td>
<td></td>
</tr>
</tbody>
</table>
LA 3-4: Credit G/B Servings Based on Grain Content of a Recipe

Recipe for Multi-Grain Bread: Yield 100 1-oz Portions

- 1 oz dry yeast
- 2 lb enriched bread flour
- 4 oz whole wheat flour
- 5 oz rye flour
- 1 c wheat bran
- 10 oz oatmeal
- 2-1/2 c honey
- 3/4 c butter
- 2 qt warm milk

Worksheet for Calculating Grains/Breads Contribution From a Recipe for the Types of Food Products in Groups A–G, Using Grams of Creditable Grains

This learning activity may be found in the participant workbook on page 3-12.

<table>
<thead>
<tr>
<th>Source: Recipe</th>
<th>Source: FBG Page 3-12</th>
<th>Add</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread flour, enriched</td>
<td>2 lb</td>
<td>2 lb x 453.6 = 907.2 g</td>
</tr>
<tr>
<td>Whole wheat flour</td>
<td>4 oz</td>
<td>4 oz x 28.35 = 113.4 g</td>
</tr>
<tr>
<td>Rye flour</td>
<td>5 oz</td>
<td>5 oz x 28.35 = 141.75 g</td>
</tr>
<tr>
<td>Wheat bran</td>
<td>1 c</td>
<td>1 c = 58.0 g from FBG page 3-12</td>
</tr>
<tr>
<td>Oatmeal</td>
<td>10 oz</td>
<td>10 oz x 28.35 = 283.5 g</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Divide the total grams of creditable grains in the recipe by the number of portions in the recipe to determine the number of grams of creditable grains per portion.

\[
\frac{1503.85}{100} = 15.03 \text{ grams of creditable grains per portion}
\]

6. Divide the number of grams of creditable grains per portion (from Step 5) by 14.75 grams (reference amount of creditable grains in one serving of G/B) to determine the number of servings of G/B.

\[
15.03 \div 14.75 = 1.01 \text{ serving(s) of G/B}
\]

7. Round down to the nearest 1/4-G/B serving. **1.01 rounded down to 1.00 serving(s) of G/B**
### LA 3-5: Using FCS Instruction 783.1 Rev 2: Exhibit A, FBG Pages 3-15 and 3-16

This learning activity may be found in the participant workbook on page 3-13.

<table>
<thead>
<tr>
<th>Food Product</th>
<th>Weight of Serving</th>
<th>Group</th>
<th>Creditable G/B Servings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pretzels (hard)</td>
<td>20 g or 0.7 oz</td>
<td>A</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>2. Croissants</td>
<td>31 g or 1.1 oz</td>
<td>C</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>3. Cookie (plain) (See footnote 3.)</td>
<td>31 g or 1.1 oz</td>
<td>C</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>4. Tortilla Chips</td>
<td>13 g or 0.5 oz</td>
<td>B</td>
<td>1/2 serving G/B</td>
</tr>
<tr>
<td>5. Pancakes</td>
<td>62 g or 2.2 oz</td>
<td>C</td>
<td>2 servings G/B</td>
</tr>
<tr>
<td>6. Coffee Cake (See footnote 4.)</td>
<td>56 g or 2 oz</td>
<td>F</td>
<td>3/4 serving G/B</td>
</tr>
<tr>
<td>7. Frosted Cake (See footnote 3.)</td>
<td>115 g or 4 oz</td>
<td>G</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>8. Donut, Unfrosted (See footnote 4.)</td>
<td>50 g or 1.8 oz</td>
<td>D</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>9. Donut, Frosted or Glazed (See footnote 4.)</td>
<td>47 g or 1.7 oz</td>
<td>E</td>
<td>3/4 serving G/B</td>
</tr>
<tr>
<td>10. Macaroni</td>
<td>1/2 c cooked</td>
<td>H</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>11. Ready-to-Eat Cereal</td>
<td>3/4 c dry</td>
<td>I</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>12. French Toast (CN labeled products may weigh less.)</td>
<td>63 g or 2.2 oz</td>
<td>E</td>
<td>1 serving G/B</td>
</tr>
<tr>
<td>13. Pizza Crust</td>
<td>50 g or 1.8 oz</td>
<td>B</td>
<td>2 servings G/B</td>
</tr>
<tr>
<td>14. Batter Type Coating</td>
<td>6 g or 0.2 oz</td>
<td>B</td>
<td>1/4 serving G/B</td>
</tr>
<tr>
<td>15. Bread Type Coating</td>
<td>5 g or 0.2 oz</td>
<td>A</td>
<td>1/4 serving G/B</td>
</tr>
<tr>
<td>16. Italian Bread</td>
<td>44 g or 1.6 oz</td>
<td>B</td>
<td>1-3/4 servings G/B</td>
</tr>
<tr>
<td>17. Meat Pie Crust</td>
<td>62 g or 2.2 oz</td>
<td>C</td>
<td>2 servings G/B</td>
</tr>
<tr>
<td>18. Oatmeal Cooked for School Breakfast, K–12</td>
<td>3/4 c</td>
<td>NA</td>
<td>1 serving G/B FBG pg. 3-17</td>
</tr>
</tbody>
</table>
1. What is the minimum serving size of G/B that may be credited?

0.25 servings

2. List 9 food products that qualify as G/B.

(1) ___________________ (2) ___________________ (3) ___________________

(4) ___________________ (5) ___________________ (6) ___________________

(7) ___________________ (8) ___________________ (9) ___________________

3. What criteria must be met to determine whether a food product may be credited to the G/B component of the meal patterns?

A. Is it enriched?
B. Is it whole grain?
C. Is it a fortified cereal?
D. Does it provide a minimum of 1/4 serving of G/B?
E. Does it contain whole grain, enriched flour or meal, bran, and/or germ?

4. What does the flow chart help determine?

Whether or not a product may be credited as contributing to the G/B component of the food-based menu planning approaches.

5. What does the FCS Instruction 783.1 Rev 2: Exhibit A help determine?

A. Provides general guidelines for crediting prepared G/B items
B. Identifies categories of food items
C. Identifies the serving size and/or weight of a serving and fraction of a serving of commonly used G/B food products