Welcome to the SD Child and Adult Nutrition Services webinar on Whole Grain-Rich Requirements.
The USDA Whole Grain Resource is available for you to use on this website as linked here. Applicable pages in this resource will be referenced throughout this presentation in case you would like to find out more information.
Grains (Lunch)

<table>
<thead>
<tr>
<th>Lunch Meal Pattern</th>
<th>Grades K-5</th>
<th>Grades 6-8</th>
<th>Grades 9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal Pattern</td>
<td>Amount of Food\textsuperscript{b} Per Week (Minimum Per Day)</td>
<td>8-9 (1)</td>
<td>8-10 (1)</td>
</tr>
<tr>
<td>Grains (oz eq)</td>
<td>8-9 (1)</td>
<td>8-10 (1)</td>
<td>10-12 (2)</td>
</tr>
</tbody>
</table>

Reminder for daily requirements and weekly requirements for each grade group at \textbf{Lunch}. Daily minimum of grains for the K-5 and 6-8 grade groups is 1 oz equivalent per day and for grades 9-12 it is a 2 oz equivalent minimum per day. The weekly requirements are 8-9 oz eq for grades K-5, 8-10 oz eq for grades 6-8, and 10-12 oz eq per week for grades 9-12.
Grains (Breakfast)

<table>
<thead>
<tr>
<th>Age-Grade Group</th>
<th>K-5</th>
<th>6-8</th>
<th>9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Daily</td>
<td>1 oz. eq.</td>
<td>1 oz. eq.</td>
<td>1 oz. eq.</td>
</tr>
<tr>
<td>Minimum Weekly</td>
<td>7 oz. eq.</td>
<td>8 oz. eq.</td>
<td>9 oz. eq.</td>
</tr>
</tbody>
</table>

These are the grain requirements for each grade group for breakfast. Reminder: There is a minimum DAILY grain requirement of 1 oz eq. for all grade groups (K-12) There is a minimum WEEKLY grain requirement: K-5 – 7 oz eq, 6-8 – 8 oz eq, and 9-12 9 oz eq.
What is Whole Grain?

- **Whole** is listed before a grain
- **Berries** and **groats used to designate whole grains**
- Rolled oats and oatmeal

Reconstituted is allowed ONLY if returned to natural proportions by original milling facility

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What does the term “whole grain” mean?

- Whole grains consist of the entire cereal grain seed or kernel.
- The kernel has three parts—the bran, the germ, and the endosperm.
- Usually the kernel is cracked, crushed, or flaked during the milling process.
- If the finished product retains the same relative proportions of bran, germ, and endosperm as the original grain, it is considered a whole grain.
- The terms “berries” and “groats” are used to designate whole grains.

Note that Reconstituted is allowed ONLY if returned to natural proportions by original milling facility

Reference Whole Grain Resource Page 6 for more information.
100% Whole Grain or 100% Whole Grain-Rich

• Not all grains have to be 100% whole grain
• They have to meet the whole grain-rich requirements
  • 50% whole grain
  • 50% enriched grain
• All grains served must be Whole Grain-Rich not 100% Whole Grain

Is the requirement for 100% whole grain or for 100% whole grain-rich?
They have to meet the whole grain-rich requirements, which means 50% whole grain and 50% enriched grain.
All grains served must be Whole Grain-Rich not 100% Whole Grain.
Acceptable Forms of Documentation for Items That Meet Whole Grain-Rich Criteria

In order to document that the grain items served meet whole grain-rich criteria, program operators should maintain one or more of the following types of documentation on file:

- An ingredient declaration from a product carton that shows a whole grain as the first ingredient by weight.
- A copy of a food label showing the amount of whole grain in grams for the appropriate NSLP/SBP serving size or copy of a food label displaying one of the FDA whole-grain health claims.
- CN Labels for entree items that include grains.
- A customized product formulation statement on manufacturer letterhead.
- Sample product formulation templates for grain products can be seen on page 25 of the Whole Grain Resource
- A recipe that includes the ingredients and ingredient amounts by weight and volume.

Be AWARE if you do not have the above information and rely on the supplier, sales information and/or an ad none of those sources of information can be taken at face value!

Reference Whole Grain Resource Page 10 and 25 for more information on labels.
Grain Ingredients **Not** Considered Whole Grains

- Grain ingredients that should not be considered whole grains:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Enriched Flour</th>
<th>Cake Flour</th>
</tr>
</thead>
<tbody>
<tr>
<td>flour</td>
<td>enriched flour</td>
<td>cake flour</td>
</tr>
<tr>
<td>white flour</td>
<td>instantized flour</td>
<td>durum flour</td>
</tr>
<tr>
<td>Wheat flour</td>
<td>phosphated flour</td>
<td>corn grits</td>
</tr>
<tr>
<td>all-purpose flour</td>
<td>self-rising flour</td>
<td>hominy grits</td>
</tr>
<tr>
<td>unbleached flour</td>
<td>self-rising wheat flour</td>
<td>hominy</td>
</tr>
<tr>
<td>Bromated flour</td>
<td>enriched self-rising flour</td>
<td>farina</td>
</tr>
<tr>
<td>enriched bromated flour</td>
<td>bread flour</td>
<td>semolina</td>
</tr>
<tr>
<td>degemerinated corn meal</td>
<td>enriched rice</td>
<td>rice flour</td>
</tr>
<tr>
<td>couscous</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Before purchasing new products containing whole grains, look carefully at the whole product. When soliciting bids from manufacturers, specify that products must be made from 50 percent or more whole grains with all remaining grains being enriched. Prior to purchasing, double check the ingredient statement and any accompanying manufacturer documentation to ensure that the product meets whole grain-rich criteria. In addition, to be consistent with the 2010 Dietary Guidelines for Americans (DGAs), program operators are encouraged to purchase and serve grain items that meet the whole grain-rich criteria that are also low in sugars and/or fat.

Be aware of Non-creditable grains:
There are some grain ingredients such as oat fiber, corn fiber, bran, germ, modified food starch, corn starch, and wheat starch (including potato, legume, and other vegetable flours) that do not contribute toward meal pattern components. If purchased grain products include these ingredients they must be present at a level of less than 2 percent of the product formula (or less than 0.25 oz eq) for the product to be creditable at lunch or breakfast beginning SY 2013-2014.
Exhibit A: School Lunch & Breakfast

Whole Grain-Rich Ounce Equivalency (Oz eQ)
Requirements for School Meal Programs

<table>
<thead>
<tr>
<th>GROUP A</th>
<th>OZ EQ FOR GROUP A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread type coating Pretzels (hard)</td>
<td>1 oz eq = 22 g or 0.8 oz</td>
</tr>
<tr>
<td>Bread sticks (hard) Stuffing (dry) Note: Weights apply to bread in stuffing.</td>
<td>3/4 oz eq = 17 g or 0.6 oz</td>
</tr>
<tr>
<td>Chow mein noodles Savory crackers (saltines and snack crackers)</td>
<td>1/2 oz eq = 11 g or 0.4 oz</td>
</tr>
<tr>
<td>Croutons</td>
<td>1/4 oz eq = 6 g or 0.2 oz</td>
</tr>
</tbody>
</table>

Please reference the Whole-Grain Resource on page 23.

This is taken from the Grain/Bread chart, and can also be found on Page 23 of the Whole-Grain Resource.

This is group A. On the Grain/bread chart, each group of different grain products has a different ounce equivalents.

You might be wondering what an ounce equivalent is. We will discuss ounce equivalents on the coming slides.

**IF time: Use the scale**
Brownies vs Bread vs pasta vs Crackers
Calculating Ounce Equivalents Based on Total Weight using GB Chart

• Whole grain-rich bread
• Each slice weighs 0.9 oz
• Group B 1 oz = 1 oz eq

We will walk through all the different ways that can be used to calculate ounce equivalents. Here, we are using the grain/bread chart based on total weight to convert ounces to ounce equivalents.

We will use Whole-Grain Bread as an example. Ingredient statement lists whole-wheat flour first. All other grains are enriched. This product meets the requirements, so we can move on to calculate the oz eq.

One slice weighs 0.9 oz.

Find bread on the grain/bread chart – it is in Group B. The right column gives us the oz eq for Group B. The column says that 1 oz equals 1 oz equivalent.

Our Calculation is 0.9 oz divided by 1.0 oz, which equals 0.9 oz.

Remember to Always **round down** to the nearest 0.25 oz eq for Grains and Meat/Meat Alternates.

0.9 oz rounds down to 0.75 oz eq grains per slice.

Whole Grain Resource Page 21 & 23
Calculating Ounce Equivalents based on creditable grain using PFS

- Whole grain-rich bread
- Each slice equals 17 grams
- Group B 16g = 1oz eq

Calculation:

\[
17 \text{ g} \div 16 \text{ g} = 1.06
\]

1.06 rounds down to 1.0 oz eq for each slice of this bread

Always round down to the nearest 0.25 oz eq for Grains and Meat/Meat Alternates

Now let’s try calculating ounce equivalents based on creditable grain using Product Formulation Statements.

We can use the GB chart to convert grams to ounce equivalents.

The same slice of whole grain rich bread may be credited using the amount of creditable grain. Manufacturers must provide documentation on company letterhead (or schools may retain a copy of their standardized recipe). Sample product formulation statements (PFS) are provided starting on page 25 of the whole grain resource.

For this calculation, divide the grams of creditable grain by the standard of 16 grams per oz equivalent. Calculation: 17 g ÷ 16 g = 1.06

1.06 rounds down to 1.0 oz eq grains per slice
Always round down to the nearest ¼ ounces
Calculating Ounce Equivalents based on Exhibit A volume GB Chart

- Cooked Whole-Grain Rotini Pasta
- ½ Cup serving
- Group H ½ cup of cooked pasta = 1 oz eq

Calculation

½ cup served ÷ ½ cup per oz eq = 1.0 oz eq grains

Always round down to the nearest 0.25 oz eq for Grains and Meat/Meat Alternates

Now we are going to find the ounce equivalents based on volume. We will use Whole-Grain Pasta as an example. The Ingredient statement lists whole-wheat flour first and All other grains are enriched, so we know we can use this product. The Manufacturer documentation states that each ½ cup serving of cooked pasta contains 29 grams of creditable grain. Group H of the GB chart states that ½ cup of cooked pasta (made from creditable ingredients) provides 1.0 ounce equivalent grains. Product label and manufacturer documentation should be maintained on file. To calculate, divide ½ cup served by ½ cup per oz eq. This equals 1 oz eq of grains. We do not need to round down, as 1 is divisible by .25.
Calculating Ounce Equivalents based on grams of creditable grain ingredient per portion using GB Chart

- Whole-Grain Rotini Pasta
- 1 c of Pasta Recipe Example = 29g pasta
- Group H 28g dry = 1oz eq

Calculation

29 g ÷ 28 g = 1.03
1.03 rounds down to 1.0 oz eq grains per ½ cup cooked pasta.

Always round down to the nearest 0.25 oz eq for Grains and Meat/Meat Alternates

Now we will calculate ounce equivalents based on the grams of creditable grain ingredient per portion. This is how most schools would do this.

Let’s say we are making Goulash. The recipe calls for dry pasta. Our equation is grams in Recipe divided by the number of servings = the weight of the dry pasta per serving size.

The serving size of Goulash that we will serve is one cup, which contains 29 g of pasta. From the GB chart, we find pasta in group H. In the Oz Eq for Group H column, we can see that 1 oz eq of dry pasta is 28 grams.

Now we divide the number of grams per serving (29) by the number of grams in a 1 oz eq (28). This equals 1.03 oz eq of grains, but we need to round down to 1.0 oz equivalent because we always round down to the nearest quarter oz eq for grains and M/MA.
Now we will discuss some things to keep in mind when reading product labels to determine if the product meets whole grain rich requirements.

This product ingredient statement for this example of an all natural whole wheat pasta lists a whole grain as the primary ingredient by weight (whole grain wheat flour). However, it also contains unenriched wheat flour, oat fiber, and the pasta itself is not enriched. Many pastas contain a blend of whole-wheat flour and unenriched flour. Products containing more than 0.24 ounce equivalents of non-creditable grains may not contribute toward the reimbursable meal. The program operator should request a product formulation statement to ensure the grams of non-creditable grain do not exceed a 0.24 ounce equivalency (6.99 grams for items in Group H of Exhibit A) prior to purchasing. If the product contains more than the allowable amount of non-creditable grains, it is not creditable toward meal pattern requirements.
Reading Labels & Calculating Equivalents

Whole-Grain
Chicken Corn Dog

Batter Ingredients:
Water, whole wheat flour, whole grain corn, vegetable oil, sugar, contains 2% or less of leavening, salt, ascorbic acid, egg white, dried honey, artificial flavor.

Chicken Frank Ingredients:
Mechanically separated chicken, water, corn syrup solids, contains less than 2% of spices, salt, sodium phosphate, potassium chloride, flavorings, sodium diacetate, sodium erythorbate, sodium nitrite.
Contains: Wheat

Not enough information to calculate ounce equivalency – Need a CN label or Product Formulation Statement

Here we have a whole grain chicken corn dog. Corn dogs are mixed dishes as they contribute to both the grain and meat/meat alternate components.
This corn dog lists a whole grain as the primary grain ingredient because it’s the first ingredient listed in the batter and all other grains are whole, so the product meets whole grain-rich requirements.
Maintain a copy of the label or product formulation statement on file with WG and total creditable grain weight to show that whole grain-rich criteria for reimbursable meals are being met.
From the information on the package shown on this slide, we do not have enough information to calculate ounce equivalency. We would Need either a CN label or a Product Formulation Statement to do that.
The ingredient statement for this product of White Whole Wheat Breadsticks lists a whole grain first (whole-wheat flour). Additionally, the remaining grain in the product is enriched, so this product meets the whole grain-rich criteria. Because there is only one non-creditable grain (oat fiber) and it is listed as being 2 percent or less of the product formula, there is no need to request additional information from the manufacturer. Maintain a copy of the label on file for documenting that this product meets whole grain-rich requirements.

REMEMBER – Color doesn’t matter!
White Whole Grain is Whole Grain
And Caramel Color doesn’t mean Whole grain
Ingredients:
Whole grain rolled oats, brown sugar, crisp brown rice, whole grain rolled wheat, soybean oil, whole wheat flour, almonds, water, freeze dried bananas, whole corn flour, sodium bicarbonate, malted barley extract, soy lecithin, natural flavor, caramel color, alpha tocopherol acetate, BHT.

This cereal bar contains a whole grain as the first ingredient (whole-grain oats), and all other grains (crisp brown rice, whole-grain rolled wheat, whole-wheat flour, and whole corn flour) listed are also whole. Maintain a copy of the product label on file.
Here we have White Corn Tortillas.

Don’t record the size of inches in your Production Records – record the weight!

The first ingredient on these tortillas is “whole corn treated with lime”. This is also known as corn masa.

Note that corn masa processed in the traditional manner using wet corn milling removes a significant amount of the corn pericarp and dissolves part of the corn kernel. Some of the whole-grain content is removed in the washing/rinsing of the corn during this process. If the product bears one of the FDA whole grain health claims on its packaging, it meets the whole grain-rich criteria (see page 7 of Whole grain resource for more information). Manufacturers may also provide documentation showing that their product meets the requirements for these claims to demonstrate that the whole grain-rich criteria are met. Without the FDA whole-grain health claim or acceptable manufacturer documentation, this product does not meet whole grain-rich criteria.

Enrichment of corn masa is not required for School Meal Programs when the finished corn product bears the FDA whole-grain health claim. If the corn product includes other grain ingredients, those ingredients should be whole or enriched. Non-creditable grains should be limited to less than 2 percent of product formula (or less than 0.24 oz eq grains).
Reduced Carb Wheat Tortilla. This product is a non-mixed dish that does not list a whole grain as the primary ingredient by weight. Modified food starch is considered a non-creditable grain and should not be present in grain items at more than 2 percent of the product formula (or 0.24 oz eq). Therefore, this product will not meet whole grain-rich criteria.
Whole-Grain Cheese Pizza

Ingredients:
Crust (Flour blend [whole wheat flour, enriched wheat flour {bleached wheat flour, malted barley flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid}, water, soybean oil, dextrose, baking powder, yeast, salt, dough conditioners [wheat flour, salt, soy oil, ascorbic acid], wheat gluten). Shredded Mozzarella Cheese, Shredded Mozzarella Cheese Substitute, Sauce.

CONTAINS: WHEAT, MILK, AND SOY.

This whole grain cheese pizza is CN-Labeled and credits “oz eq Grains” in the CN Label Statement. This means that the crust meets whole grain-rich criteria and the crediting on the CN Label can be used. You can check to make sure that the CN number is valid on the CN Labeling website (www.fns.usda.gov/cnlabeling/authorized-manufacturers-and-labels) and maintain a copy of the product label on file.

Without the CN Label, the manufacturer would need to provide the weight of the crust per slice or the grams of creditable grain per slice, and the amount of unenriched wheat flour that is being used as a dough conditioner.

CN Labels are a guarantee for crediting since the USDA has evaluated the product.
How do I identify a CN label?
In addition to required labeling features, a CN label will always contain the following:

- The CN logo (which is a distinct border)
- The meal pattern contribution statement
- *(top right)* A 6-digit product identification number
- USDA/FNS authorization statement
- The month and year of approval. (bottom – after USDA)

- HANDY TIP – if it has veg sub groups it is from after 2012
Not a CN Label

Whole-Grain Cheese Pizza Bagel

Statement of child nutrition food based meal pattern equivalency: Each 4.85 oz Whole Grain Jumbo Pizza Bagel provides 2.00 oz equivalent meat alternate, 2.0 oz-equ grains, and 1/8 cup red-orange vegetable.

This statement is not a CN label, since it has none of the CN label requirements. This statement is NOT a guarantee that components were properly credited for the Child Nutrition Program.

Either obtain a CN label or a signed and dated Product Formulation Statement (PFS).
From this Corn Bread recipe we can tell whether or not it is a creditable whole grain. Is it whole grain? YES it is!

Whole wheat flour PLUS the whole-grain corn added together = 1.5 lbs which is more (greater) than the 1 lb of enriched bleached flour.

Remember that Whole Grain Rich means that at least 50% of the grain is WHOLE GRAIN and the other 50% is enriched.
We will take a closer look on the next slide.
We have listed all the ingredients here along with the weights that are used in the recipe. Also, we have the % whole grain in the right column, so we can see how each ingredient contributes to the whole grain of the entire product. We need whole grain rich product in order to be creditable, and a whole grain rich product is where at least half of the grain is whole grain, and the remaining % of grain is enriched. Half a pound of whole wheat flour plus a pound of whole grain cornmeal equals 1.5 pounds of whole grains. The only other grain component in this recipe is 1 pound of enriched bleached flour. The 1.5 pounds of whole grain is greater than the 1 pound of enriched grain, meeting the requirements for Whole Grain Rich.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Weights</th>
<th>Measure</th>
<th>% of WG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour Enriched Bleached</td>
<td>1 lb</td>
<td>3 ¾ C</td>
<td>Not WG</td>
</tr>
<tr>
<td>Flour Whole Wheat</td>
<td>½ lb</td>
<td>2 C</td>
<td>20%</td>
</tr>
<tr>
<td>Cornmeal Whole Grain</td>
<td>1 lb</td>
<td>3 ¾ C</td>
<td>40%</td>
</tr>
<tr>
<td>Total Whole Grains must be more</td>
<td></td>
<td></td>
<td>60%</td>
</tr>
<tr>
<td>than 50%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WGR Pg 19
Remember to always:

• Look Carefully at the whole product
• 50% or more whole grains
• All other grains need to be enriched
• Double check the ingredient statement
• Manufacturer documentation
• Low in sugar and fat content

Before purchasing new products containing whole grains, look carefully at the whole product.
When soliciting bids from manufacturers, specify that products must be made from 50 percent or more whole grains with all remaining grains being enriched.

Prior to purchasing, double check the ingredient statement and any accompanying manufacturer documentation to ensure that the product meets whole grain-rich criteria.

In addition, to be consistent with the 2010 Dietary Guidelines for Americans (DGAs), program operators are encouraged to purchase and serve grain items that meet the whole grain-rich criteria that are also low in sugars and/or fat.
Here are some additional resources about whole grains if you are interested.

- **USDA Just the Facts**

- **USDA Whole Grain Resource**

- **USDA CN Labeling Guidance**

- **NFSMI**

- **CANS NSLP**
  [http://doe.sd.gov/cans/nslp.aspx](http://doe.sd.gov/cans/nslp.aspx)

- **USDA Product Formulation Statement:**
Activity 1
Let’s take a few minutes to practice crediting grains using products and label weights provided on the next slide.

5 minutes to get into groups.
5-10 minutes to practice.
5 minutes to run over difficult answers and handout answer sheet

Activity 2
Crediting grains using labels:
Same groups, using the grain bread chart (Gold) and the activity handout in yellow. Determine are grain items listed whole grain rich? Identify group. And calculate grain oz eq crediting.

Alternate idea: Using large pad of paper & markers. Ahead of class instructor records each type of food listed on activity on large pad of paper.
In class: Assign 1 or two items to each group, when group is done group member record oz eq on pad of paper.

10-20 minutes, including answer discussion
Using the grain bread chart we just looked at (on gold cardstock)
Find your grain/bread chart activity – yellow paper page 1

Take a few minutes to use the grain/bread chart and determine the creditable serving for each item

Split class into groups and assign 2-3 to each group OR give about 3-5 minutes then go over answers

Answers in PINK
Using the grain bread chart we just looked at (on gold cardstock)
Find your Grain label Activity – yellow paper page 2-7

Take a few minutes to use the grain/bread chart and determine is it each item
1. Whole Grain Rich? Yes or no
2. Identify and record the grain/bread chart group the item falls under.
3. Determine and record the proper crediting in ounce equivalents for each item.

Handout answers in PINK
Thank you for attending this webinar on Whole Grain Requirements. 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.
Whole Grain Requirements

Professional Standards Training Credit print, sign, and date this certificate for your records

This training credits for 30 minutes of training in
Key Area – 1 Nutrition
1110 USDA Nutrition Requirements

Your Name: 
Date of Training:

This training credits for 30 minutes of training in Key area 1 - Nutrition
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(1) Mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;

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

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

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