




**National School Lunch Program and School Breakfast Program  
Meal Patterns for Grades K-12**


**Answer Key for Module 12 Worksheet:  
Determining if Commercial Products are Whole Grain-rich**

To credit as a whole grain-rich (WGR) food in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) meal patterns for grades K-12, commercial grain products must meet the following criteria: 1) the product must contain at least 50 percent whole grains; and 2) noncreditable grains cannot exceed 3.99 grams per portion for foods in groups A through G or 6.99 grams per portion for foods in groups H and I. Groups A through I refer to the nine grain groups defined by the U.S. Department of Agriculture’s (USDA) *Exhibit A: Grain Requirements for Child Nutrition Programs*.

Decide if each commercial grain product below meets the WGR or if a product formulation statement (PFS) is required to determine this information. both “Yes” boxes must be checked for a product to be WGR.

Product 1: Whole-wheat bagel (group B)	
Ingredients: Whole-wheat flour, sugar, wheat gluten. Contains 2% or less of each of the following: honey, salt, yellow corn flour, yeast, molasses, diacetyl tartaric acid esters of mono-diglycerides (datem), ascorbic acid, mono- and diglycerides, l-cysteine, enzymes 	
WGR criteria	Meets criterion?
<b>Criterion 1: contains ≥50 percent whole grains</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Requires PFS The first ingredient and only creditable grain is whole-wheat flour. This product is 100 percent whole grain.
<b>Criterion 2: meets limit for noncreditable grains</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Requires PFS The noncreditable grain (yellow corn flour) does not count toward the limit because it is listed after “contains 2% or less.”

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Product 2: Oat bread (group B)	
<p>Ingredients: Unbleached enriched wheat flour [flour, malted barley flour, reduced iron, niacin, thiamin mononitrate (vitamin B1), riboflavin (vitamin B2), folic acid], water, whole-wheat flour, whole oats, sugar, wheat gluten, yeast, soybean oil, salt, monoglycerides, datem, calcium sulfate, citric acid, calcium carbonate, soy lecithin, whey, nonfat milk.</p>	
	
WGR criteria	Meets criterion?
<p><b>Criterion 1:</b> contains <math>\geq</math>50 percent whole grains</p>	<p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input checked="" type="checkbox"/> Requires PFS</p> <p>The first ingredient is unbleached enriched wheat flour, which is not a whole grain. However, the product contains two whole grains (whole-wheat flour and whole oats). To meet criterion 1, the product's PFS must indicate that the combined weight of the two whole grains is equal to or more than the weight of the enriched flour.</p>
<p><b>Criterion 2:</b> meets limit for noncreditable grains</p>	<p><input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> Requires PFS</p> <p>This product does not contain any noncreditable grains.</p>

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### Product 3: Iced cinnamon roll (group E)

Ingredients: Water, flour blend [whole-wheat flour, enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, enzyme, folic acid)], brown sugar, corn oil, nonfat dry milk, yeast, cinnamon, dough conditioner (soybean oil, vegetable glycerides, soy flakes), salt, wheat gluten and 2% or less of each of the following: icing stabilizer (calcium carbonate, sugar, agar, salt, mono and diglycerides), vanilla.




WGR criteria	Meets criterion?
<p><b>Criterion 1:</b> contains <math>\geq</math>50 percent whole grains</p>	<p><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Requires PFS</p> <p>The first ingredient after water is a flour blend of whole wheat flour and enriched flour. To meet criterion 1, the product's PFS must indicate that the whole-wheat flour is at least 8 grams per portion (groups A-G) or weighs more than the first ingredient after the flour blend, which is brown sugar.</p>
<p><b>Criterion 2:</b> meets limit for noncreditable grains</p>	<p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Requires PFS</p> <p>The soy flakes (noncreditable grain) in the dough conditioner do not count toward the limit for noncreditable grains because the dough conditioner is a non-grain ingredient.</p>

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Product 4: Corn muffin (group C)	
<p>Ingredients: Water, sugar, whole grain corn flour, whole-wheat flour, enriched flour (wheat flour, niacin, iron, thiamin mononitrate, riboflavin, folic acid), eggs, soybean/canola oil, modified cornstarch, milk whey, leavening (sodium acid pyrophosphate, baking soda), vital wheat gluten, sugar, nonfat milk, xanthan gum, guar gum.</p>	
	
WGR criteria	Meets criterion?
<p><b>Criterion 1:</b> contains <math>\geq</math>50 percent whole grains</p>	<p><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Requires PFS</p> <p>The first ingredient after water is sugar. However, the product also contains two whole grains (whole-grain corn flour and whole-wheat flour). To meet criterion 1, the product's PFS must indicate that the combined weight of the two whole grains is more than the weight of the sugar.</p>
<p><b>Criterion 2:</b> meets limit for noncreditable grains</p>	<p><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Requires PFS</p> <p>This product contains one noncreditable grain (modified cornstarch). To meet criterion 2, the product's PFS must indicate that the weight of the modified cornstarch does not exceed 3.99 grams (groups A-G).</p>

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Product 5: Breaded chicken nuggets (combination food with breading from group A)	
<p>Ingredients: Chicken, water, salt, and natural flavor. Breaded with: white whole-wheat flour, water, wheat starch, enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid), salt, contains 2% or less of the following: yellow corn flour, cornstarch, dried onion, dried garlic, dried yeast, brown sugar, paprika, spices</p>	
	
WGR criteria	Meets criterion?
<b>Criterion 1: contains <math>\geq</math>50 percent whole grains</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Requires PFS  White whole-wheat flour is the first ingredient in the grain portion (breading) and enriched flour is the only other creditable grain.
<b>Criterion 2: meets limit for noncreditable grains</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Requires PFS  The grain portion contains one noncreditable grain (wheat starch) before the statement, “contains 2% or less.” The PFS must indicate that the wheat starch does not exceed 3.99 grams per portion. The noncreditable grains (yellow corn flour, and cornstarch) listed after the statement, “contains 2% or less” do not count toward the limit.

For more information on the WGR criteria, refer to the Connecticut State Department of Education’s (CSDE) guide, [Meeting the Whole Grain-rich Requirement for the NSLP and SBP Meal Patterns for Grades K-12](#), and visit the [Whole Grain-rich Requirement](#) section of CSDE’s [Crediting Foods in School Nutrition Programs](#) webpage.

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The CSDE's *What's in a Meal* training program is a series of recorded modules that provide comprehensive guidance on complying with the meal patterns for grades K-12 in the National School Lunch Program (NSLP), School Breakfast Program (SBP), and Seamless Summer Option (SSO) of the NSLP. To access the training modules, visit the CSDE's [Meal Pattern Training for School Nutrition Programs](#).

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