

Grains Requirements for the National School Lunch Program



Lizzie Severson, RD

Agenda

- Whole Grains 101
- New Grain Requirements for School Lunch
 - Serving Size Criteria
 - Daily and Weekly Requirements
 - Whole Grain-Rich Requirements



Whole Grains 101

What is a whole grain?

Whole grain kernel

Bran
"Outer shell" protects seed
Fiber, B vitamins, trace minerals

Endosperm
Provides energy
Carbohydrates, protein



Germ
Nourishment for the seed
Antioxidants, vitamin E, B vitamins

Whole grains:

- Consist of the entire cereal grain seed or kernel.
 - The kernel has three parts—the bran, the germ, and the endosperm.
 - If the finished product retains the same relative proportions of bran, germ, and endosperm as the original grain, it is considered a whole grain.

Common Whole Grains

Wheat:

- Wheat berries
- Whole-grain wheat
- Cracked wheat
- Whole-wheat flour
- Graham flour
- Whole durum flour
- Sprouted wheat
- Bulgur
- White whole wheat flour



Rye:

- Whole rye
- Rye berries
- Whole-rye flour
- Whole-rye flakes



Rice:

- Brown rice
- Brown rice flour

Wild Rice:

- Wild rice
- Wild Rice flour



Common Whole Grains, continued

Oats:

- Whole oats
- Oat groats
- Oatmeal or rolled oats
- Whole-oat flour



Barley:

- Whole barley
- Whole-grain barley
- Whole-barley flakes
- Whole-barley flour
- Whole-grain barley flour

Corn:

- Whole corn
- Whole-corn flour
- Whole-grain corn flour
- Whole-grain cornmeal
- Whole cornmeal



New Grain Requirements for School Lunch

- Serving Size Criteria
- Daily and Weekly Requirements
- Whole Grain-Rich Requirements

Serving Size Criteria

14.75 grams of grains/serving = 1 bread/grain serving → 16 grams of grains/serving = 1 ounce equivalent (oz eq)

Current → New Exhibit A Example:
Hamburger bun – 52 grams



- Current Group B: 1 serving = 25 grams or 0.9 oz
- New Group B: 1 oz eq = 28 grams or 1.0 oz

Current: 52 grams ÷ 25 grams = 2.08 ~ 2 servings
New: 52 grams ÷ 28 grams = 1.86 ~ 1.75 oz eq

USDA Memo with Exhibit A: http://www.dpi.wi.gov/fns/pdf/gm_nslsp_sp_30_2012.pdf

EXHIBIT A: SCHOOL LUNCH AND BREAKFAST WHOLE GRAIN-RICH OUNCE EQUIVALENCY (OZ EQ) REQUIREMENTS FOR SCHOOL MEAL PROGRAMS*	
GROUP A	OZ EQ FOR GROUP A
• Bread type coating	1 oz eq = 22 gm or 0.8 oz
• Bread (whole wheat)	1.6 oz eq = 17 gm or 0.6 oz
• Chew mein noodles	1.2 oz eq = 11 gm or 0.4 oz
• Savory Crackers (crackers and snack crackers)	1.6 oz eq = 16 gm or 0.5 oz
• Croutons	
• Pretzels (hard)	
• Stuffing (dry) <i>Note: weights apply to bread in stuffing.</i>	
GROUP B	OZ EQ FOR GROUP B
• Bagels	1 oz eq = 28 gm or 1.0 oz
• Bread type coating	1.6 oz eq = 17 gm or 0.5 oz
• Biscuits	1.2 oz eq = 11 gm or 0.4 oz
• Breads (enriched whole wheat, French, Italian)	1.6 oz eq = 16 gm or 0.5 oz
• Buns (hamburger and hot dog)	
• Sweet Crackers [†] (graham crackers – all shapes, animal crackers)	
• Egg roll skins	
• English muffins	
• Flat bread (whole wheat or whole grain-rich)	
• Pizza crust	
• Pretzels (soft)	
• Rolls (whole wheat or whole grain-rich)	
• Tortillas (whole wheat or whole corn)	
• Tortilla chips (whole wheat or whole corn)	
• Taco shells (whole wheat or whole corn)	
GROUP C	OZ EQ FOR GROUP C
• Cookies (plain – includes vanilla wafers)	1 oz eq = 28 gm or 1.0 oz
• Cornbread	1.6 oz eq = 17 gm or 0.5 oz
• Corn muffins	1.2 oz eq = 11 gm or 0.4 oz
• Couscous	1.4 oz eq = 14 gm or 0.5 oz
• Pasta (all shapes)	
• Pie crust (short crust [‡] , cobble [‡] , fruit tart crust [‡] , and most hand-rolled crust)	
• Waffles	

EXHIBIT A: SCHOOL LUNCH AND BREAKFAST WHOLE GRAIN-RICH OUNCE EQUIVALENCY (OZ EQ) REQUIREMENTS FOR SCHOOL MEAL PROGRAMS*	
GROUP D	OZ EQ FOR GROUP D
• Doughnuts (cake and yeast raised, unfilled)	1 oz eq = 35 gm or 1.2 oz
• Cereal bars, breakfast bars, granola bars [§] (plain)	1.6 oz eq = 17 gm or 0.5 oz
• Muffins (all, except corn)	1.2 oz eq = 11 gm or 0.4 oz
• Sweet roll (brioche)	1.6 oz eq = 16 gm or 0.5 oz
• Toasted patty (unfilled)	
GROUP E	OZ EQ FOR GROUP E
• Cereal bars, breakfast bars, granola bars [§] (with nuts, dried fruit, and/or chocolate pieces)	1 oz eq = 68 gm or 2.4 oz
• Cookies (with nuts, raisins, chocolate pieces and/or fruit pieces)	1.6 oz eq = 17 gm or 0.5 oz
• Doughnuts (cake and yeast raised, frosted or glazed)	1.2 oz eq = 11 gm or 0.4 oz
• French toast	
• Sweet rolls (frozen)	1.6 oz eq = 16 gm or 0.5 oz
• Toasted patty (filled)	
GROUP F	OZ EQ FOR GROUP F
• Cake (plain, unfilled)	1 oz eq = 82 gm or 2.9 oz
• Coffee cake [¶]	1.6 oz eq = 17 gm or 0.5 oz
• Pastry (all shapes)	1.2 oz eq = 11 gm or 0.4 oz
GROUP G	OZ EQ FOR GROUP G
• Brownies (plain)	1 oz eq = 125 gm or 4.4 oz
• Cake (all varieties, frozen)	1.6 oz eq = 17 gm or 0.5 oz
GROUP H	OZ EQ FOR GROUP H
• Cereal (grain flake, quinoa, etc.)	1 oz eq = 12.5 gm or 0.4 oz
• Breakfast cereals (cereal) [¶]	
• Bulgur or cracked wheat	
• Macaroni (all shapes)	
• Noodles (all varieties)	
• Pasta (all shapes)	
• Ravioli (meat only)	
• Rice (cooked white or brown)	
GROUP I	OZ EQ FOR GROUP I
• Ready to eat breakfast cereal (cereal, dry)	1 oz eq = 16 gm or 0.6 oz
• Ready to eat breakfast cereal (cereal, dry)	1 oz eq = 1.25 cups or 1 ounce for puffed cereal

The crediting of a food item as oz eq grains is determined by:

Grams whole-grain meal and/or flour
or
Grams Whole-grain **plus** enriched meal and/or flour
÷
Number of servings the formulation or recipe yields
÷
16 grams per oz eq standard

Carrot Cake Recipe Example:
Recipe Yields: 50 servings
Weight of Enriched Flour: 1 lb 14 oz (840 grams)

840 grams
+
50 servings
+
16 grams per oz eq
= 1.05 oz eq ~ 1 oz eq

Daily and Weekly Requirements

Per Grade Group:

- Schools must offer minimum grain ounce equivalents per day
- Total grains offered per week must fall within the minimum and maximum range

Lunch Meal Pattern - Grains

	Grades K-5	Grades 6-8	Grades 9-12
Minimum (oz eq) /day	1	1	2
Weekly range (oz eq)	8-9	8-10	10-12

- All grains offered must be counted toward meeting these minimum and maximum requirements using the ounce equivalent or "bread" or "bread alternate" serving criteria in the interim

Minimum Daily Requirements

- If the minimum daily requirement for grains is 1 oz eq, this minimum can be met by offering multiple food items
- For example: You could serve crackers, that provide 0.5 oz eq, with chicken noodle soup that also provides 0.5 oz eq to meet the minimum daily requirement



Can the student take the soup without the crackers?



Maximum Weekly Requirements

If there are multiple serving lines in one cafeteria the minimum and maximum requirements must be met by each serving line

- Example: Sub sandwich line, Pizza line, Hot lunch line would all have to meet the requirements



Grain Based Desserts

- Only 2.0 ounce equivalencies of grain-based desserts are allowed at lunch per school week for all grades
- These items are a major source of solid fats and added sugars per DGA 2010



Battered or Breaded Products Timeline



Starting July 1, 2012	Starting July 1, 2013
Do not need to be counted toward the maximum weekly grain requirements	Must be counted towards the weekly minimum and maximum grain requirements



Grain Requirement Timeline Lunch

Starting July 1, 2012	Starting July 1, 2013
14.75 grams/ serving or 16grams/oz eq	16grams/oz eq
Minimum/Maximum weekly ranges must be met	



Grade	Meal	Daily Grains Minimum/day (oz eq)	Weekly Grains Range (oz eq)
K-5 th	Lunch	1	5-9

Grade	Meal	Daily Grains Minimum/day (oz eq)	Weekly Grains Range (oz eq)
K-5 th	Lunch	1	5-9

Asterisk (*) desserts

Day	Option 1	Option 2	Maximum Grains Offered (oz eq)	Minimum Grains Offered (oz eq)
Monday	2 meatballs _____ = 0.5 oz eq 1/2 cup enriched rice _____ = 1.0 oz eq	1 cup enriched noodles = 2.0 oz eq		
Tuesday	5 chicken nuggets _____ = 1.0 oz eq 4 graham crackers* _____ = 1.0 oz eq	56 gram wheat tortilla _____ = 2.0 oz eq		
Wednesday	56 gram hamburger bun = 2.0 oz eq	Grilled Cheese Sandwich 28 gram sandwich bread (2 slices) _____ = 2.0 oz eq		
Thursday	28 gram dinner roll _____ = 1.0 oz eq	4 saltine crackers _____ = 0.5 oz eq 1-3 cup noodles (soup) _____ = 0.5 oz eq		
Friday	Pepperoni pizza slice _____ = 2.0 oz eq	Cheese pizza slice _____ = 2.0 oz eq		
			Week Total Maximum (oz eq)	Week Total Minimum (oz eq)

Please answer the following questions after you have completed the chart above.
 Is the Daily Grains Minimum met for each day? Yes/No
 Is the Week Total Maximum within the Weekly Grains Range? Yes/No
 Is the Week Total Minimum within the Weekly Grains Range? Yes/No
 Is the week total grain-based desserts 2.0 oz eq grains or less? Yes/No

Asterisk (*) desserts

Day	Option 1	Option 2	Maximum Grains Offered (oz eq)	Minimum Grains Offered (oz eq)
Monday	2 meatballs _____ = 0.5 oz eq 1/2 cup enriched rice _____ = 1.0 oz eq	1 cup enriched noodles = 2.0 oz eq	2	1.5
Tuesday	5 chicken nuggets _____ = 1.0 oz eq 4 graham crackers* _____ = 1.0 oz eq	56 gram wheat tortilla _____ = 2.0 oz eq		
Wednesday	56 gram hamburger bun = 2.0 oz eq	Grilled Cheese Sandwich 28 gram sandwich bread (2 slices) _____ = 2.0 oz eq		
Thursday	28 gram dinner roll _____ = 1.0 oz eq	4 saltine crackers _____ = 0.5 oz eq 1-3 cup noodles (soup) _____ = 0.5 oz eq		
Friday	Pepperoni pizza slice _____ = 2.0 oz eq	Cheese pizza slice _____ = 2.0 oz eq		
			Week Total Maximum (oz eq)	Week Total Minimum (oz eq)

Please answer the following questions after you have completed the chart above.
 Is the Daily Grains Minimum met for each day? Yes/No
 Is the Week Total Maximum within the Weekly Grains Range? Yes/No
 Is the Week Total Minimum within the Weekly Grains Range? Yes/No
 Is the week total grain-based desserts 2.0 oz eq grains or less? Yes/No

Grade	Meal	Daily Grains Minimum/day (oz eq)	Weekly Grains Range (oz eq)
K-5 th	Lunch	1	5-9

Asterisk (*) Desserts

Day	Option 1	Option 2	Maximum Grains Offered (oz eq)	Minimum Grains Offered (oz eq)
Monday	2 meatballs _____ = 0.5 oz eq 1/2 cup enriched rice _____ = 1 oz eq	1 cup enriched noodles _____ = 2 oz eq	2	1.5
Tuesday	5 chicken nuggets _____ = 1 oz eq 4 graham crackers _____ = 1 oz eq	56 gram wheat tortilla _____ = 2 oz eq	2	2
Wednesday	56 gram hamburger bun _____ = 2 oz eq	Grilled Cheese Sandwich 28 gram sandwich bread (2 slices) _____ = 2 oz eq	2	2
Thursday	28 gram dinner roll _____ = 1 oz eq	4 saltine crackers _____ = 0.5 oz eq 1/4 cup noodles (soup) _____ = 0.5 oz eq	1	1
Friday	Pepperoni pizza slice _____ = 2 oz eq	Cheese pizza slice _____ = 2 oz eq	2	2

Please answer the following questions after you have completed the chart above.


- Is the Daily Grains Minimum met for each day? **Yes/No**
- Is the Week Total Maximum within the Weekly Grains Range? **Yes/No**
- Is the Week Total Minimum within the Weekly Grains Range? **Yes/No**
- Is the week total grain-based desserts 2.0 oz eq grains or less? **Yes/No**

Week Total Maximum (oz eq)	Week Total Minimum (oz eq)
9	8.5

Whole Grain-Rich Requirements




Whole Grain-Rich Implementation Process



- New rule requires all grains to be whole grain-rich by school year (SY) 2014-2015
- Requirement for whole grain-rich products will be phased in for lunch and breakfast over the next two school years

Grain Requirement Timeline Lunch

Starting July 1, 2012	Starting July 1, 2014
Half of the grains offered per week must be whole grain-rich	All grains offered per week must be whole grain-rich




Half the Grains Whole-Grain Rich

Monday	Tuesday	Wednesday	Thursday	Friday
Meatballs (0.5 oz eq) w/ Rice (1 oz eq) Steamed Broccoli Fresh Orange Slices Choice of Milk	Chicken nuggets (1 oz eq) Sweet Potato Fries Grapes Graham Crackers (.05 oz eq) Choice of Milk	Grilled Cheese Sandwich (2 oz eq) Spinach & Lettuce Salad Apple Slices Choice of Milk	Chili w/ beans Dinner Roll (1 oz eq) Baby Carrots Watermelon Choice of Milk	Pepperoni pizza (2 oz eq) Bean & Corn Fiesta Salad Kiwi Choice of Milk

Whole Grain Rich Products are highlighted

Total Grains Offered: 8 oz eq
Whole Grain-Rich: 4 oz eq

Whole Grain-Rich Criteria

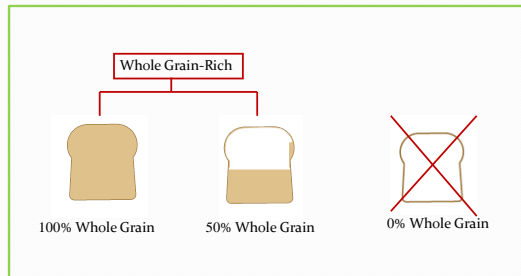


Whole grain-rich products must contain:

- Foods that contain 100% whole grain
- OR**
- Foods that contain a blend of whole grain meal and/or flour and enriched meal and/or flour

NOTE: Whole grain-rich products must contain at least 50% whole grains and the remaining grain content must be enriched.

Whole Grain-Rich Criteria



To credit as whole grain-rich, the product must meet at least **one** of the following criteria:

	<p>The whole grain content per oz eq based on weights must be at least 8.0 grams or more:</p> <p>This information may be determined from the product packaging or by the manufacturer.</p>
	<p>The product includes the FDA whole grain health claim:</p> <p>"Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat, and cholesterol, may reduce the risk of heart disease and certain cancers."</p>
	<p>The product ingredient label lists a whole grain first</p> <p>Ingredients: whole wheat flour, water, corn syrup, wheat gluten, yeast, salt</p>

Whole Grain-Rich Criteria

The product ingredient statement lists whole grains first, specifically:

Non Mixed Dishes

- Breads
- Cereals



Mixed Dishes

- Pizza
- Corn dogs



Whole Grain-Rich Criteria

Non-Mixed Dishes

- Whole grains must be the primary ingredient by weight
- When the whole grain content comes from multiple ingredients, the combined whole grain ingredients can be the primary ingredient by weight even though a whole grain is not listed as the first ingredient



Whole Grain-Rich Criteria

Non-Mixed Dishes Example:

A bread item may be made with three grain ingredients:

Ingredients: Enriched wheat flour, whole wheat flour, whole oats...

- Enriched wheat flour (40% of grain)
- Whole wheat flour (30% of grain)
- Whole oats (30% of grain)

Program operators can use manufacturer documentation to determine that whole grains are the primary ingredient by weight.

Whole Grain-Rich Criteria

Mixed dishes

- Whole grains must be the primary grain ingredient by weight
- The weights listed on School-made recipes, help determine whether the total whole grain ingredients exceed the total non-whole grain ingredients

Pizza Ingredients: CHEESE: Low Moisture-Part Skim Mozzarella Cheese (cultured pasteurized part skim milk, salt, enzymes). CRUST: Water, **Whole Wheat Flour**, Enriched flour (Wheat flour, niacin, iron, thiamine mononitrate, riboflavin, folic acid, enzyme), sugar, palm oil with lecithin, soybean oil, yeast, salt, sodium bicarbonate...



Child Nutrition Label

- Manufacturers may apply for a Child Nutrition (CN) Label for qualifying products (meat/meat alternate entrées containing grains) to indicate the number of oz eq grains that meet the whole grain-rich criteria
- The term "oz eq grains" on the CN Label indicates the product meets the whole grain-rich criteria
- The terms "bread" or "bread alternate" on the CN Label indicates the product meets previous requirements for grains/breads
- Please refer to the CN Labeling Program website for details regarding qualifying products at: www.fns.usda.gov/cnd/cnlabeling

Sample CN Label

Chicken Stir-Fry Bowl
 Ingredient Statement:
 Chicken, brown rice, broccoli, red peppers, carrots, onions, water, olive oil, soy sauce, spices.

CN 099135

Each 4.5 oz. Chicken Stir-Fry Bowl provides 1.5 oz. equivalent meat **1.0 oz eq. Grains**, ¼ cup dark green vegetable, ¼ cup red/orange vegetable, and ¼ cup other vegetable for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA XXXXX).

CN

Net Wt.: 18 pounds



Chicken Wok Company
 1234 Kluck Street Poultry, PA 12345

Whole Grain-Rich Activity



Product Label #7, Honey Graham Crackers

Honey Graham Crackers

Now more whole grains

Nutrition Facts

Serving Size: 2 squares (14 g)

Calories	59
Protein (g)	1
Carbohydrate (g)	11
Dietary Fiber (g)	0
Sugars (g)	4
Total Fat (g)	1
Saturated Fat (g)	0
Trans Fat (g)	N/A
Cholesterol (mg)	0
Sodium (mg)	85
Vitamin A	0%
Vitamin C	0%
Iron	6%
Calcium	0%

Is this product Whole Grain-Rich?

Ingredients: Enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate [vitamin B1], riboflavin [vitamin B2], folic acid), sugar, graham flour (whole-grain wheat flour), soybean oil, high fructose corn syrup, partially hydrogenated cottonseed oil, honey, leavening (baking soda, calcium phosphate), salt, artificial flavor, soy lecithin- an emulsifier, cornstarch.

NO



Product Label #7, Honey Graham Crackers

Honey Graham Crackers

Now more whole grains

Nutrition Facts

Serving Size: 2 squares (14 g)

Calories	59
Protein (g)	1
Carbohydrate (g)	11
Dietary Fiber (g)	0
Sugars (g)	4
Total Fat (g)	1
Saturated Fat (g)	0
Trans Fat (g)	N/A
Cholesterol (mg)	0
Sodium (mg)	85
Vitamin A	0%
Vitamin C	0%
Iron	6%
Calcium	0%

Ingredients: Enriched flour (wheat flour, niacin, reduced iron, thiamine mononitrate [vitamin B1], riboflavin [vitamin B2], folic acid), sugar, graham flour (whole-grain wheat flour), soybean oil, high fructose corn syrup, partially hydrogenated cottonseed oil, honey, leavening (baking soda, calcium phosphate), salt, artificial flavor, soy lecithin- an emulsifier, cornstarch.

Handout: Product Label

1. Whole Wheat Bread

*Diets rich in whole-grain foods and other plant foods, and low in saturated fat and cholesterol, may help reduce the risk of heart disease.
Meets American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2.*

Nutrition Facts
Serving Size: 1 Slice (28 g)

Calories 69
Protein (g) 4
Carbohydrate (g) 12
Dietary Fiber (g) 2
Sugars (g) 2
Total Fat (g) 1
Saturated Fat (g) 0
Trans Fat (g) 0
Cholesterol (mg) 0
Sodium (mg) 132
Vitamin A 0%
Vitamin C 0%
Iron 4%
Calcium 3%

Is this product Whole Grain-Rich?

Ingredients: Whole wheat flour, water, corn syrup, wheat gluten, yeast, contains 2% or less of each of the following: honey, partially hydrogenated soybean oil, salt, dough conditioners (may contain one or more of each of the following: mono- and diglycerides, ethoxylated mono- and diglycerides, calcium and sodium stearoyl lactylates, calcium peroxide, calcium carbonate), whey, yeast nutrients (mono-calcium phosphate, calcium sulfate, ammonium sulfate), distilled vinegar, cornstarch.



Handout: Product Label

1. Whole Wheat Bread

*Diets rich in whole-grain foods and other plant foods, and low in saturated fat and cholesterol, may help reduce the risk of heart disease.
Meets American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2.*

Nutrition Facts
Serving Size: 1 Slice (28 g)

Calories 69
Protein (g) 4
Carbohydrate (g) 12
Dietary Fiber (g) 2
Sugars (g) 2
Total Fat (g) 1
Saturated Fat (g) 0
Trans Fat (g) 0
Cholesterol (mg) 0
Sodium (mg) 132
Vitamin A 0%
Vitamin C 0%
Iron 4%
Calcium 3%

Ingredients: Whole wheat flour, water, corn syrup, wheat gluten, yeast, contains 2% or less of each of the following: honey, partially hydrogenated soybean oil, salt, dough conditioners (may contain one or more of each of the following: mono- and diglycerides, ethoxylated mono- and diglycerides, calcium and sodium stearoyl lactylates, calcium peroxide, calcium carbonate), whey, yeast nutrients (mono-calcium phosphate, calcium sulfate, ammonium sulfate), distilled vinegar, cornstarch.

Whole Wheat Rolls, Bread Sticks, Buns, 51%

Breads		HACCP: Non-Hazardous/Other		Healthier Kansas Recipe 877 USDA B-16, modified	
Ingredients	200 Servings		Servings		Directions
	Weight	Measure	Weight	Measure	
Flour, Whole Whole Wheat Flour, All-purpose, enriched	3 lbs + 12 oz 3 lbs + 8 oz				1. Place flour, dry milk, sugar, yeast and salt in mixer bowl. 2. Blend with dough hook for approximately 2 minutes on low speed. 3. Add oil and blend for approximately 2 minutes on low speed. 4. Add first amount of water to the dry ingredients. If
Dry Milk, instant, nonfat	7 oz	1½ cup			
Sugar, granulated	11.5 oz	11cup = 3 Tbsp			
Yeast, instant, dry	3 oz	¾ cup			
Salt	1.75 oz	2 Tbsp = 2 tsp			
Vegetable Oil	13 oz	1½ cup			
Water*		2 qt + ¼ cup			
Serving Size	1 Serving Provides		Yield		
K:12, 1 each	1 1/2oz equivalent grains/bread		200 rolls - Approximately 13 lbs 8 oz of dough		

Nutrients Per Serving

Calories	80	Vitamin A	4.8 IU	Iron	84 mg
Protein	2.01 gm	Vitamin C	1.15 mg	Calcium	8.54 mg
Carbohydrate	14.03 gm	Fiber	1.20 gm	Cholesterol	0 mg
Fat	2.06 gm	% Fat	22.15 %	Sodium	96 mg
Saturated Fat	0.31 gm	% Saturated Fat	3.95 %		

Whole Wheat Rolls, Bread Sticks, Buns, 51%

Breads		HACCP: Non-Hazardous/Other		Healthier Kansas Recipe 877 USDA B-16, modified	
Ingredients	200 Servings		Servings		Directions
	Weight	Measure	Weight	Measure	
Flour, Whole Whole Wheat Flour, All-purpose, enriched	3 lbs + 12 oz 3 lbs + 8 oz				1. Place flour, dry milk, sugar, yeast and salt in mixer bowl. 2. Blend with dough hook for approximately 2 minutes on low speed. 3. Add oil and blend for approximately 2 minutes on low speed. 4. Add first amount of water to the dry ingredients. If
Dry Milk, instant, nonfat	7 oz	1½ cup			
Sugar, granulated	11.5 oz	11cup = 3 Tbsp			
Yeast, instant, dry	3 oz	¾ cup			
Salt	1.75 oz	2 Tbsp = 2 tsp			
Vegetable Oil	13 oz	1½ cup			
Water*		2 qt + ¼ cup			
Serving Size	1 Serving Provides		Yield		
K:12, 1 each	1 1/2oz equivalent grains/bread		200 rolls - Approximately 13 lbs 8 oz of dough		

Nutrients Per Serving

Calories	80	Vitamin A	4.8 IU	Iron	84 mg
Protein	2.01 gm	Vitamin C	1.15 mg	Calcium	8.54 mg
Carbohydrate	14.03 gm	Fiber	1.20 gm	Cholesterol	0 mg
Fat	2.06 gm	% Fat	22.15 %	Sodium	96 mg
Saturated Fat	0.31 gm	% Saturated Fat	3.95 %		



C522 CHICKEN NUGGETS WITH WHOLE GRAIN BREADING TYSON

Servings per Case: 144

Portion Size: 5 nuggets (@ .60 oz each) equal a 2 oz. meat/meat alternate and 1 bread serving.

Trans Fat 0g	
Monounsaturated Fat 3.5g	
Cholesterol 20mg	7%
Sodium 490mg	19%
Total Carbohydrate 14g	3%
Dietary Fiber 2g	8%
Sugars 1g	2%
Total 13g	26%
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 10%

INGREDIENTS
Chicken, water, textured soy protein concentrate, isolated soy protein with less than 2% soy lecithin, seasoning (corn syrup solids, brown sugar, dextrose, salt, vinegar powder (malic acid, modified corn starch, dried vinegar), garlic powder, onion powder, chicken type flavor (hydrolyzed corn gluten, autolyzed yeast extract, sunflower oil, disodium inosinate, disodium guanylate)), sodium acid pyrophosphate, WHEAT FLOUR (ENRICHED WITH NIACIN, REDUCED IRON, THIAMINE MONONITRATE (VITAMIN B1), RIBOFLAVIN, FOLIC ACID), WATER, MODIFIED WHEAT STARCH, SALT, SOYBEAN OIL, SUCRA, YELLOW CORN FLOUR, PAPRIKA, LEAVENING (SODIUM ACID PYROPHOSPHATE, SODIUM BICARBONATE, MONOSODIUM PHOSPHATE), GARLIC POWDER, NATURAL FLAVOR, EXTRACTIVES OF TURMERIC, FUMARIC ACID. Breading set in vegetable oil.

CONTAINS soy, wheat

STORAGE	
Shelf Life:	270 days
Storage Temp:	0 F
Storage Method:	Frozen

CN Label: Yes
CN Label Numbers: 07274/NIHL, 079237/WFS
CN Statement: Five (5) oz. of fully cooked, breaded chunk shaped chicken patties provide 2.02 oz. equivalent meat/meat alternate and 1 serving of bread alternate for the Child Nutrition Meal Pattern Requirements.



C522 CHICKEN NUGGETS WITH WHOLE GRAIN BREADING TYSON

Servings per Case: 144

Portion Size: 5 nuggets (@ .60 oz each) equal a 2 oz. meat/meat alternate and 1 bread serving.

Trans Fat 0g	
Monounsaturated Fat 3.5g	
Cholesterol 20mg	7%
Sodium 490mg	19%
Total Carbohydrate 14g	3%
Dietary Fiber 2g	8%
Sugars 1g	2%
Total 13g	26%
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 10%

INGREDIENTS
Chicken, water, textured soy protein concentrate, isolated soy protein with less than 2% soy lecithin, seasoning (corn syrup solids, brown sugar, dextrose, salt, vinegar powder (malic acid, modified corn starch, dried vinegar), garlic powder, onion powder, chicken type flavor (hydrolyzed corn gluten, autolyzed yeast extract, sunflower oil, disodium inosinate, disodium guanylate)), sodium acid pyrophosphate, WHEAT FLOUR (ENRICHED WITH NIACIN, REDUCED IRON, THIAMINE MONONITRATE (VITAMIN B1), RIBOFLAVIN, FOLIC ACID), WATER, MODIFIED WHEAT STARCH, SALT, SOYBEAN OIL, SUCRA, YELLOW CORN FLOUR, PAPRIKA, LEAVENING (SODIUM ACID PYROPHOSPHATE, SODIUM BICARBONATE, MONOSODIUM PHOSPHATE), GARLIC POWDER, NATURAL FLAVOR, EXTRACTIVES OF TURMERIC, FUMARIC ACID. Breading set in vegetable oil.

CONTAINS soy, wheat

STORAGE	
Shelf Life:	270 days
Storage Temp:	0 F
Storage Method:	Frozen

CN Label: Yes
CN Label Numbers: 07274/NIHL, 079237/WFS
CN Statement: Five (5) oz. of fully cooked, breaded chunk shaped chicken patties provide 2.02 oz. equivalent meat/meat alternate and 1 serving of bread alternate for the Child Nutrition Meal Pattern Requirements.

Resources for Whole Grains

- USDA Memo SP 30-2012: http://www.dpi.wi.gov/fns/pdf/gm_nslp_sp_30_2012.pdf
- <http://www.fns.usda.gov/tn/Resources/foodbuyingguide.html>
- <http://nfsmi.org/ResourceOverview.aspx?ID=425>
- <http://www.dpi.wi.gov/fns/index.html>

Food Buying Guide
For Child Nutrition Programs

NFSMI

Community and School Nutrition Programs
WISCONSIN DPI

Thank you!

In accordance with Federal Law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability.

To file a complaint of discrimination, write USDA, Director, Office of Adjudication, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410 or call toll free (866) 632-9992 (Voice). Individuals who are hearing impaired or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339; or (800) 845-6136 (Spanish). USDA is an equal opportunity provider and employer.