



## Background

There are four ways to determine how many ounce equivalents of grain a product provides in Child Nutrition Programs. These include using:

1. Exhibit A, Nutrition Facts Panel and ingredient list
2. The Food Buying Guide
3. Manufacturer’s documentation of the product. Acceptable documentation includes: Child Nutrition (CN) label, signed product formulation statement, or USDA Foods Fact Sheet)
4. A calculation to determine amount of grains in a scratch made recipe

Important reminders about grains:

- Different grain products contain different amounts of grain. If a grain product weighs one ounce, it does not necessarily provide one ounce equivalent grain in Child Nutrition Programs.
- The minimum creditable serving size for grains is 0.25 oz. equivalents.
- All grains must be whole grain-rich unless the school food authority has an approved *Whole Grain-Rich Exemption Request Form* on file.

## Exhibit A, Nutrition Facts Panel & Ingredient List

Exhibit A contains a wide variety of prepared grain products that are grouped based on their average grain content. Each group in Exhibit A provides the minimum serving size needed to supply one ounce equivalent of grains. The Nutrition Facts Panel provides the grams per serving and the ingredients list provides information on whole grain content. The calculation below shows how to use Exhibit A and the Nutrition Facts Panel to determine the grains contribution.

### Calculation:

1. Grams/cups in one serving of product (from Nutrition Facts Panel)	Divide: #1 ÷ #2 = #3	2. Grams/Cups for 1 oz. equivalent (from Exhibit A)	3. Oz. equivalents of grain
_____	÷	_____	= _____
For one portion			÷ <u>1</u>
4. Grain oz. eq. per portion			= _____

**Example – Whole wheat bread** (Nutrition Facts Panel and ingredient list provided on next page)

1. Grams/cups in one serving of product (from Nutrition Facts Panel)	Divide: #1 ÷ #2 = #3	2. Grams/Cups for 1 oz. equivalent (from Exhibit A)	3. Oz. equivalents of grain
<u>34 g</u>	÷	<u>28 g (bread is in group B)</u>	= <u>1.21</u>
For one portion			÷ <u>1</u>
4. Grain oz. eq. per portion			= 1.21 round down to <u>1.0 oz. eq.</u>



Amount/Serving		% Daily Value*	Amount/Serving		% Daily Value*
<b>Total Fat</b>	0.5g	1%	<b>Total Carb.</b>	15g	5%
Saturated Fat	0g	1%	Dietary fiber	3g	14%
Trans Fat	0g		Sugars	1g	
<b>Cholesterol</b>	0mg	0%	<b>Protein</b>	4g	8%
<b>Sodium</b>	80mg	3%	<b>Potassium</b>	80mg	2%
Vitamin A	0%		Vitamin C	0%	
Thiamine	8%		Riboflavin	0%	
Phosphorus	8%		Magnesium	6%	
			Calcium	0%	
			Iron	4%	
			Niacin	6%	
			Vitamin B6	4%	
			Zinc	4%	
			Folic Acid	0%	

Grams/cups in one serving of product

## Food Buying Guide

The Food Buying Guide (FBG) is designed to help school food authorities purchase the correct amount of food and determine the specific contribution different food items make toward the meal pattern requirements. The yield information provided in the FBG represents average yields based on research conducted by the USDA. For grains, the FBG provides serving data by number of grain servings or by volume depending on how the item is categorized in Exhibit A. The FBG provides the same information as Exhibit A and also provides additional grain products and yield information. The calculation below shows how to use the FBG to determine how many ounce equivalents of grain a product provides in Child Nutrition Programs.

### Calculation:

1. Quantity of ingredient as purchased	Multiply: #1 x #2 = #3	2. Servings per purchase unit (column 3 in FBG)	3. Grain (oz. equivalents)
_____	<b>X</b>	_____	= _____
4. Portions per recipe			÷ _____
5. M/MA oz. eq. per portion			= _____

**Example** – 7 lbs. Long grain, parboiled brown rice, dry:

1. Quantity of ingredient as purchased	Multiply: #1 x #2 = #3	2. Servings per purchase unit (column 3 in FBG)	3. Grain (oz. equivalents)
<u>7 lbs.</u>	<b>X</b>	<u>15.5 (1/2 cup cooked)</u>	= <u>108.5</u>
4. Portions per recipe			÷ <u>100</u>
5. M/MA oz. eq. per portion			= 1.09 Round down to <u>1.0 oz.</u>

## Manufacturer's Documentation

School food authorities can use a Child Nutrition (CN) label, signed product formulation statement or USDA Foods Fact sheet to determine the grams of creditable grains and ounce equivalents per portion. See *Acceptable Product Documentation for Meal Pattern Requirements* for detailed information on allowable documentation.



## Calculate Grains from a Recipe

A calculation is used to determine how many ounce equivalents each portion of a grain recipe provides. The calculation is provided below or you can use the Excel *Worksheet for Calculating the Grain Contribution from a Recipe* to perform the calculation.

### Calculation:

1. Total grams of creditable grain ingredient (whole grain flour/meal plus enriched flour/meal)	Divide: #1 ÷ #2 = #3	2. There are 16 grams per ounce equivalent for grains	3. Oz. equivalents of grain
_____	÷	16	= _____
4. Portions per recipe			÷ _____
5. Grain oz. eq. per portion			= _____

Example – Homemade Wheat Rolls (250 grams of whole wheat flour and 250 grams of enriched white flour)

1. Total grams of creditable grain ingredient (whole grain flour/meal plus enriched flour/meal)	Divide: #1 ÷ #2 = #3	2. There are 16 grams per ounce equivalent for grains	3. Oz. equivalents of grain
<u>500 g</u>	÷	16	= <u>31.25</u>
4. Portions per recipe			÷ <u>20</u>
5. Grain oz. eq. per portion			= 1.56 Round down to <u>1.5 oz. eq.</u>

## Resources

- CDE School Nutrition Unit Menu Planning webpage: <http://www.cde.state.co.us/nutrition/nutrimenuplanning>
- Exhibit A: <http://www.cde.state.co.us/offices/osnmenuplanningexhibita>
- Food Buying Guide: <http://www.fns.usda.gov/tn/food-buying-guide-school-meal-programs>
- Grains product formulation statement: <http://www.cde.state.co.us/nutrition/osnmenuplanningpfsgrains1314>
- USDA Foods Fact Sheets: <http://www.fns.usda.gov/fdd/nsfp-usda-foods-fact-sheets>
- USDA Child Nutrition Labeling Program: <http://www.fns.usda.gov/cnlabeling/child-nutrition-cn-labeling-program>
- USDA Whole Grain Resource: <http://www.fns.usda.gov/tn/whole-grain-resource>