

COMPLIANCE WITH MEAT/MEAT ALTERNATE AND GRAINS FOR SY 13-14



Department of Elementary and Secondary Education
School Food Services

2013 Summer Workshop

www.dese.mo.gov

- About School Food Services
- Civil Rights
- Commodities
- Computer Software
- Food Service Management
- Hazard Analysis and Critical Control Point (HACCP)
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- School Food Service Programs/Regulations
- School Meal Initiatives (SMI) Regulations
- State Agency Reviews
- Statistics
- USDA Guidance Policies
- USDA Memos
- Webinars & Workshops**
- Wellness
- DESE Web Applications



Webinars and Workshops

Webinars

- ▶ New Meal Pattern Requirements
 - ▶ Dietary Specifications
 - ▶ Implementation Timeline
 - ▶ Grains and Breads Info
 - ▶ What are Grains?
 - ▶ What are Vegetables?
 - ▶ Questions and Answers
- ▶ Verification Report
 - ▶ Verification Report Webinar Questions and Answers
- ▶ Direct Certification
- ▶ Wellness Inventory
 - ▶ School Wellness Inventory Tool
- ▶ Fresh Fruit and Vegetable Program (FFVP)

Workshops

2013 Summer Workshop Brochure

2012 Summer Workshop Presentations and Handouts

- ▶ Certification of Compliance (6 Cent Rule) Presentation
- ▶ New Food Based Menu Planning Presentation



Outline

1. USDA Flexibility in the Meat/Meat Alternate and Grain Maximums for School Year 2013-14
2. What is the Child Nutrition Label?
3. Calculating the meat/meat alternate component
4. Calories and Saturated Fat
5. What are grains?
6. Calculating the grain/bread component
7. Wrap it up activity: Grab-n-go Chicken Fajita Wrap
8. Resources
9. Q&A



Flexibility to Assess Compliance With Weekly Ranges

- ✓ SP 26-2013 Revised
- ✓ To help address operational challenges, FNS is offering additional flexibility in menu planning for SY 2013-2014
- ✓ No change in the method of measuring the required daily minimum quantities for grains or meats/meat alternatives
- ✓ Allows for more time for suppliers to offer a broader array of serving options
- ✓ Certification Tool
- ✓ **PERMANENT!!**



Quick Review

□ What are the requirements?

Meat/Meat Alternate		
Grades K-5	Grades 6-8	Grades 9-12
1 ounce daily 8-10 ounces weekly	1 ounce daily 9-10 ounces weekly	2 ounces daily 10-12 ounces weekly

Grains		
Grades K-5	Grades 6-8	Grades 9-12
1 per day (min) 8-9 oz eq. weekly	1 per day (min) 8-10 oz eq. weekly	2 per day (min) 10-12 oz eq. weekly

Calories		
Grades K-5	Grades 6-8	Grades 9-12
550-650	600-700	750-850



Child Nutrition Label (CN)

- The CN labeling Program is run by the FNS of the U.S. Department of Agriculture in cooperation with Food Safety and Inspection Service, Agriculture Marketing Service and National Marine Fisheries Service
- Provides warranty for products
- Clearly identifies the contribution of a product toward the meal pattern requirements
- Main dish products that contribute significantly to the meat/meat alternate component
 - Beef patties, cheese or meat pizza, burritos, egg rolls, chicken patties and breaded fish portions



Child Nutrition Label

- The term, “oz eq grains” on the CN Label indicated the product meets the WGR criteria
- The terms “bread or “bread alternate” on the CN Label indicates the product meets previous program requirements for grains/breads
- Please refer to the CN labeling Program website for details regarding qualifying products at www.fns.usda.gov/cnd/cnlabeling



Child Nutrition Information

Tony's® SmartPizza(TM) Whole Grain 4x6 Pepperoni Pizza 50/50 Cheese

PRODUCT DESCRIPTION:

Crispy whole grain thin crust topped with our Tony's® sauce, blended mozzarella cheese, and diced pepperoni; all in a convenient 4"x6" size.

- Pre-scored 8-block sheets with Pan Mates® make preparation and clean up easy.
- Tony's® unsurpassed level of consistency.

MENU APPLICATIONS:

- Break into 4"x6" rectangles before baking to better serve.
- Serve in mainline and a la carte menus.
- Pair with fresh fruit, vegetables, or a side salad for a well balanced meal.

CHILD NUTRITION INFORMATION:

083324 - Each 4.48 oz. Pizza with Fat Reduced Pepperoni provides 2.00 oz. equivalent meat/meat alternate, 2.00 oz. equivalent grains, and 1/8 cup red/orange vegetable for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 04-12.)

HARD BID SPECIFICATIONS:

Tony's® SmartPizza(TM) Whole Grain 4x6 Pepperoni Pizza 50/50 Cheese must provide 2 oz(s) equivalent meat/meat alternate, 2 servings of bread/bread alternate, and 1/8 cup vegetable. Portion to provide a minimum of 270 calories with no more than 13 fat grams. Must contain a minimum of 3 grams of fiber and less than 740 milligrams sodium. Case pack of 96 per case. CN Label required.

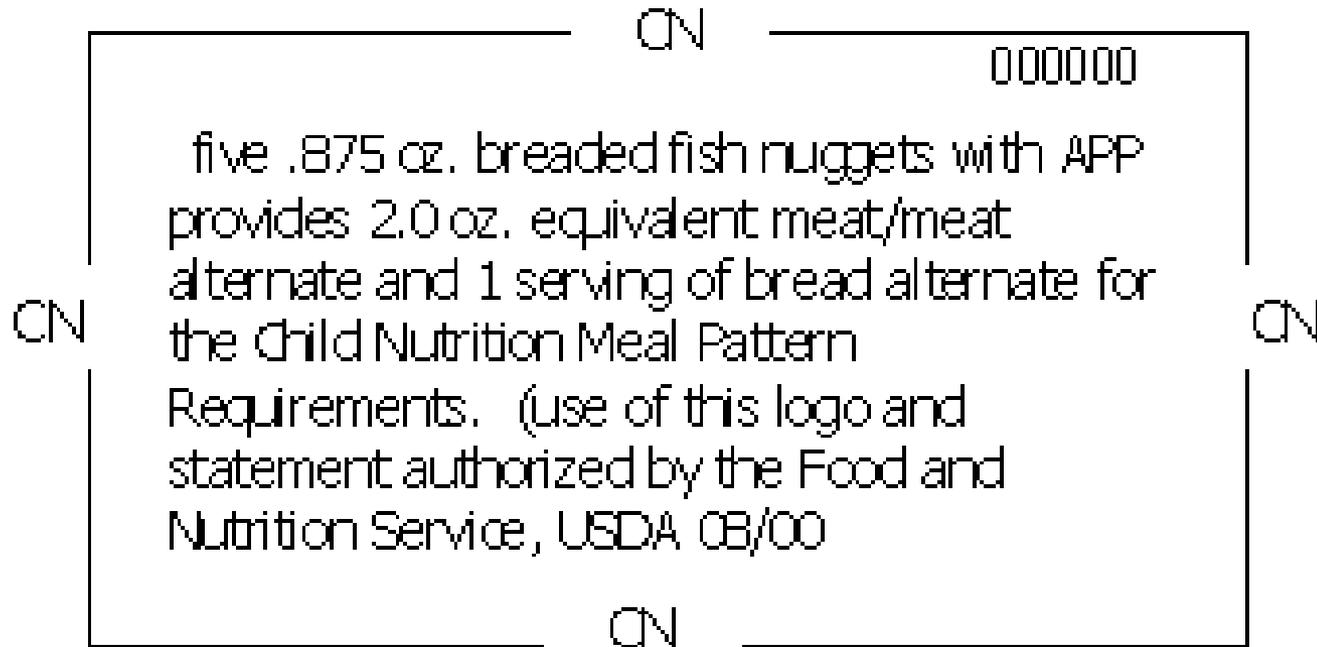
Acceptable Brand: Tony's® 78674 .



NUTRITION INFORMATION:

Serving Size:	1 Piece (127g)
Eaches/Case:	96
Inner Packs/Case:	12
Servings/Case:	96
Calories:	300
Calories from Fat:	100

CN Label



Commodities

❖ http://dese.mo.gov/divadm/food/Commodities_Index.html

❖ Nutritional Information

❖ Link to all USDA Food Fact Sheets

❖ Nutrient Facts for Processed Commodities

School Year 2013 - 2014

Nutritional Information for Jennie-O Turkey Store



Product Code Number	Product Description	Case Weight (lbs)	Serving Size (oz)	Portions per Serving	Svgs per Case	Calories	Calories From Fat	% Cal From Fat	Total Fat (g)	Sat Fat (g)	Trans Fat (g)	Cholesterol (mg)	Sodium (mg)	Total Carbs (g)	Dietary Fiber (g)	Sugars (g)	Vitamin A (% DV)	Vitamin C (% DV)	Calcium (% DV)	Iron (% DV)	CN Number (if applicable)	Meat/M A Credit	Veg Credit	Bread Svgs Credit		
6134	Cooled Turkey Burger (2.22 oz)	27.75	2.22	1	200	110	54	49%	6	2.0	0	50	320	0	0	0	15	0	0	0	4	See Spec Sheet	2			
2025-24	Turkey Ham Slice Log (3.01 oz)**	24	3.01	1	127	100	40.5	41%	4.5	1.5	0	60	430	1	0	0	15	0	0	0	2	6	See Spec Sheet	2		
2089-24	Thick Slice (5 mm.) Turkey Ham (3.02 oz)**	27.04	3.02	1	143	100	40.5	41%	4.5	1.5	0	60	530	1	0	0	15	0	0	0	2	6	See Spec Sheet	2		
2096-21	Sliced Smoked Turkey Breast (3 oz)**	21	3.00	1	112	90	27	30%	3	1.0	0	40	370	1	0	0	15	0	0	0	2	2	See Spec Sheet	2		
2099-21	Sliced Oven Roasted Turkey Breast (3 oz)**	21	3.00	1	112	90	27	30%	3	1.0	0	40	370	1	0	0	15	0	0	0	2	2	See Spec Sheet	2		
2151-20	Oven Roasted Turkey Breast Log (3.78 oz)**	30	3.75	1	128	50	18	36%	2	1.0	0	20	450	1	0	0	15	0	0	0	2		See Spec Sheet	2		
2154-34	Mexican Tinga Turkey Pot Roast (4.17 oz)**	35	4.17	1	134	120	45	38%	5	1.5	0	60	480	3	0	1	17	0	4	0	6	See Spec Sheet	2			
2155-34	Cuban Spiced Turkey Pot Roast (3.29 oz)**	35	3.29	1	170	110	36	33%	9	1.5	0	55	410	3	0	1	15	0	2	0	6	See Spec Sheet	2			
2173-04	Raw Breast & Thigh Roast (2.29 oz)	44.8	2.29	1	234	70	18	26%	2	0.5	0	35	360	0	0	0	13	0	2	0	2	See Spec Sheet	2			
2307-24	Thick Slice (5 mm.) Roasted Breast (3.1 oz)**	24.8	3.10	1	126	90	13.5	17%	1.5	0.5	0	35	450	0	0	0	17	0	0	0	2	2	See Spec Sheet	2		
2364-40	Oven Roasted Skinless Turkey Breast (4 oz)**	38.4	4.00	1	153	90	13.5	15%	1.5	0.0	0	40	540	3	0	0	18	0	0	0	2	2	See Spec Sheet	2		
2565-21	Sliced Turkey Ham (3.06 oz)**	21	3.06	1	109	100	40.5	41%	4.5	1.5	0	60	530	1	0	0	15	0	0	0	6	See Spec Sheet	2			
2840-28	Cooled Turkey Taco Meat (2.97 oz)**	28	2.97	1	150	120	63	53%	7	2.0	0	70	410	3	0	0	14	4	10	2	10	See Spec Sheet	2			
2847-28	Cooled Turkey & Gravy (4 oz)	28	4.00	1	112	120	54	45%	6	2.0	0	55	480	2	0	0	15	0	0	0	4	See Spec Sheet	2			
2848-28	Cooled Ground Turkey Crumbles (2.84 oz)**	28	2.84	1	157	120	63	53%	7	2.0	0	85	230	0	0	0	13	0	2	6	6	See Spec Sheet	2			
2853-28	Cooled Turkey Spaghetti Sauce (4.89 oz)	28	4.89	1	81	130	36	28%	4	1.0	0	55	400	7	0	2	17	8	4	25	8	See Spec Sheet	2			
2854-28	Cooled Turkey Chili (4.23 oz)	28	4.23	1	105	130	40.5	31%	4.5	1.5	0	55	430	5	0	1	16	10	1	6	8	See Spec Sheet	2			
2856-28	Cooled Turkey Taco (2.97 oz)	28	2.97	1	112	120	54	45%	6	2.0	0	55	480	2	0	0	15	0	0	0	4	See Spec Sheet	2			
2858-28	Cooled Turkey Sloppy Joe (4.94 oz)	28	4.94	1	90	160	45	28%	5	1.5	0	50	790	13	0	0	17	6	10	6	6	See Spec Sheet	2			
2865-35	Sliced Turkey Ham (3.06 oz)	21	3.06	1	106	110	45	41%	5	1.5	0	60	720	1	0	0	15	0	0	0	4	6	See Spec Sheet	2		
2156-35	Oven Roasted Turkey Pot Roast (3.22 oz)	35	3.24	1	173	120	54	45%	6	1.5	0	55	360	1	0	1	15	0	2	0	6	See Spec Sheet	2			
2859-28	Pre-Cooled Turkey Taco Meat (2.9 oz)	28	2.90	1	154	110	40.5	37%	4	1.5	0	50	400	2	0	0	15	2	2	2	8	See Spec Sheet	2			
2031-35	Sliced Canadian Style Bacon (1.52 oz)	25	1.52	2	267	70	22.5	32%	3.5	1.0	0	30	260	0	0	0	8	0	0	0	2	2	See Spec Sheet	1		
6137-35	Premium Turkey Sausage Link (1.6 oz)	30	1.60	1	300	70	36	51%	4	1.0	0	30	540	2	0	1	7	0	0	0	4	See Spec Sheet	1			

For additional product information visit http://dese.mo.gov/divadm/food/Nutritional_Facts_Index.html

http://www.k12foodservice.com/mfr_web/fts/2011/index.aspx

1-320630-20 Beef Patty Crumbles

30 2.19 1 219 100 50 50% 6 2.5 0 20 290 1 1 0 11 0 0 2 8 N/A 2 0 0



Meat/Meat Alternate

Crediting Tofu, Soy and Yogurt

- 2.2 oz (1/4 cup) of commercially prepared tofu, containing at least 5 grams of protein, is creditable as 1 oz eq.
- 1/2 cup (4 oz) of soy or standard yogurt is creditable as 1 oz eq.
- FBG credits as 8 oz eq. to 2 oz M/MA, there is no minimum amount of protein required
- SP 16-2012



Crediting Peanut/Nut Butters, Peanuts and Other Alternates

- Two tablespoons of nut butter, almond butter, cashew nut butter, peanut butter, soy nut butter, or sunflower seed butter equals 1 oz eq.
- Nuts or seeds such as sunflower seeds, almonds, and hazelnuts may be used to meet no more than one-half of the M/MA component with another M/MA to meet the full requirement
- Cheese and eggs may be used to meet all or part of the M/MA component



Recipe Calculation: Pasta and Meatballs

- You are planning a menu for the high school (9-12 grade). Monday you are offering Pasta with Sauce and Meatballs. You are planning on 90 servings. Use the USDA Meatball recipe provided for 50 servings
- Calculate the total ounces of raw ground beef needed to provide each student 2 oz eq. meat/meat alternate (M/MA)
- How many ounces of beef will you need to add to the recipe to meet the minimum daily requirements for M/MA and grains?



Meatballs

Recipe Calculation

500120 - MEAT BALLS

Source: USDA D-27A

Number of Portions: 50

Size of Portion: 2 EACH

Recipe HACCP Process: #2 Same Day Service

050500c	TOMATO PASTE, WITHOUT SALT ADDED.....	6 OZ
014429	WATER, MUNICIPAL.....	1 CUP
799923s	SOUP, STOCK, BEEF, LO SODIUM.....	2 CUP
001123	EGG, WHOLE, RAW, FRESH.....	5 large
020038	OATS.....	14 1/2 OZ
001155	MILK, DRY, NONFAT, INST, WO/ VIT A.....	2 1/4 OZ
023567	BEEF, GROUND, 85% LN MEAT / 15% FAT, RAW....	7 LB + 14 OZ
011282	ONIONS, RAW.....	9 OZ, chopped
011143	CELERY, RAW.....	1 LB, chopped
002029	PARSLEY, DRIED.....	1/4 CUP
002030	PEPPER, BLACK.....	1 TBSP
799903s	GARLIC, GRANULATED.....	1 TBSP
002003	SPICES, BASIL, DRIED.....	3/4 TSP, ground
799905s	OREGANO LEAVES, DRIED.....	3/4 TSP, ground
002023	MARJORAM, DRIED.....	1/2 TSP
799906s	THYME LEAF, DRIED.....	1/2 tsp, ground
002047	SALT, TABLE.....	1 TSP



How to use the CN Label



USDA United States Department of Agriculture
Food and Nutrition Service



USDA Food Fact Sheet for Schools & Child Nutrition Institutions

(last updated, 03-27-13)

Visit us at www.fns.usda.gov/fdd

100158 – BEEF, FINE GROUND, RAW, FROZEN, 10 LB

110261 – BEEF, FINE GROUND, LFT OPTIONAL , FROZEN, 10 LB

CATEGORY	<ul style="list-style-type: none"> Meat/Meat Alternates
PRODUCT DESCRIPTION	<ul style="list-style-type: none"> Fine ground beef, vacuum packaged, packaged in casings and sealed. The average fat content is 15%, but may not be higher than 16% fat.
PACK/YIELD	<ul style="list-style-type: none"> 4/10 lb pkgs per case. One 10 lb pkg AP yields 7.40 lb cooked, drained lean meat and provides about 118.4 1-oz servings cooked, drained lean meat. One lb AP yields 0.74 lb cooked, drained lean meat and provides about 11.8 1-oz servings cooked, drained lean meat. CN Crediting: 1.36 oz raw meat when cooked provides 1 oz-equivalent meat/meat alternate.
STORAGE	<ul style="list-style-type: none"> Store ground beef frozen, in the original shipping container off the floor at 0 °F or below. Refrigerate leftover beef covered and labeled in a dated container and use within 3 days Use First-In-First-Out (FIFO) storage practices to ensure use of older product first.
PREPARATION/ COOKING INSTRUCTIONS	<ul style="list-style-type: none"> TO THAW: Thaw only the amount needed for one day's use. Remove ground beef from the container, keep in original wrapping, place on sheet pans and thaw in the refrigerator. Allow 1½ hours per lb for thawing. Cook to an internal temperature of 155 °F for at least 15 seconds as measured by a thermometer. Judge doneness by temperature, not color or texture of the food.

Nutrition Information

Beef, fine ground, cooked, pan-browned

	1 oz (28 g)
Calories	72
Protein	7.76 g
Carbohydrate	0 g
Dietary Fiber	0 g
Sugars	0 g
Total Fat	4.28 g
Saturated Fat	1.63 g
Trans Fat	0 g
Cholesterol	25 mg
Iron	0.82 mg
Calcium	6 mg
Sodium	25 mg
Magnesium	8 mg
Potassium	114 mg
Vitamin A	0 IU
Vitamin A	0 RAE
Vitamin C	0 mg
Vitamin E	0.13 mg



How to use the CN Label

- CN Crediting: 1.36 oz raw meat when cooked provides 1 oz-equivalent M/MA

CN Crediting	
Actual weight	Creditable
1.36 oz	1 oz
2.72 oz	2 oz



Do The Math

- ✓ First we need to calculate how much creditable M/MA in the current recipe
- ✓ The recipe currently has 7 lbs + 14 oz of beef
- ✓ We know there are 16 oz in 1 lb

$$7 \times 16 = 112 + 14 = 126 \text{ oz beef}$$

- ✓ Next we use the CN label to see how many creditable ounces of beef is in 126 oz

$$126 \text{ oz} / 1.36 \text{ oz equals } 92.6 \text{ oz creditable}$$



Final Answer

- ✓ The current recipe has 92.6 oz **creditable** of beef
- ✓ We need to serve 90 -2 oz eq. meat/meat alternate ($90 \times 2 = 180$)
- ✓ We need 180 servings of beef, but how many creditable oz beef do we need?

$$1.36 \times 180 = 244.8 \text{ oz}$$

$$244.8 / 16 = 15.3 \text{ lbs}$$

$$15.3 \text{ lbs} - 7.875 = 7.425 \text{ lbs}$$

- ✓ Add 7.425 lbs of beef to the recipe

$$\begin{array}{r} 1.36 \text{ oz} \times \underline{X} \\ 1 \qquad \qquad 180 \\ \hline 1.36 (180) = 244.8 \text{ X} \\ X = 244.8 \text{ oz} \end{array}$$



Check The Math

- ✓ We have 244.8 oz raw = 180 oz creditable

CN Crediting	
Actual Weight	Creditable
1.36 oz	1 oz
244.8 oz	180 oz

- ✓ $180 \text{ oz creditable} / 90 \text{ (students)} = 2 \text{ oz eq. M/MA}$
OR
- ✓ $244.8 \text{ oz raw} / 90 \text{ (students)} = 2.72 \text{ oz raw}$
CN Crediting: $1.36 \text{ oz} = 1 \text{ oz creditable}$
- ✓ $2.72 / 1.36 = 2 \text{ oz creditable meat}$ OR
 $244.8 / 180 = 1.36$



Cross Multiplication

$$\frac{1.36 \text{ oz}}{1 \text{ serving}} = \frac{X \text{ oz}}{180 \text{ servings}}$$

$$1.36 \times 180 = 244.8$$

$$X = 244.8 \text{ oz}$$

244.8 oz raw beef will provide each student 2 oz
eq. M/MA



Food Buying Guide

Food As Purchased	Purchase Unit	Servings per Purchase Unit	Serving Size per Meal Contribution	Purchase Units for 100 Servings	Additional Information
Beef Ground, fresh or frozen	Pound	12.00	1 oz cooked lean meat	8.4	1 lb AP = 0.74 lb cooked, drained lean meat
	Pound	8.00	1- 1/2 oz cooked lean meat	12.5	



Do The Math

Food Buying Guide

1 lb AP = .74 lb cooked drained lean meat (actual weight)

15.3 lbs AP x .74 = 11.3 lbs cooked drained meat

Purchase Unit: 12 servings per pound

Serving Size per Meal Contribution: 1 oz cooked

11.3 lbs x 12 servings per lb = 135.6 oz servings

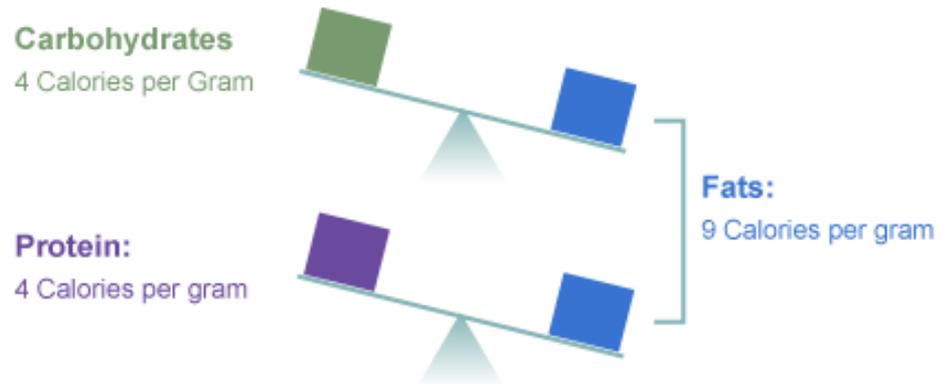
135.6 / 2 oz = 67.8 oz servings



Calories from Fat & Saturated Fat

❑ To calculate percentage of calories from fat & saturated fat:

- 1) Multiply total grams of fat in one serving by 9.
- 2) Divide this number by the amount of calories per serving.
- 3) Multiply by 100.



Calories of fat per 1 oz serving

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Nutrition Information

Beef, fine ground, cooked, pan-browned

	1 oz (28 g)
Calories	72
Protein	7.76 g
Carbohydrate	0 g
Dietary Fiber	0 g
Sugars	0 g
Total Fat	4.28 g
Saturated Fat	1.63 g
Trans Fat	0 g
Cholesterol	25 mg
Iron	0.82 mg

Percentage of calories from fat:

$$\underline{4.28} \times 9 = \underline{38.52}$$

(grams fat)

$$\underline{38.52} \div \underline{72} = \underline{.535}$$

(answer from above) (Calories/serving)

$$\underline{.535} \times 100 = \underline{53.5}$$

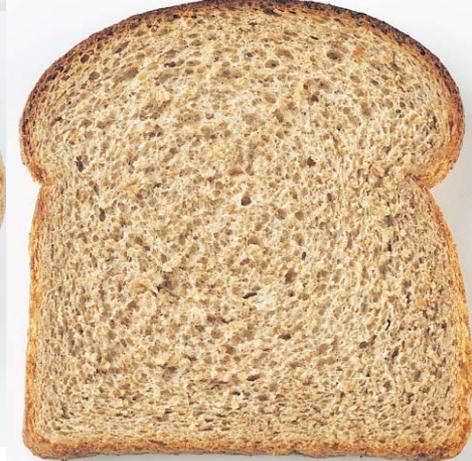
(answer from above) (to get %)





Questions??

Whole Grains



Whole Grain Facts



Whole grains are really seeds made up of 3 main parts, the bran, the endosperm and the germ



Together, these nutrients work synergistically to help our body prevent disease and maintain higher levels of health



Eating more whole grain foods has been associated with decreased risk of heart disease, diabetes and may even play a role in helping to prevent obesity



Research proves people who eat more whole grains have a healthier Body Mass Index, less hunger through the day, have better glycemic control and get more physical activity- all important factors to maintaining a healthy weight

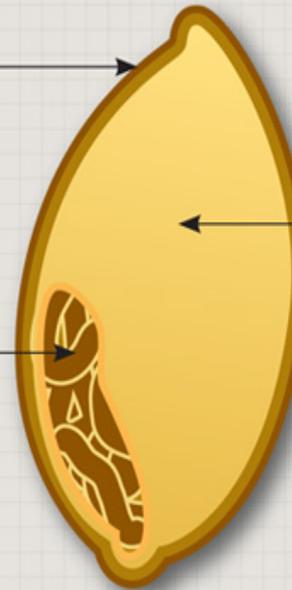
Anatomy of a grain

Bran: protects the seed

- Fibre
- B vitamins
- Minerals

Germ: nourishment for the seed

- B vitamins
- Vitamin E
- Minerals
- Phytochemicals



Endosperm: energy for the seed

- Carbohydrates
- Some protein
- Some B vitamins

The bran and germ are removed when wholegrains are refined.



Whole Grain-Rich Requirements

-  School year 2012-13 through SY 2013-2014, half of all grains offered during the week must meet WGR criteria (SP 30-2012)
-  Beginning July 1 2014, SY 2014-2015, all grains must meet the WGR criteria
-  Beginning July 1, 2013, all grains which are part of battered and/or breaded products offered must be counted towards the weekly grain requirement



Whole Grain-Rich Requirements

- Whole grain-rich: whole grain is the primary grain ingredient
- Whole grain content may come from several ingredients. If so, the weight of the combined whole grain ingredients must exceed the total weight of the enriched grains for the product to count as whole grain-rich
- All non-primary grains must be whole or enriched grains, unless they count for less than 2% of the product formula



Element 1 & 2

 Two elements are used to assure that a product meets the whole grain-rich criteria (WGR)

 SP 30-2012

 Element 1: The grain item must meet the oz requirements for the grains component as defined in the guidance

 Exhibit A: School Lunch and Breakfast

 Group A-I



How to Use the Chart

Group A

- Bread type coating
- Bread sticks (hard)
- Chow mein noodles
- Savory Crackers (saltines and snack crackers)
- Croutons
- Pretzels (hard)
- Stuffing (dry) Note: weights apply to bread in stuffing.

Minimum Serving Size for Group A

1 serving = 22 gm or 0.8 oz

$\frac{3}{4}$ serving = 17 gm or 0.6 oz

$\frac{1}{2}$ serving = 11 gm or 0.4 oz

$\frac{1}{4}$ serving = 6 gm or 0.2 oz

First, find the item in a group on the left hand side of the chart

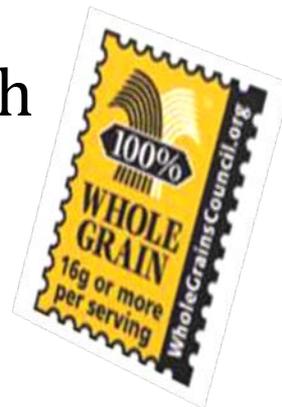
Use the right hand side to determine the minimum serving size required for that item



Element 2



- 🍞 The grain product must meet one of the following
 1. The whole grain content per oz eq. based on Exhibit A weights must be at least 8.0 grams or more from Groups A-G. For groups H & I, the volumes or weights listed must be offered to credit as 1 oz eq.
 2. The product includes the Food and Drug Administration approved whole-grain health claim on it's package.



Whole Grain-Rich Criteria

Foods that qualify as whole grain-rich for the school meal programs are foods that contain 100% whole grain or contain a blend of whole-grain and/or flour and enriched meal and/or flour of which at least 50% is whole grain. WGR products must contain at least 50% whole-grains and the remaining grain, if any, must be enriched.



Enriched Whole Grain

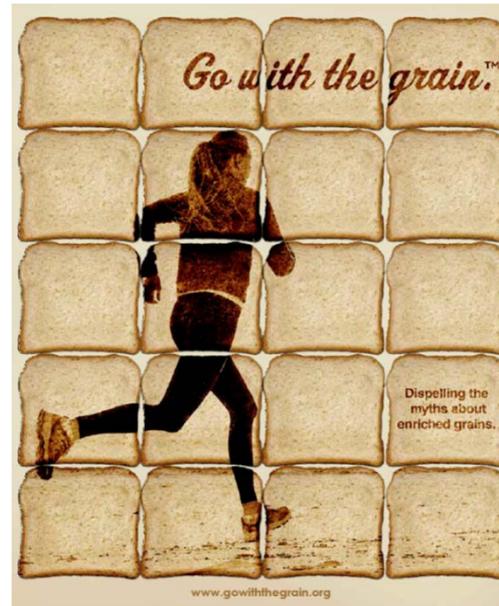
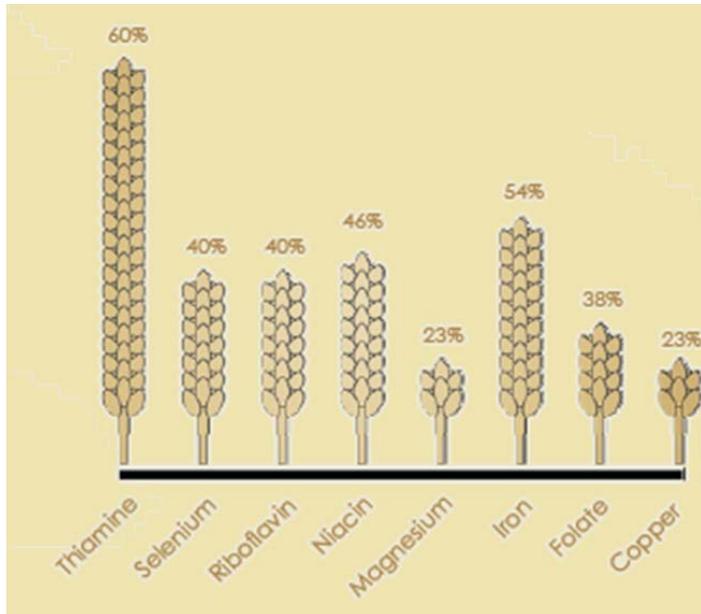
 The 3 major vitamins are added back in the same proportion as was found in the whole kernel, and include 2x the amount of folic acid

 White flour, bread and rice

 Corn tortillas, couscous, spaghetti



Whole Grains



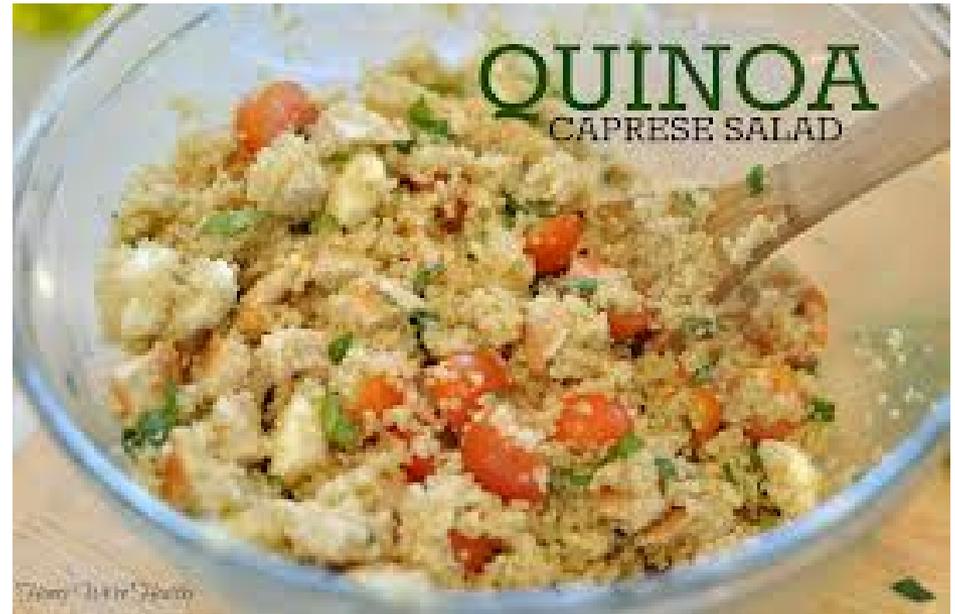
- Barley
- Quinoa
- Oatmeal
- Brown Rice
- Whole Wheat
- Whole Rye
- Whole Cornmeal
- Cracked Wheat



Couscous (ku sku s)



Quinoa (kinwa)



Barley



Oats



Crediting Grain Products

- Baked goods, such as breads, biscuits, bagels, etc., require 16 grams of creditable grain ingredients in order to provide 1 oz equivalent credit.
- Cereal grains such as oatmeal, pasta, and brown rice, a 1 oz eq. is 28 grams of dry product. Since these grains are served cooked and water is added during preparation, the cooked volume eq. is $\frac{1}{2}$ cup cooked cereal, pasta, or rice.
- For ready-to-eat breakfast cereal, 28 grams or 1.0 ounce of product is considered an ounce eq.



Recipe Calculation: Pasta

- As the menu planner you are planning on offering 2.5 oz of grains. You plan for the students to get 1 oz eq. grain from the pasta and 1.5 oz eq. grain from a WGR bread roll
- Calculate the amount of pasta needed to serve 90 students 1 oz eq. grain
 - CN label
 - Exhibit A: Group H, Pasta (all shapes)



Pasta Child Nutrition Crediting



USDA Foods Fact Sheet for Schools & Child Nutrition Institutions

last updated, 03-28-12)

Visit us at www.fns.usda.gov/fdd

100434- ROTINI, WHOLE GRAIN, DRY, 20 LB CARTON

Nutrition Information

CATEGORY	<ul style="list-style-type: none"> Grains/Breads
PRODUCT DESCRIPTION	<ul style="list-style-type: none"> Rotini (1" to 1¾" in length) made from whole grain semolina or durum flour.
PACK/YIELD	<ul style="list-style-type: none"> 20 lb case. One 20 lb case AP yields about 107 ½ cups dry rotini OR about 170 cups cooked rotini and provides about 676.0 ¼-cup servings cooked rotini OR about 338.0 ½-cup servings cooked rotini OR about 224.0 ¾-cup servings cooked rotini. One lb AP yields about 5 ⅔ cups dry rotini OR about 8½ cups cooked rotini and provides about 33.8 ¼-cup servings cooked rotini OR about 16.9 ½-cup servings cooked rotini OR about 11.2 ¾-cup servings cooked rotini. CN Crediting: ½ cup cooked rotini provides 1 serving grains/breads

Rotini, whole wheat, dry and cooked, no salt added

	2 oz, dry (57 g)	½ cup, cooked (70 g)
Calories	198	87
Protein	8.34 g	3.73 g
Carbohydrate	42.77 g	18.58 g
Dietary Fiber	4.7 g	2.0 g
Sugars	1.0 g	0.56 g
Total Fat	0.80 g	0.38 g
Saturated Fat	0.15 g	0.07 g
Trans Fat	0 g	0 g
Cholesterol	0 mg	0 mg
Iron	2.07 mg	0.74 mg

Grain Crediting: Whole Grain Roll

- Grain calculation for store bought roll vs. in-house roll
 - SP 30-2012
 - Exhibit A: Group B
 - Baked goods guidance
 - In-house roll recipe calculation activity



Grain Crediting: Pre-made Roll

Nutrition Facts

Serving Size 1 Roll (42g)

Servings per container 18

Calories 210

Amounts per Serving		% of Daily Value
Total Fat	10g	15%
Cholesterol	45mg	15%
Sodium	300mg	13%
Total Carbohydrates	36g	13%
Sugars	17g	
Dietary Fibers	2g	8%
Proteins	2g	

Not a significant source of dietary calcium, fiber, iron, vitamin A, Vitamin C.

* Percent Daily Values (DV) are based on a 2,000 calorie diet.

- 1 oz eq = 28 g or 1.0 oz
- $42 \text{ g} / 28 = 1.5 \text{ oz}$



Grain Crediting: Pre-made Roll

Healthy Life Original 100% Whole Wheat Whole Grain Bread

Nutrition Facts			
Serving Size 2 Slices (41g)			
Servings Per Container 11			
Amount Per Serving	%DV	2 Slice	1 Slice
Calories 70		Calories from Fat 5	
Calories 35		Calories from Fat 0	
% Daily Value*			
Total Fat 0g,0g		0%	0%
Saturated Fat 0g,0g		0%	0%
Trans Fat 0g,0g			
Polyunsaturated Fat 0g,0g			
Monounsaturated Fat 0g,0g			
Cholesterol 0mg,0mg		0%	0%
Sodium 150mg,80mg		6%	3%
Total Carbohydrate 16g,8g		5%	3%
Dietary Fiber 5g,3g		20%	12%
Sugars 2g,1g			
Protein 5g,2g			
Vitamin A 0% 0%	Vitamin C 0% 0%		
Calcium 10% 4%	Iron 4% 2%		
Thiamin 6% 4%	Riboflavin 2% 2%		
Niacin 6% 2%	Folic Acid 2% 0%		
* Percent Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

NO Bromate
NO Hydrogenated Oil
0 Grams Trans Fats
NO Saturated Fats
NO Cholesterol

INGREDIENTS: WATER, 100% WHOLE GRAIN WHOLE WHEAT FLOUR, SOY FIBER AND/OR WHEAT FIBER AND/OR SUGAR CANE FIBER, WHEAT GLUTEN, YEAST, BROWN SUGAR, CONTAINS 2% OR LESS OF THE FOLLOWING: MOLASSES, SALT, DOUGH CONDITIONERS (MONO & DIGLYCERIDES, SODIUM STEAROYL LACTYLATE, ETHOXYLATED MONO- DIGLYCERIDES, ASCORBIC ACID, CALCIUM PEROXIDE, AZODICARBONAMIDE), CALCIUM PROPIONATE (TO PREVENT SPOILAGE), GUAR GUM, YEAST NUTRIENTS (CALCIUM SULFATE, CALCIUM CARBONATE, AMMONIUM SULFATE), FUMARIC ACID, WHEAT STARCH, PALM OIL, SOY LECITHIN.

CONTAINS: WHEAT, SOY.

LEWIS BAKERIES, INC.
 GENERAL OFFICES: EVANSVILLE, IN 47710

Allergy Advisory: Produced on the same bakery equipment as baked goods containing milk, eggs, or nuts. Therefore, this product may inadvertently contain milk, eggs, or nuts to which some people may be allergic.

- Product ingredient listing list whole grain first, specifically (non mixed dishes (e.g., breads and cereals))
- If the food item is a mixed dish (lasagna) a whole grain must be the primary grain ingredient by weight
- If the first ingredient is water, a whole grain must be listed as the second ingredient and still meet WGR criteria

While we make every effort to post the most current product nutrition facts and ingredients on this web site, your best source of product information is what is printed on the package you purchase.



Calculation Activity: In-House

Whole Grain Hot Roll

Ingredients

Number of portions: 175

Size of Portion: 1.5 oz

Flour, Whole Wheat.....	5 ¼ LB
Flour, All Purpose, Enriched, White...	4 ¾ LB
Water.....	1 Gal
Milk, Dry, Nonfat.....	2 CUP
Margarine, melted.....	3 CUP
Sugar, Granulated.....	2 ¾ CUP
Salt.....	1/4 CUP
Yeast, Baker's, Active Dry.....	1 CUP
Margarine.....	½ CUP

Recipe HACCP Process: #2 Same Day Service

1. Add hot tap water to the mixing bowl, add melted margarine, and all other ingredients except flour
2. Mix for 30 seconds on low speed to blend
3. Gradually add flour, mixture should be soft consistency
4. Cover and allow dough to rise until double in size
5. Punch down dough-pinch 1 oz balls, shape for rolls
6. Place on cookie sheets to rise again until double
7. Bake at 325 degrees until done-golden brown in color. Approximate time 9-12 minutes
8. Lightly brush with melted margarine when removed from oven

Calculation Activity

Recipe	Ingredients per 175 Servings	Quantity of Grains given in LBS	X grams (454 gram per lb)
Whole Grain Hot Roll	Flour, Whole Wheat	5 lbs 4 oz	$5.25 \text{ lb} \times 454 \text{ g} = 2383.5 \text{ g}$
	Flour, All Purpose, Enriched, White	4 lbs 12 oz	$4.75 \text{ lb} \times 454 \text{ g} = 2156.5 \text{ g}$
		Calculations	<p>Flour: $4540 / 16 \text{ g} = 283.75$ servings of flour per 175 servings of rolls</p> <p>$283 / 175$ servings = 1.6 servings round .6 down to the nearest $\frac{1}{4}$ serving: .50</p> <p>1 roll provides 1.5 servings of Grains/Breads</p>



Recipe

- Standardized recipes
- Clearly state contribution towards meal pattern components and servings
- For example: Pasta and Meatball recipe needs to clearly state the contribution towards the meat and grains components
 - Meat/Meat alternate: 2 oz eq
 - Grains/breads: 2.5 oz eq





QUESTIONS?

Wrap It Up Activity

- At your kitchen you have a Grab-n-go cart that is serving a Chicken Fajita Wrap and Oatmeal Cookie
- Use the Chicken Fajita Wrap recipe to calculate the meat/meat alternate and grain ounces
- Calculate the amount of grains in the Oatmeal Cookie



CALCULATING THE MEAT/MEAT ALTERNATE COMPONENT

Recipe Number	Recipe Name	Ingredients per 50 Servings	Quantity	Instructions
C-19	Chicken Fajita Wrap	Chicken Fajita Strips (Goldkist) Cheese, Mozzarella, Reduced Tortilla, Whole Grain, Frozen Tomatoes, Red, Ripe, Raw Romaine, Pre washed Red Peppers, whole Black beans, canned USDA Commodity, Salsa	6.4 lbs or 102.5 oz 50 oz 50 tortilla (6 inch) 6 ¼ cup chopped 12 ¼ cup chopped 6 ½ cup chopped 15 cups 15 cups	

Calculations	Chicken Fajita Strips
	2.05 oz = 2 oz eq. M/MA
	102.5 oz / 2.05 (CN) = 50-2 oz servings
	<u>Cheese</u>
	50 oz / 1 oz = 50-1 oz servings
	<u>Whole Grain Tortilla</u>
	1-6 in tortilla 28 g

CN crediting for Chicken Fajita Strips: 2.05 oz = 2 oz eq. M/MA

Take the total oz of meat in the recipe divided by the oz in the CN label

Expected contribution for Cheese: 1 oz = 1 oz eq. M/MA

Expected contribution for Whole Grain Tortilla: 28 g

1 oz eq. = 28 gm

1 Chicken Fajita wrap will provide 3 oz M/MA and 1 oz Grain Breads

CALCULATING THE MEAT/MEAT ALTERNATE COMPONENT

Recipe Number	Recipe Name	Ingredients per 50 Servings	Quantity	Instructions
C-19	Chicken Fajita Wrap	Chicken Fajita Strips (Goldkist) Cheese, Mozzarella, Reduced Tortilla, Whole Grain, Frozen Tomatoes, Red, Ripe, Raw Romaine, Pre washed Red Peppers, whole Black beans, canned USDA Commodity, Salsa	????? 50 oz 50 tortilla (6 inch) 6 ¼ cup chopped 12 ¼ cup chopped 6 ½ cup chopped 15 cups 15 cups	
		Calculations	<u>Chicken Fajita Strips</u> 2.05 oz = 2 oz eq. M/MA <u>Cheese</u> 50 oz / 1 oz = 50-1 oz servings <u>Whole Grain Tortilla</u> 1-6 in tortilla 28 g	

CN crediting for Chicken Fajita Strips: 2.05 oz = 2 oz eq. M/MA

Expected contribution for Cheese: 1 oz = 1 oz eq. M/MA

Expected contribution for Whole Grain Tortilla: 28 g

How many ounces of Chicken Fajita Strips do we need for 50 -2 oz servings of M/MA??

50 servings x 2 = 100 oz M/MA

$$\frac{2.05 \text{ oz}}{2 \text{ M/MA}} = X \text{ oz}$$

$$2 \text{ M/MA} = 100 \text{ M/MA}$$

$$2.05 \times 100 = 205$$

$$205 / 2 = 102.5 \text{ oz of chicken fajita strips needed}$$



CALCULATING THE GRAINS CONTRIBUTION IN GRAINS/BREADS CREDITING

Recipe Number	Recipe Name	Ingredients per 100 Servings	Quantity of Grains given in pounds	x grams (454 per lb)
C-10	Oatmeal Cookies	All purpose flour Baking soda Salt Rolled oats Sugar Brown sugar, packed Ground cinnamon Ground cloves Ground nutmeg (optional) Shortening Butter or margarine Large eggs Vanilla Raisins, plumped (optional)	1 lb 13 oz	1.81 lb x 454 g = 821g
Calculations			Flour: $821 / 16 \text{ g} = 51$ servings of flour per 100 servings of Oatmeal Cookies	
			Oats: $567 / 28 \text{ g} = 20$ servings of oats per 100 servings of Oatmeal cookies	
			Add 51 (flour) and 20 (oats) = 71 servings of grains/breads per 100 servings of Oatmeal Cookies	
			71 / 100 servings = .71 servings of grains/breads per oatmeal cookies	
			Round .71 down to the nearest $\frac{1}{4}$ serving: .50	

Expected contribution of flour per serving: 16 g

Expected contribution of oats per serving: 28 g

1 Oatmeal Cookie provides a .50 (1/2) serving of Grains/Breads

Grab-n-go Activity

- Will the Fajita Wrap and the Oatmeal cookie provide the minimum daily amount of grains for 9-12?
- What changes could you make to the 9-12 recipe to increase the grain/bread contribution?



Food Item	M/MA oz	Grain/Bread oz
	3 oz M/MA	1 oz G/B
		.5 oz G/B

Food Buying Guide: Revised M/MA And Milk Charts

- Beans, Soy, fresh (Edamame) *Shelled*;
- Beans, Soy, fresh (Edamame) *Whole In shell*;
- Chicken, Whole fresh or frozen cut –up 8 pieces (*about 3¾ lb without neck and giblets*);
- Tofu, Commercially-prepared; and
- Yogurt, Soy, Plain or Flavored, Sweetened or Unsweetened, Commercially prepared
- <http://www.fns.usda.gov/tn/resources/foodbuyingguide.html>
- SP 16-2013



Food Buying Guide: Separation of Vegetables/Fruit

- SP 37-2012 (3rd revision)



Resources

- SP 26-2013
 - Extending Flexibility in the Meat/Meat Alternate and Grains Maximums for School Year 2013-14
- SP 02-2013
 - Corn Masa (Dough) for use in Tortilla Chips, Taco Shells, and Tamales
- SP 30-2012
 - Grain Requirements for the NSLP and SBP
- Food Buying Guide
 - fns.usda.gov



Overview

- Q&As

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