

LEGUMES IN SCHOOL MENUS

Idaho Child Nutrition Programs



Professional Standards

- **Nutrition 1320** – Understand general nutrition concepts that relate to school meals, such as whole grains, sodium, etc.
- **Food Production 2130** – Develop culinary skills necessary for school meal preparation
- **Communications and Marketing 4160** – Create an environment that engages students to select and consume healthy foods with minimum waste, including Smarter Lunchroom techniques.



Objectives

- Define legume component in school meals
- Identify the health benefits of legumes
- Understand how to purchase and store legumes
- Identify simple ways to incorporate legumes into lunch menus
- Implement Smarter Lunchroom techniques for promoting legumes
- Obtain standardized legume recipes

Dry Beans

The infographic features a central orange circle with the text 'Legume (component) in Schools'. Surrounding this central circle are five smaller dark green circles, each containing the name of a legume component: 'Split Peas' (top-left), 'Soy Beans' (top-right), 'Lentils' (bottom-left), 'Chickpea/G arbanzo Beans' (bottom-right), and 'Dry Beans' (top). The background is a light green color with a decorative border of various legumes in wooden bowls.

Split Peas

Legume

(component)

**in
Schools**

Soy Beans

Lentils

Chickpea/G
arbanzo
Beans

Not Legumes In Schools



- Some organizations recognize peanuts, green peas and green beans as legumes, schools do not
- **Peanuts** count as a **Meat Alternate**
- **Green Peas** count as a **Starchy Vegetable**
- **Green Beans** count as an **Other Vegetable**

Legume Lunch Meal Pattern

Amount of Legumes Per Week

Beans/Peas (Legumes)	Grades K-5	Grades 6-8	Grades 9-12
	½ cup	½ cup	½ cup



Legume Health Benefits

- High in protein, fiber, folate, potassium, iron and magnesium
- Low in fat
- No cholesterol
- Low cost
- Easy to cook

Purchasing Legumes



Frozen



Dry



Canned

Storing Legumes

- Dry
 - Bagged in dry storage
- Canned
 - In dry storage
 - If using in cold salads, cans may be stored in the refrigerator
- Cooked and Frozen – refrigerator or freeze



Soaking Beans and Whole Peas



Step 1: Sort



Step 2: Rinse



Step 3: Soak

*Choose Soak Method:
Quick or Overnight*

Overnight Soaking

The background of the slide features a top-down view of a kitchen counter. In the upper left, a clear glass bowl is filled with white beans. In the lower right, a silver metal pot with a handle is also filled with white beans. The beans are scattered slightly on the light-colored wooden surface around the containers.

<https://www.youtube.com/watch?v=zd4RxbUYsTE>

Quick Soaking

A glass jar filled with white beans is in the upper left corner, and a metal pot filled with white beans is in the lower right corner. The background is a light-colored wooden surface with some scattered beans.

<https://www.youtube.com/watch?v=-sfuQFC9Ars>

Cooking Beans and Whole Peas

Add soaked beans or whole peas to a liquid according to the standardized recipe.

- Bring the liquid to a boil
- Reduce heat to a simmer (~45-60 minutes) until the beans are tender
 - When beans can easily be mushed by a fork they are done



Cooking Lentils and Split Peas

- No soaking required
- Sort to remove discolored or shriveled legumes and foreign matter
- Rinse well
- For every one cup of legume, cook with two cups of water
- Lentils
 - Cook at a slow boil for about 15-20 minutes
- Split Peas
 - Cook at a slow boil for about 30-40 minutes

Culinary Tips

- Use canned or frozen legumes to speed up preparation time
- When pureeing split peas to make a dip or spread, it is a good idea to soak them in cold water for up to 6 hours
- Do not add salt or acidic foods, such as tomatoes, until legumes are finished cooking

Legume Yields

- 1 pound dry beans yields ~ 5-6 cups cooked
- 1 pound dry beans measures 2 cups
- 1 cup dry peas or lentils yields ~ 2 – 2 ½ cups cooked
- Use the *Food Buying Guide for School Meal Programs*

BEANS and PEAS (LEGUMES)

Section 2 - Vegetables – Beans and Peas (Legumes)					
1. Food As Purchased, AP	2. Purchase Unit	3. Servings For Purchase Unit, ES	4. Serving Size per Meal Contribution	5. Purchase Units for 100 Servings	6. Additional Information
BEANS, BLACK (TURTLE BEANS)					
Beans, Black (Turtle Beans), dry, canned Whole	No. 10 can (110 oz)	27.8	1/4 cup heated, strained vegetable	3.6	1 No. 10 can = about 62.0 oz (19-7/8 cups) heated, strained beans
Includes USDA Foods	No. 300 can (15-1/2 oz)	5.91	1/4 cup heated, strained vegetable	17.0	1 No. 300 can = about 10.5 oz (1-3/8 cups) heated, strained beans
Beans, Black (Turtle Beans), dry Whole	Pounds	18.3	1/4 cup cooked vegetable	5.5	1 lb dry = 2-3/4 cups dry beans
BEANS, BLACK-EYED (OR PEAS)					
Beans, Black-eyed (or Peas), dry Whole	Pounds	28.30	1/4 cup cooked vegetable	3.6	1 lb dry = about 2-3/4 cups dry beans
Includes USDA Foods					
Beans, Black-eyed (or Peas), dry, Canned Whole	No. 10 can (108 oz)	37.7	1/4 cup heated, strained vegetable	2.7	1 No. 10 can = about 65.0 oz (19-3/8 cups) heated, strained beans
Includes USDA Foods	No. 300 can (15 oz)	4.91	1/4 cup heated, strained vegetable	20.4	
BEANS, GARBANZO OR CHICKPEAS					
Beans, Garbanzo or Chickpeas, dry, Canned Whole	No. 10 can (108 oz)	42.0	1/4 cup drained vegetable	2.4	1 No. 10 can = about 68.4 oz (19-1/2 cups) unheated, strained beans
Includes USDA Foods	No. 300 can (15 oz)	6.70	1/4 cup drained vegetable	15.0	1 No. 300 can = about 58.0 oz (1-3/4 cups) unheated, strained beans
Pounds		6.31	1/4 cup drained vegetable	15.9	

Promoting with Kid Friendly Names

- Big Bad Bean Burrito
- Farmers Market Nachos
- Seven Layer Bean Dip and Veggie Sticks
- Turtle Tacos
- Garbanzo Firecracker Patties
- Three Bean Sriracha Chili
- Tostada Crunch



Trendy Legume Dishes

- Hummus
- Beans on Salad Bars
- Roasted Chickpeas Tossed with Spice Blends
 - “Your Mascot Name” Blend
 - Mexican Blend
 - Italian Blend
 - Indian Blend
- Bean Dips
- Chili



Meatless Monday's

- Lentil Tacos
- Chili
- Minestrone
- Lentils of the Southwest
- Breakfast and Lunch Bean Burritos
- Spaghetti sauce
- Lasagna
- Turtle Sloppy Joes
- Nachos



Lentils of the Southwest

Photo Compliments of Recipe from
Recipes for Healthy Kids Cookbook,
Team Nutrition

Idaho USDA Legume Foods

- Black Beans
(Turtle), Canned
- Pinto Beans,
Canned
- Refried Beans,
Canned
- Vegetarian Beans,
Canned



Legumes Grown in Idaho

- Lentils
- Garbanzo Beans (chickpeas)
- Split Peas
- Pinto Beans
- Small Red Beans
- Dark Kidney Beans
- Small White Beans
- Cranberry Beans
- Navy Beans
- Great Northern Beans
- Black Beans (Turtle)
- Pink Beans
- Light Kidney Beans

Smarter Lunchrooms and Legumes

- <https://www.youtube.com/watch?v=BKff5QiTqqg>



A close-up photograph of a white bowl filled with cooked, dark brown beans. A fresh green cilantro leaf is placed on top of the beans as a garnish. The bowl is set on a light-colored bamboo mat. To the left of the bowl, several green beans are visible, some whole and some cut. The background is a soft, out-of-focus light green.

LEGUME RECIPES FOR SCHOOLS

Bean Burrito

Meat, Meat Alternate-Vegetable-Grains, Breads

Main Dishes

D-12.A

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
*Fresh onion, chopped OR Dehydrated onion	5 oz OR 1 oz	¼ cup 2 Tbsp OR ½ cup	10 oz OR 2 oz	1 ½ cups OR 1 cup	1. Mix onion, garlic, pepper, tomato paste, water, and seasonings. Blend well. Simmer for 15 minutes. Reserve for step 2.
Garlic, minced		1 Tbsp		2 Tbsp	
Crushed black or white pepper		2 tsp		1 Tbsp 1 tsp	
Canned tomato paste	1 lb 12 oz	3 cups 2 Tbsp (¾ No. 10 can)	3 lb 8 oz	1 qt 2 ¼ cups (¾ No. 10 can)	
Water		1 qt		2 qt	
*Seasonings: Chili powder Ground cumin Paprika Onion powder		3 Tbsp 2 Tbsp 1 Tbsp 1 Tbsp		¾ cup 2 Tbsp ¾ cup 2 Tbsp 2 Tbsp	
Canned pinto beans, drained OR Dry pinto beans, cooked (See Special Tip)	7 lb OR 7 lb	1 gal (1 ½ No. 10 cans) OR 3 qt 1 ½ cups	14 lb OR 14 lb	2 gal (3 ½ No. 10 cans) OR 1 gal 1 ½ qt	2. Using mixer with paddle attachment, pulse beans for 4-5 minutes on medium speed until beans are a smooth consistency. Combine ingredients in from step 1, and stir in cheese until well combined.
Redwood tart cheddar cheese, shredded	2 lb 8 oz	2 qt 2 cups	5 lb	1 gal 1 qt	
Enriched flour tortillas, 8-inch (qt 1.5 oz each)		50 each		100 each	3. Steam tortillas for 2 minutes in microwave.
					Place in holding.
					4. Portion (½ cup each).
					5. Place tortillas in trays (100 burritos). For 100.
					6. Bake: Convection Bake. CCP: Hold for 2 seconds.

Bean Burrito

Meat, Meat Alternate-Vegetable-Grains, Breads

Main Dishes

D-12.A

Redwood tart cheddar cheese, shredded (optional)	13 oz	3 ¼ cups	1 lb 10 oz	1 qt 2 ¼ cups	7. CCP: Hold for hot service at 135° F for 15 seconds. Sprinkle shredded cheese (optional) evenly over burritos before serving.
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Comments:
*See Marketing Guide.

*Mexican Seasoning Mix (see G-01A, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 50 servings, use ¾ cup 3 Tbsp Mexican Seasoning Mix. For 100 servings, use ¾ cup 2 Tbsp Mexican seasoning Mix.

Marketing Guide for Selected Items

Food as Purchased for	50 Servings	100 Servings
Pinto beans, dry	3 lb	6 lb
Mature onions	6 oz	12 oz

SERVING:	YIELD:	VOLUME:
1 burrito provides 2 oz equivalent meat/meat alternate, ¼ cup of vegetable, and 1 ½ servings of grains/breads.	50 Servings: about 13 lb 4 oz (filling) 50 burritos	50 Servings: 1 gallon 2 ¼ quarts (filling) 2 sheet pans
	100 Servings: about 26 lb 8 oz (filling) 100 burritos	100 Servings: 3 gallons ½ quart (filling) 3 sheet pans

Edited 2006

Special Tip:
COOKING BEANS
OVERNIGHT METHOD: Add 1 ¾ qt cold water to every 1 lb of dry beans. Cover and refrigerate overnight. Discard the water. Proceed with recipe.
QUICK-SOAK METHOD: Boil 1 ¾ qt of water for each 1 lb of dry beans. Add beans and boil for 2 minutes. Remove from heat and allow to soak for 1 hour. Discard the water. Proceed with recipe.
COOKING BEANS
Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

Use hot beans immediately.
CCP: Hold for hot service at 135° F.
OR

Chill for later use.
CCP: Cool to 70° F within 2 hours and to 41° F or lower within an additional 4 hours.

1 lb dry pinto beans = about 2 ¾ cups dry or 5 ½ cups cooked pinto beans.

Bean Burrito

<http://www.nfsmi.org/Templates/TemplateDefault.aspx?q=cELEPTEwMiZpc01ncj10cnVI>

Volcanic Meatloaf



Volcanic Meatloaf

<http://www.sde.idaho.gov/cnp/share/d/Chef-Designed-School-Lunch.pdf>

VOLCANIC MEATLOAF

Number of Portions: 100
 Portion Size: Grades K-12, 1 meatloaf ball

INGREDIENTS:	8-12 Quantity:
Eggs, Fresh	2 2% cups
Mozzarella Cheese	1/2 cup (1/2 lb. block)
Leeks, sliced	6 1/2 cups
Wheat	12 1/2 cups
Ground Beef	12 1/2 lbs.
Stim Malt	6 cups
Onion, Red	6 1/2 cups
Toasted Raisins, Unsweetened	1 1/2 cups
Yellow Mustard (for meatloaf)	3 cups
Dried Parsley	4 cups
Crushed Garlic	1/2 cup
Dehydrated Onion, Flakes	1/2 cup
Celery Seed	3 cups
Salt	3 cups
Black Pepper	3 cups
Ketchup, Unsweetened	6 K cups
Yellow Mustard (condiment)	6 K cups

DIRECTIONS:

Preheat oven to 400°F.

PREPARE INGREDIENTS:

Chop eggs. Shred mozzarella cheese.

PREPARE LENTILS:

Rinse and drain lentils. In a deep steam table pan, add lentils and water. Seal tightly with foil and bake at 400°F for 45 minutes or until lentils are tender.

PREPARE MEATLOAF:

In a large mixing bowl, add ground beef, milk, eggs, onion, tomato sauce, mustard (for meatloaf), parsley, garlic, dehydrated onion, celery seed, salt, and pepper. Mix until ingredients are thoroughly combined. Do not overmix.

ADD LENTILS:

Add cooked lentils to ground beef mixture and mix lightly. Let it sit for 5 minutes and

shape into 100 equal ground beef mixture (lentils must be incorporated evenly as a vegetable).

BAKE MEATLOAF:

Add each mixture to 100 steel balls. Using a heaping size 6 scoop, make 100 meatloaf balls (each ball of raw ground beef mixture should weigh approximately 4.5 oz.). Bake meatloaf in ball form, do not flatten. Bake for 35-45 minutes at 400°F or until meatloaf reaches 155°F.

ASSEMBLE DISH:

Grades K-8: Top meatloaf with 1 tbsp. ketchup and 1/2 cup shredded cheese. Serve with 1 tbsp. mustard on the side.

Grades 9-12: Top meatloaf with 1 tbsp. ketchup and 1/2 cup shredded cheese. Serve with 1 tbsp. mustard on the side.

RECIPE CONTRIBUTIONS

	GRADES K-8	GRADES 9-12
Vegetables Contribution		
Vegetables Total	1.25 cup	1.25 cup
Grains	.39	.39
Protein	.19	.19
Grains Contribution Goal	0 oz. eq.	0 oz. eq.
Grains Total	.32	.32
Onion	.12	.12
Meats/PA Contribution	1.75 oz. eq.	2 oz. eq.
Meats/PA Total	1.95	2.20
Ground Beef	1.45	1.45
Eggs	.25	.25
Cheese	.25	.50



Eagle Pizza

<http://healthymeals.nal.usda.gov/recipes-healthy-kids-cookbooks/recipes-healthy-kids-cookbooks-cookbook-schools>

Dry Beans and Peas

A delicious combination of pizza and taco, this recipe is made with whole-grain tostada shells, refried beans, shredded cheese, and a stack of colorful veggies.



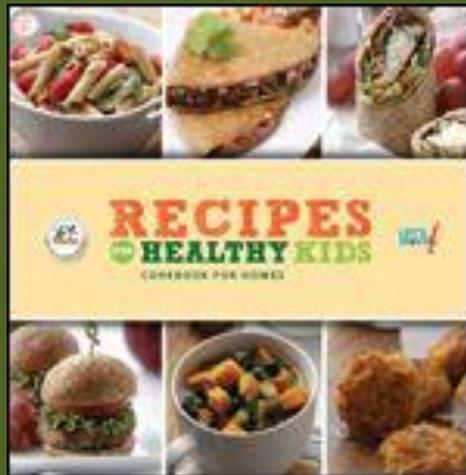
Eagle Pizza

Meal Components: Meat Alternate-Legume Vegetable-Red/Orange Vegetable-Starchy Vegetable-Other Vegetable-Grains

Main Dishes D-61f

Ingredients	50 Servings		100 Servings		Directions Process #2: Same Day Service
	Weight	Measure	Weight	Measure	
*Fresh spinach, julienne sliced	5 oz	1 qt	10 oz	2 qt	1. Combine lettuce and spinach in bowl. Set aside.
*Fresh romaine lettuce, julienne sliced	8 oz	1 qt	1 lb	2 qt	
Salt-free chili-lime seasoning blend OR Salt-free taco seasoning blend (See Notes Section)		¼ cup 2 Tbsp OR ¼ cup 2 Tbsp		¾ cup OR ¾ cup	2. Mix salt-free seasoning and beans. Set aside.
Canned low-sodium refried pinto beans, fat-free	7 lb 12 oz	3 qt 1 ½ cups (1 ¼ No. 10 cans)	15 lb 8 oz	1 gal 2 ¾ qt (2 ¼ No. 10 cans)	
*Fresh green bell peppers, diced	2 lb	1 qt 2 cups	4 lb	3 qt	3. Sauté green peppers, onions, and corn for 3-4 minutes in a pan coated with pan release spray. Set aside.
*Fresh onions, diced	2 lb	1 qt 2 ¼ cups	4 lb	3 qt	
Canned low-sodium corn, drained, rinsed	3 lb 6 oz	1 qt 2 cups (1 No. 10 can)	6 lb 12 oz	3 qt (2 No. 10 cans)	4. Portion beans with No. 16 scoop (¼ cup) on each tostada shell. Spread evenly.
Tostada shells (round) (0.5 oz each)		50		100	
Reduced-fat Mexican cheese blend, shredded	1 lb	1 qt	2 lb	2 qt	5. Top with ¼ cup vegetable mixture. Sprinkle with 1 Tbsp cheese.
					6. Place tostadas on a sheet pan (18" x 26" x 1") lightly coated with pan release spray. For 50 servings, use 4 pans. For 100 servings, use 8 pans. Bake until cheese is melted: Conventional oven: 350 °F for about 5 minutes Convection oven: 350 °F for about 3 minutes Critical Control Point: Heat to 135 °F or higher for at least 15 seconds.
					7. Critical Control Point: Hold for hot service at 135 °F or higher.

 The grain ingredients used in this recipe must meet the Food and Nutrition Service whole grain-rich criteria.



References

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