



**United States
Department of
Agriculture**

Food and
Nutrition
Service

3101 Park
Center Drive
Alexandria, VA
22302-1500

Child Nutrition Labeling for Meat and Poultry Products

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Introduction

This publication has been prepared for food manufacturers. It contains instructions on how to apply for and obtain approval of a label with a Child Nutrition (CN) statement. It also contains instructions for calculating the contribution that a meat or poultry product makes toward the Meal Pattern Requirements for the Child Nutrition Programs.

A CN labeled meat/poultry product:

- must contain a minimum of 0.50 ounce of equivalent meat or a minimum of 0.50 ounce of equivalent meat and meat alternate per serving,
- contains meat and/or poultry and may contain any combination of these: cheese/cheese substitutes, cooked dry beans or peas, eggs, nut/seed butters, alternate protein product, protein fortified macaroni, and
- must be produced under Federal inspection, equal-to-federal state inspection, or Canadian inspection.

Products contributing only to the bread/bread alternate and/or vegetable components are not eligible for the CN label.

These procedures supersede all other instructions, written or oral, that the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) may have provided.

CN Label Application Materials

What to Submit

Submit the following information collated and stapled in the order listed below

- FSIS Form 7234-1 (10/03/2002) *Application for Approval of Labels, Marking or Device* - 4 copies
- Product Label - 4 Copies
- Labels for purchased prepared Ingredients (e.g., cooked pizza topping) that contribute to the meat/meat alternate component (source product label) - 4 copies (if applicable)
- Alternate Protein Product (APP) documentation - 4 copies (if applicable)
- Enriched Macaroni with Fortified Protein approval letter from FNS – 4 copies (if applicable)

**FSIS Form 7234-1
(10/03/2002)**

When filling out the application form (also called a transmittal form), please do the following:

- Complete all portions of this application form. Submit 4 copies

NOTE: The address written in block 10 should be the address of the plant location for the establishment number written in block 4.

- In block 8 list all ingredients in descending order of predominance. For multi-component products, e.g., breaded beef patties, provide separate formulas for each component, e.g., a formula for the raw beef patty mix and a separate formula for the batter/breading component. If the ingredient statement on the label is listed as a composite of all ingredients you will also need to submit a composite formula. Composite formulas must reflect the component formulas in the same ratios given for the fill specifications.
- All items used for crediting must be described so that they match a food item in the Food Buying Guide for Child Nutrition Programs¹ (FBG), Program Aid Number 1331, November 2001, e.g., “beef (fresh), chuck roast (without bone, practically free of fat).” Be sure to specify the maximum fat content of each meat used when it is part of the FBG description, e.g., "ground beef (no more than 26 percent fat)"
- Indicate the raw weight of the individual portion where applicable
- If a product is precooked, indicate the cooked weight of the product portion and, if applicable, the maximum cooking yield (for bulk items). If a maximum cooking yield is indicated, state that the maximum cooking yield will be monitored in the Quality Control program
- Include fill specifications when a product consists of two or more major components. The fill specifications should be given per serving and if applicable per each bulk unit. For example:

Pizza with Cooked Pizza Topping	<u>Fill Specifications</u>	
<u>Component</u>	<u>1 Serving</u>	<u>One 16" Pizza</u>
Crust, baked	1.90 oz	15.20 oz
Mozzarella Cheese	1.22 oz	9.76 oz
Cooked Pizza Topping (CN # 000000 no substitutions)	1.20 oz	9.60 oz
Tomato Sauce	<u>1.18 oz</u>	<u>9.44 oz</u>
	5.50 oz	44.00 oz

¹ The 2001 Food Buying Guide and Pen and Ink Changes (for the 2001 FBG) are available online at <http://schoolmeals.nal.usda.gov/FBG/buyingguide.html>.

- Submit manufacturer’s documentation with the following information when claiming bread/bread alternate credit for batter and/or breaded products:
 - a) Manufacturer’s documentation showing the percent breakdown of the whole-grain, enriched flour or meal, bran and/or germ contained in the dry batter/breader;
 - b) Percentage breakdown of added water and any other liquid used in the batter/breader; and
 - c) Ratio of prepared (wet) batter to dry breader.

Product Label

All CN labeled products must be both approved in Final by FNS and approved by FSIS² prior to production. FNS sketch approved labels must be resubmitted to obtain FNS final approval.

- For sketch approval: submit a legible draft of the label as it will appear on the package. Submit 4 copies
- For final approval (without prior sketch approval): submit the label that will appear on the package or a clear representation (printer’s proof) with the colors indicated and no corrections to be made. Submit 4 copies
- For final approval with prior sketch approval (same CN number): submit the label in final form (printer’s proof acceptable) with the colors indicated. Also, provide a copy of the prior sketch stamped by both FNS and the Labeling and Nutrition Protection Staff of FSIS showing the label approval number assigned by FSIS. Submit 2 copies

All of the following information must be printed on the label:

- Product name;
- Inspection legend (Federal, State, or Canadian – according to inspection.) The establishment number must also be a permanent part of the label;
- Name and address of manufacturer or distributor, or a space designated for it to be filled in at time of packing product;
- Ingredient statement. Ingredients listed on the product label should match the ingredients listed on the application form. For example: If ground beef (no more than 30 percent fat) is printed on the label then this must also be listed in the formula shown on the application form; and

² The FSIS Labeling and Nutrition Protection Staff conducts only sketch approval. That office no longer conducts final label approval. Sketch labeling is defined in 9 CFR 317.4(d).

- CN label statement. This statement must be an integral part of the product label. It can not be a separate label or stamp. The statement must include:
 - CN logo (see pages 20 through 23 for logo format)
 - Product identification number (CN number) assigned by FNS
 - Statement of credit (see below)
 - Authorization statement
 - Approval date (representing the month/year label is to be approved in final form by FNS.)

The statement of credit identifies the contribution of a specific portion of a meat/meat alternate product toward this component of the meal pattern requirements. If appropriate, the statement may also include the contribution toward the bread/bread alternate and vegetable/fruit component of the Meal Pattern Requirements. The following criteria apply:

- Always round down the answers to crediting calculations. Never round up.
- A product serving must provide a minimum of 0.50 oz equivalent meat/meat alternate. Ounce equivalents should be expressed as a decimal in increments of 0.25 ounce, such as, 0.50, 0.75, 1.00, etc., oz equivalent meat/meat alternate. Ounce should be abbreviated as "oz." Exception to the increment rule is provided for Bulk products only. See page 21 for the sample CN label statement for "Cooked Beef Patty Crumbles".
- In order to receive a bread/bread alternate credit, a product must provide a minimum of 1/4 serving. Larger servings must be expressed in increments of 1/4 servings, e.g., 1/4, 1/2, 3/4, etc., servings of bread/bread alternate.
- In order to receive a vegetable/fruit credit, a product must provide a minimum of 1/8-cup serving. Larger servings must be expressed in increments of 1/8-cup servings, e.g., 1/8, 1/4, 3/8, etc., servings of vegetable/fruit.

The CN statement must accurately reflect the product. For example:

- a) A product that contains only meat and/or poultry should state "provides ___ oz equivalent meat."
- b) A product that contains meat and/or poultry and meat alternate (such as eggs, dry beans, APP, or cheese) should state "provides ___ oz equivalent meat/meat alternate."

Labels for Prepared Ingredients/Components

Prepared ingredients containing meat/poultry or meat alternate (e.g. cooked pizza topping) that are purchased and used for credit in a CN labeled product are called source products. Source products must be CN labeled and be approved in final by FNS before they may be used. Attach a legible photo copy of each source product label to each copy of the application form. Write the CN identification number(s) and "no substitutions" next to the corresponding purchased ingredient listed on the

application form.

Alternate Protein Products (APP)

Alternate Protein Products (APP) may be used to meet all or part of the meat alternate component when it is used as an integral part of the entrée. Only products meeting the requirements in 7 CFR 210, 220, 225, 226 (Appendix A) may be used as APPs to contribute to the meal pattern requirements. For each APP used, attach documentation (see page 10) to each copy of the application form. Write the manufacturer's name and product code number, and indicate "no substitutions" for the sources of APP used.

Enriched Macaroni Products with Fortified Protein

Enriched macaroni products with fortified protein may be used to meet part of the meat alternate component. Attach one copy of the FNS approval letter for each enriched macaroni with fortified protein product that will be credited toward the meal pattern requirements to each copy of the application form. Write the manufacturer's name, product name, and identification number on all four copies of the application form.

Additional information about FNS-approved enriched macaroni products with fortified protein is available from the Child Nutrition Division, FNS.

Quality Control (QC) Program

All CN labeled products must be produced under an acceptable plant quality control (QC) program that can be effectively monitored by plant personnel. The QC program must meet minimum requirements provided by FNS. The QC program must be available to the FSIS inspector-in-charge upon request.

The guideline for preparation of the QC program (previously FSIS PQCP #550) is available from FNS.

Samples (Upon Request Only)

FNS may request a sample of the product as part of the review process. If a sample is requested, FNS may delay final label approval until it receives and reviews the sample. Label applications must pertain to products that have been made and tested in a pilot plant or on an assembly line.

Procedures for Submitting CN Labels

(See pages 36 and 37 for State Inspected and Canadian plants)

Where to Submit

Submit all label applications to:

U.S. Department of Agriculture
Food and Nutrition Service
Child Nutrition Division, Room 632
3101 Park Center Drive
Alexandria, VA 22302
Attn: Label Reviewer

Further information and answers to inquiries can be obtained by calling the FNS

Technical Assistance Section CN label reviewers at (703) 305-2609.

How to Submit

Processor may submit label applications to FNS by any of the following methods:

- Mail delivery (do not send CN labels to FSIS, they must go to FNS first)
- Personal delivery by a manufacturer's representative
- Personal delivery by a label expediting firm

FNS will review labels on site on Wednesdays with scheduled appointments only. If a manufacturer wants to send a representative to discuss a label application, he or she should call in advance for an appointment and bring the label application at the appointment time.

Procedures for Reviewing CN Labels

Queuing System (Mailed labels only)

When FNS receives a label in the mail, FNS dates the label and places it in a queuing system. Each label is reviewed in turn based on the date received. FNS will not grant exceptions to the queuing system except in extreme emergencies. The review time at FNS generally will be no longer than 3 weeks but this time may vary depending on the total volume of labels. In addition, label approval for products that are exceptionally complex may take longer.

Once a label has been reviewed and approved by FNS, it is forwarded to the FSIS Labeling and Consumer Protection staff for review (see page 8 for routing charts).

Identification Numbering System

FNS will assign a six-digit identification number to each label. This system will help FNS keep track of label approvals and will provide this information to regional, State, and local Child Nutrition Program staff as required. FNS will also use identification numbers to notify the appropriate manufacturers when circumstances require them to resubmit labels. When a label is submitted in sketch, FNS assigns an identification number to it. When a label is submitted in final without prior sketch approval, the manufacturer must call FNS for an identification number before printing the label. A new identification number will be assigned for each unique product label application which is received.

Obtaining a CN Identification Number

To obtain a CN identification number prior to submitting labels for FNS review, call or fax the technical assistance staff.
Phone: 703-305-2609 or Fax: 703-305-2549.

Label Applications

Label applications that are incorrect, illegible, or lacking appropriate information will be returned to the applicant with notations of the errors. FNS will keep one copy

Returned

of every label application submitted for review. Labels that are resubmitted for review will be placed in the queuing system based on the date of resubmittal.

**Label
Applications
Resubmitted**

Labels should be **resubmitted** through FNS and receive a new identification number when the:

- Establishment number is changed
- Plant location where product is produced is changed
- Listing of ingredients is changed
- Quality or nutritional claim is added
- Product formula is changed
- Product name is changed
- Portion size is changed

In-Plant Changes

If a CN label has FNS **final** approval and FSIS approval, certain in-plant changes (generic approvals) may be made at the plant level and maintain the same CN number. Approve label changes at the plant level only when:

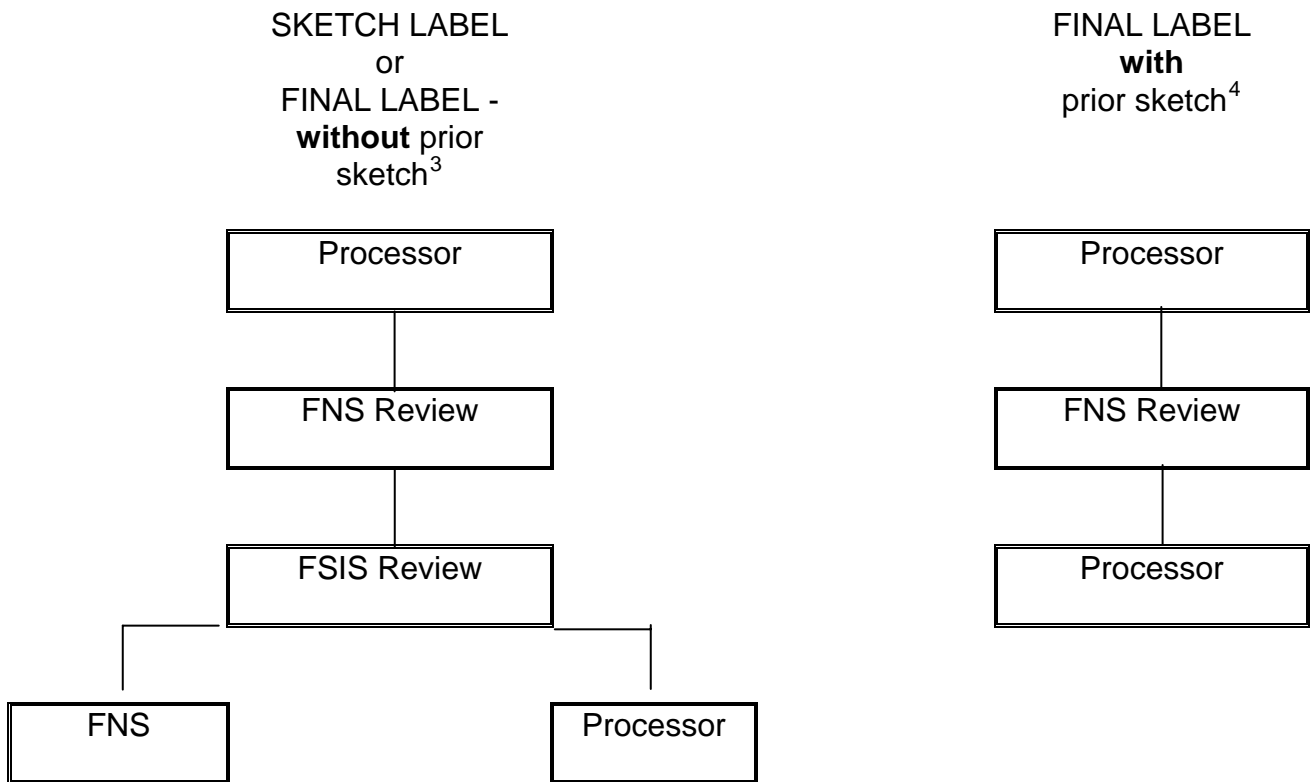
- All features are proportionally enlarged or reduced
- Abbreviations are substituted for words, e.g., lbs for pounds
- Wrappers are changed for holidays
- Directions for opening the container or package are changed
- Coupons are added/deleted
- Net weights are changed
- Recipes are added/deleted
- Punctuation changes are made
- Package open date is added/deleted
- Packaging materials are changed
- Colors are changed
- Illustrations or vignette changes are made
- Code numbers are changed
- Company name and address is added to approved master label
- Signature line is changed
- Brand name is changed
- The word “new” is deleted
- Special handling instructions are added/deleted
- Safe Handling Instructions are added
- Certain changes are made to the Nutrition Facts panel
- Translations of the English language are added/deleted

For all approvals made at the plant level, send a copy of the new label to FNS noting the changes that were made. This label will be attached to the original label approval in our files.

Label Routing Process

Prior to producing any CN labeled product, the CN label must obtain both: FNS **final** approval and FSIS sketch approval.

FSIS Inspection



³ To obtain a final FNS approval the first time through, the label must be printer proof quality with no edits. Call 703-305-2609 to request a CN identification number and include this number in the CN logo. Be sure to include the current date at the end of the CN statement. If a CN number is assigned during review, at most, the label can receive FNS sketch approval and will have to be resubmitted to FNS prior to production to obtain FNS final approval.

⁴ Attach a copy of the prior sketch approval showing both the FNS sketch approval and the FSIS sketch approval. Since FSIS only approves labels in sketch form, CN labels are only sent to FSIS once. The approval number assigned by FSIS to the sketch approval will be used as the approval number for the FNS final approval.

Procedures for Determining Equivalent Meat/Meat Alternates

The unit of measure for the meat/meat alternate component is "oz equivalents." To be CN labeled, a serving of a product must provide a minimum of 0.50 oz equivalent meat/meat alternate and credit must be expressed in 0.25-oz increments. Any of the following can contribute to the meat/meat alternate component of the Child Nutrition meal pattern requirements: lean meat, poultry, fish, cheese, cheese substitutes, eggs, cooked dry beans and peas, alternate protein product, peanut butter, or any combination of these. Enriched macaroni with fortified protein when made and used according to USDA regulations can also be used to meet part of the meat/meat alternate component. Additional information on use of enriched macaroni with fortified protein products is available from the Child Nutrition Division, FNS, USDA, 3101 Park Center Drive, Room 632, Alexandria, VA 22302.

There are four general steps used in determining the total ounces of equivalent meat/meat alternate in a serving of a product:

- Step 1: Determine which allowable meat/meat alternates are used in the product being labeled
- Step 2: Calculate the oz equivalent meat/meat alternate in each category. (Procedures for determining this are on the following pages.)
- Step 3: Total the oz equivalent meat/meat alternate calculated under each category
- Step 4: Round down to the nearest 0.25 oz equivalent meat/meat alternate.

Calculating the Contribution of Meat

1. Multiply the raw serving size (in ounces) by the percent of meat in the raw formula:

$$\text{oz raw serving size} \times \% \text{ raw meat} = \text{oz raw meat/serving}$$

2. Multiply the ounce raw meat/serving by the cooking yield⁵ as stated in the Food Buying Guide:

$$\text{oz raw meat/serving} \times \text{FBG cooking yield}^5 = \text{oz equivalent meat/serving}$$

⁵ See Pages 24 through 27 for FBG cooking yields of selected meat products.

Calculating the Contribution of Alternate Protein Product (APP)

Before starting the calculation, check to make sure that the APP documentation attached with your application shows that the APP you are using meets ALL of the following criteria:

- a) A statement that the APP meets the requirements found in Appendix A of 7 CFR Parts 210, 220, 225, and 226.
- b) Show that the product has been processed so that some portion of the nonprotein constituents has been removed.
- c) Provide the Protein Digestibility Corrected Amino Acid Score (PDCAAS). The PDCAAS is required to be greater than 80 percent of casein. You may be required to show how the PDCAAS was determined.
- d) Show that the protein level of the APP is at least 18 percent by weight when fully hydrated or formulated. (Show the ratio of dry APP to water to provide a product hydrated to 18 percent protein.)
- e) Provide the protein level of the APP on an “as-is” basis for the as-purchased product. Protein is often provided on a moisture free basis “mfb” which is not the information FNS requires.

Calculate the contribution of alternate protein products as follows:

1. Multiply the raw serving size (in ounces) by the percent of dry alternate protein product to obtain the ounces of dry alternate protein product per portion:

$$\text{oz raw serving} \times \% \text{ dry APP} = \text{oz dry APP/serving}$$

2. Divide the percent protein on an as-is basis (from documentation) by 18 to determine the hydration factor to fully hydrate the APP to 18 percent protein:

$$\frac{\% \text{ as-is protein}^6 \text{ of dry alternate protein product}}{18\% \text{ minimum protein}^7} = \text{hydration factor}$$

3. Multiply the ounces of dry alternate protein product per serving by the hydration factor to obtain the unrounded ounces equivalent meat alternate per serving:

$$\text{oz dry APP/serving} \times \text{hydration factor} = \text{oz unrounded equivalent meat alternate/serving}$$

⁶ As-is/as-purchased; including added flavors, colors, or other added substances.

⁷ The regulations provided for appropriate hydration of alternate protein products by setting quantity requirements for a product when hydrated at 18 percent by weight.

4. Round down to the nearest 0.25 oz equivalent meat alternate per serving.
NOTE: You can determine the ratio of dry APP to liquid (allowed for full hydration) by using the following formula:

a.
$$\frac{\% \text{ as-is protein in dry alternate protein product}}{18\% \text{ minimum protein}} = \frac{\text{total parts hydrated product}}{\text{product}}$$

b.
$$\text{total parts hydrated product} \text{ MINUS } 1 \text{ part APP} = \text{parts liquid allowed for full hydration}$$

c. The ratio allowed for full hydration is:

“1 part dry APP” : “total parts hydrated product – 1”

To obtain the percent of water allowed for full hydration, multiply the percent of dry APP in the formula by the parts liquid for full hydration:

$$\% \text{ APP} \times \text{parts liquid for full hydration} = x^8 \text{ (total percentage of liquid allowed for full hydration)}$$

Calculating the Contribution of Dry Beans or Peas

1. Multiply the raw serving size⁹ (in ounces) by the percent of dry beans or peas in the raw formula:

$$\text{oz raw serving} \times \% \text{ dry beans} = \text{oz dry beans/serving}$$

2. Convert the ounce dry beans per serving to pound dry beans/serving by dividing by 16 ounces/pound:

$$\text{oz dry beans/serving} \div 16 \text{ oz/lb} = \text{lb dry beans/serving}$$

3. Multiply the pound dry beans per serving by the number of 1/4-cup servings per purchase unit. (e.g., 1 pound as purchased = 21.0 1/4-cup servings cooked dried pinto beans = FBG yield). 1/4 cup cooked dry beans = 1.00 oz equivalent meat alternate:

$$\text{lb dry pinto beans/serving} \times 21.0 \text{ 1/4-cup servings/lb} = \text{No. 1/4-cup servings cooked dry pinto beans or oz equivalent meat}$$

⁸ The percentage of liquid in the formula in excess of “x” will not be given credit toward the meal pattern requirement.

⁹ For cooked products, determine the ounce raw serving by dividing the following: oz cooked serving ÷ manufacturer's maximum cooking yield. The manufacturer's maximum yield is based on cooking tests performed in the manufacturer's plant and reflects the cooking yield for the total product including beans, spices, water, etc.

alternate/serving

4. Round down to the nearest 1/8 cup or 0.25 oz.

NOTE: Cooked dried beans or peas may count as a meat alternate or a vegetable, but not as both components in the same product.

Calculating the Contribution of Dry Beans or Peas, Canned

1. Multiply the raw serving size (in ounces) by the percent canned dry beans or peas in the raw formula:

$$\text{oz raw serving size} \times \% \text{ canned beans} = \text{oz canned beans/serving}$$

2. Divide the ounce canned beans/serving by the numbers of ounces in the size can you are using (e.g., a No. 10 can of pinto beans = 108 oz):

$$\text{oz canned beans/serving} \div 108 \text{ oz/can} = \frac{\text{the portion (\%) of pinto beans/}}{\text{No. 10 can used}}$$

3. Multiply the portion (%) of beans per can used by the number of 1/4-cup servings per purchase unit (e.g., No. 10 can pinto beans provides 37.2 1/4-cup servings heated, drained pinto beans - FBG yield):

$$\frac{\% \text{ beans/}}{\text{can used}} \times \frac{37.2 \text{ 1/4-cup}}{\text{servings/}} = \frac{\text{No. 1/4 cup servings cooked dry pinto beans}}{\text{108 oz can}} \text{ or oz equivalent meat alternate/serving}$$

Calculating the Contribution of Cheese/Cheese Substitutes

“Cheese Substitute” must meet the FDA standard for substitute foods. The standard requires that a cheese substitute is not nutritionally inferior to the cheese for which it is substituting. Any item labeled as imitation cheese or cheese product is not in the above category, and is **not** credited in the Meal Pattern Requirements.

1. Multiply the raw serving size (in ounces) by the percent of each cheese or cheese substitute to determine the ounce of meat alternate per serving:

$$\text{oz raw serving} \times \frac{\% \text{ cheese/}}{\text{cheese}} = \text{oz cheese/cheese substitute per serving} \text{ or oz equivalent meat alternate/serving}$$

NOTE: Cheese and Cheese Substitutes are calculated based on a 100-percent yield. The credit for cottage cheese, ricotta cheese, cheese food, cheese spread, and their substitutes are calculated based on a 50-percent yield.

Calculating the Contribution of Dried Whole Eggs

1. Multiply the raw serving size (in ounces) by the percent of dried whole eggs in the formula to obtain the ounces of available dried whole eggs:

$$\text{oz raw serving} \times \% \text{ dried whole eggs} = \text{oz dried whole eggs/serving}$$

2. Convert ounce dried whole eggs per serving to pound dried whole eggs/serving by dividing by 16 ounces per pound:

$$\text{oz dried whole eggs/serving} \div 16 \text{ oz/lb} = \text{lb dried whole eggs/serving}$$

3. Multiply the pound dried whole eggs per serving by the servings per pound as found in the FBG (one pound dried whole eggs = 32 large eggs or 64 ounces equivalent meat alternate):

$$1 \text{ lb dried whole eggs/serving} \times 64 = \text{oz equivalent meat alternate/serving}$$

Calculating the Contribution of Frozen Whole Eggs

1. Multiply the raw serving size (in ounces) by the percent of frozen whole eggs in the formula to obtain the ounce available frozen whole eggs per serving:

$$\text{oz raw serving} \times \% \text{ frozen whole eggs} = \text{oz frozen whole eggs/serving}$$

2. Convert ounce frozen whole eggs per serving to pound frozen whole eggs per serving by dividing by 16 ounces per pound:

$$\text{oz frozen whole eggs/serving} \div 16 \text{ oz/lb} = \text{lb frozen whole eggs/serving}$$

3. Multiply the pound frozen whole eggs per serving by the servings per pound as found in the FBG (one pound frozen whole eggs = 9.00 large eggs or 18 ounces equivalent meat alternate):

$$1 \text{ lb frozen whole eggs/serving} \times 18 = \text{oz equivalent meat alternate/serving}$$

Calculating the Contribution of Cooked Toppings, Fillings, and other Bulk Products¹⁰

1. Determine the ounce raw topping by dividing the ounces of cooked portion (for bulk products, this will generally be one pound/ 16 oz) by the manufacturer's maximum cooking yield¹¹:

$$16 \text{ oz cooked topping} \div \text{manufacturer's maximum} = \text{oz raw topping} \\ \text{cooking yield}$$

2. Calculate the ounces equivalent meat contributed by the meat portion of the topping formula (see page 9 for detailed meat calculations):

$$\text{oz raw topping} \times \% \text{ raw meat} \times \text{FBG cooking yield} = \text{oz equivalent meat} \\ \text{for raw meat used}$$

3. If applicable, calculate the ounces equivalent meat alternate contributed by the APP portion of the topping formula (see page 10 for detailed APP calculations):

$$\text{oz raw topping} \times \% \text{ dry APP} \times \frac{\% \text{ protein as-is for APP}}{18 \%} = \text{oz meat alternate}$$

4. Add together the ounces of equivalent meat and equivalent meat alternate :

$$\text{oz equivalent meat} + \text{oz equivalent meat alternate} = \text{oz equivalent meat/} \\ \text{(from meat portion)} \quad \text{(from APP portion)} \quad \text{meat alternate}$$

NOTE: The credit for bulk products may be expressed to two decimal places without rounding down. The credit may not be rounded up.

Calculating the Contribution of Purchased CN Products¹² (For Use by a Second Manufacturer)

1. Check to make sure the purchased product is CN labeled and has Final approval from FNS and, if applicable, approval from FSIS.

¹⁰ Topping, filling and bulk product are terms generally used to describe a finished meat mixture that is processed in volume and often used as an ingredient in/on another product.

¹¹ Manufacturer's maximum cooking yield is based on cooking tests performed in the manufacturer's plant and reflects the cooking yield for the total product including meat, spices, water, etc. Calculate as follows: lbs of cooked mixture ÷ lbs of raw mixture = % maximum cooking yield (in decimal form.)

¹² When processed products are purchased from a manufacturer and are incorporated into your product as a creditable source of equivalent meat/meat alternate, a copy of the CN approved label for the purchased processed product (source product label) must accompany the application form when submitted for approval.

- For the purchased product, determine the percent of equivalent meat/meat alternate provided by dividing the oz equivalent meat/meat alternate (as stated on the CN label of the purchased product) by the oz portion size (as stated on the CN label of the purchased product.) For bulk products, this will generally be 16 ounces.

$$\frac{\text{oz equivalent meat/meat alternate from purchased product's CN statement}}{\text{oz serving size}} \div 16 \text{ oz} = \% \text{ equivalent meat/meat alternate provided by the purchased product}$$

- Determine the ounces per serving of purchased product in the second product. Multiply the ounce serving size of second product by the percent of purchased product used in the formula for the second product:

$$\frac{\text{oz/serving of 2}^{\text{nd}} \text{ product}}{\text{oz/serving of 2}^{\text{nd}} \text{ product}} \times \% \text{ purchased product in formula of 2}^{\text{nd}} \text{ product} = \text{oz purchased product/serving of 2}^{\text{nd}} \text{ product}$$

- Multiply the percent equivalent meat/meat alternate provided from the purchased product (step 2) by the ounce of purchased product per serving of the second product (step 3):

$$\frac{\% \text{ equivalent meat/meat alternate provided by the purchased product}}{\% \text{ equivalent meat/meat alternate provided by the purchased product}} \times \frac{\text{oz purchased product/serving of 2}^{\text{nd}} \text{ product}}{\text{oz purchased product/serving of 2}^{\text{nd}} \text{ product}} = \text{oz equivalent meat/meat alternate per serving of 2}^{\text{nd}} \text{ product}$$

Procedures for Determining Servings of Bread/Bread Alternate

The unit of measure for bread/bread alternate under the Grains/Breads component is "serving." In order to state bread credit on a CN label, the product must provide a minimum of 1/4 serving and credit must be expressed in 1/4-serving increments.

In order for a product to be used as a bread/bread alternate in the Child Nutrition Labeling Program, the following two criteria must be met:

- Product must be an integral part of the item being CN labeled.
- The product must be made with whole grain, enriched flour or meal, bran, and/or germ.

Bread items can be categorized according to the following instruction

FCS INSTRUCTION 783-1; REV. 2; EXHIBIT A

GRAINS/BREADS FOR THE FOOD-BASED MENU PLANNING ALTERNATIVES
IN THE CHILD NUTRITION PROGRAMS ^a

GROUP A	MINIMUM SERVING SIZE FOR GROUP A
Bread type coating Bread sticks (hard) Chow mein noodles Crackers (saltines and snack crackers) Croutons Pretzels (hard) Stuffing (dry) Note: weights apply to bread in stuffing.	1 serving = 20 gm or 0.7 oz
GROUP B	MINIMUM SERVING SIZE FOR GROUP B
Bagels Batter type coating Biscuits Breads (white, wheat, whole wheat, French, Italian) Buns (hamburger and hotdog) Crackers (graham crackers - all shapes, animal crackers) Egg roll skins English muffins Pita bread (white, wheat, whole wheat) Pizza crust Pretzels (soft) Rolls (white, wheat, whole wheat, potato) Tortillas (wheat or corn) Tortilla chips (wheat or corn) Taco shells	1 serving = 25 gm or 0.9 oz
GROUP C	MINIMUM SERVING SIZE FOR GROUP C
Cookies ^b (plain) Cornbread Corn muffins Croissants Pancakes Pie crust (dessert pies ^b , fruit turnovers ^c , and meat/meat alternate pies) Waffles	1 serving = 31 gm or 1.1 oz

^a Some of the following foods, or their accompaniments may contain more sugar, salt, and/or fat than others. This should be a consideration when deciding how often to serve them.

^b Allowed only for desserts under the enhanced food-based menu planning alternative specified in §210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP.

^c Allowed for desserts under the enhanced food-based menu planning alternative specified in §210.10 and supplements (snacks) served under the NSLP, SFSP, and CACFP, and for breakfasts served under the SBP, SFSP and CACFP.

GROUP D	MINIMUM SERVING SIZE FOR GROUP D
Doughnuts ^c (cake and yeast raised, unfrosted) Granola bars ^c (plain) Muffins (all, except corn) Sweet roll ^c (unfrosted) Toaster pastry ^c (unfrosted)	1 serving = 50 gm or 1.8 oz
GROUP E	MINIMUM SERVING SIZE FOR GROUP E
Cookies ^b (with nuts, raisins, chocolate pieces and/or fruit purees) Doughnuts ^c (cake and yeast raised, frosted or glazed) French toast Grain fruit bars ^c Granola bars ^c (with nuts, raisins, chocolate pieces and/or fruit) Sweet rolls ^c (frosted) Toaster pastry ^c (frosted)	1 serving = 63 gm or 2.2 oz
GROUP F	MINIMUM SERVING SIZE FOR GROUP F
Cake ^b (plain, unfrosted) Coffee cake ^c	1 serving = 75 gm or 2.7 oz
GROUP G	MINIMUM SERVING SIZE FOR GROUP G
Brownies ^b (plain) Cake ^b (all varieties, frosted)	1 serving = 115 gm or 4 oz
GROUP H	MINIMUM SERVING SIZE FOR GROUP H
Barley Breakfast cereals (cooked) ^d Bulgur or cracked wheat Macaroni (all shapes) Noodles (all varieties) Pasta (all shapes) Ravioli (noodle only) Rice (enriched white or brown)	1 serving = ½ cup cooked (or 25 gm dry)
GROUP I	MINIMUM SERVING SIZE FOR GROUP I
Ready to eat breakfast cereal (cold dry) ^d	1 serving = ¾ cup or 1 oz, whichever is less

^d Refer to program regulations for the appropriate serving size for supplements served to children aged 1 through 5 in the NSLP; breakfasts served under the SBP; and meals served to children ages 1 through 5 and adult participants in the CACFP. Breakfast cereals are traditionally served as a breakfast menu item but may be served in meals other than breakfast.

Calculating Bread/Bread Alternate Using Exhibit A

1. Determine the group that applies to your product by locating the name of the bread product being used in the left column of Exhibit A (pages 16 and 17).
2. Determine the ounces required for one serving of the bread product being used by reading the minimum serving size required located in the right column of Exhibit A for the group as determined above.
3. Divide the serving size (in ounces) of bread product being used by the ounces required for one serving to obtain the unrounded servings of bread/bread alternate:

$$\text{oz bread product used} \div \text{oz/serving from Exhibit A} = \begin{array}{l} \text{unrounded bread/bread} \\ \text{alternate servings} \end{array}$$

4. Round down to the nearest 1/4 serving.

Calculating Bread/Bread Alternate Using Grams of Creditable Grains

Creditable grains are whole grain, enriched flour or meal, bran and/or germ.

1 serving bread/bread alternate = 14.75 grams of creditable grains

1. Multiply the serving size (in ounces) by the percent of creditable grains to get the ounces of creditable grains per serving:

$$\text{oz/serving} \times \% \text{ creditable grains} = \text{oz creditable grains/serving}$$

2. Multiply the ounces of creditable grains per serving by 28.35 grams per ounce to convert to grams of creditable grains per serving:

$$\text{oz creditable grains/serving} \times 28.35 \text{ gm/oz} = \text{gm creditable grains/serving}$$

3. Divide grams of creditable grains per serving by 14.75 grams per bread/bread alternate serving to get the unrounded servings bread/bread alternate:

$$\text{gm creditable grains/serving} \div 14.75 \text{ gm} = \begin{array}{l} \text{unrounded servings bread/} \\ \text{bread alternate} \end{array}$$

4. Round down to the nearest 1/4 serving.

Procedures for Determining Vegetable/Fruit Credit

The vegetable/fruit component is credited on a volume measure. The unit of measure used is "cup." In order to state vegetable/fruit credit on a CN label, the product must provide a minimum of 1/8 of a cup and credit must be expressed in 1/8-cup increments.

The four steps used to determine the cup(s) of vegetable/fruit are:

Step1: Identify the food items that can be credited toward the vegetable/fruit requirement. Describe each item so that it matches a food item in the Food Buying Guide, e.g., cabbage, fresh, shredded. (This information can be found in columns 1 and 4 of the FBG.)

Step2: Calculate the contribution of each food item that can be counted. (see below.)

Step3: Add the contribution of each food item to get the total.

Step4: Round down to the nearest 1/8 of a cup.

Shown below are the calculations for Step 2:

1. Multiply the serving size (in ounces) by the percent of the product that is creditable vegetable/fruit:

$$\text{oz/serving} \times \% \text{ of creditable vegetable/fruit} = \text{oz creditable vegetable/fruit per serving}$$

2. Divide the amount of creditable vegetable/fruit per serving by 16 (16 oz/lb):

$$\text{oz creditable vegetable/fruit per serving} \div 16 = \text{No. lb creditable vegetable/fruit per serving}$$

3. Multiply the lb of creditable vegetable/fruit per serving by the number of servings per pound unit from the Food Buying Guide¹³:

$$\text{lb of vegetable/fruit per serving} \times \text{No. of servings per lb unit} = \text{No. of 1/4 cup servings vegetable/fruit}$$

¹³ See pages 30 through 35 for FBG yield information for commonly used vegetables.

Sample CN Label Statements

Fully Cooked Char-Broiled Hamburger Steaks (Chopped and Shaped) *(discrete portions)*

	CN	
		000000*
CN	Each 2.40 oz Fully Cooked Char-Broiled Hamburger Steak provides 2.00 oz equivalent meat for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 03/03**).	CN
	CN	

Cubed Beef Patties with Soy Protein Isolate *(Raw)*

	CN	
		000000*
CN	Each 3.00 oz (Raw) Cubed Beef Patty with Soy Protein Isolate provides when cooked 2.00 oz equivalent meat/meat alternate for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 09/04**).	CN
	CN	

Breaded Veal Patty *(not claiming bread alternate credit)*

	CN	
		000000*
CN	Each 2.60 oz Fully Cooked Breaded Veal Patty provides 1.50 oz equivalent meat for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 01/05**).	CN
	CN	

School Pack Breaded Chicken Patty *(claiming bread alternate credit)*

	CN	
		000000*
CN	Each 4.00 oz Fully Cooked Breaded Chicken Patty provides 2.00 oz equivalent meat and 1-1/4 servings of bread alternate for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 08/03**).	CN
	CN	

* The 6-digit CN identification number is assigned by USDA, FNS CN labeling staff.

** Date is written using numbers to represent the month/year of final FNS label approval.

Meat Balls (*contains dried whole egg*)

	CN	000000*		
CN	Six 0.50 oz fully cooked Meat Balls provide 2.00 oz equivalent meat/meat alternate for Child Nutrition Meal Pattern Requirements. (Use of this logo and Statement authorized by the Food and Nutrition Service, USDA 07/04**).			CN
	CN			

Cooked Beef Patty Crumbles (*A bulk product, contains APP*)

	CN	000000*		
CN	One pound (16 oz) of cooked Beef Patty Crumbles provides 11.84 ¹⁴ oz equivalent meat/meat alternate for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 01/03**).			CN
	CN			

Barbecue Sauce with Chopped Beef and Textured Soy Protein Flour (*5 lb tub*)

	CN	000000*		
CN	This 80.0 oz container provides 20 four-oz servings. Each 4.00 oz serving (by weight) of Barbecue Sauce with Chopped Beef and Textured Soy Protein Flour provides 2.00 oz equivalent meat/meat alternate for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 02/03**).			CN
	CN			

Pepperoni Pizza (*whole pizza, claiming bread alternate and vegetable/fruit*)

	CN	000000*		
CN	Cut this 40.0 oz pizza into 8 equal 5.0 oz portions. Each 5.0 oz portion of Pepperoni Pizza provides 2.00 oz equivalent meat/meat alternate, 1.0 serving of bread alternate, and 1/8 cup serving of vegetable for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 12/04**).			CN
	CN			

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** Date is written using numbers to represent the month/year of final FNS label approval.

¹⁴ The credit for bulk products when expressed as "One Pound (16 oz)" may be truncated or cut off to two decimal places instead of being rounded down. Do not round up.

Beef Ravioli (Canned) [containing enriched wheat macaroni product with fortified protein]

000000*

CN Contents of this can (108 oz) provides 13.50 servings (8.00 oz by weight). Each 8.00 oz serving (containing 8 pies and sauce) of Beef Ravioli made with Enriched Macaroni Product with Fortified Protein provides 2.00 oz equivalent meat/meat alternate for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 09/04**).

CN

Pizza with Pork Patty Crumbles *(individually wrapped and labeled, claiming bread alternate and vegetable/fruit)*

000000*

CN This 5.00 oz Pizza with Pork Patty Crumbles provides 2.00 oz equivalent meat/meat alternate, 1-1/2 servings of bread alternate, and 1/8 cup serving of vegetable for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 12/04**).

CN

Beef, Bean, and Cheese Burritos

000000*

CN Each 5.50 oz Beef, Bean, and Cheese Burrito provides 2.00 oz equivalent meat/meat alternate and 1-3/4 servings of bread alternate for Child Nutrition Meal Pattern Requirements. (Use of this logo and Statement authorized by the Food and Nutrition Service, USDA 08/03**).

CN

Franks

000000*

CN Each 1.60 oz Frank provides 1.50 oz equivalent meat for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 03/04**).

CN

* The 6-digit CN identification number is assigned by USDA, FNS CN labeling staff.

** Date is written using numbers to represent the month/year of final FNS label approval.

Breaded Chicken Patty Nuggets with Green Beans (*Pre-plated Meal*)

	CN	
		000000*
CN	Each 5.50 oz meal (consisting of Six 0.50 oz Breaded Chicken Patty Nuggets and 2.50 oz Green Beans) provides 2.00 oz equivalent meat/meat alternate, 3/4 serving of bread alternate, and 3/8 cup serving of vegetable for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food And Nutrition Service, USDA 01/05**).	CN
	CN	

Beef Chili with Beans and Textured Soy Protein Isolate (*indiscrete portion size*)

	CN	
		000000*
CN	Each 5.25 oz (by weight) ¹⁵ portion of Beef Chili with Beans and Textured Soy Protein Isolate provides 2.00 oz equivalent meat/meat alternate and 1/4 cup serving of vegetable for the Child Nutrition Meal Pattern Requirements. (Use of this logo and Statement authorized by the Food and Nutrition Service, USDA 02/05**)	CN
	CN	

* The 6-digit CN identification number is assigned by USDA, FNS CN labeling staff.

** Date is written using numbers to represent the month/year of final FNS label approval.

¹⁵ For products having indiscrete portion sizes (chili, stew, soup, etc.), more than 15 pieces per portion (teeny tiny meatballs, mini nuggets or bits, etc.), or multiple unequally sized pieces (nuggets, bits, or strips, etc. that cannot be portioned to be the same weight) – the portion size should be given by weight instead of by the piece. Since volume is not an accurate measurement for weight, volume measurements are not acceptable in the CN statement.

Selected Yield Data for Commonly Used Meats¹⁶

MEAT

YIELD

BEEF, FRESH OR FROZEN

Brisket

Without bone, practically free of fat	69%
Without bone, ¼" trim	46%

Chuck Steak

Eye roll, without bone, practically free of fat.....	74%
--	-----

Flank Steak

Practically free of fat.....	73%
------------------------------	-----

Ground Beef¹⁷

No more than 30% fat	70%
No more than 26% fat	72%
No more than 24% fat	73%
No more than 20% fat	74%
No more than 15% fat	75%
No more than 10% fat	76%

Heart

Trimmed.....	56%
--------------	-----

Loin Steak

Bottom sirloin butt, tri-tip, defatted, without bone, practically free of fat.....	68%
Tenderloin, side muscle on, defatted, ¼" trim	75%

Skirt Steak (Beef Plate)

Inside	64%
Outside, skinned, practically free of fat	71%

Special Trim¹⁸

Composite of trimmed retail cuts, without bone, practically free of fat.....	57%
---	-----

Stew Meat

Practically free of fat, without bone	61%
---	-----

¹⁶ Data derived from the Food Buying Guide for Child Nutrition Programs, Program Aid Number 1331, November 2001 and the Pen and Ink Changes (for the 2001 FBG).

¹⁷ Ground Beef is based on USDA, FSIS Standard as published in the Code of Federal Regulations, Title 9, Part 319.15(a) chopped beef, ground beef, but with maximum fat content as listed here.

¹⁸ Beef Special Trim is beef trimmings where each piece has a surface area on one side not less than 8 square inches and no less than 1/2 inch thick at any point.

MEAT**YIELD****CHICKEN****Boneless Chicken**

Skin & fat in natural proportions70%

Boned Chicken

Canned, USDA Commodity.....92%

Back

Pieces, with skin.....32%

Breast Half

With back, with skin.....55%

With ribs, with skin66%

Breast Portion

With back, with skin.....48%

Without back, with skin.....64%

Drumstick

With skin, with bone49%

Without skin, with bone47%

Ground70%

Leg Quarter

With skin, with bone42%

Without skin, with bone45%

Mechanically Separated70%

Tenderloin

Boneless chicken breast pieces without skin73%

Thigh

With skin, without back, with bone52%

With skin, with back, with bone42%

Without skin, without back, with bone53%

Wing

Whole, with skin, with bone34%

Drumettes, with skin, with bone.....36%

Portions, with skin, with bone24%

MEAT

YIELD

FRANKFURTERS¹⁹ 100%

PORK, FRESH OR FROZEN

Ground Pork²⁰

No more than 30% fat 70%
No more than 26% fat 72%
No more than 24% fat 73%
No more than 20% fat 74%
No more than 15% fat 75%
No more than 10% fat 76%

Heart

Trimmed.....57%
Untrimmed.....51%

Shoulder

Boston Butt, without bone, 1/4-inch trim.....60%
Boston Butt, with bone, 1/4-inch trim.....52%
Picnic, without bone, 1/4-inch trim.....57%
Picnic, with bone, 1/4-inch trim.....43%
Picnic, Cushion, without bone, practically
free of fat.....65%

Sausage

Fresh, Bulk, Link, or Patty²¹47%
Italian²²62%

PORK, CANNED

Pork with Natural Juices

USDA Commodity51%

¹⁹ Yields for frankfurters, bologna, Knockwurst, and Vienna sausage are based on products that do not contain meat or poultry byproducts, cereals, binders, or extenders, except to include those products containing Alternate Protein Products (APP) within the limits specified in 9 CFR 319.180(e) and meeting the requirements of Appendix A of 7 CFR 210, 220, 225, and 226. No other binders and extenders may be used in conjunction with APP to receive the ounce per ounce crediting.

²⁰ Ground Pork is based on USDA Standard as referenced in FSIS Policy Book. Must comply with Code of Federal Regulations, Title 9, Part 319.15(a), but with maximum fat content as is listed here.

²¹ Pork sausage (no more than 50 percent trimmable fat and 3% maximum water) is based on USDA, FSIS Standard as published in the Code of Federal Regulations, Title 9, Part 319.141 Fresh Pork.

²² Sausage, Italian, products (total fat content not more than 35 percent and 3% maximum water). May be made with Pork, Beef and/or Veal, based on USDA, FSIS Standard as published in the Code of Federal Regulations, Title 9, Part 319.145.

MEAT

YIELD

TURKEY

Boneless

Skin and fat in natural proportions.....70%

Ground70%

Turkey Ham²³

Cooked.....70%

Whole, Ready to Cook, Without Neck and Giblets

With skin.....53%

Without skin.....47%

VEAL, FRESH OR FROZEN

Ground

No more than 16% fat79%

Selected Yield Data for Commonly Used Meat Alternates ²⁴

MEAT ALTERNATES

SERVINGS PER POUND

Beans, dry ²⁵

Black (Turtle)	18.3	¼-cup cooked beans
Black-eyed beans (or peas).....	28.3	¼-cup cooked beans
Garbanzo (chickpeas)	24.6	¼-cup cooked beans
Great Northern.....	25.5	¼-cup cooked beans
Kidney	24.8	¼-cup cooked beans
Lentils.....	29.6	¼-cup cooked lentils
Lima		
Baby.....	23.4	¼-cup cooked beans
Ford hook.....	27.0	¼-cup cooked beans
Mung	28.1	¼-cup cooked beans
Navy (Pea).....	23.9	¼-cup cooked beans
Pink	19.3	¼-cup cooked beans
Pinto	21.0	¼-cup cooked beans

²³ Turkey Ham is based on USDA, FSIS Standard as published in the Code of Federal Regulations, Title 9, Subpart P, Part 381.171.

²⁴ Data derived from the Food Buying Guide for Child Nutrition Programs, Program Aid Number 1331, November 2001 & Pen & Ink Changes (for the 2001 FBG), May 2003.

²⁵ 1/4 cup cooked beans = 1 oz equivalent meat alternate.

Red, small.....	20.4 ¼-cup cooked beans
Soybeans.....	25.9 ¼-cup cooked beans

MEAT ALTERNATES

SERVINGS PER POUND

Dry Beans, Canned

Baked or in Sauce, Vegetarian	6.94 ¼-cup beans & sauce
Baked or in Sauce, w/Pork	7.10 ¼-cup beans & sauce
Beans with Bacon in Sauce	4.70 ¼-cup beans & sauce
Beans, Refried.....	7.08 ¼-cup cooked beans
Black (Turtle)	
drained	7.17 ¼-cup cooked beans
undrained	4.04 ¼-cup cooked, drained beans
Black-eyed beans/peas	
drained	9.28 ¼-cup cooked beans
undrained	5.58 ¼-cup cooked, drained beans
Garbanzo/Chickpeas	
drained	9.82 ¼-cup cooked beans
undrained	6.31 ¼-cup cooked, drained beans
Great Northern	
drained	7.56 ¼-cup cooked beans
undrained	4.71 ¼-cup cooked, drained beans
Kidney	
drained	8.76 1/4-cup cooked beans
undrained	5.76 1/4-cup cooked, drained beans
Lima	
drained	9.56 1/4-cup cooked beans
undrained	6.46 1/4-cup cooked, drained beans
Pink	
drained	7.96 ¼-cup cooked beans
undrained	4.94 ¼-cup cooked drained beans
Pinto	
drained	8.83 ¼-cup cooked beans
undrained	5.51 ¼-cup cooked, drained beans
Red	
drained	7.16 ¼-cup cooked beans
undrained	4.59 ¼-cup cooked drained beans
Soy (drained).....	7.30 ¼-cup cooked beans

Dehydrated Beans

Pinto	21.7 ¼-cup reconstituted cooked
Refried.....	20.5 ¼-cup reconstituted cooked

Cheese

Cheese Food/Cheese Spread	8.0 1-oz servings
Cottage Cheese.....	8.0 1-oz servings
Ricotta Cheese	8.0 1-oz servings
American	16.0 1-oz servings
Brie	16.0 1-oz servings

Camembert.....	16.0 1-oz servings
Cheddar.....	16.0 1-oz servings
Feta	16.0 1-oz servings

MEAT ALTERNATES

SERVINGS PER POUND

Cheese, Continued

Mozzarella	16.0 1-oz servings
Parmesan (grated).....	16.0 1-oz servings
Pasteurized Process American.....	16.0 1-oz servings
Provolone	16.0 1-oz servings
Romano (grated)	16.0 1-oz servings
Swiss	16.0 1-oz servings

Cheese Substitute

Cheese Food/Cheese Spread Substitute	8.0 1-oz servings
Cheddar Cheese Substitute.....	16.0 1-oz servings
Mozzarella Cheese Substitute	16.0 1-oz servings

Eggs ²⁶

Dried Whole Eggs.....	32 large eggs or 64-oz eq. mt. alternate
Frozen Whole Eggs	9 large eggs or 18-oz eq. mt. alternate

Nut & Seed Butters

Canned (almond, cashew, peanut, reduced fat peanut butter, Sesame seed, soy nut, sunflower seed).....	14.4 oz equivalent meat alternate
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Seeds (shelled)

Pumpkin, Sesame, Squash, Sunflower	16.0 oz equivalent meat alternate
--	-----------------------------------

Tree Nuts & Other Nuts

(almonds, Brazil, cashew, filberts, hazelnuts, macadamia, pecans, pine, pistachio, walnuts, peanuts, soy)	16 oz equivalent meat alternate
--	---------------------------------

Yogurt

Plain or Flavored or Sweetened or Unsweetened	4.0 oz equivalent meat alternate
--	----------------------------------

²⁶ One large egg = 2 oz equivalent meat alternate

Selected Yield Data for Commonly Used Vegetables

VEGETABLES

SERVINGS PER POUND

Beans, Black-eyed Beans or Peas

Fresh (shelled).....	10.30	¼-cup cooked drained
Canned (drained).....	9.28	¼-cup cooked

Beans, Green

Fresh (ready-to-cook)	11.2	¼-cup cooked drained
Canned (cut, drained).....	12.08	¼-cup cooked
Canned (French style, drained)	9.89	¼-cup cooked
Canned (whole, drained)	10.89	¼-cup cooked
Frozen (cut)	11.6	¼-cup cooked drained
Frozen (French style)	12.0	¼-cup cooked drained
Frozen (whole).....	10.7	¼-cup cooked drained

Beans, Kidney

Canned (drained).....	8.76	¼-cup cooked
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Beans, Lima

Fresh (shelled).....	10.8	¼-cup cooked drained
Canned (green, drained)	9.56	¼-cup cooked
Frozen (baby)	10.9	¼-cup cooked drained
Frozen (Ford hook).....	11.1	¼-cup cooked drained

Beans, Pinto

Canned (drained).....	8.83	¼-cup cooked
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Beans, Soy

Fresh, Edamame (shelled)	10.7	¼-cup cooked drained
Fresh, Edamame (in pod).....	6.90	¼-cup cooked drained

Beans, Sprouts

Canned (drained).....	7.89	¼-cup cooked
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Beans, Wax

Fresh (trimmed, ready-to-cook)	11.05	¼-cup cooked drained
Canned (drained).....	9.25	¼-cup cooked drained

Beets

Canned (diced, drained)	9.06	¼-cup cooked
Canned (sliced, drained)	8.97	¼-cup cooked
Canned (whole baby beets, drained).....	9.17	¼-cup cooked

Broccoli

Fresh (ready-to-cook spears)	13.0	¼-cup cooked drained
Fresh (ready-to-cook cuts)	12.59	¼-cup cooked drained
Frozen (spears)	10.9	¼-cup cooked drained

Frozen (cut or chopped) 9.60 ¼-cup cooked drained

VEGETABLES

SERVINGS PER POUND

Brussels Sprouts

Fresh (trimmed, ready-to-cook) 13.4 ¼-cup cooked drained
Frozen 10.4 ¼-cup cooked drained

Cabbage, Chinese or Celery

Fresh (ready-to-cook, strips) 11.39 ¼-cup cooked drained

Cabbage, Green

Fresh (ready-to-cook, shredded) 15.86 ¼-cup cooked drained
Fresh (ready-to-serve, shredded) 27.0 ¼-cup raw

Cabbage, Red

Fresh (ready-to-cook, shredded) 16.02 ¼-cup cooked drained
Fresh (ready-to-serve, shredded) 22.8 ¼-cup raw

Carrots

Fresh (ready-to-cook, slices) 9.83 ¼-cup cooked drained
Fresh (ready-to-cook, shredded) 11.2 ¼-cup cooked drained
Fresh (ready-to-serve, shredded) 19.9 ¼-cup raw
Canned (diced, drained) 8.19 ¼-cup cooked
Canned (sliced, drained) 8.50 ¼-cup cooked
Frozen (sliced) 9.87 ¼-cup cooked drained

Cauliflower

Fresh (trimmed, ready-to-cook, florets) 14.1 ¼-cup cooked drained
Frozen (florets) 9.20 ¼-cup cooked drained

Celery

Fresh (trimmed, ready-to-cook, diced) 10.48 ¼-cup cooked drained
Fresh (ready-to-serve, diced) 12.9 ¼ cup raw
Canned (diced, drained) 8.30 ¼-cup cooked

Collards

Fresh (ready-to-cook, trimmed leaves) 10.87 ¼-cup cooked drained
Fresh (ready-to-cook, trimmed leaves
and stems) 14.18 ¼-cup cooked drained
Canned (drained) 6.55 ¼-cup cooked drained
Frozen (chopped or whole leaf) 9.20 ¼-cup cooked drained

Corn

Canned (whole kernel, vacuum-pack,
drained) 8.66 ¼-cup cooked
Canned (whole kernel, liquid pack,
drained) 8.64 ¼-cup cooked
Frozen (whole kernel) 11.00 ¼-cup cooked drained

VEGETABLES

SERVINGS PER POUND

Kale

Fresh (ready-to-cook, trimmed, without stem).....	13.7	¼-cup cooked drained
Canned (drained).....	7.36	¼-cup cooked
Frozen (chopped).....	12.1	¼-cup cooked drained
Frozen (whole leaf).....	9.50	¼-cup cooked drained

Lettuce

Fresh (ready-to-serve, shredded).....	29.2	¼-cup raw
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Mushrooms

Fresh (ready-to-cook, sliced).....	8.46	¼-cup cooked drained
Canned (drained).....	11.60	¼-cup cooked

Mustard Greens

Fresh (ready-to-cook, trimmed, without stems).....	14.1	¼-cup cooked drained
Canned (drained).....	8.09	¼-cup cooked
Frozen (chopped).....	11.6	¼-cup cooked drained
Frozen (leaf).....	12.3	¼-cup cooked drained

Okra

Fresh (ready-to-cook, sliced).....	10.34	¼-cup cooked drained
Canned (cut, drained).....	10.34	¼-cup cooked
Frozen (cut).....	9.10	¼-cup cooked drained

Onions, Mature

Fresh (ready-to-cook, pieces).....	8.97	¼-cup cooked drained
Canned (drained).....	7.62	¼-cup cooked
Frozen (ready-to-cook, chopped).....	5.94	¼-cup cooked drained
Dehydrated (chopped).....	49.9	¼-cup reconstituted, cooked

Peas, Green

Fresh (shelled).....	10.6	¼-cup cooked drained
Canned (drained).....	8.63	¼-cup cooked
Frozen (shelled).....	9.59	¼-cup cooked drained

Peas and Carrots

Canned (drained).....	10.01	¼-cup cooked
Frozen.....	10.9	¼-cup cooked drained

Peppers, Bell, Green or Red

Fresh (ready-to-cook, strips).....	12.25	¼-cup cooked drained
Frozen (ready-to-cook, diced).....	7.30	¼-cup cooked drained

Peppers, Green Chilies

Canned (chopped) 7.98 ¼-cup cooked

VEGETABLES

SERVINGS PER POUND

Pimentos

Canned (chopped or diced,
drained) 8.80 ¼-cup cooked
Canned (whole, drained) 8.67 ¼-cup cooked

Potatoes, White

Fresh (ready-to-cook, pared, diced) 10.98 ¼-cup cooked, drained
Fresh (ready-to-cook, pared, sliced) 12.22 ¼-cup cooked, drained
Canned (diced, drained) 8.66 ¼-cup cooked
Canned (small, whole, drained) 9.44 ¼-cup cooked
Frozen (diced) 8.97 ¼-cup cooked, drained
Frozen (French fries, crinkle cut) 12.6 ¼-cup cooked
Frozen (mashed) 7.37 ¼-cup cooked
Frozen (rounds, regular size) 12.7 ¼-cup cooked (4 pieces, .32 oz ea)
Frozen (rounds, mini size) 12.2 ¼-cup cooked (8 pieces, .16 oz ea)
Frozen (circles) 12.6 ¼-cup cooked (5 pieces, .25 oz ea)
Frozen (wedges) 11.9 ¼-cup cooked

Potatoes, Dehydrated (low moisture)

Diced 45.1 ¼-cup reconstituted cooked
Flakes 50.5 ¼-cup reconstituted cooked
Granules 50.5 ¼-cup reconstituted cooked
Hash Browns 24.1 ¼-cup reconstituted, cooked
Slices 43.5 ¼-cup reconstituted cooked

Salsa, 100% Vegetable

Canned 7.40 ¼-cup

Sauerkraut

Canned (drained) 10.43 ¼-cup cooked

Spinach

Fresh (ready-to-cook) 8.63 ¼-cup cooked drained
Fresh (ready-to-serve, chopped) 25.6 ¼-cup raw
Fresh (ready-to-serve, chopped) 23.18 ¼-cup raw with dressing
Canned (drained) 7.33 ¼-cup cooked
Frozen (chopped) 5.60 ¼-cup cooked, drained

Squash, Summer

Fresh, Yellow (ready-to-cook, cubed) 7.68 1/4-cup cooked drained
Fresh, Yellow (ready-to-cook, sliced) 8.86 1/4-cup cooked drained
Fresh, Zucchini (ready-to-cook, cubed) 8.00 1/4-cup cooked drained
Fresh, Zucchini (ready-to-cook, sliced) 10.62 1/4-cup cooked drained
Canned (sliced, drained) 6.95 1/4-cup cooked
Frozen, Yellow (sliced) 7.90 1/4-cup cooked drained

Frozen, Zucchini (sliced) 7.00 1/4-cup cooked drained

VEGETABLES

SERVINGS PER POUND

Succotash (Corn & Green Beans)

Canned (drained)..... 8.80 1/4-cup cooked
 Frozen 8.76 1/4-cup cooked drained

Succotash (Corn & Lima Beans)

Canned (drained)..... 8.47 1/4-cup cooked
 Frozen 9.25 1/4-cup cooked drained

Sweet Potatoes

Fresh (pared, whole) 6.87 1/4-cup cooked, mashed
 Fresh (pared, sliced)..... 11.37 1/4-cup cooked, drained
 Fresh (whole)..... 6.60 1/4-cup baked
 Canned (mashed)..... 7.20 1/4-cup cooked
 Canned-syrup pack (cut, drained) 8.88 1/4-cup cooked
 Canned-syrup pack (whole, drained) 7.95 1/4-cup cooked
 Frozen (mashed) 7.55 1/4-cup cooked
 Dehydrated (flakes) 18.5 1/4-cup reconstituted cooked

Tomatoes

Fresh (ready-to-serve, diced) 8.74 1/4-cup raw
 Fresh (ready-to-serve, diced) 6.67 1/4-cup cooked
 Fresh (ready-to-serve, sliced)..... 9.80 1/4-cup raw
 Canned (crushed)..... 7.30 1/4-cup cooked
 Canned (diced, with juice) 7.71 1/4-cup cooked
 Canned (whole, with juice)..... 7.13 1/4-cup cooked

Tomato Paste

Canned, Extra Heavy
 39.3% or more Natural Tomato
 Soluble Solids (NTSS)..... 45.1 1/4-cup vegetable
 Canned, Heavy
 32% or more, but
 less than 39.3% NTSS 36.8 1/4-cup vegetable
 Canned, Medium
 28% or more, but
 less than 32% NTSS 32.2 1/4-cup vegetable
 Canned, Regular
 24% or more, but
 less than 28% NTSS 27.6 1/4-cup vegetable

Tomato Puree

Canned..... 14.4 1/4-cup cooked

Tomato Sauce

Canned..... 7.65 1/4-cup vegetable

Canned (spaghetti sauce, meatless) 7.23 ¼-cup vegetable

VEGETABLES

SERVINGS PER POUND

Vegetables, Mixed (Broccoli & Cauliflower blend)

Frozen 10.7 ¼-cup cooked, drained

Vegetables, Mixed (Broccoli, Cauliflower, & Carrot blend)

Frozen 10.6 ¼-cup cooked, drained

Vegetables, Mixed (Carrot, Corn, & Green Bean blend)

Frozen 9.20 ¼-cup cooked, drained

Vegetables, Mixed (Peppers & Onions)

Frozen 7.71 ¼-cup cooked, drained

Vegetables, Mixed (Seven Vegetables)

Canned (drained)..... 8.68 ¼-cup cooked

Frozen 8.10 ¼-cup cooked, drained

Water Chestnuts

Canned (drained)..... 6.70 ¼-cup cooked

APPLICATION PROCEDURE FOR STATE INSPECTED PLANTS (Equal-to-Federal inspection)

The procedure involves two steps:

Step 1 Labels are submitted to the State Director for approval

- * Label instructions are found in this manual
- * Number of copies of label and transmittal:
 - include one copy for Food and Nutrition Service (FNS)
 - include usual number of copies provided for the State Director
 - include one copy to be returned to the plant
- * Send all copies to the State Director. The State Director will review the label application(s) for State requirements and forward the copies to FNS.
- * FNS will review the CN related portions of the label and return it to the State Director
 - * All labels must be approved in final by FNS before use.

Step 2 Partial Quality Control (PQC) Program is submitted for approval

- * Instructions are found in the handout:

Guideline for Preparation of Partial Quality Control Program # 550

- * Attach a copy of the final approval of the label to the Partial Quality Control Program and mail to the State Director.
- * **CN labeled product cannot be produced or labeled until the PQC program has been approved and the label has been approved in final by FNS and by the State**

APPLICATION PROCEDURE FOR CANADIAN PLANTS

The procedure involves two steps:

Step 1 Labels containing Meat and/or Poultry are submitted to the Food and Nutrition Service (FNS) for approval

- * Labels must be submitted for final approval
- * Label instructions are found in the *Child Nutrition Labeling for Meat and Poultry Products* manual, available from FNS
- * Number of copies varies:
 - include two copies for Food and Nutrition Service (FNS)
 - include two copies for the Food Labeling and Review Branch (FLRB) of the Food Safety and Inspection Service (FSIS)
 - include one copy to be returned to the plant
- * FNS will review the label and forward it directly to FLRB, FSIS who will also review the label and return a copy to the plant and to FNS.

Step 2 Partial Quality Control Program is submitted for approval

- * Instructions are found in the handout:

Guideline for Preparation of Partial Quality Control Program # 550

- * PQC programs are submitted through:

Chief, National Programs
Agriculture Canada
2255 Carling Avenue
Ottawa, Ontario, K1A 0Y9

- * The Chief, National Programs will review the PQC program for Canadian requirements. The program must meet the PQC #550 requirements.

*** CN labeled product cannot be produced or labeled until the PQC program has been approved through Agriculture Canada, the label has been approved in final by FNS, and the label has obtained label approval including an approval number from FSIS.**

SAMPLE CN Label

Italiano's Fine Frozen Pizza

PIZZA WITH GROUND PORK and
SOY PROTEIN CONCENTRATE

CN

	000000
Italiano's 5.00 oz Pizza with Ground Pork and Soy Protein Concentrate Provides 2.00 oz equivalent meat/meat alternate, 1/4 cup serving of vegetable, and 1-1/2 servings of bread alternate for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized By the Food and Nutrition Service, USDA current month/year).	
	CN

INGREDIENTS: CRUST: Enriched wheat flour (wheat flour, niacin, iron, thiamine mononitrate, riboflavin, folic acid), water oil yeast, dextrose. Salt, leavening. GROUND PORK AND SOY PROTEIN CONCENTRATE: Ground pork (not more than 24% fat), water, soy protein concentrate, spices. SAUCE: Tomato paste (not less than 31% Natural Tomato Soluble Solids), water, seasoning (salt, sugar, spices). CHEESE: Cheddar Cheese (milk, enzymes, salt).

Contains 10% cooked ground pork and soy protein concentrate topping

DISTRIBUTED BY: Italiano's Fine Frozen Pizza, Mt. Vernon, New York 12345



NET WT. 32 LBS

KEEP FROZEN

Prepared by
Food and Nutrition Service
Child Nutrition Division
Nutrition Promotion and Training Branch
Technical Assistance Section

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