



PULSES



Industry Toolkit for School Foodservice


AMERICAN PULSE
ASSOCIATION

 USA Dry Pea
& Lentil Council



Table of Contents

Introduction	3
Overview of National School Lunch Program & School Breakfast Program	4
Meal Pattern Requirements	6
Reimbursement Model	8
Brief Overview of Pulses in School Foodservice	10
Pulses Crediting in School Foodservice	11
National School Lunch Program	12
i. Vegetables	12
ii. Meat/Meat Alternate	12
School Breakfast Program	13
Child and Adult Care Food Program	13
Crediting Documentation	14
Product Formulation Statement	14
Child Nutrition Label	15
Cooking Methods Information	17
Connecting with School Foodservice Directors	19
USDA Foods v. Distributors	19
Recipes Featuring Pulses	20
Piloting Products & Taste Testing with Students	22
Appendices	23
References	24



Introduction

With almost 100,000 schools or institutions serving school lunches, school cafeterias have been referred to as “America’s Largest Restaurant Chain.” Schools serve lunches to almost 30 million students each day, 20 million of which receive free meals. There are 4.9 billion lunches served annually in the United States and the school lunch program has an annual cost of \$14.2 billion. School meals, including breakfast, lunch, and afterschool meals, are essential for millions of children. Some rely solely on the meals they receive at school for nutrition.

Given the magnitude of school meals programs and the vital role that they play, it is beneficial for food manufacturers and trade associations to be a part of these programs. We have created this resource to provide all the information you need to incorporate your products into school foodservice, whether you have years of experience working in this space or you are only beginning to explore it.

This toolkit includes six sections:

- [Overview of National School Lunch Program & School Breakfast Program](#)
- [Brief Overview of Pulses in School Foodservice](#)
- [Pulses Crediting in School Foodservice](#)
- [Crediting Documentation](#)
- [Cooking Methods Information](#)
- [Connecting with School Foodservice Directors](#)

Our goal is to provide you with the tools you need to successfully work with school districts across the country. Ultimately, we hope that you can work to incorporate your products, or more of your products, into the various school meals programs to increase the consumption of pulses and pulse-based products.



Overview of National School Lunch Program and School Breakfast Program

WHAT IS THE NATIONAL SCHOOL LUNCH PROGRAM?¹

The National School Lunch Program (NSLP) is a federally assisted meal program established under the Richard B. Russell National School Lunch Act and signed into law by President Harry Truman in 1946. The NSLP operates in public and nonprofit private schools and residential childcare institutions. Each school day, the NSLP provides nutritionally balanced, low-cost, or no-cost lunches to children.

WHAT IS THE SCHOOL BREAKFAST PROGRAM?²

The School Breakfast Program (SBP) is a federally assisted meal program, just like school lunch. It started in 1966 as a pilot project, and in 1975 it became a permanent program. The SBP operates in public and nonprofit private schools and residential childcare institutions.

Who administers the NSLP and the SBP?^{1,2}

At the Federal level, the Food and Nutrition Service (FNS) of the United States Department of Agriculture (USDA) administers the NSLP and the SBP. At the State level, the SBP and the NSLP are administered by State agencies that operate through agreements with school food authorities (SFAs), which are commonly known as school districts. The USDA'S Agricultural Marketing Service (AMS) purchases a variety of 100% domestically produced and processed commodity foods, commonly referred to as "USDA Foods." The Food and Nutrition Services (FNS) branch of USDA distributes USDA Foods to school districts to use in child nutrition programs.

How do these Programs work?^{1,2}

Generally, the SBP and the NSLP are operated by public or non-profit private schools of high school grade or below but in some cases, public or non-profit private residential childcare institutions and charter schools may participate in the NSLP. School districts and independent schools that participate in the SBP and the NSLP receive USDA foods and cash subsidies for each reimbursable meal they serve.

In exchange, institutions participating in SBP and the NSLP are required to offer free or reduced-priced meals to children that are deemed eligible. The meals offered must meet federal meal pattern requirements.

What breakfast service options are available to schools?³

Schools can operate breakfast service in various ways including a traditional cafeteria-based breakfast, breakfast in the classroom, grab and go breakfast, or second chance breakfast. Breakfast in the classroom allows children to eat breakfast in the classroom during a morning class, often while the teacher is taking attendance or giving classroom announcements. Serving grab and go breakfast allows children to take breakfast "to go," often in a paper or plastic bag, before school or during a morning break. Second chance breakfast is a popular model in secondary schools and is usually served between first and second periods. It allows students a "second chance" to receive breakfast if they have not yet done so.

Where can I go to learn more about the SBP and the NSLP?^{1,2}

For more information about the SBP and the NSLP, visit the USDA website or contact the State agency responsible for the administration of these Programs in your State.



MEAL PATTERN REQUIREMENTS^{4,5}

The National School Lunch Program (NSLP) and School Breakfast Program (SBP) requirements are designed to provide age-appropriate meals to specific age/grade groups. For grades K-12, dietary specifications for calories, sodium, and saturated fat are in place to limit the risk of chronic diseases.

The NSLP requires five food components, each with daily and weekly minimums, including:

1. **Fruits**
2. **Vegetables** (including grades K-12 weekly requirement for vegetable variety with minimum requirements for each of the 5 vegetable subgroups, including dark green, red/orange, beans/peas (legumes), starchy, and “other” vegetables)
3. **Grains**
4. **Meats/Meat Alternates**
5. **Fluid Milk**

NSLP Meal Pattern Requirements⁷

	PRESCHOOL	GRADES K-5	GRADES 6-8	GRADES 9-12
Food Components	Amount of Food per Week (minimum per day)			
Fruits (cups)	1 ¼ (1/4)	2 ½ (1/2)	2 ½ (1/2)	5 (1)
Vegetables (cups)	1 ¼ (1/4)	3 ¾ (3/4)	3 ¾ (3/4)	5 (1)
Dark Green	N/A	½	½	½
Red/Orange		¾	¾	1 ¼
Beans and Peas (Legumes)		½	½	½
Starchy		½	½	½
Other		½	½	¾
Additional Vegetables to Reach Total		1	1	1 ½
Grains (oz. eq., unless otherwise listed) 1 ¼ slices/servings (1/2 slice/serving) or 1 ¼ cup (1/4 cup)		8-9 (1)	8-10 (1)	10-12 (2)
Meats/Meat Alternatives (oz. eq.) ¾ oz. eq. = 1 cup bean soup; 1 oz. eq. = ¼ cup cooked lentils, chickpeas, dry peas or beans, 1 cup split pea soup, 2 tablespoons hummus; 2 oz. eq. = 1 cup lentil soup	7 ½ (1 ½)	8-10 (1)	9-10 (1)	10-12 (2)
Fluid Milk (cups)	3 ¾ (3/4)	5 (1)	5 (1)	5 (1)
Other Specifications: Daily Amount Based on the Average for a 5-Day Week				
Min-Max Calories (kcal)	N/A	550-650	600-700	750-850
Saturated Fat (% of total calories)	N/A	<10	<10	<10
Sodium Target 1 (mg) (through SY 2023-24)	N/A	<1,230	<1,360	<1,420
Sodium Target 2 (mg) (effective July 1, 2024)	N/A	<935	<1,035	<1,080
Trans Fat	N/A	Nutrition label or manufacturer specifications must indicate zero grams of trans fats per serving. (This does not apply to naturally occurring trans fats, present in some meat and dairy products.)		

*Pulses may credit as vegetables OR meat/meat alternate, but they cannot credit as both in the same meal.

**If crediting as a meat/meat alternate, it must be served with at least ¼ oz equivalent of another meat/meat Alternate.

The SBP requires three food components, each with daily and weekly minimums, including:

1. **Fruits** (Vegetables may be offered in place of fruit)
2. **Grains** (Meats/Meat Alternates may be offered in place of Grains)
3. **Fluid Milk**

SBP Meal Pattern Requirements⁶

	PRESCHOOL	GRADES K-5	GRADES 6-8	GRADES 9-12
Food Components	Amount of Food per Week (minimum per day)			
Fruits (cups)	2 ½ (1/2)	5 (1)	5 (1)	5 (1)
Vegetables (cups)	May count toward Fruits requirement.	May credit toward fruit requirement. ¹		
Grains (oz. eq., unless otherwise listed)	1 ¼ slices/servings (1/2 slice/serving) or 1 ¼ cup (3/4 cup)	7-10 (1)	8-10 (1)	9-10 (1)
Meats/Meat Alternatives (oz. eq.)	May substitute for Grains up to 3 times per week	May credit toward Grains requirement if at least 1 oz. eq. of Grains is offered.		
Fluid Milk (cups)	3 ¾ (3/4)	5 (1)	5 (1)	5 (1)
Other Specifications: Daily Amount Based on the Average for a 5-Day Week				
Min-Max Calories (kcal)	N/A	350-500	400-550	450-600
Saturated Fat (% of total calories)	N/A	<10	<10	<10
Other Specifications: Daily Amount Based on the Average for a 5-Day Week				
Sodium Target 1 (mg) (through SY 2023-24)	N/A	<540	<600	<640
Sodium Target 2 (mg) (effective July 1, 2024)	N/A	<485	<535	<570
<i>Trans</i> Fat	N/A	Nutrition label or manufacturer specifications must indicate zero grams of <i>trans</i> fats per serving. (This does not apply to naturally occurring <i>trans</i> fats, present in some meat and dairy products.)		

Vegetables are not required in the SBP, but schools may choose to offer vegetables in place of fruits. To offer starchy vegetables in place of fruits, at least 2 cups of red/orange, dark green, legumes, or “other” vegetable subgroups must also be offered on a menu within the week.

Effective February 15, 2019, through June 30, 2021, Federal funds may not be used to enforce this provision. This means that, through June 30, 2021, schools may offer any vegetable in place of fruits at breakfast, including potatoes and other starchy vegetables, without including vegetables from other subgroups in the weekly menus (Further Consolidated Appropriations Act, 2020, Section 749).



REIMBURSEMENT MODEL

How can children qualify for free or reduced-price school meals?^{1,2,8}

There are many routes to eligibility for free or reduced-price school meals. A child may be considered eligible for free or reduced-price school meals based on household income and family size. Children in households with incomes at or below 130 percent of the Federal poverty level are eligible for free meals. Children in households with incomes between 130 to 185 percent of the federal poverty level are eligible for reduced-price school meals and can be charged no more than 30 cents for breakfast and 40 cents for lunch.

Children can also qualify based on their status as homeless, migrant, runaway, or foster child. Some children may be considered “categorically eligible” for free or reduced-price school meals if they are already participating in a Federal Assistance Program, such as the Supplemental Nutrition Assistance Program (SNAP). Children enrolled in a federally funded Head Start Program, or a comparable Statefunded pre-kindergarten program, are also categorically eligible for free meals. Schools and school districts in low-income areas may participate in the Community Eligibility Provision (CEP) which is a non-pricing meal service option. This program allows the nation’s highest poverty schools and districts to serve breakfast and lunch at no cost to all enrolled students without collecting household applications.

How can participating schools receive reimbursement for school meals?⁹

School food authorities receive reimbursement for school meals based on student’s free, reduced price, or paid eligibility status. Schools that serve at least 40 percent of children free or reduced-price lunch are considered “severe need” schools and are eligible for a higher reimbursement rate. If school food authorities are certified to comply with the meal pattern required by the Program, then they receive an extra 7 cents for each meal served.

For current (July 1, 2020 - June 30, 2021)¹ lunch reimbursement rates, please see the chart below:

School Breakfast Program: Reimbursement Rates²

	NON-SEVERE NEED	SEVERE NEED ³	PRICE OF MEALS TO CHILDREN
Free	\$1.89	\$2.26	\$0
Reduced Price	\$1.59	\$1.96	\$0.30 (maximum school can charge)
Paid	\$0.32	\$0.32	Varies ⁴

National School Lunch Program: Reimbursement Rate^{2,5}

	LESS THAN 60%	LESS THAN 60% + 7 CENTS	60% OR MORE ⁶	60% OR MORE + 7 CENTS ⁷	PRICE OF MEALS TO CHILDREN
Free	\$3.51	\$3.58	\$3.53	\$3.60	\$0
Reduced Price	\$3.11	\$3.18	\$3.13	\$3.20	\$0.40 (maximum school can charge)
Paid	\$0.33	\$0.40	\$0.35	\$0.42	Varies ⁴

1. Federal Register, Vol. 85, No. 41, 07/22/20, pp. 44268-44269 [Adjusted annually based on the Consumer Price Index.]
2. These reimbursement rates apply to the 48 contiguous United States, the District of Columbia, Guam, and the Territories. Alaska and Hawaii receive higher rates.
3. Schools where at least 40 percent of the lunches served during the second preceding school year were free or reduced-price qualify for extra “severe need” school breakfast reimbursements.
4. According to the School Nutrition Association, the national average price for school breakfast is \$1.46 for elementary schools, \$1.53 for middle schools, and \$1.55 for high schools.
5. These reimbursement rates do not include the value of commodities for the period 7/1/20 through 6/30/21, which institutions receive as additional assistance for each lunch served. Federal Register, Vol. 85, No. 141, 7/22/20, pp. 44273.
6. Applies to schools where 60 percent or more lunches served during the second preceding school year were free or reduced price.
7. The 7 cents are available to schools that are certified to meet the updated meal pattern requirements beginning on October 1, 2012. This is the first year the Performance-based Reimbursement based on inflation has increased since it was created in 2012 (It increased from 6 cents to 7 cents).

What types of USDA foods do participating schools receive?^{1,2}

Not only do schools receive cash reimbursements, but they also receive a variety of USDA Foods. Each state selects USDA Foods for their school from a list of foods known as the USDA Foods Available List. The variety of USDA Foods offered to schools varies based on available quantities and market prices. Schools may even receive bonus USDA Foods if there is a surplus of food. Each year the USDA Foods Available List is updated. The USDA Foods Available list can be accessed [here](#).

USDA Foods Available List for School Year 2022 for Schools and Institutions December 2020

USDA Food Descriptions - LEGUMES	WBSCM#	Pack Size	Subgroup
Beans, Baby Lima, Low-sodium, Canned	100371	6/#10 can	LG
Beans, Black, Low-sodium, Canned	100359	6/#10 can	LG
Beans, Black-eyed Pea, Low-sodium, Canned	100368	6/#10 can	LG
Beans, Garbanzo, Low-sodium, Canned (K)	100360	6/#10 can	LG
Beans, Great Northern, Low-sodium, Canned	100373	6/#10 can	LG
Beans, Kidney, Dark Red, Low-sodium, Canned	100370	6/#10 can	LG
Beans, Pink, Low-sodium, Canned	100369	6/#10 can	LG
Beans, Pinto, Dry	100382	12/2 lb bag	LG
Beans, Pinto, Low-sodium, Canned	100365	6/#10 can	LG
Beans, Pinto, Dry	110381	2000 lb totes	LG
Beans, Refried, Low-sodium, Canned	100362	6/#10 can	LG
Beans, Small Red, Low-sodium, Canned	100366	6/#10 can	LG
Beans, Vegetarian, Low-sodium, Canned	100364	6/#10 can	LG



Brief Overview of Pulses In School Foodservice

Pulses and pulse-based products can be served in a variety of federal child nutrition programs, including the School Breakfast Program and the National School Lunch Program. As part of pilot programs, the USA Dry Pea & Lentil Council and the American Pulse Association (“USA Pulses”) has worked with members to introduce pulse-based products into school districts to capture feedback from school foodservice directors and students. The organizations have also partnered with school foodservice directors and school food social media influencers to introduce pulses to students and to promote pulses and pulse-based products through USA Pulses social media channels, webinars and trade publications. Recipes and resources developed for school foodservice operators are promoted frequently and are available at usapulses.org/schools.

The USADPLC and APA communicates and markets pulses and pulse-based products in a variety of ways. We are an active member of the Culinary Institute of America’s Healthy Kids Collaborative (HKC) where we connect with school foodservice operators to serve pulses and pulse-based products in school districts nationwide. We participate in the HKC workgroups as well as meetings and annual conferences to share about pulses. We also communicate with school foodservice operators at conferences and meetings, such as the School Nutrition Association’s Annual National Conference (ANC), the Child Nutrition Conference and through social media channels and an e-newsletter.



Pulses Crediting In School Foodservice^{10,11}

To determine how a pulse or pulse-based product credits in child nutrition programs, first refer to the [USDA Food Buying Guide](#).

Pulses can credit either in the “beans and peas” sub-category of vegetables or in the meat/meat alternate category in the National School Lunch Program. A school may offer two distinct servings of pulses in one meal, if they are contained in two separate dishes. For example, pulses may be offered as part of a salad (vegetables component) and as part of chili/bean soup (meat/meat alternate component). Dry/mature beans and peas may be offered either as a meat alternate or as a vegetable, but not as both in the same meal. If serving a pulse flour crediting as a meat/meat alternate, it must be served with at least ¼ oz equivalent of another meat/meat alternate.

The School Breakfast Program guidelines now allow vegetables like chickpeas, beans, dry peas, and lentils, to credit towards the fruit requirement at breakfast.

NATIONAL SCHOOL LUNCH PROGRAM

Pulses credit in the Meat/Meat Alternate category or the Vegetable category, in the beans and peas subgroup. The use of dry or canned beans, dry peas, lentils, chickpeas, hummus, and products that contain these, can help school food authorities meet National School Lunch Program guidelines.



VEGETABLES

Grades K-12: minimum of 1/2 cup beans/peas weekly with a minimum serving size of 1/8 cup.

For example, a school might serve:

- 1/8 cup Monday
- 1/4 cup Wednesday
- 1/8 cup Friday

1/2 CUP
TOTAL

Vegetable Smoothies:

- Chickpeas, beans, lentils, and split peas may credit toward the vegetable meal pattern requirement as juice when served in a smoothie.
- The total volume of pureed fruit or vegetable included in a smoothie must be counted as juice toward the daily and weekly fruit requirements.
- Program operators must limit the amount of juice offered to children to no more than half (50%) of the weekly fruit or vegetable offerings in the school meal programs.
- Volume is measured after pureed—for example, program operators may determine the volume of chickpea puree obtained from one cup of whole chickpeas by separately pureeing the chickpeas and recording the resulting amount of puree.
- Commercially prepared smoothies may only credit toward the fruit or vegetable components.
- Protein powders and herbal supplements are not creditable for Child Nutrition Programs.

Pulse Pasta:

- Pasta made with 100% vegetable flour, such as chickpea flour or red lentil flour, may credit towards the vegetable or meat/meat alternate category.
- 1/2 cup cooked pasta (made with 100% vegetable flours) = 1/2 cup vegetables (beans/peas subgroup).
- Pasta/noodles made with 100% vegetable flour, such as chickpea flour or red lentil flour, may credit towards the vegetable component based on volume served. For pasta/noodles made with less than 100% bean/pea flour, document meal pattern contribution with a CN label or a Product Formulation Statement.
 - 1/2 cup cooked pasta (made with 100% vegetable flours) = 1/2 cup vegetables
- Bean flour is included in the USDA Food Buying Guide and may credit towards the vegetable or meat/meat alternate category.



MEAT/MEAT ALTERNATE

Beans and peas (legumes) cooked dry beans and peas may be used to meet all or part of the meat/meat alternates component.

1/2 CUP
of beans, chickpeas,
lentils, dry peas
=
2 OZ.
meat/meat alternate

1/4 CUP
of beans, chickpeas,
lentils, dry peas
=
1 OZ.
meat/meat alternate

Pulse Pasta:

- Pasta made with pulse flours will credit towards the meat/meat alternate subgroup when served with at least 1/4 oz equivalent of another meat/meat alternate.
- Enriched macaroni with fortified protein must be approved by USDA Food & Nutrition Services and must meet nutrient specifications:
 - Protein content is not less than 20% by weight
 - 95% that of casein

SCHOOL BREAKFAST PROGRAM

Pulses even credit at breakfast! Pulses may credit in the fruit category. Updates to the School Breakfast Program Guidelines now allow vegetables, like chickpeas, beans, dry peas, and lentils, to credit towards the fruit requirement at breakfast.

School food authorities may substitute **1 oz. eq. of the meat/meat alternates component (including legumes) for 1 oz. eq. of the grain's component**, after offering the minimum daily 1 oz. eq. of grains.

CHILD AND ADULT CARE FOOD PROGRAM (CACFP)

Pulses may credit as a vegetable or meat alternate, but a serving of pulses cannot be credited as both a vegetable and a meat alternate in the same meal. If two different cooked, dry beans or peas are offered at a meal, the program operator may choose to credit one as a meat alternate and the other as a vegetable. Foods are creditable in the CACFP based on nutrient content, function of the food in a meal, and CACFP Meal Pattern requirements.

Pulses can make up part of a reimbursable meal for both children and adults at breakfast, lunch, supper, and as a snack. At breakfast, meat/meat alternate may be used up to 3 times per week in place of the grain requirement. One-ounce meat/meat alternate (or ¼ cup pulses) may be used in place of 1 oz. of grains. Pulses may credit as a vegetable or meat/meat alternate at lunch, supper, and snack.



1/4 CUP
cooked dry beans or peas
=
1 OZ.
meat alternate



1/4 CUP
cooked dry beans or peas
=
1/4 CUP
vegetables





Crediting Documentation

USDA FOOD BUYING GUIDE

The Food Buying Guide for Child Nutrition Programs, commonly referred to as the Food Buying Guide (FBG), is your primary resource to determine if a food is creditable. The FBG assists Child Nutrition Program operators and food manufacturers with determining the contribution that each food makes toward meal pattern requirements. The FBG is an extensive database, containing more than 2,100 food items such as fruits, vegetables, grains, and meats/meat alternates.

The Food Buying Guide is available as an [Interactive Web-based Tool](#), [Mobile App](#), and [downloadable PDF](#).

WHAT IS A PRODUCT FORMULATION STATEMENT?¹²

A Product Formulation Statement (PFS) is a signed certified document that provides a way for a manufacturer to demonstrate how a product may contribute to the meal pattern requirements of the United States Department of Agriculture's (USDA), Child Nutrition (CN) programs. A PFS is typically provided for processed products that do not have a Child Nutrition (CN) Label. Program operators may request a signed manufacturer's PFS when purchasing a processed product without a CN Label. USDA does not approve a manufacturer's PFS. Program operators are ultimately responsible for ensuring menu items meet meal pattern requirements; therefore, program operators should review and verify the crediting statement on a manufacturer's PFS before purchasing the product. More information from USDA about the PFS process and examples can be found here: <https://www.fns.usda.gov/cn/labeling/food-manufacturersindustry>.

Requirements for Product Formulation Statements (PFS)¹³

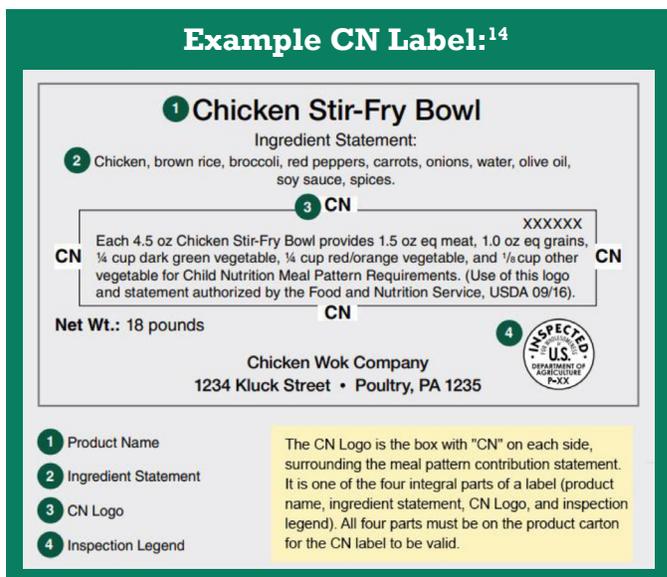
1. Creditable ingredients listed in the PFS must match a description in the USDA Food Buying Guide for School Meal Programs available at: <https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>.
2. PFS must be on signed letterhead that demonstrates how the processed product contributes to the meal pattern requirements.
3. Templates for documenting the meat/meat alternates (M/MA), grains, fruits, and vegetables components are available on the FNS website at: <http://www.fns.usda.gov/cnlabeling/food-manufacturersindustry>.
4. PFS may be modified for various products contributing to more than one meal component. For example, a cheese pizza may credit towards the M/MA, grains and the red/orange vegetable subgroup. The crediting information for each meal component may be documented on the same PFS.
5. PFS should verify that the product's contribution to the meal pattern requirements is not greater than the serving size of the product (i.e., a 2.15 ounce beef patty may not credit more than 2.00 ounce M/MA).
6. PFS should assure that the creditable components are in the finished product.

The Checklist for Evaluating a Manufacturer's PFS may also be viewed as a [flow chart](#).

WHAT IS A CHILD NUTRITION (CN) LABEL?¹³

The U.S. Department of Agriculture (USDA), Child Nutrition (CN) Labeling Program provides food manufacturers the option to include a standardized food crediting statement on their product label, known as the CN label. The CN labels provide a way for food manufacturers to communicate with school program operators about how their products may contribute to the meal pattern requirements for meals served under the USDA's CN programs.

If food manufacturers choose to provide a CN label to their product, it must be authorized by USDA prior to use. Additionally, manufacturers must have quality control procedures and inspection oversight that meet the FNS requirements. It is the manufacturer's responsibility to ensure that the product label meets all other federal labeling requirements. Products produced in accordance with the CN Labeling Program are generally purchased by foodservice providers for FNS meal programs. More information about CN labeling for food manufacturers can be found here: <https://www.fns.usda.gov/cn/labeling/food-manufacturersindustry>.



Meat Alternative Equivalents on Child Nutrition (CN) Labels:¹⁵

Any of the following can contribute to the meat alternate component of the Child Nutrition meal pattern requirements: cheese, eggs, **cooked dry beans or peas**, peanut butter, cottage cheese, cheddar cheese, alternate protein product, or any combination of these. The unit of measure for the 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 alternate.

Calculating the Contribution of Peas, Chickpeas, or Lentils, Dry

NOTE: For cooked products, determine the ounce raw serving by dividing the oz cooked serving by the manufacturer's cooking yield.

1. Multiply the raw serving size (in ounces) by the percent dry pulses in the raw formula:
oz raw serving X % dry beans = oz dry beans/serving
2. Convert the ounce dry pulses/serving to pound dry pulses/serving by dividing by 16 ounces/pound:
oz dry pulses/serving ÷ 16 oz/lb = lb dry pulses/serving
3. Multiply the pound dry pulses per serving by the number of 1/4-cup servings per purchase unit (for example, one pound as purchased = 21.0 1/4-cup servings cooked dried pinto beans - FBG yield).
One-fourth cup cooked dry pulses = 1.00 oz equivalent meat alternate:
lb dry beans/ x 1/4 cup servings/ = 1/4 cup serving cooked dry pulses/serving lb serving or oz equivalent meat alternate/serving

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

Calculating the Contribution of Dry Beans, Peas, Chickpeas, and Lentils, Canned

1. Multiply the raw serving size (in ounces) by the percent canned dry pulses in the raw formula:
oz raw serving size X % canned pulses = oz canned pulses/serving
2. Divide the ounce canned pulses/serving by the numbers of ounces in the size can you are using (for example, a No. 10 can of pinto beans = 108 oz):
oz canned pulses/serving ÷ oz/can = the portion of pulses in the can used
3. Multiply the portion of pulses in the can used by the number of 1/4-cup servings per purchase unit (for example, No. 10 can pinto beans provides 37.2 1/4-cup servings heated, drained pinto beans - FBG yield):
lb dry pulses/ x 1/4 cup servings/ = 1/4 cup serving cooked dry pulses/ serving lb serving or oz eq mt alternate/serving

WHAT IS THE CHILD NUTRITION (CN) LABEL VERIFICATION REPORT?

The CN Label Verification Report is a list of products that currently contain valid CN labels with a CN logo and crediting statement created by the USDA. It lists the CN label number, a brief product description, the serving size and how that serving size credits, and the company information.

USDA United States Department of Agriculture		4/16/2021				
Child Nutrition(CN) Label Verification Report						
CN #	Product Description	Serving Size	CN Crediting	Expiration	Est #	Company
024815	FARMLAND SILVER MEDAL BRAND HOT DOGS	Each 2.00 oz. Hot Dog	2.00 oz. Equivalent Meat	06/17/24	717W	SMITHFIELD FARMLAND CORP.
024860	FARMLAND GOLD MEDAL HOT DOG	Each 2.00 oz. Hot Dog	2.00 oz. Equivalent Meat	06/17/24	717W	SMITHFIELD FARMLAND CORP.

To learn more about how to apply for a CN label, view the USDA Program Manuals for Labeling Food Products listed below. These Program Manuals provide step by step instructions on how to apply for and obtain approval of a label with a CN statement.

1. [Labeling for Meat and Poultry Products](#)
2. [Labeling for Non-meat Products](#)
3. [Labeling for Seafood Products](#)



Cooking Method Information

SCHOOL CAFETERIA MODELS

The most common model for serving school meals is a traditional school cafeteria, one that prepares, cooks, and serves meals to students on site, but there are other models emerging as well. Each model has unique considerations for how the food is prepared, cooked, held, and served.

Central Kitchen

Some school districts operate central kitchens where meals are prepared in one central facility and then delivered to the individual schools. It can consolidate processing and cooking for school meals which may increase efficiencies. Once delivered to the schools, the meals are portioned and heated ahead of meal service and then served to students. This model may be adopted by districts that have schools without kitchens or by districts that want to have more oversight of meal preparation for quality control standards. They may also be more cost effective.

Satellite Kitchen

Satellite kitchens are similar to central kitchens, but there are typically multiple satellite locations vs. one central kitchen location per district. At satellite kitchens, meals are prepared and then are delivered to the schools where they are portioned and heated ahead of meal service. This model may be used if a central kitchen model is not feasible.

WHAT IS BATCH COOKING?¹⁶

Batch cooking, sometimes called cooking to the line or just-in-time preparation, means preparing food in small batches as needed throughout the serving period in order to preserve food quality and prevent waste due to leftovers. This preparation technique avoids holding any food for a long time.

Why is Batch Cooking important in school nutrition?¹⁷

In school food service batch cooking is generally considered best practice because it helps preserve the quality and nutritional content of food and it also saves money by reducing food waste. For example, if an item is not as popular as nutrition staff thought it would be, they can scale back the amount they planned to prepare and not waste food. If a food item is taken more than they planned, they can prepare additional batches to meet the demand.

Choosing to batch cook can help preserve the nutrient content of the food by holding in the vitamins and minerals in the food. Overcooking and holding vegetables and fruits for extended periods of time will cause nutrients such as Vitamin C and the B vitamins to be destroyed or greatly reduced. Overcooking and holding vegetables for too long in heat will also affect the taste and texture, increasing bitter flavors and mushy textures. Almost any type of food can be batch cooked.

What foods can be Batch Cooked?

Almost any type of food can be batch cooked, but it is important to use quality as an indicator when deciding which foods should be batch cooked. Quality refers to characteristics that an individual food possesses that make it desirable. How foods are cooked and the temperatures that they are held at impacts the quality.

Considerations for Cooking Pulses or Pulse-Based Products

When cooking pulses or pulse-based products in school foodservice, there are several considerations that will be helpful for school foodservice directors and operators to know:

- 1. What quantity to use (cups, oz., etc.) and what the yield is (50 servings)?** Note: when creating cooking method guidance, it is best to provide instructions for a certain yield or quantity that can then be multiplied. For example, 10 cups yields 50 half-cup servings cooked.
- 2. How to cook the product and what heating mechanism to use** – stovetop, oven (conventional or convection), etc.?
- 3. How long to cook the product?**
- 4. How to hold the product?** This is one of the most important considerations since there are typically multiple meal services over several hours.
- 5. How to reheat the product?**

You may also need to consider what grades will be served the products and how do those taste preferences vary and cultural preferences. There are multiple serving models in school districts as well and cooking considerations may change based on the type of meal service:

- **Traditional service:** The above considerations are most relevant to a traditional meal service of students coming through the serving line, receiving their meal, and eating it in the cafeteria.
- **Grab and Go:** If a meal that contains pulses is going to be packaged for grab-and-go additional information may be needed such as holding and transport best practices.
- **Remote Feeding/Home Delivery:** If a meal that contains pulses is going to be delivered to a child's home or other location, additional information may be needed as well such as holding and transport best practices as well as reheating or chilling instructions.



Connecting With School Foodservice Directors

When connecting with school foodservice directors or operators, there is information that will be helpful to provide such as a PFS or CN label showing how the product credits, cooking methods and holding instructions, suggestions for a recipe or meal using the product, and any feedback you have from either school foodservice directors or students on the product or recipe that includes the product.

Where to get the product?

School foodservice operators can order food from different sources, but there are two main ones:

- **USDA Foods:** School districts and independent schools that participate in the SBP and the NSLP receive a variety of USDA Foods. Each state selects USDA Foods for their school from a list of foods, the “Commodity Supplemental Food Program,” provided through the NSLP. The variety of USDA Foods offered to schools varies based on available quantities and market prices. Schools may even receive bonus USDA Foods if there is a surplus of food. This list is updated annually, and some pulses are included. The USDA Foods available list for the 2021-2022 school year can be found here: [USDA Foods Available List for SY 2022 | USDA-FNS](#)
- **Foodservice Distributors:** School districts purchase foods through distributors (US Foods, Sysco, etc.) as well. The ordering and delivery frequency varies based on volume and storage capacity. Foods purchased and delivered through distributors are incorporated into child nutrition programs like USDA Foods are.

School Nutrition Cooperatives

Because school districts rely on federal reimbursement rates to operate their meal service programs, they must be very budget conscious. One way to reduce costs of foods and beverages that schools order is to be a part of a “cooperative.” A cooperative is usually regionally based and includes multiple school districts. Participating in a cooperative gives them more buying power to negotiate the price of specific products or types of products, such as milk. This has been a successful strategy for both school districts and food manufactures. Often, manufacturers need a certain quantity to sell to a school district or be available through a distributor. If it is a small district, they can partner with other school districts within the cooperative to meet that minimum ordering quantity from the manufacturer or distributor.

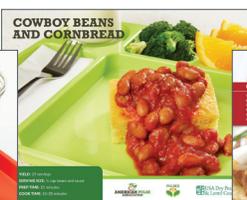
RECIPES FEATURING PULSES

Listed below are school nutrition recipes featuring pulses:

1. Farmer’s Meatball Grinders
2. Southwest Sloppy Joes
3. Rockin’ Ranch Hummus
4. “Peas on Earth” Taco Salad
5. Orange Siracha Protein Bowl
6. Cowboy Beans and Cornbread
7. Nacho Average Lentil Taco
8. Blazin Buffalo Chickpea Salad
9. Beef Lentil Crumble
10. Three Bean Salad
11. Tuscan White Bean Salad
12. Taco Pie with Beans
13. Beef and Bean Tamale Pie
14. Sweet Potato and Black Bean Stew
15. Purple Power Bean Wrap
16. Fiesta Mexican Lasagna
17. Overnight Refried Beans
18. Layered Taco Cup
19. Raspberry Chipotle Veggie Taco
20. Hoppin’ Johns
21. Chicken or Turkey Chop Suey
22. Crazy Curry Bowl
23. Volcanic Meatloaf
24. Umami Burger
25. Sweet Sloppy Joes with Lentils
26. Snickerdoodle Hummus

Listed below are CACFP recipes featuring pulses:

1. Fiesta Wrap
2. Lentils of the Southwest
3. “Eagle” Taco Pizza
4. Fiesta Mexican Lasagna
5. Purple Power Bean Wrap
6. Spanish Chickpea Stew
7. Bean Burrito Bowl
8. Cuban Black Beans and Rice
9. Hoppin’ Johns
10. Vegetable Chili
11. Baked Beans
12. Orzo Pasta with Green Peas
13. Marinated Black Bean Salad
14. White Bean Soup
15. Vegetable Minestrone Soup
16. Chickpeas and Tomatoes
17. Greens and Beans Soup
18. Tropical Bean Salad
19. Quick Quesadilla
20. Mediterranean Tuna Salad
21. Southern Black-Eyed Peas
22. Great Garden Soup
23. Sweet Potato and Black Bean Stew
24. Smokin’ Powerhouse Chili
25. Tuscan Smoked Turkey and Bean Soup
26. Harvest Stew



GRAB & GO OPTIONS FEATURING PULSES *Viewing online? Click recipe names for links!*

1. On the Go Nachos

Make your own on the go nachos using this delicious black bean dip. Assemble the container with whole grain tortilla chips, shredded cheese, salsa, carrot sticks and a fresh apple! A flavorful twist on your traditional hummus grab and go!



2. Hummus and Veggie Cruncher Lunch

This easy to assemble lunch pack includes all the kids favorites with string cheese, hummus, grapes, vegetables, and a flatbread. Kids will enjoy the variety of foods!



3. Shaker Salad – Southwest Black Bean

A great grab and go lunch! This colorful Southwest themed salad is full of vegetables and flavored with a light dressing. A great item to send home on a twice weekly pick up/drop off food schedule. You can cook a large batch of rice ahead of time. Rice can be cooled properly and then frozen for use in future menu items.



4. Rockin' Roasted Chickpeas

A crispy, crunchy snack that is perfectly seasoned with rosemary and cayenne pepper. These roasted chickpeas are healthy and delightful!



5. Purple Power Bean Wrap

Rolled up in a whole-wheat tortilla are avocado, white beans, lettuce, and shredded purple cabbage that pack a powerful purple punch in this delicious vegetarian wrap.



6. Seasoned Crunchy Roasted Lentils

This recipe is a quick, easy way to make lentils taste amazing! This dish allows for some creativity as you are able to pick your own seasoning!



7. Classic Lentil or Garbanzo Bean Hummus

Add a delicious twist to the classic hummus recipe by using lentils! This recipe allows the option to use garbanzo beans or lentils so you can switch it up when you want something new.





PILOTING PRODUCTS & TASTE TESTING WITH STUDENTS

Taste testing increases participation. Schools can offer samples at the point of service or have spoons available for taste testing if students seem hesitant to try a new dish. This is a great way for schools to try out new products as well.

Strategies for Taste Testing with Students for School Foodservice Operators¹⁸

- **Complement nutrition education** lessons with a taste test
- Do a taste test as **part of a science or language arts lesson**. Ask students to describe the size, shape, color, smell and texture of the food in a journal, and discuss afterward.
- For a **taste test in the cafeteria**, consider these set-up options:
 - **Place sampling cups on the line** so students can grab a sample as they get their lunch.
 - **Set up a taste testing table** where students can stop by after they finish their lunch.
 - **Make it mobile!** Load up an extra cart with samples and take it from table to table in the lunchroom.
 - **Set up a table outside the cafeteria** so students can take a sample on their way into or out of the lunchroom.
- Host a taste test at **back-to-school events, math or literacy nights, or parent-teacher nights**. Use it as an opportunity to inform parents about your nutrition education efforts.
- Does your school have a garden? **Use freshly harvested produce** in your taste test.
- Help students experience new foods through **food art**. Taste test the foods used to create food art masterpieces.



Appendices

APPENDIX A. RECIPES

Through our partnerships with school districts and school foodservice professionals, we have developed recipes that can be implemented in schools. Those recipes can be accessed through our website at: <https://www.usapulses.org/schools/school-nutrition>

APPENDIX B. TIPS FOR SCHOOL NUTRITION PROFESSIONALS

Providing resources for the cafeteria as well as crediting information is imperative to successfully serving pulses in schools. These resources can be accessed through our website at: <https://www.usapulses.org/schools/tips-schools>

APPENDIX C. PULSES IN THE CLASSROOM: EDUCATIONAL MATERIALS/ RESOURCES

Marketing pulses can go beyond the cafeteria which is why we have created educational materials and resources that educators can use to teach students about pulses. These resources can be accessed through our website at: <https://www.usapulses.org/schools/in-the-classroom>

REFERENCES:

1. United States Department of Agriculture. National School Lunch Program Fact Sheet. <https://www.fns.usda.gov/nslp/nslp-fact-sheet>. Published March 20, 2019. Accessed January 1, 2021.
2. United States Department of Agriculture. School Breakfast Program Fact Sheet. <https://www.fns.usda.gov/sbp/sbp-fact-sheet>. Published November 11, 2017. Accessed January 1, 2021.
3. No Kid Hungry. Frequently Asked Questions by Educators about School Breakfast. https://state.nokidhungry.org/georgia/karmic_resources/educators-faqs-about-breakfast-after-the-bell. Published January 1, 2019. Accessed January 2, 2021.
4. United States Department of Agriculture. Meal Requirements under the National School Lunch Program and School Breakfast Program: Questions and Answers for Program Operators. <https://fns-prod.azureedge.net/sites/default/files/resource-files/SP38-2019os.pdf#page=2>. Published September 23, 2019. Accessed January 2, 2021.
5. School Nutrition Association. Meeting the NSLP New Meal Pattern. https://schoolnutrition.org/uploadedFiles/Resources_and_Research/Operations/We%20Can%20Do%20This-Advice%20and%20Resources%20for%20Meeting%20the%20New%20Meal%20Pattern.pdf. Published December 18, 2013. Accessed January 3, 2021.
6. United States Department of Agriculture. School Breakfast Program Meal Pattern Chart. <https://www.fns.usda.gov/sbp/school-breakfast-program-meal-pattern-chart>. Published February 11, 2020. Accessed January 3, 2021.
7. United States Department of Agriculture. National School Lunch Program Meal Pattern Chart. <https://www.fns.usda.gov/nslp/national-school-lunch-program-meal-pattern-chart>. Published September 9, 2019. Accessed January 4, 2021.
8. United States Department of Agriculture. Community Eligibility Provision. <https://www.fns.usda.gov/cn/community-eligibility-provision>. Updated April 9, 2019. Accessed January 4, 2021.
9. United States Department of Agriculture. Rates of Reimbursement. <https://www.fns.usda.gov/cn/rates-reimbursement>. Published July 22, 2020. Accessed January 4, 2021.
10. USA Pulses. Pulses in Schools. <https://www.usapulses.org/schools>. Accessed January 15, 2021.
11. USA Pulses. Tips for School Nutrition Pros. <https://www.usapulses.org/schools/tips-schools>. Accessed January 15, 2021.
12. United States Department of Agriculture. Tips for Evaluating a Manufacturer's Product Formulation Statement. <https://fns-prod.azureedge.net/sites/default/files/resource-files/manufacturerPFStipsheet.pdf>. Published January 1, 2016. Accessed January 16, 2021.
13. United States Department of Agriculture. Tip Sheet for Accepting Processed Product Documentation. https://fns-prod.azureedge.net/sites/default/files/resource-files/cnl_tipsheet-processedproduct.pdf. Published May 1, 2016. Accessed January 16, 2021.
14. Connecticut State Department of Education. Using CN Labels in the Child and Adult Care Food Program (CACFP). December 2020. <https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/CNlabelCACFP.pdf>. Accessed January 16, 2021.
15. United States Department of Agriculture. Child Nutrition Labeling for Nonmeat Products. https://fns-prod.azureedge.net/sites/default/files/resource-files/CN_Labeling.pdf. Published December 1, 2004. Accessed January 15, 2021.
16. National Food Service Management Institute. Short Lessons for School Nutrition Assistants: Determining When to Batch Cook. Institute of Child Nutrition. <https://theicn.org/school-nutrition-programs/>. Published March 2, 2018. Accessed January 17, 2020.
17. National Farm to School Network. Child Nutrition Culinary Skills. http://www.farmtoschool.org/Resources/Child_Nutrition_1_Culinary_Skills.pdf. Published April 30, 2014. Accessed January 16, 2021.
18. Action for Healthy Kids. Taste Test Guide. <https://www.actionforhealthykids.org/wp-content/uploads/2019/05/Taste-Test-Guide.pdf>. Published January 1, 2019. Accessed January 17, 2021.

