



Quality Food for Quality Meals

Buying Fruits and Vegetables





www.fns.usda.gov/tn

Source documents for *Quality Food for Quality Meals* include:

- *Choice Plus*, 1996, USDA Food and Consumer Service, Publication Number FCS-297
- *Fresh-2-You The Florida Way*, Florida Departments of Education and Agriculture
- *Fresh Produce Manual*, 2002, Produce Marketing Association
- *Foodservice Produce Guide*, 2001, Produce for Better Health Foundation
- *First Choice*, U.S. Department of Agriculture with the National Food Service Management Institute, 2002, 2nd Edition,
- Post harvest Web site, University of California at Davis, <http://postharvest.usdavis.edu>
- National Restaurant Association Web site, www.restaurant.org

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Quality Food for Quality Meals

Buying for Quality	4
What to Buy—and How Much	4
Developing Quality Standards	5
Using Sample Food Product Sheets	6
Product Descriptions	6
Buying Fresh Produce	8
Grading and Standards	8
Purchasing Options	9
Ideal Storage	12
Using Fresh-Cut Produce	15
Advantages of Fresh-Cut	15
Cost Comparison	15
Food Safety Issues	16
Shelf Life	17
Buying Processed Fruits and Vegetables	18
Grades and Grade Standards	18
Product Specifications	20
Food Safety	21
Irradiation	21
Screening Vendors	22
Storing Foods	25
Using Foods	25
Fruit Product Sheets	27
Vegetable Product Sheets	65
Appendixes	113
Appendix 1: Laws, Standards, and Regulations	115
Appendix 2: Nutrition Label	116
Appendix 3: Ideal Storage Temperatures	117
Appendix 4: Review the Potential Distributor Vendor	118

Quality Food for Quality Meals

You are a school foodservice professional.

This means you want to serve nutritious meals, satisfy your customers, and keep them coming back for more. You also want to give them opportunities to learn how to eat for good health.



This includes introducing them to new foods and encouraging them to eat more fruits and vegetables. To start the process, you need to purchase quality food—and then keep it safe from the time you receive it until you serve it.

This booklet provides the information you need to do just that.



Buying for Quality

Whether you purchase food directly or your district does the buying, you want the highest quality products at the best price. Following these steps will help you reach that goal:

- Plan menus
- Determine products necessary to prepare meals from the menus
- Estimate quantities required
- Develop acquisition/critical path plan
- Develop quality standards
- Determine product movement policies
- Document purchasing process
- Analyze market and evaluate vendors
- Determine the purchasing system
- Issue request for prices
- Evaluate responses
- Select vendors
- Place orders
- Receive products
- Store products
- Prepare meals



USDA's *Food Buying Guide* and the *Menu Planner for Healthy School Meals* are two valuable tools that can assist you in the purchasing process. For more detailed purchasing guidance, go to the National Food Service Management Institute's Web site and review *First Choice*—www.nfsmi.org/Information/firstchoice/fcindex.html

What to Buy—and How Much

One of the first steps in the process is to determine what and how much to buy. Your answers to the following questions will help:

- The menu—what will you be serving?
- The recipes—how much of each ingredient will you need?
- Product on hand—what is already on site?
- Product on order—are orders already in place?
- Product yields (use the *Food Buying Guide* at <http://schoolmeals.nal.usda.gov/FBG/buyingguide.html>)—how many servings will each item produce?
- Average meal consumption rate—how much product is usually consumed?
- Volume and type of storage available—how much dry and refrigerated storage can you use for additional product?
- Preparation space and equipment—which space and equipment will be used to prepare product?
- Labor—do you have enough people to do the work?
- Production schedule—are there conflicting demands?



Buying for Quality

Reviewing these factors will help you pinpoint the items and quantity you need. The next step is to determine the quality of product you want.

Developing Quality Standards

Developing quality standards (specifications, descriptions, or identifications) is the most difficult step in the purchasing process. It is also one of the most important, and it can be time consuming. To get the quality you need and want, you have to know how to ask for it. So you must provide a detailed and specific list of the characteristics you want in a food product. Then, when you receive the order, you have to make sure the food meets your descriptions and is in good condition.

One source of help in developing your specifications is USDA's Agricultural Marketing Service (AMS). AMS maintains commercial item descriptions (CIDs) for hundreds of food items. A CID concisely describes the "salient characteristics"—such as the processing, ingredients, odor, flavor, color, texture, and analytical requirements—of each available, acceptable commercial product. To view the current CIDs, go to the AMS Web site at: www.ams.usda.gov/fqa/cids.htm.



Since this booklet focuses on buying high quality fruits and vegetables, here are specifications you may want to use when you order:

- quality of raw products
- maximum/minimum level of ripeness of fresh produce that will be acceptable
- processing methods and packaging materials you prefer
- USDA grade, Department of Commerce standard, or product packed to a USDA Grade
- size and variety of item
- how it should be shipped
- where it should be shipped
- appropriate shipping temperature
- any other specific information to ensure that you receive the highest quality products

You may specify that lettuce be a healthy green color with no loose leaves and no brown leaves. Such specifications can help guarantee that you receive fresh items. You can also specify the type of ripeness desired of certain produce. For example, tomatoes are typically available in six stages of ripeness. Select an appropriate degree of ripeness to avoid spoilage. If you don't plan to use all your tomatoes at once, you might want to specify that a certain amount be riper than others, so they don't all peak simultaneously.



Buying for Quality

In addition, there are a variety of laws and regulations that help ensure food quality and consistency. You'll find information about them in Appendix 1, "Laws, Standards, and Regulations." You can refer to these laws and regulations in your specifications.

Using Sample Food Product Sheets

This booklet contains sample food product sheets for a variety of fruits and vegetables commonly used in school meals. They provide examples of the kind of information to include as quality indicators and how to format information to communicate clearly. They do not present all of the possible combinations of quality indicators.

The sample product sheets are divided into separate sections for fruits and vegetables. They contain information on:

- Forms
- Sizes
- Grades
- Popular varieties
- How packed
- In season
- Purchasing tips
- Receiving
- Storing
- Standard of identity reference
- Grade standard reference
- Sample description

The "Nutrition Facts" panel on food labels for processed products can also be very useful. If you compare the labels on a variety of products, you will be able to decide which product offers the best value in quality and cost. In Appendix 2, "Nutrition Label," you'll find an illustration of a typical food label.

Product Descriptions

As you look through the sample product sheets, you will see that subheadings vary from food to food. This means the information you include in your product descriptions will also vary from food to food. **To get the best results, be as specific as possible.**

Here is an example of a product sheet on fresh apples. It includes some major subheadings you'll find in the fruit section of this guide, such as size, grade, popular varieties, how packed, and when in season. It also includes in italics some questions you might want to ask yourself as you make purchasing decisions, and some possible answers.



Buying for Quality

Look over this example; then compare it to the actual product sheet for “Apples, Fresh.” Find the sample description at the end of the actual product sheet. Notice how it’s written and think about how you would write your own description for apples. Also compare the sample description for “Apples, Fresh” to descriptions for other products. This will help you write product descriptions that will best meet your needs.

Name of Product Apples, Fresh	
<p>Size</p> <p><u>Decision</u></p>	<p><i>Should I use both count and diameter in the description?</i></p> <p>Generally vendors refer to apples by count; so only count size will be included.</p> <p>You specify 113 count.</p>
<p>Grade</p> <p><u>Decision</u></p>	<p>There are two grade standards: “Washington State” and “All Other States.”</p> <p><i>Which grade standard should I use?</i></p> <p>The Purchasing Tip for “Apples, Fresh” states that 75% of apples are grown in Washington State.</p> <p>You specify U.S. Fancy or Washington Fancy grade standard.</p>
<p>Popular Varieties</p> <p><u>Decision</u></p>	<p>Thirteen are listed.</p> <p><i>What do students prefer?</i></p> <p>You find out your students prefer crisp apples served raw.</p> <p>You specify Gala.</p>
<p>How Packed</p> <p><u>Decision</u></p>	<p><i>Do I specify how apples should be packed?</i></p> <p>Since fresh apples are packed only in 40-lb. cases, you don’t have to supply information for this subheading.</p>
<p>In Season</p> <p><u>Decision</u></p>	<p><i>Do I need to specify months of purchase?</i></p> <p>Since apples are available year-round, it is not necessary to specify months of purchase.</p>
<p>Purchasing Tips</p> <p><u>Decision</u></p>	<p><i>Are there any additional considerations I should mention?</i></p> <p>No additional information listed under “Purchasing Tips” on the product sheet is important for this order.</p>

Buying Fresh Produce

The short shelf life of fresh fruits and vegetables presents a special challenge. Careful handling from harvesting to serving is critical to maintaining their quality. To make the best purchasing decisions, you will need to have an understanding of the following concepts:

- **Grading and Standards**
- **Purchasing Options**
- **Ideal Storage**

Grading and Standards

Very few of the fresh fruits and vegetables sold in the United States are actually graded. They are termed “ungraded” or “unclassified.” However, USDA has established “grade standards,” and these can help you make wise purchasing decisions, communicate with vendors, and check for quality when you receive deliveries. By referring to grade standards in your product descriptions, you communicate in very specific terms what you want and what you expect to receive.

Many of the sample descriptions in this reference booklet mention Federal grade standards. Look, for example, at the sample description for fresh plums, which states: “to be packed to U.S. No.1 Grade standard.” This means the



Buying Fresh Produce

purchaser will accept ungraded product but expects it to meet the USDA grade standard defined in Federal regulations. Many schools choose this option to reduce product cost. This option works if you deal with reputable companies.

Most of the grade standards are Federal; however, there are also some State standards. These have been established by the main growing States for certain fruits and vegetables. In most cases, State standards are not defined in the Federal regulations. If a fresh fruit or vegetable is purchased under a State standard, it generally does not carry "U.S." in the name of the grade.

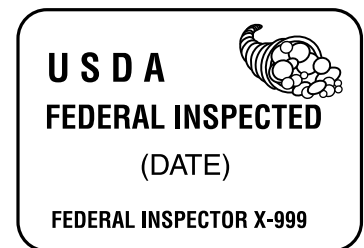
Because of differences in growing conditions, there are different standards for oranges and grapefruit grown in Arizona, California, Florida, and Texas. In addition to specific Federal standards, these states have developed State specific standards. To view the standards, visit www.ams.usda.gov/standards/stanfrfv.htm.

Organic Standards

USDA has put in place a set of national standards that food must meet if it is labeled "organic," whether it is grown in the United States or imported. Organic food differs from conventionally produced food in the way it is grown, handled, and processed. The "USDA ORGANIC" seal tells you that product is at least 95 percent organic. Because of the special growing conditions, these foods may be more costly. The Olympia Washington School District established an organic salad bar by implementing several cost saving changes. These included taking advantage of the latest commodity reimbursement increase; utilizing the Department of Defense purchasing option; eliminating desserts from their menu; and converting from a commercial pizza contract to an in-house production operation. With these changes, the district implemented an organic produce operation with a cost increase of only one-half of one percent of their previous costs. To view a full report of their actions, visit the Team Nutrition Web site at www.fns.usda.gov/tn.

Purchasing Options

When buying fruits and vegetables, you—the purchaser—must consider a number of factors such as price, product selection (fresh, including fresh-cut product, canned, frozen), availability of product, reliability of the seller, delivery service (dry/refrigerated/frozen), delivery schedule, and service charges. Specify that delivery charges be broken out separately in your bids to help you evaluate the true cost of products. The following information covers the variety of purchasing options generally available. In rural areas, schools may have more limited vendor and product selection. The sections on "Farmers Markets" and "Department of Defense (DOD) Purchasing" relate only to purchases of fresh fruits and vegetables.



Buying Fresh Produce

Distributors

Most school food products are purchased through distributors. A distributor is a professional at food purchasing, warehousing, sales, and delivery of a perishable product. Distributors can be classified into the following categories:

- **Full or broad line** means that they carry almost all food, supply, and equipment items necessary to operate a kitchen.
- **Specialty wholesalers** are companies that specialize in a particular product category such as fresh produce.
- **Systems distributors** are companies that deliver products to national restaurant chains. The chains purchase exclusive products for their restaurants, and the systems distributors deliver them. Systems distributors do not maintain inventories or sell product. When a restaurant chain sells, files for bankruptcy, or changes distribution, the systems distributor may lose a significant portion of its business volume and some products may no longer be available. Schools should be aware of special breed distributors as potential vendors.

School/District Purchasing Co-ops

Schools and/or districts may form purchasing cooperatives to increase their buying power, attract more bidders, and receive more competitive prices. Depending on the size of the cooperative and its distribution system, it may be possible to purchase directly from food companies and further reduce costs.

Farmers Markets

Local farmers and farmers markets offer another source of fresh produce for schools. By working with local producers, schools receive products closer to harvest time, and school food purchases directly support the local economy.



To explore this option further, you may want to visit the Community Food Security Coalition Web site at www.foodsecurity.org/farm_to_school.html. Some schools have found that purchasing directly from small farmers results in multiple small invoices and have worked with the farmers market organization to act as a single vendor and consolidate orders. Other issues to consider when ordering from individual farmers are consistency of product quality, handling procedures, and food safety.

Buying Fresh Produce

Department of Defense (DOD) Purchasing

USDA has established a partnership with the DOD, Defense Supply Center Philadelphia (DSCP) Produce Business Unit to provide another purchasing option for schools, school food authorities, and State agencies. Through this partnership, DSCP will buy and distribute fresh fruits and vegetables to schools using the USDA commodity entitlement dollars or the State's Section 4 and Section 11 funds, which support the school meal programs. DSCP Produce Business Unit uses a diverse network of produce suppliers, mostly small businesses, to distribute over 300 produce items to schools at the place and time the schools designate.

Emphasis is placed on using as much local produce from nearby producers and suppliers as possible, pending satisfactory inspection of their facilities. You can work with DSCP to specify local products and it can ensure consistent, wholesome product from a variety of local vendors on a single invoice. You pay a service fee to cover a percentage of DSCP's operational costs. To explore this purchasing option, work with your school food authority to contact the State agency and establish a purchasing account. To learn more about the DSCP operation, visit the School Days News Web site at www.dscp.dla.mil/subs/produce/school.htm.



Supermarket or Wholesale Clubs

These outlets may be appropriate purchasing options for small residential centers participating in the National School Lunch and School Breakfast Programs and for small fill-in purchases. The disadvantage is that purchases are cash and carry. However, if the product is not delivered, the price is competitive.



Buying Fresh Produce

For a more extensive discussion of the purchasing process and the food distribution chain from grower to school, refer to *First Choice*, 2nd Edition, Chapter 3, “The Marketplace Environment,” pages 29 to 41 on the National Food Service Management Institute Web site at: www.nfsmi.org/Information/firstchoice/chapter3.pdf.

Ideal Storage

“Farm fresh” fruits and vegetables are the kind everyone wants. However, only schools purchasing directly from local farmers or farmers markets get fresh fruits and vegetables straight from the farm. All other produce must be stored at some point as it moves from producer to the school. Ideal storage preserves as much of the farm freshness as possible.

Look for vendors that deliver produce at the level of freshness you expect. Also look for ways your schools can protect quality and freshness once the produce arrives. Keep in mind the following storage principles:

Ideal storage provides:

- The temperature and humidity that are best for the specific fruits or vegetables being stored. See Appendix 4, “Ideal Storage Temperatures.”
- Enough space to allow air to circulate.
- Separation of those fruits and vegetables that give off odors. These items—for example, onions, garlic, shallots, green onions—may be placed in plastic bags or stored outside of the refrigerator.
- Foodservice operations that have only one refrigeration unit do not necessarily have the luxury of storing produce at “ideal” temperatures. If you do not have “ideal” storage in your schools, remember these storage tips:
 - The produce that requires the lowest temperature should go on the bottom shelf and in the back of the refrigerator. **Caution:** Do not store raw meat above ready-to-eat foods.
 - Produce that tolerates a warmer temperature can be stored nearest to the door.



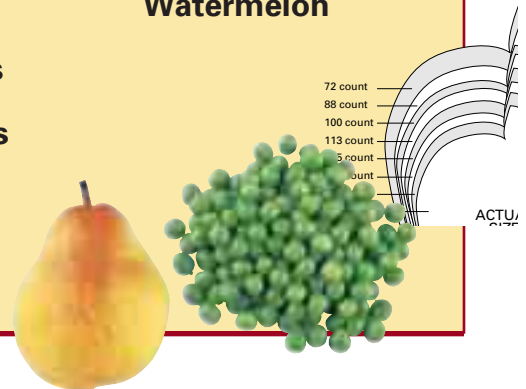
Buying Fresh Produce

Some fruits must be ripe before they are refrigerated. If they are not ripe when you receive them, keep them at room temperature to ripen, then place them in the refrigerator. These fruits include avocados, kiwifruit, nectarines, peaches, pears, and plums. They should be stored in air-conditioned space to ripen. *Never store produce in space that is not air-conditioned.* Ideal room temperature is 60°F to 70°F for bananas, sweet potatoes, potatoes, tomatoes, dry onion, and unripened fruits. *Never refrigerate bananas and tomatoes.*

Ideal storage conditions also keep the ethylene-producing fruits separated from the ethylene-sensitive vegetables. This is the simplest approach to produce storage. The following lists will show you the ethylene producers and the fruits and vegetables most sensitive to ethylene. The produce listed with an asterisk (*) denotes those that are both ethylene producers and ethylene sensitive.



Ethylene Producers		Ethylene Sensitive	
Apples*	Nectarines*	Belgian Endive	Parsley
Apricots*	Papayas*	Broccoli	Peas
Asparagus*	Passion fruit*	Brussels Sprouts	Peppers
Avocado*	Peaches*	Cabbage	Spinach
Bananas*	Pears*	Carrots	Squash
Cantaloupes	Persimmons	Cauliflower	Sweet Potatoes
Cherimoya*	Plantains	Cucumbers	Watercress
Figs	Plums	Eggplant	Watermelon
Guava	Prunes	Green Beans	
Honeydew Melons	Quince	Leafy Greens	
Kiwifruit	Rambutan*	Lettuce	
Mangos	Tomatoes*	Okra	



Buying Fresh Produce

If stored near ethylene producing fruits:

- Broccoli turns yellow and florets separate; develops off-flavor.
- Cabbage turns yellow; leaves separate.
- Carrots develop a bitter flavor.
- Cauliflower turns yellow; leaves separate and turn brown.
- Cucumbers soften.
- Green beans turn yellow.
- Lettuce browns; develops rust spots.
- Potatoes sprout.
- Summer squash softens.
- Sweet potatoes turn brown; develop off-flavor.
- Turnips become tough.



If you see any of these symptoms you have four options:

1. Talk with your supplier. Often ethylene exposure occurs during the shipping and storage process before you receive the product.
2. Have more frequent deliveries to reduce the need to store product.
3. Use ethylene-damage-sensitive produce first, within a day or two of receipt.
4. Investigate the use of commercially available ethylene scrubbers.

For more information on storage and handling of fresh produce, visit the University of California at Davis Web site at: <http://postharvest.ucdavis.edu>.



Using Fresh-Cut Produce

Fresh-cut (or pre-cut) produce is any fresh fruit or vegetable or combination that undergoes further processing from its original state. The labor and packaging required to process pre-cut fresh produce add value to the end user; both also add to the cost.

Advantages of Fresh-Cut

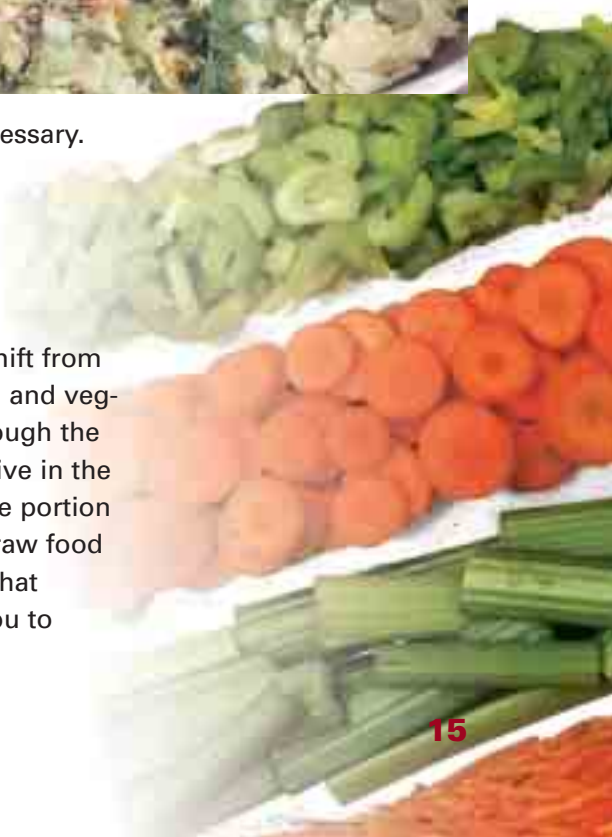
The buyer gains convenience and other advantages:

- Portion control and consistent yield—there is very little variance in the product.
- Labor savings—minor preparation time is needed.
- Reduced waste—entire product is usable, reducing waste and disposal costs.
- Reduced storage space—packaging takes less storage space and is easier to manage.
- Product uniformity—ensures all your customers get equivalent product.
- Reduced delivery frequency—product is easier to manage and predict and has a longer shelf life if stored between 32°F and 40°F.
- Consistent supply, quality, price—available year-round.
- Reduced training requirements—little or no preparation training necessary.
- Reduced equipment—eliminates need for processing equipment in the kitchen.
- Time—eliminates extensive preparation time.



Cost Comparison

For these conveniences, you pay more. Buying pre-cut produce is a shift from the traditional bulk purchasing and in-house processing of fresh fruits and vegetables and requires a careful analysis of the costs and benefits. Although the purchase cost of this produce is higher, it may prove more cost effective in the long run. To do an accurate cost comparison, you must determine true portion cost of pre-cut versus bulk. This means taking into account not only raw food product cost, but also labor cost, indirect costs, and yields. Also, ask that vendor pricing separate product cost and delivery charges to allow you to better evaluate your true costs.



Food Safety Issues

What can you do to ensure food safety when you buy pre-cut fresh produce?

The first step is to deal only with reputable companies that follow and monitor strict food safety regulations. If the plant is within traveling distance, you may want to visit it. If a visit is not possible, ask detailed questions. You want to buy from a licensed company with all required permits that follows these food safety procedures:

1. Uses high quality raw products.
2. Uses containers that are clean and sturdy enough to protect during shipping.
3. Ships products in refrigerated trucks at temperatures between 32°F and 40°F. (The shelf life of fresh cut product stored at 41°F or above is cut in half.)
4. Follows good processing methods and procedures. This means:
 - All ingredients are kept clean and cold throughout processing.
 - There are no open doors or windows in the plant.
 - Overhead fixtures are clean and free of debris.
 - Employee lockers, bathrooms, and eating areas are separate from processing area.
 - Knives and cutting machines are sharp and clean.
 - Chilled water is used to wash produce.
 - Wash water is chlorinated at a level of 50 to 100 ppm (parts per million).
 - Packaging materials are gas permeable to ensure 2 percent oxygen.
 - Inventory and storage procedures ensure no break in cold chain from processor to user.
 - Plant uses code dating and rotation of product.
5. Follows a good, ongoing food safety program with documentation, which includes among other things:
 - All employees wear hair restraints and rubber gloves.
 - There are good basic housekeeping practices in place.
 - Good marks on health department inspection reports.
6. Follows good distribution policies that include the following procedures:
 - Produce does not spend too much time in transit.
 - Produce is kept at temperatures that protect freshness and ensure safety.
 - Deliveries are frequent.



The way vendors and distributors handle, ship, and distribute fresh produce is important. Find out what happens to your orders before they reach you. This information can help you serve fruits and vegetables when they taste best and offer the most nutritional value.

USDA Food Safety Assurance Service

USDA's Agricultural Marketing Service (AMS) offers its Qualified Through Verification (QTV) as a voluntary user-fee service to vendors. Under QTV, AMS experts work with company management to validate the facility's hazard analysis critical control point plan (HACCP) and, through on-site audits, verify its effectiveness. HACCP is a scientific, analytical, and economical approach to ensure food is safe and wholesome. QTV is presently applied only to the fresh-cut fruit and vegetable industry. You may want to seek vendors that use QTV or have their own HACCP plan in place.



Shelf Life

To buy fresh produce and use it in a timely way, you want to know:

1. What the vendor says its shelf life is;
2. How many days it has spent in transit to a distributor;
3. How long the distributor has kept it in storage.

This allows you to determine the product's remaining shelf life once it reaches your school. As the following example shows, this can be considerably less than the initial shelf life quoted by the vendor.

Example:

A vendor quotes a shelf life of 14 days and a maximum shipping time of 3 days. The distributor keeps the product in inventory a maximum of 3 days. The school gets Monday and Thursday delivery. The school's maximum inventory time is 4 days.

To determine the product's remaining shelf life:

1. Note the shelf life in number of days as quoted by processor.
2. Subtract maximum shipping time from processor to distributor.
3. Subtract distributor safety stock time (inventory time).
4. Subtract the school site safety stock time (inventory time).

Using this formula as follows:

- 14 days shelf life
- 3 days shipping
- 3 days distributor's inventory time
- 4 days school's inventory time
- = 4 days maximum remaining shelf time

It is important to note that if the product is exposed to warm temperatures, its maximum shelf life can be further reduced by 50 percent—in this example, to 2 days.

Note:

Grading standards are given at the time the product is packed. Depending on storage and handling, it may not meet that grading standard when you receive it.



Buying Processed Fruits and Vegetables

Once again, it pays to be specific in your product descriptions. Referring to quality standards is a good starting point.

Grades and Grade Standards

Just as it has established grade standards for fresh produce, USDA has set quality standards for most processed fruits and vegetables. Each standard (or grade) for canned or frozen fruits or vegetables is based on flavor, odor, color, uniformity of size, number of defects, texture, and other characteristics specific to the food.

USDA does not require processors to have their fruit and vegetable products graded. Grading and inspection services are provided by USDA on a fee-for-service basis. Under this service, USDA inspectors can grade products on the production line or by lots after processing. In return for the fee, the purchaser receives a grade certificate—which would assure schools that the product they receive is the grade they requested. Buyers may also choose to specify product “packed to USDA Grade B” or other level standard rather than requiring a USDA-graded product. This would let the seller know the level of quality you expect without the additional cost of USDA grading. Purchasers must buy very large quantities to justify grading certificates, and schools rarely do this.



Buying Processed

Another reasonable alternative for schools and other smaller volume purchasers is to rely on the reputation of private labels, which are based on the Federal grade standards. Here's how private labels work and how they relate to the Federal standards:

Many distributors belong to a buying group or have the support of a corporate purchasing department. Each group has standards for its first, second, and third quality labels. Products sold under each label are color-coded or have a unique logo. School foodservice purchasers who know these codes can order the quality they desire.

Distributors will provide a chart showing their labels for various products and grades. The first, second, and third quality labels are based on Federal grade standards. USDA has taken the leadership role in developing these standards in cooperation with private industry. The following chart shows the Federal grade standards and the private label equivalent:

Grade standards for fruits:

U.S. Grade A or U.S. Fancy	=	First quality private label
U.S. Grade B or U.S. Choice*	=	Second quality private label
U.S. Grade C or U.S. Standard	=	Third quality private label

Grade standards for vegetables:

U.S. Grade A or U.S. Fancy	=	First quality private label
U.S. Grade B or U.S. Extra Standard	=	Second quality private label
U.S. Grade C or U.S. Standard	=	Third quality private label

*The majority of private label groups pack "choice" grade of peaches, pears, and fruit cocktail under the first quality label. For more information, refer to *First Choice*, 2nd Edition, Appendix 11, pages 227 to 230 on the National Food Service Management Institute Web site at www.nfsmi.org/Information/firstchoice/appendix11.pdf.



Buying Processed

Product Specifications

Just as with fresh produce, your specifications for processed products must clearly state the product you want and the acceptable conditions for delivery. For example:

Sample Specification Bid

Peaches, Cling

Purchase Unit: Number 10 can, 6 cans per case

Style: Halves, Slices

Type: Yellow, Cling

Grade: Packed to U.S. Grade B (Choice)

Count: 36 to 54 Halves

Packing Medium: Light Syrup

Net weight: 108 ounces

Drained Weight: 66 ounces



Food Safety

Food safety starts long before meals are prepared and served. For fruits and vegetables, it begins with the preparation of the soil, the seeds that are used, and everything placed on or around the plant while it is growing, harvested, and stored. Beyond production and processing, food storage and temperature control and delivery affect food safety, as well as your procedures for handling food once it arrives at your school. The final responsibility for the safety of the food entering your school rests with you.

Food supplies in the United States are the safest in the world. To learn about how our Federal, State, and local agencies provide a food safety system go to www.foodsafety.gov. Here you can find a variety of information about current laws and practices designed to ensure the safety of the country's food supply.

Irradiation

Irradiation is one of many processes that can be used to prevent foodborne illness. Irradiated food products have been exposed to radiant energy—such as gamma rays, electron beams, or x rays—in amounts approved by the Food and Drug Administration (FDA). This process is not a substitute for good growing and manufacturing practices. In 1986, fruit and vegetable irradiation was approved for insect control and to increase shelf life. Irradiation of herbs and spices was approved in 1986 for the purpose of sterilization.

Food irradiation can reduce the risk of foodborne illness by destroying harmful bacteria, parasites, insects, and fungi. Irradiation does not destroy all pathogens, but does reduce their number. A distinctive logo developed for use on food packaging identifies the product as irradiated. The symbol is called the “radura” and is used internationally.

For additional information on irradiation, visit USDA's Food Safety and Inspection Service (FSIS) Web site at www.fsis.usda.gov/oa/topics/irrmenu.htm.



The Radura



Screening Vendors

For your own program, ordering appropriate amounts of products and using approved suppliers are the initial steps in the food safety process. First, closely track your inventory and your sales so that you order only what you need. Then carefully consider suppliers. Choosing a supplier that can deliver safe food is the ultimate goal. See Appendix 3, "Review the Potential Distributor Vendor." Before accepting any deliveries from a supplier, make sure that the food purchased comes from approved sources. Also, check suppliers to see whether they meet or exceed the food safety standards you follow in your school. Be sure to address this issue when you purchase from local farmers and farmers markets.

Here are some guidelines to consider when you are selecting a supplier:

- Make sure suppliers are getting their products from licensed, reputable sources. Check with your regulatory agency to find out if your suppliers have had any food safety problems or health code violations. Ask other operators about their experiences with a particular supplier.
- If possible, inspect your supplier's warehouse or plant from time to time. See if it is clean and well run. This may be done at the district level if purchasing is done centrally.
- Ask your suppliers if they have a HACCP program in place. If they supply fresh produce, ask whether they have a Good Agricultural Practices Plan. If not, ask what precautions or procedures they take to ensure product safety.
- Find out if your supplier's employees are trained in food safety.

- Check the condition of the supplier's delivery trucks. Are they clean and well maintained? Do they hold refrigerated or frozen products at the proper temperatures? Are raw products separated from processed food and fresh produce?
- Check your supplier's shipments for consistent product quality. Inspect deliveries for unsafe packaging. Broken boxes, leaky packages, or dented cans are signs of careless handling.
- Ask suppliers to deliver products when your staff has time to receive them properly.
- Inspect each product for temperature, quality, and freshness as it arrives.
- Use all your senses to check for freshness—look, smell, feel, and even taste the product. Make sure the item meets your purchase specifications. Randomly examine the entire contents of a box rather than just the items on the top. Check product dates.
- As part of your receiving practices, check that refrigerated items arrive at proper temperatures, usually between 32°F and 40°F.
- If a product does not meet your standards of freshness, refuse to accept it.

Think about your past experiences with suppliers.

- Have they been generally good or bad? How might the less-than-satisfactory experiences be improved?
- Many school systems have limited access to suppliers, but this information can help you work with available suppliers to improve their operation and the quality of the products you receive from them.

You may want to add separate food safety requirements as a "Special Instructions" section on your Invitation for Bids or Request for Proposals. The recommended language is on page 24.

Food Safety—Special Instructions

- The school food authority (SFA) reserves the right to inspect potential vendor's receiving, storage, staging areas, and delivery vehicles.
- All frozen, chilled, and dry foods shall be maintained at the appropriate temperature during receiving, storage, staging, and delivery. All foods delivered shall be free from evidence of temperature abuse.
- Potential vendors must maintain clean, pest-free storage areas and delivery vehicles.
- The school (SFA) reserves the right to request information about potential vendor's pest control in food storage areas and delivery vehicles. **All** chemicals used shall be certified as safe for use around food.
- In accordance with Federal law **all** food containers shall contain the name and address of the manufacturer/processor or the distributor.
- The potential distributor shall provide the school (SFA) with its procedures that assure it purchases food only from those manufacturers that comply with **all** Federal/State food safety laws and regulations.
- Product protection guarantees: For product safety, schools (SFAs) have "automatic" product protection recourse against suppliers. The supplier whose name and address appear on the package is the responsible party. Suppliers are expected to take immediate action to correct any situation in which product integrity is violated.
- The potential distributor shall follow procedures of a First-In, First-Out (FIFO) stock rotation system.
- Dented cans, boxes with leaks, or other damaged product shall not be delivered to the school (SFA).
- If requested, vendors shall supply instructions on how to read the code date on delivered products.
- Distributors must receive and deliver **all** products to schools in accordance with the Sanitary Food Transportation Act of 1990. Go to www.fda.gov/opacom/laws/sftact.htm.
- Ice used to cool food shall be made from water safe for drinking and shall not be in contact with food containers that could absorb water from melted ice.

Storing Foods

Proper storage methods can lengthen a product's shelf life. They can also prompt you to use the items received first before using new arrivals. Rotating your stock in this fashion helps reduce spoilage.

- Mark each item with the date it was received. You can use magic markers, grease pencils, different color stamps, or a date stamp—whatever works best for your operation.
- Use the First-In, First-Out (FIFO) storage method. Shelf new items behind the stock you already have. Once items have been properly shelved, use items stored in the front first. This ensures that you use the lettuce that arrived on Monday before the lettuce you received on Wednesday.
- Pay special attention to fresh produce to ensure freshness. Discard any wilted or discolored product immediately.
- Manage inventory to use fresh product at its peak.
- Check and record refrigerator temperatures at least twice a day.
- Refrigeration units do not cool by cold temperatures alone. When placing foods in a refrigerator, allow sufficient space between packages for air circulation, and keep items away from the inside walls. Do not store foods directly on the floor of a walk-in cooler.
- Store cooked and ready-to-eat foods separately from raw meats, poultry, and seafood whenever possible.
- Store all raw and ready-to-eat fruits and vegetables above raw meats, poultry and seafood to prevent raw product juices from dripping onto food that will be eaten without further preparation.

Using Foods

Reducing spoilage takes constant vigilance. Build the following practices into your daily procedures for using food:

- Make sure employees always check the use-by or expiration date on products. Discard products if the use-by or expiration date has passed.
- Check inventory of most foods on a daily basis so that you will know how much shelf life they have left.
- If you realize that you have an excess amount of a particular item, develop a daily special that uses the product before it spoils.



Food Safety

- Check that cold foods are held at 41°F or below and hot foods are maintained at or above 140°F. The FDA Food Code indicates that potentially hazardous foods may be held between 41°F and 140°F for no longer than a total of 4 hours. After 4 hours, the product must be discarded.
- To deter bacterial growth, pre-cool hot items before storing them in a refrigerator by using chill blasters, cooling wands, and ice baths. If hot food must be cooled in the refrigerator, divide the food into small shallow batches to quicken the cooling process.
- Despite your best efforts, some items will start to go bad. If you are trying to determine whether something is usable, remember the classic adage—when in doubt, throw it out.

Serving health-smart meals begins with you, the purchaser.

