



**FEAST**  
**DOWNEAST**  
PROCESSING & DISTRIBUTION

Farmer Standards and Handling Procedures





## Farmer Standards and Handling Procedures August 2013

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## A. Overview

At Feast Down East Processing and Distribution (FDE P&D), we strive to offer the highest quality food to our customers. Our number one goal is handling and marketing product in safe and professional manner. This manual sets forth the steps all our partners must follow to help ensure we meet this goal. For purposes of uniformity, any changes to policies will be communicated to partners by email, or by written notice.

## B. Minimum Requirements

1. All farmer partners must have a complete Farmer Profile including a Traceability Map of their farm. (Reference FDE P&D Farmer Producer Application.)
2. A copy of proof of potable water, by yearly water testing whenever that producer is in operation, should be made available to FDE P&D.
3. All producers of processed or value added products must provide proof of product liability insurance and product certifications.

## C. GAP & GHP: Good Agricultural Practices and Good Handling Practices

Good Agricultural Practices and Good Handling Practices, or GAP and GHP, are voluntary sets of standards established by the USDA. GAP certification is encouraged by FDE P&D. GAP focuses on on-farm practices; GHP is used for packing facilities, storage facilities and wholesale distribution centers. Farms and facilities that pass a GAP or GHP audit and become GAP or GHP-certified have proved that their practices for producing, handling, and storing crops minimize the risks of microbial food safety hazards. The audit program corresponds with the recommendations found in the FDA's *Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables* (see Resource 1).

Although GAP standards are voluntary, many institutional buyers will require GAP and/or GHP certification from their growers and distribution facilities. There are many organizations authorized to perform GAP and GHP audits, including the USDA, AIB International, NFS Davis Fresh Technologies, GlobalGAP, ISO International Standards Organization, Primus Labs, Scientific Certification Systems, and Silliker.

## D. Post-Harvest Personnel Procedures

### Hand-Washing Policy:

All employees must follow proper hand-washing practices. Post these instructions prominently by wash stations (see Resource 2 for information about building field hand washing stations):

Wash hands and forearms vigorously and thoroughly with soap and water for a minimum of 20 seconds. (Lathering should last 10-15 seconds.)

1. Wash hands with liquid soap.
2. Wash between the fingers and under nails thoroughly.
3. Use only hand washing stations designated for that purpose.
4. Dry hands thoroughly using paper towels.
5. Turn off faucet using a paper towel.

All employees must wash hands

- When entering the facility before work begins;
- Before touching food and/or equipment;
- When contamination of hands occurs;
- After toilet use before returning to work;
- After touching face, nose, or hair;
- After sneezing or coughing;
- After cleaning duties;
- After smoking; and
- After eating.

Before post-harvest handling, workers must:

1. Rinse overshoes or change out of footwear.
2. Change out of clothes that are too soiled.
3. Wash hands.
4. Put on a clean apron.

Other Personnel Procedures:

- Workers must not handle food while experiencing flu-like symptoms (sore throat, fever, vomiting, diarrhea, or jaundice) and/or a diagnosis of a food-borne illness.
- Drinking liquids out of a closed container is permitted. There is no eating allowed in harvest/postharvest areas. Employees must eat in designated places outside of food harvest and packing areas.
- All soiled aprons/clothes should be laundered after use.

## E. Harvest

Harvest knives and other tools must be washed and sanitized with a solution of 50-100 ppm bleach for at least 7 seconds before use. (See Section G below for more information on sanitizer solutions.) Harvest tubs must be washed before harvest and sanitized once per day. Staff must have access to restrooms (within ¼ mile) and hand-washing stations while harvesting. Hand-washing stations (see Resource 2) should have clean water, soap, and single-use paper towels.

## F. Cleaning and Sanitizing of Work Areas

Wash all food contact surfaces prior to washing produce. Tables, counters, sinks, and equipment must be:

1. Cleaned with soap and water (using scrub pads) or pressure-washed.
2. Wiped with a squeegee to remove excess water, or allowed to air dry.

3. Sprayed with a surface sanitizer of 50-100 ppm bleach.
4. Left to air dry before use.

Cloths and scrub pads need to be soaked in bleach solution in-between uses. Squeegees must be replaced when cracks become visible.

Floors must be swept at least once per day, when food is not out, and washed/sanitized as needed. Equipment must be scrubbed or pressure-washed and sanitized before and after each harvest. This may include wash tanks, sinks, brushes, brush washers, roller tracks, and produce tubs.

Coolers must be cleaned regularly and sanitized with a surface sanitizer. Temperature readings must be monitored and documented daily.

Packaging: All boxes must be in good, clean condition. See specific crop instructions (Section N) for use of a plastic liner.

Animals: Care must be taken in keeping rodents and birds out of all facilities, and growers should not harvest produce soiled with bird dropping or in close proximity to animal feces. If animal feces are found in a production field, they should be removed along with the soil around them.

Vehicles: Keep all vehicles clean. Transport items in an enclosed vehicle that is cool.

## G. Sanitizer Solutions

### FOR SURFACES

A chlorine solution for sanitizing food contact surfaces should be 50-100 ppm, which is achieved by mixing up to 1 Tablespoon of household (unscented) bleach per gallon of room temperature water. Use test strips to achieve an accurate concentration and do not allow the solution to drop below 50ppm.

### FOR PRODUCTS

A chlorine solution for sanitizing food products should be 100-200 ppm, which is achieved by mixing up to 2 Tablespoons of household (unscented) bleach per gallon of room temperature water. Use test strips to achieve an accurate concentration. The water should be less than 10° F cooler than the product.

Hydrogen-peroxide solution: This solution should be 1-5% hydrogen peroxide. Test strips should be used to determine whether the solution meets the appropriate levels. Workers should use caution when making and using this solution, as the 5% concentration can cause eye irritation.

“New Generation” food-grade vegetable washes such as Pro-San® LC (Liquid Concentrate), FreshRinse® and Tsunami® are Generally Recognized As Safe (GRAS); growers should use them at manufacturer-recommended rates.

Because sanitizing solutions lose their effectiveness over time, as they are exposed to air and organic materials, workers should make sanitizer solutions daily, check them with test strips, and record the test strip results.

## H. General Post-Harvest Procedures for Crops

- CULL ALL UNSATISFACTORY CROPS.
- Water used for cleaning and rinsing product must be clean and potable.
- ALL CROPS MUST BE CLEAN WHEN THEY ARRIVE at the distribution center. This may mean washing with chlorinated wash water or a hydrogen peroxide-based sanitizer, rinsing, and draining or simply brushing or removing visible soil. The method will depend on the product; (see Section N for specific crop requirements/recommendations). FDE P&D products are not sold as “ready-to-eat”; the retail foodservices are required to do additional washing prior to use.
- When brushing or wiping product, use tools dedicated for designated product only. Do not use the same tools for cleaning product and cleaning food contact surfaces, as this can lead to cross contamination.
- Brushes and towels should be cleaned between product types; towels should be changed when soiled.


## I. Packaging and Labeling

Growers must be able to provide their product in institutional case lots, and are expected to clean, sanitize, and package the product in industry standard packaging. Growers whose product meets these requirements will receive the agreed upon 80% return on the sale of their product. Growers whose product requires packaging and/or additional processing after arrival, will receive a 70% return on their sale.

In addition to the specific crop packaging instructions below, growers should:

- use food-grade packing materials (an FDA designation);
- use clean packing materials (boxes can be re-used if new, clean liners are added);
- keep packing containers clean during field packing;
- provide adequate drainage for all products, in order to prevent bacterial growth;
- keep clean produce separate from soiled.

All packages must be labeled. The following is a blank FDE P&D Traceability Label. These are available at the FDE P&D office:



FEAST  
DOWNEAST  
Processing & Distribution

Farm Name \_\_\_\_\_

Farm Location \_\_\_\_\_

Field/Lot# \_\_\_\_\_

Product Name \_\_\_\_\_

Date Harvested \_\_\_\_\_

Growing Method \_\_\_\_\_

## J. Transport to Distribution Center

Vehicles used for transporting product to the distribution facility should be clean and well maintained. Chilled product must be kept cool during transport to prevent product from reaching warm temperatures by arrival time at the distribution facility. Any frozen product (meats) must be kept frozen. Eggs need to be kept cool and separate from other products. Non-food items should be kept isolated from food products.

Each grower is responsible for maintaining their delivery vehicle in good repair and clean condition. The cargo area must be kept clean, and protected from dust, dirt, water, and pests during transport. The cargo area should be insulated to preserve the quality of produce.

## K. Delivery

Deliveries may be made during business hours or by appointment; the cooler is locked after hours. Deliveries to the facility must be made between 8:00 am and 5:00 pm on Wednesday and 7:00 am to NO LATER THAN 9:00 am on Thursday. Producers are known to the facility manager: if using a substitute driver to drop off product or pick up supplies, notify us in advance. Delivery by FDE P&D to customers will be made on Thursdays.

## L. Availability

- Contact the coordinator by phone to submit your inventory every Friday.
- Fill out the future inventory log at the dock—you can write down projected product you will have available for the next delivery day on this sheet. You also need to let the coordinator know 2 to 3 weeks in advance if you think you are going to have a large quantity of something or if you will be having something new available. The coordinator will get the final Purchase Orders to the producers by Tuesday afternoon.

## M. Payment

Growers will be paid every week; payments generally will be 1 week out from the Purchase Order receiving date.

## N. Crop Specifics: Packaging, Harvesting & Grading, Cooling, and Cleaning

The following is a general guide to some of the more common vegetables. See Resources 3 and 4 for information about cooling methods. Hydro-cooling is defined as the process or technique of arresting the ripening of fruits and vegetables after harvesting by immersion in ice water. See Resources 5 through 12 for more details on specific crops and sanitary handling methods.

### **Asparagus**

**Packaging** 10# case box, with bag liner and damp paper towels on bottom.

**Harvesting & Grading** Stalks should have closed bracts and be 6-10" long. They should be fairly straight and fresh as well as free from decay and damage. There should be no broken tips, dirt, disease, or insect damage. They should be free of excess woody fiber in the stems. Harvest with a field knife in the morning or when cool. Do not harvest when stem is thinner than a pencil.

Bunch in 1 pound bunches, with a rubber band, and trim for uniform height. Asparagus should be packed upright. Do not let asparagus overheat.

**Cooling** Hydro-cool or store at 32° F.

**Cleaning** Wash, sanitize and rinse.

### **Bok Choy**

**Packaging** 12 Bunches box, with bag liner

**Harvesting & Grading** Cut roots off below crop. There should be no spotting, discoloration or wilting on stems. Damaged or yellow leaves should be removed. Cut open several heads to ensure there is no tip burn on internal leaves.

**Cooling** Hydro-cool promptly, store at 32° F.

**Cleaning** Wash with sanitizer in water tank, rinse, and drain upside down.

### **Broccoli (Crown, Heads, Broccolini)**

**Packaging** 20# case – 14ct box, with bag liner

**Harvesting & Grading** Harvest firm head with buds not open. Head should be 4-6" in diameter, with 6-8" of stem. For Broccolini, stems should be 8" long and head should be small. There should be no discoloration of bud clusters and the head should be free from decay, dirt and insects. Bud clusters should be generally compact. Pack so that stem ends do not damage crowns.

**Cooling** Hydro-cool promptly, store at 32° F.

**Cleaning** Sanitize with approved solution. Rinse thoroughly.

### **Brussels Sprouts**

**Packaging** 8# case – ¾ bushel box

**Harvesting & Grading** When sprouts are 1-2" in diameter harvest the entire stem with sprouts intact. The sprouts should be well colored, firm and free from soft decay. There should be no dirt, disease, or insects.

**Cooling** Store at 32° F.

**Cleaning** Washing is not recommended.

### **Cabbage**

**Packaging** 35# -45# case

**Harvesting & Grading** Heads should be uniform in size in each case. Crisp, firm, compact heads should be easy to

harvest and should not have loose leaves or be cracked open. At harvest, leave 1 to 2 wrapper leaves, which can have minimal insect damage. Do not ship cabbages that are full of worm excrement. Cut open some cabbage to check for internal problems. Stems should not be longer than ½". Cabbage stands up to heat, so harvest can be done at any time of day.

**Cooling** Store at 32° F.

**Cleaning** Washing is not recommended.



## **Cantaloupes and Honeydew Melons**

**Packaging** Per #

**Harvesting & Grading** Melons are harvested based on “slip,” or the ease with which they can be detached from the vine. Harvest cantaloupe at half slip, which means part of the stem will detach from the fruit, but part remains. Honeydew melons do not slip and must be cut off. The blossom end must be firm. Handle melons with care and sample the melons for ripeness. Avoid high temperatures and sun when harvesting. Send fruit that are uniform in size.

**Cooling** Cool to and store at 40° F, when harvested at half slip. Cool to and store at 36° F when harvested at full slip.

**Cleaning** Wipe off fruit in the field with a clean product towel; they can be water washed if necessary.

## **Cauliflower**

**Packaging** 18# case box, with bag liner

**Harvesting & Grading** Cauliflower should be white to cream in color and firm and compact, unless otherwise specified. Handle with care as heads bruise easily. Cauliflower should be free of mechanical damage, decay, insects, browning or yellowing which is caused by sun exposure. Heads should be at least 4” in diameter and surrounded by a whirl of trimmed green leaves.

**Cooling** Hydro-cool or store at 32° F.

**Cleaning** Wash and sanitize with approved solution, and rinse thoroughly if necessary.

## **Celery**

**Packaging** 12 Bunches box, with bag liner

**Harvesting & Grading** Cut roots off below the crop. There should be no spotting, discoloration or wilting on stems. Trim leaves and leave no more than 2”. Any leaves remaining should not be yellow wilted or decayed. Celery stems should not be less than 7” on average.

**Cooling** Hydro-cool promptly; store at 32° F.

**Cleaning** Trim before washing. Wash and rinse thoroughly to remove all of the dirt from inside of the crop.

## **Cucumbers**

**Packaging** 20# case

**Harvesting & Grading** Harvest when dry, regardless of temperature. Fruit should be firm, glossy, crisp, and free from injury from sunscald, scarring, mosaic, and other diseases. Fruit is overripe when skin starts to yellow or seeds start to harden. Slicing cucumbers should be at least 6” long. Cucumbers within a case should be uniform in size.

**Cooling** Store at 50-54° F.

**Cleaning** Can be brush washed; if washing, sanitize and rinse.

## **Eggplant**

**Packaging** 20# case

**Harvesting & Grading** Pick when dry; wear cotton gloves to wipe off field dirt. The flesh must be firm, the calyx must be a fresh green, and the color must be bright. Harvest with clippers and keep the stem short. Be careful not to scratch the fruit.

**Cooling** Rapid cooling to 50° F is necessary. Store at 50-54° F.

**Cleaning** Wash only if necessary.

## **Garlic**

**Packaging** # – bagged – 1/2 bushel box

**Harvesting & Grading** Should be clean and consistent in color and size. Minimum diameter is 1 ½". Garlic is ready to dig when there are 3-5 dry leaves.

**Cooling** Cooling is not necessary; long-term storage is at 32° F. To cure, bunch in 10 -12 stems and hang, or lay on a screen, in a warm ventilated environment for 8-10 days.

**Cleaning** After curing, remove outer 1 – 2 layers of skin; the stem end should be at least 1" and roots removed.

## **Green Beans (Yellow & Fillet)**

**Packaging** 10#, 25#, with bag liner

**Harvesting & Grading** Do not harvest when wet. Do not pick too young—pods should be well formed and straight. Bulging seeds and fibrous pods are too old and unacceptable. Beans should be free from soft rot and damage and not broken.

**Cooling** Put directly into the cooler or hydro-cool. Store at 41 to 46° F.

**Cleaning** Washing is not needed if beans are clean. If beans are hydro-cooled they should be drained and as dry as possible.

## **Head Lettuce**

**Packaging** 12ct, 24ct with a bag liner

**Harvesting & Grading** Lettuce should be fresh, green, and not soft or split, with no leaf decay, spotting, or discoloration. Harvest with a field knife and remove damaged or yellow leaves. Cut above ground and be sure to keep your knife clean. Cut open a couple of heads to ensure there is no tip burn on internal leaves.

**Cooling** Hydro-cool and set heads upside down to drip dry or cool as soon as possible after harvest in a cooler at 32° F.

**Cleaning** When necessary wash in sanitized water, rinse in clean water.

## **Kale / Chard**

**Packaging** 12 Bunches, 24 Bunches with bag liner

**Harvesting & Grading** A bunch is 6-8 stems, rubber banded, with the stems uniform and at least 4" long. Leaves should not be limp, discolored or browning. Do not pick too young or too old.

**Cooling** Hydro-cool; store at 32° F.

**Cleaning** Wash via hydro-cooling.

## **Kohlrabi**

**Packaging** 12ct

**Harvesting & Grading** Heads should be uniform in size in each case. Only young kohlrabi should be harvested. Succulent and tender leaf stems are a good indicator of youth. Remove leaves and root stem.

**Cooling** Store at 32° F.

**Cleaning** Wash if necessary; sanitize and rinse if washing.

## **Leeks**

**Packaging** 12ct

**Harvesting & Grading** Pick leeks that are at least an inch thick, the larger the better. Use a fork to dig, do not pull. Cut the leaves in an inverted V with a scissors or a field knife. They should be firm and smooth and free of blemishes with characteristic white stems and dark green leaves.

**Cooling** Store at 32° F.

**Cleaning** Peel off the loose dirty skin and spray with hose to remove dirt. Sanitize and rinse.

## **Loose Greens (Including Baby Spinach)**

**Packaging** 3# case, with bag liner; # bag – produce bag closed loosely with a twist tie, ½ bushel box

**Harvesting & Grading** Pick small leaves, nothing over 3” long. Remove all damaged and imperfect leaves as well as foreign material, including insect damage, wilted or holey leaves, grasses and sticks. For all loose greens it is best to harvest them in the morning when it is cool and the sugar content is highest. A field knife should be used to harvest to prevent crushing the stem.

**Cooling** Greens should be cooled to 32° F as soon as possible after harvest.

**Cleaning** Handle greens carefully: Do not run water directly on greens at high-pressure, as this will damage the leaves. Do not over-pack by smashing greens. Pack loosely in boxes and bags to prevent leaf breakage. Wash and rinse thoroughly. Sanitize with approved solution. Rinse thoroughly. Spin dry (see Resource 9 for spinner suggestions).

## **Okra**

**Packaging** 10# case – ½ bushel box

**Harvesting & Grading** Pods should be 3 – 5” long, flexible, and bright green. The ridges should be free of blackening and bruising. Okra should be marketed within 36 hours of harvest.

**Cooling** Store at 45 – 50° F.

**Cleaning** Okra should not be washed.

## **Onions**

**Packaging** – bagged – ½ bushel box (Fresh Onions); 25# Bag - Cured; 50# Bag - Cured

**Harvesting & Grading** Harvest mature bulbs with good firmness and compactness of fleshy scales. They should be free of mechanical damage, insect damage, decay, sunscald or sprouting. Onions should be generally uniform in size in each bag. Medium onions are 2 – 3¼”

in diameter and Large onions are 3¼" or greater. Onions for curing should not be picked before the tops begin to dry naturally.

**Cooling** Long-term storage is at 32° F. To cure: Field cure onions for 3-5 days without rain, then put in a warm ventilated area at 68 – 86° F.

**Cleaning** For fresh onions, wash, sanitize and rinse, and trim off the roots and stem. After curing, trim roots and stems, and brush off before or after storing.

## Peas

**Packaging** 10# – ½ bushel, with bag liner

**Harvesting & Grading** Stems should be green and pod should be uniformly bright green and free from defects. There should not be any broken peas. Snow peas should be 2" or longer and flat. Snap peas should be 2 ½ - 3" long and well-formed but not bulging. Shell peas should be 2 ½ - 3" long, uniform and well-shaped with a fully developed pea. Do not let peas heat up when picking.

**Cooling** Put directly into the cooler or hydro-cool; store at 32° F.

**Cleaning** Washing is not needed if peas are clean. If peas are hydro-cooled they should be drained and as dry as possible.

## Peppers

**Packaging** 20# case, 10# case; 5# case

**Harvesting & Grading** Peppers should be free from injury caused by sunscald, decay, or insects; colored peppers should be at least 95% colored. They should be of similar size and variety when packed. Size A will be 2-3 peppers per pound and Size B will be 3-4 peppers per pound. Seconds are peppers that are somewhat misshapen and may have some scarring. Seconds will not have decay or injury from insects. Pick when dry.

**Cooling** Hydro-cool, or cool immediately to no lower than 45° F, as they are subject to chilling injuries.

**Cleaning** Spray wash, sanitize, and rinse.

## Potatoes

**Packaging** 10#, 25#, 50# bags; box, with bag liner (New Potatoes and Fingerlings)

**Harvesting & Grading** Potatoes should be fairly well shaped, free from damage, firm, and fairly clean. Potatoes in a bag or case should be of similar characteristics and the size should be noted on the label. B size potatoes have a diameter of 1½–2¼", Medium potatoes have a diameter of 2¼–3¼", and Large potatoes have a diameter of 3–4¼". Some potatoes should be cut in half to ensure there are no internal defects; these sample potatoes should not be packed. New potatoes are considered to be new when the skins are not well formed and the potato is not mature; this is any time from blossom formation until the vines begin to die back naturally. Washing and packaging should be done with care to ensure there is no damage to the potato due to the fragile skins.

**Cooling** Potatoes that are to be kept in long-term storage should be cured for 1 to 2 weeks at 68° F.

After curing, the temperature should be lowered gradually until reaching 45–50° F. By definition, new potatoes are not cured and should be stored immediately at 45–50° F.

**Cleaning** Hand wash or brush wash if potato skins are tough enough.

### **Radishes (Including Daikon)**

**Packaging** 12ct; 25# bag (Daikon)

**Harvesting & Grading** Roots should be well formed, crisp and fresh. Roots should be free from defects, and not split. Bunched radishes are 10 to a bunch and held together with a rubber band or twist tie. Each bunch needs to be generally uniform in size. Fresh eating radishes should only be topped if required on the purchase order. Daikon radishes are always topped.

**Cooling** Hydro-cool; store at 32° F.

**Cleaning** Barrel wash or spray to clean, sanitize and rinse.

### **Raspberries and Blackberries**

**Packaging** 12 Pints - Flat

**Harvesting & Grading** Berries should be free of injury from decay and sunscald. They should be uniform in color, firm and not mushy or broken. When picking, the berry must come free easily from the plant and yet be firm and not mushy. There should be no mold or bugs on the berries.

**Cooling** Berries should be force air cooled to 34° F as soon as possible after picking. They need to be stored at 32° F.

**Cleaning** Raspberries should not be washed.

### **Root Crops (Beets, Turnips, Carrots, Rutabagas, Parsnips)**

**Packaging** 25# bag (Beet Root, Turnips, Rutabagas), 12ct (Beet Bunches, Turnips, Carrots)

**Harvesting & Grading** Tops should be well trimmed; the long root should be trimmed to no shorter than ½”.

Roots should be fairly smooth and free from defects. Each case should be generally uniform in size:

- Beets and turnips, not less than 2” in diameter, (1–1½ ”for baby beets)
- Carrots should be ½–¾” at the shoulder and at least 5” long. Hairy carrots are bitter.
- For parsnips the minimum diameter is 1½”.
- Rutabagas should not be smaller than 3” in diameter.

**Cooling** Store at 33–36° F.

**Cleaning** Barrel wash or spray to clean, sanitize and rinse. If they will be stored long term, parsnips and rutabagas should not be washed until after storage.

### **Scallions, Green Onions**

**Packaging** 12ct

**Harvesting & Grading** Pick scallions before a bulb forms and the onion end is bigger than a pencil. They should be firm, smooth, and free of blemishes. Trim roots and bunch with a rubber band. A bunch is 10-12 scallions. Cut tops so they are uniform and at least 6” long.

**Cooling** Store at 32° F.

**Cleaning** Peel off the loose dirty skin and spray with hose to remove dirt. Sanitize and rinse.

## **Shallots**

**Packaging #** – bagged – ½ bushel box

**Harvesting & Grading** Shallots should be clean and consistent in color and size.

**Cooling** Cooling is not necessary; long term storage is at 32° F.

**Cleaning** Wipe off shallots with a clean product towel to remove dirt.

## **Spinach (Full Size)**

**Packaging** 3# box with bag liner

**Harvesting & Grading** Remove all damaged and imperfect leaves as well as foreign material. These include insect damage, wilted or holey leaves, grasses and sticks. Stems should be no longer than 1” and there should be no coarse stems. Field heat should be removed as quickly as possible.

**Cooling** Hydro-cool

**Cleaning** Wash and rinse thoroughly. Sanitize with approved solution. Rinse thoroughly. Spin dry (see Resource 9 for spinner suggestions). Pack loosely in boxes and bags to prevent leaf breakage.

## **Strawberries**

**Packaging** 12 pints, 8 quarts, 6 quarts

**Harvesting & Grading** Berries should be uniformly red in color, firm, flavorful and free of defects and disease. Harvest at fully ripe for best flavor. Leave cap attached. Do not use overripe or underdeveloped berries. They should be free from mold, decay, foreign matter and insects.

**Cooling** Cooling should begin no later than an hour after picking; strawberries need to be stored at 32° F.

**Cleaning** Strawberries should not be washed.

## **Summer Squash**

**Packaging** 20# box

**Harvesting & Grading** Zucchini, yellow straightneck squash, and crookneck squash should be 5–9” long and not over-ripe. Patty pan squash should be 3–5” in diameter. Baby squash are any summer squash that are 2–4” long. Cut the stems instead of breaking them off; wear clean cotton gloves and handle with care because of the delicate skins. The surface should be shiny, clean, and free of physical injury. Be sure to avoid stem damage when packing boxes. Squash should be uniform in size with in each case.

**Cooling** Store at 41–50° F.

**Cleaning** If necessary, wipe off squash with a clean product towel.

## **Sweet Corn**

**Packaging** 4 Dozen

**Harvesting & Grading** Harvest early in the day when it is cool. Sweet corn should be uniform in size and well developed, not over or under ripe. Corn should be free from insect damage and decay.

**Cooling** Put directly into the cooler or hydro-cool. It is extremely important to not let your corn heat up: The better the corn is cooled the better it holds its sweetness.

**Cleaning** Washing is not necessary.

## **Tomatoes**

**Packaging** 10#, 25# box, 12 Pints – Flat – Cherries/Grapes

**Harvesting & Grading** Ripeness required varies by buyer. Wholesalers generally want tomatoes that are less ripe:

They should be picked when the pink on the blossom end is the size of a dime and shoulders are still pale or green; these will ripen in 3 days at room temperature. Retail customers will want the tomatoes that are ripe and fully red but still firm. Tomatoes should be picked without the stem, unless they are heirlooms, and put in boxes stem end down. Tomatoes should not have splits. Do not pick over-ripe cherry or grape tomatoes as they will split in shipping.

Number 1 tomatoes will be of the same variety type, mature (not overripe or soft), clean, well developed, and fairly smooth and well formed. They should be free from decay, freezing injury, sunscald, or damage from any other cause. Seconds, or Number 2s, are similar to Number 1s but may be misshapen or slightly damaged. They may be slightly damaged by sunscald, but not seriously damaged by causes other than decay and freezing.

**Cooling** Store at 66–70° F.

**Cleaning** If necessary, wipe off tomatoes with a clean product towel.

## **Watermelon**

**Packaging** Per count

**Harvesting & Grading** Sample melons for ripeness. Handle melons with care.

**Cooling** Cool to and store at 50–59° F.

**Cleaning** Wipe off in field with a clean product towel; melons can be water washed if necessary.

## **Winter Squash**

**Packaging** 35# box

**Harvesting & Grading** Cut squash with pruners and leave a short stem. Flesh should be bright yellow or orange, with a fine moist texture. Package to ensure stems do not bruise other squash. Squash can be sold immediately without curing, but should be cured for long storage.

**Cooling** Cooling is not necessary. To cure, place in warm ventilated dry area, in temperatures from 85 to 95° F for 8 to 10 days. Store at 50 to 55° F.

**Cleaning** Wash, or wipe off with clean product towel, at time of shipment.

## **O. Mock Recall**

Although a majority of the news headlines about food safety recalls involve large companies, millions of products and potentially high numbers of illnesses, small farmers need to be prepared for a recall situation. It's a good idea to complete a mock recall every year to test the plan you have in place.

Recalls are voluntary procedures conducted to identify and recover potentially adulterated, misbranded and/or hazardous foods from trade and/or consumer channels

effectively. A mock recall is a simulated recall exercise with a time limit to complete the entire exercise (i.e. 2 hours). See Resources 13 through 15 for more information on mock recalls and GAP procedures.

1. Be sure names and phone numbers of customers who need to be contacted are available and current. \*For farmers with only one CSA program, you should know their main contact and a back-up for them.

2. Be sure of names and phone numbers of media representatives, proper authorities (Food and Drug Administration, state department of agriculture, etc.), and legal counsel.

3. Identify the problem and assess the health risks.

4. Determine the products and lot numbers involved.

5. Determine quantities involved.

6. Determine current inventory on the premises.

7. Determine the amount of product in the marketplace.

8. Identify the customers who have received the product.

9. Collect pertinent documentation regarding the affected product.\*Inputs and outputs of affected field, notes on unusual events (flooding, wildlife activity, etc).

10. Outline the shortcomings in your recall plan and what corrective actions will be taken.



## P. Resources

1. *Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables*, Food and Drug Administration:  
<http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/ProducePlantProducts/ucm064574.htm>
2. How to Build a Field Hand Washing Station in Ten Easy Steps for Under \$20.  
[http://safety.cfans.umn.edu/files/2011/12/Handwashing\\_station\\_instructions.pdf](http://safety.cfans.umn.edu/files/2011/12/Handwashing_station_instructions.pdf)
3. Temperature Logs, ISU Extension:  
<http://www.extension.iastate.edu/HRIM/HACCP/restaurantsflowoffood.htm>
4. Guide to temperature and relative humidity control  
<http://www.fao.org/docrep/009/ae075e/ae075e13.htm>
5. Produce Fact Sheets, UC Davis: <http://postharvest.ucdavis.edu/producefacts/>
6. *Wholesale Success*, [familyfarmed.org](http://familyfarmed.org)
7. “Safe Food Is YOUR Job—Health and Hygiene Tips for Food Handlers,” ISU Extension PM 1419: <http://www.extension.iastate.edu/Publications/PM1419.pdf>
8. “On-farm Food Safety: Cleaning and Sanitizing Guide,” ISU Extension PM 1974C:  
<http://www.extension.iastate.edu/publications/PM1974C.pdf>
9. The Leopold Center for Sustainable Agriculture Post Harvest Handling Decision Tool – Baby Greens [http://www.leopold.iastate.edu/cool\\_tools/post\\_harvest\\_handling\\_decision\\_tool\\_2](http://www.leopold.iastate.edu/cool_tools/post_harvest_handling_decision_tool_2)
10. Farmer Food Share – Acorn Squash:  
[https://static.squarespace.com/static/51c273cee4b0d73628457d7c/t/51fb45a7e4b07a7d1401052e/1375421863124/VeggieSheet\\_AcornSquash.pdf](https://static.squarespace.com/static/51c273cee4b0d73628457d7c/t/51fb45a7e4b07a7d1401052e/1375421863124/VeggieSheet_AcornSquash.pdf)
11. Farmer Food Share – Lettuce:  
[http://static.squarespace.com/static/51c273cee4b0d73628457d7c/t/51fb4553e4b0b49df4caeb91/1375421779867/lettuce\\_sheets.pdf](http://static.squarespace.com/static/51c273cee4b0d73628457d7c/t/51fb4553e4b0b49df4caeb91/1375421779867/lettuce_sheets.pdf)
12. Farmer Food Share – Potatoes:  
[http://static.squarespace.com/static/51c273cee4b0d73628457d7c/t/51fb457de4b0dfbd7919028c/1375421821066/potatoes\\_sheets.pdf](http://static.squarespace.com/static/51c273cee4b0d73628457d7c/t/51fb457de4b0dfbd7919028c/1375421821066/potatoes_sheets.pdf)
13. Mock third-party GAP audit, North Carolina State:  
<http://ncfreshproducesafety.ncsu.edu/getting-gaps-certified>
14. Opening Markets: Blog about North Carolina State Extension Food Safety Project  
<http://gapsmallfarmsonc.wordpress.com>
15. “What Producers Should Know About Selling to Local Foodservice Markets,” ISU Extension PM 2045: <http://www.extension.iastate.edu/Publications/PM2045.pdf>