



Harvesting Your Crops

In this guide, you will learn about:

- * When to harvest
- * Post-harvest handling
- * Preparing produce for market

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1 Introduction

As a farmer, you want the vegetables you grow to be fresh and high quality. You also want to harvest them at the proper time, knowing how to be efficient with your time and how to handle each kind of vegetable properly. Your customers may not know exactly when and how you harvested your produce, but they will be able to see and appreciate clean, fresh vegetables!

This Harvest Guide can help you to make sure your produce gets to your customers at the right time, in the right amounts, and at top quality.

The keys to harvesting produce are:

- Picking vegetables when they reach the right size
- Picking vegetables at the right time of day
- Handling the vegetables as little as possible
- Bunching or packaging the vegetables in recommended sizes
- Storing the vegetables properly

Remember, you can spend months and months growing a crop, but if it is not clean, fresh, and beautiful when it gets to market, customers will not buy it! So it is important to harvest, handle, and store your vegetables properly. Take the extra time at first to learn about harvest and postharvest handling. Soon you will be faster, more efficient, and your customers will keep coming back!



Photo by Fedrigo



2 Harvesting Greens

Greens must be:

- 1 Picked
- 2 Washed
- 3 Bunched or Bagged and Weighed
- 4 Stored in covered boxes in the shade or in the cooler at Richardson's as soon as possible.

- Amaranth
- Arugula
- Swiss Chard
- Cilantro
- Collard Greens
- Lettuce
- Mustard Greens
- Pea Tendrils
- Pumpkin Vines
- Salad Mix
- Sweet Potato Greens
- Tat Soi
- Water Spinach

When to Harvest / Maturity Guidelines:

- Harvest before the plant flowers or sends up a spike
- Leaves should be tender, not tough
- For arugula and salad mix, cut when leaves are very small and tender (3-4 inches high)

Time of Day to Harvest:

Early morning is the best time to harvest most greens, since that is the coolest time of the day. If morning is not possible, try to harvest in the evening after the heat of the day has passed.

6:00 am - 9:00 am OR 5:00 pm- 9:00 pm



Photo by Fedrigo

Harvesting and Post-Harvest Handling Instructions:

- Cut stems a few inches above the ground.
- Dunk greens in cold water and keep moist in a shaded basket/bin while in the field
- All greens must be *cooled* as soon as possible after harvest, to keep them from wilting

Tie the following greens in bunches, using rubber bands to hold them together. Trim the ends to even them out if necessary (1 Bunch = 0.75 lbs):

- Amaranth
- Swiss Chard
- Collard Greens
- Fenugreek Leaves
- Jute Greens (Palava Sauce)
- Mustard Greens
- Pumpkin Vines
- Sweet Potato Greens
- Water Spinach
- Cilantro (make smaller bunches, about 0.25 lb)

The following greens should be bagged (1 Bag = 0.30-0.40 lbs)

- Arugula
- Pea Tendrils
- Salad Mix
- Lettuce (1 or 2 heads per bag, about 0.75-1 lb)

TIP: Greens will droop and *wilt* (lose their moisture) very quickly if they are left out in the sun.

- 1 Keep greens moist and cool at all times.
- 2 When you first put a tote of greens in the cooler, leave the top flap open so the greens can release the heat from the field and cool off faster.
- 3 Do not seal bags of greens. Let air flow in so the greens can cool off. Mist or sprinkle water over them to keep wet.

2 Harvesting Greens (continued)

A Note on Bunch Sizes:

Many people from Asia, Africa, and other countries use large amounts of greens when they cook. They want to see *big* bunches at the market. Most Americans do not use as many greens in their cooking. They usually like *smaller* bunches.

When you harvest and bunch your greens, think about where you will sell them. Will you go to a flea market or farmer's market where many people from different countries will be shopping? You might make your bunches a little bit larger to attract more customers.

If you are selling the greens through World Peas Co-op, make smaller bunches according to the guidelines given in this book. Most bunches of large leafy greens should weigh about 0.75 pounds. Smaller baby greens that you put in bags should only weigh about 0.30 pounds.

Remember, the smaller your bunches, the more bunches you will have, and the more money you can make.

Example 6 lbs. of pea tendrils harvested

Bunch size = 0.5 lbs

$6 \text{ lbs.} \div 0.5 = 12 \text{ bunches} \times \$3.00/\text{bag} = \$36.00$

OR

Bunch size = 0.30 lbs

$6 \text{ lbs.} \div 0.3 = 20 \text{ bunches} \times \$3.00/\text{bag} = \$60.00$

Look around at the market to see how big the bunches are at other tables.

Experiment for a couple of weeks to figure out the best bunch size that satisfies your customers and makes you the most money. After that, be consistent so your customers will know what to expect.



3 “Fruit” and Melon Vegetables

- Asian Cucumbers
- Bitter Melon
- Cucumbers
- Eggplant, all varieties
- Kittely
- Peppers, all varieties
- Summer Squash
- Tomatillos
- Tomatoes
- Zucchini

When to Harvest / Maturity Guidelines

- Harvest when fruit is the desirable size and/or color, flesh is firm but tender.
- For cucumbers, eggplant, melon, and squash, do not harvest too late, or fruit can become bitter and/or seedy.
- Harvest tomatoes when red but still firm, with little or no cracking, spots, or bruises.

Time of Day to Harvest

The best time of day to harvest is in the early morning, while it is still cool, but after dew has dried from the fruit.

Harvesting and Post-Harvest Handling Instructions

- Cucumbers, melons, and tomatoes can be picked by turning parallel to the stem and quickly snapping off.
- Use scissors or clippers to cut the stems of eggplant, peppers, and squash just above the fruit.
- These crops are delicate – be careful not to puncture or bruise during harvest.
- Do not stack too many fruits in one bin or the ones on the bottom will get crushed.
- Keep vegetables in the shade, and cool as soon as possible.
- No need to rinse unless dirt has adhered to vegetables.

Tip: Don't pick cherry tomatoes into a tote. The ones on the bottom will be crushed by the weight of all the ones on top and will be ruined. Instead, put the cherry tomatoes into pint containers right away. This will save you time and prevent them from being crushed.

4 Storing Fruit and Melon Crops

Fruit crops including tomatoes, cherry tomatoes, eggplant, kintoki, and tomatillos should not be refrigerated. They can be damaged if they get too cold, so do not put them inside the cooler. Instead, store them outside in the shade. At Richardson's, place them behind the cooler under the trees or underneath the cooler if it is raining. Other crops, including bitter melon, cucumbers, peppers, and squash, should be cooled and refrigerated. Place them gently in boxes or totes, then keep them in the shade until they can be put in the cooler.

- Tip:** Many fruit and melon crops are very delicate, but they can also be very heavy.
- 1 Trim your fingernails to make sure you don't accidentally gouge squash, tomatoes, and eggplant when you are picking them.
 - 2 When in the field, move your basket or bin every few feet as you move down the row so you can gently place the fruits inside, rather than tossing them. This will keep them from bruising.
 - 3 Pick your tomatoes directly into baskets if that is how you will display them at market, to avoid handling them twice. This saves time and prevents bruising.
 - 4 Leave room in the basket or bin when you are harvesting the vegetables. Don't fill it too full. That way you will save your back when carrying it off the field.



Photo by Fedrigo



Photo by Fedrigo

5 Onion Crops

- Garlic Chives
- Green Onions
- Shallots

When to Harvest / Maturity Guidelines:

- Harvest Garlic Chives once they are 10-12 inches tall. They may be harvested before or during flowering.
- Harvest Green Onions when the stems are about as wide as a pencil or slightly larger, and they are about 18-24 inches tall.
- Harvest Shallots in the fall, when the tops turn brown and fall over, and the bulbs are 1-2 inches wide.

Harvesting and Post-Harvest Handling Instructions:

- Pull up Green Onions by hand. Trim roots and pull off any yellow leaves. Spray with a hose to wash off dirt. Use rubber bands to fasten into bunches. Keep in a moist, shaded bin while in the field and put in cooler as soon as possible to keep fresh.
- Use scissors to cut Garlic Chives just above the ground. Tie into bunches using rubber bands. Dunk in cold water and put in cooler as soon as possible to keep fresh.
- Pull up Shallots by hand and place in single layers on screens or trays. Let sit and “cure” for a few days in a warm, dry, shady place. Trim off roots and stems. Shallots will keep for several months if cured and stored properly.

Bunch Size:

- Garlic Chives: 1 bunch = .020—0.30 lbs
- Green Onions: 1 bunch = .020—0.30 lbs

- Tip:
- 1 You may need two rubber bands to hold together green onion bunches. Fasten the first rubber band near the bottom of the bunch, then loosely fasten another rubber band near the top to hold the stems together (don't wrap it too tightly).
 - 2 If your green onions are very tall, you can trim the tops to an even height to make the bunch look neater.

6 Cruciferous Vegetables

- Baby Bok Choy
- Broccoli
- Broccoli Raab
- Chinese Broccoli
- Cabbage
- Pac Choy

When to Harvest / Maturity Guidelines:

- Harvest Baby Bok Choy or Pac Choy when the leaves are about 6-10 inches high. Cut just above the root so the head stays together.
- Broccoli should be harvested when the heads are fully formed but still tight and compact—before flowering. If you leave the plant in the ground, more baby broccoli heads will grow off of the main stalk that you can keep harvesting.
- Broccoli Raab and Chinese Broccoli should be harvested when the leaves are still tender and flower heads are formed. Chinese Broccoli may be starting to flower at time of harvest.
- Pick Cabbage when the heads are fully formed and firm. Each head should weigh at least 1 pound.

Time of Day to Harvest:

- Cooler times of day if possible (mornings, evenings)



Photo by Fedrigo



Harvesting and Post-Harvest Handling Instructions:

- Baby Bok Choy and Pac Choy should be cut just above the roots at ground level. Trim off any yellow leaves. Bunch 2-4 heads together and fasten with a rubber band.
- Cut Broccoli Raab and Chinese Broccoli stems about 8 inches long.
- Cut Broccoli about 4-6 inches below the head. Do not leave a very long stem. Remove large leaves from stem.
- Cut Cabbages closely below head. Remove large outer leaves, but do not peel off too many leaves or the cabbage will spoil more quickly.

6:00 am 9:00 am OR 5:00 pm 9:00 pm

Use rubber bands to tie the following crops into bunches:

- Baby Bok Choy
- Broccoli Raab
- Chinese Broccoli
- Pac Choy

Tip Broccoli must be put on ice or refrigerated immediately after harvesting. If you are going to a market on a hot day, be sure to bring a lot of ice and keep the broccoli in it at all times.



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7 Roots and Tubers

- Beets
- Carrots
- Potatoes
- Sweet Potatoes
- Radishes
- Turnips

When to Harvest / Maturity Guidelines:

- Harvest carrots based on the particular variety's size guidelines (read the seed packet), usually when they are 5-10 inches long and about 1 inch wide.
- Potatoes are usually harvested in the fall when the tops die and turn brown. Some potatoes, however, are harvested when they are small, about the size of a golf ball, and before the plant flowers. These are called "new potatoes."
- Sweet potatoes should be harvested in the fall before the first freeze.
- Radishes can be harvested when they are between 3/4 and 1 1/4 inches across. The radish should be crisp and the skin should not be cracked or split.
- Turnips should be harvested when they are more than 1 inch across. Leave the stems and leaves attached to the turnip.

Harvesting and Post-Harvest Handling Instructions:

- Be careful not to slice root crops if you use a shovel or a fork to loosen the soil.
- Carrots and Radishes should be sprayed with a hose or rinsed to remove all dirt, then tied into bunches with twist-ties.
- Turnips and Beets can be sold with or without their tops. If you are leaving the tops on, remove yellow or damaged leaves. Rinse or spray with a hose to remove dirt, then tie into bunches with twist-ties.
- Potatoes should be harvested and left in a cool, dry place for several days to cure. After they are cured, you can brush off or wash off the dirt.
- Sweet Potatoes should be harvested and left in a warm, humid place for a few days to cure. After they are cured, you can brush off or wash off the dirt.

Bunch Size

- Beets, Carrots: 1 bunch = 0.75 - 1 lb
- Radishes, Turnips: 1 bunch = 0.50-0.75 lb

8 Beans and Peas

- Green Beans (Bush Beans)
- Sugar Snap Peas
- Snow Peas

When to Harvest / Maturity Guidelines:

- Harvest Green Beans when they are about as big around as a pencil. The pods should be fairly smooth—no big bulges from the seeds inside.
- Harvest Sugar Snap Peas when the peas inside the pod have started to form, making the pod round.
- Harvest Snow Peas when they have reached their full length but are still fairly flat.

Harvest and Post-Harvest Handling Instructions:

- Keep beans and peas in a shaded basket or bin while in the field. Put in the cooler as quickly as possible to keep fresh.
- Harvest beans and peas every day or every other day to keep up with the new ones that are maturing.

Snow Peas are flat and you can eat the whole pod.

Sugar Snap Peas are fatter and rounder than snow peas, and you also eat the whole pod.



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9 Herbs

- Basil, all kinds (Italian, Lemon, Lime, Thai, Holy)
- Chives
- Cilantro
- Cutting Celery
- Dill
- Fennel
- Lemon Balm
- Marjoram
- Mint
- Oregano
- Parsley
- Sage
- Thyme

When to Harvest / Maturity Guidelines:

- Harvest herbs before they flower or get too “leggy” (tall and weak)
- Don’t harvest the whole plant—only cut about 1/3 of the plant so it will grow back

Time of Day to Harvest:

- Herbs wilt very quickly. Harvest in the early morning on the day of the market.
6:00am- 9:00am

Harvesting and Post-Harvest Handling Instructions:

- Cut herbs and use small rubber bands to make into bunches.
- Keep herbs in a cool and shaded bin or basket.
- Put herbs in cooler as soon as possible.
- Basil will stay fresh longer if its stems are put in water. Do not put basil on ice or the leaves may turn black from being too cold.

Bunch Size

- Chives, Dill, Fennel, Lemon Balm, Marjoram, Oregano, Sage, Thyme:
1 bunch = 0.10 lbs
- Basil all kinds), Cilantro, Cutting Celery, Mint, Parsley:
1 bunch = 0.20-0.25 lbs

10 Pumpkin/Squash Blossoms

When to Harvest / Maturity Guidelines:

- Harvest male blossoms (not attached to a baby pumpkin/squash, but to a long, slender stem) at any time

~OR~

- Harvest both male and female blossoms toward the end of the summer when it is too late for them to generate fruit (or if you have too many fruits).

Time of Day to Harvest:

- Squash blossoms wilt and die very quickly. Harvest first thing in the morning before the buds open, making sure there are no bees or other bugs trapped inside 6:00am- 8:00am

Harvesting and Post-Harvest Handling Instructions:

- Wear gloves and long sleeves when harvesting because squash and pumpkin plants can be scratchy.
- Snip blossoms from stem using scissors or clippers. If harvesting before blossoms open, there will be no chance of dirt or bugs being inside the bloom.
- Loosely cover with a damp cloth and cool as soon as possible to preserve freshness.
- Place stems of male blossoms in a cup of cool water so they stay fresh.
- Do not stack bunches high because the blossoms will get bruised and often fall off the stems. Try to keep them pointing up and do not touch them more than you need to.

Male squash blossoms (long stems)

Female squash blossoms (attached to fruits)



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11 Pumpkins and Winter Squash

- Acorn Squash
- Butternut Squash
- Pumpkins

When to Harvest / Maturity Guidelines:

- Harvest pumpkins when they have turned orange on the vine, but before the first hard frost. Smaller pumpkins are usually sweeter and better for cooking. Large pumpkins are often used to make jack-o’lanterns for Halloween.
- Harvest acorn squash when they are dark green and develop an orange spot on one side.
- Harvest butternut squash when they are firm and the color has changed from light beige to dark tan.

Harvesting and Post-Harvest Handling Instructions:

- Wear gloves and long sleeves when harvesting because squash and pumpkin plants can be scratchy.
- Use clippers or a sharp knife to cut the fruits from the stem. Do not break off the stem. Leave 2-4 inches of stem attached to the squash or pumpkin.
- Pumpkins should be stored in a cool, dry, shady place until you are ready to sell them.
- Winter Squash should be cured in a warm, dry place for a few days to harden and heal any wounds. After being cured, they should be stored in a cool, dry place where they can keep for several months.
- Acorn squash—orange spots mean they are ready to harvest.



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