



Backyard
Growers
**GARDEN
GUIDE**



From planting
your first
seeds to your
abundant
harvest.



Backyard Growers Garden Guide

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Thank you to The Food Project who inspired this project and whose Growing Guide we used for many years.

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Raised Beds

Why we use them:

- **Warmth** - soil warms up faster in the spring when it is isolated in a raised bed, so you can plant sooner!
- **Less compaction** - when the soil is elevated, humans and animals can't step in it and compact it, so it's easier for seeds to sprout and for you to plant!
- **Avoid contamination** - there can be lots of harmful chemicals in urban soil. Constructing a new raised bed over landscape fabric, filled with new soil helps ensure you're growing safe, healthy vegetables.
- **Increase production** - raised beds can be planted more intensively than plots of land because you can access the whole garden within arm's reach, giving you more veggies per square foot.

Square Foot Gardening

Square Foot Gardening was designed and popularized by Mel Bartholomew in the 1970s.

He designed this method of gardening to increase the productivity of small spaces like raised bed gardens.

In square foot gardening, gardeners plan their gardens in blocks of one square foot totalling 32 squares in one 4'x8' raised bed or 16 squares in a 2'x8' bed. Gardeners space and plant their vegetables according to how many fit in one square foot. As the season progresses and a plant in one block has been harvested, that square can be cleared and replanted. By planting in squares instead of rows, you maximize the number of plants you can fit in your small space, therefore maximizing the plants you are able to harvest and eat!

SQUARE FOOT GARDENING: HOW IT WORKS

1) Instead of thinking in rows, think in squares!



Vegetables require different amounts of space to grow. Square foot gardening breaks the space they need into square feet. One 4'x8' garden bed is 32 square feet- that's 32 squares you have to plant!

So instead of thinking, "plant one carrot seed every two inches," think:
"plant 9 carrot seeds per square foot"

2) Make a Plan

Use this guide to figure out:

- 1) Which plants you want to grow
- 2) How much space they take up
- 3) Where to put them in your garden

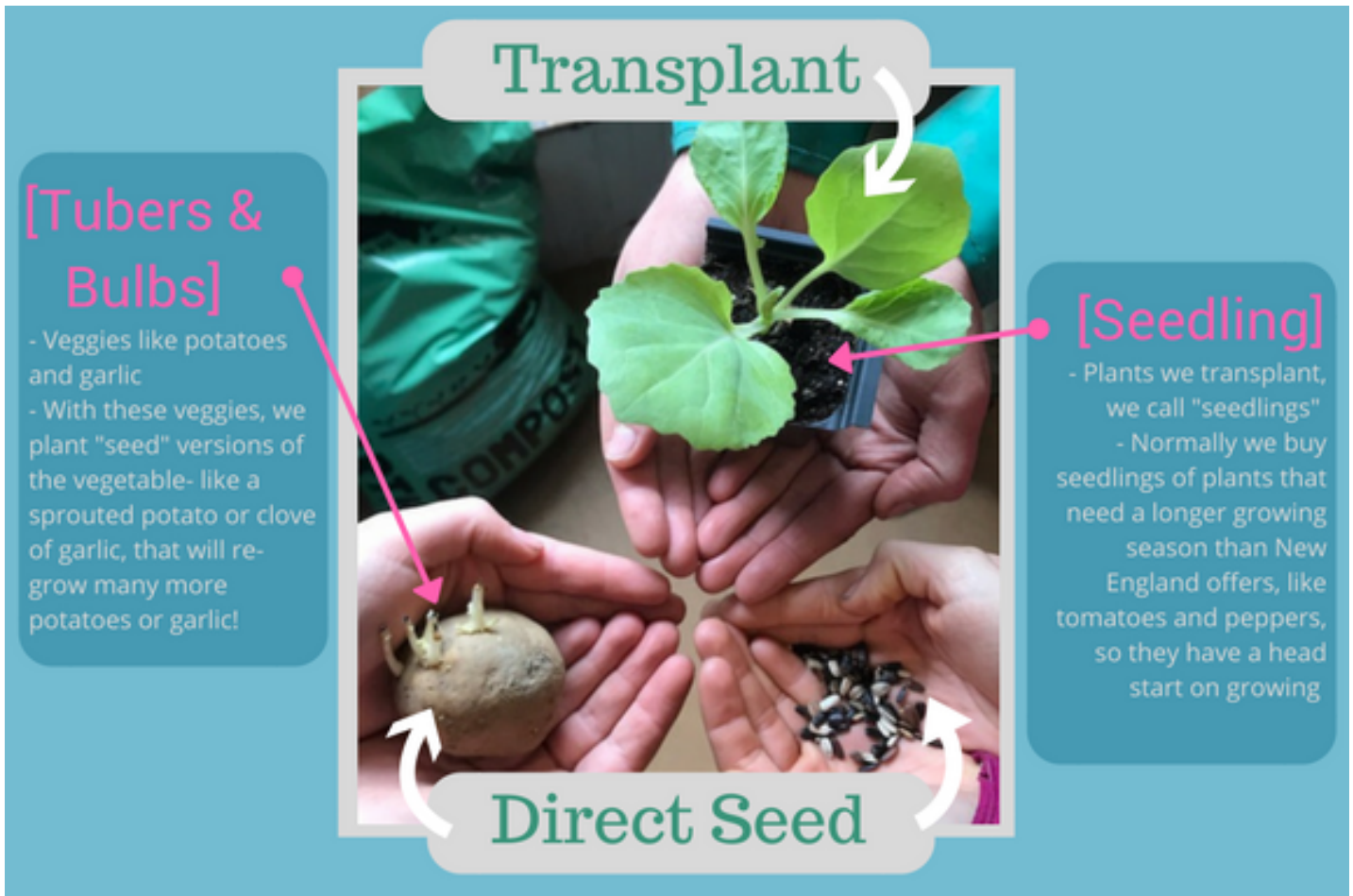
Then use the garden template in the back of this manual to map out your plan!

It helps to physically grid out your garden so you can translate your garden plan into reality!



3) Grid it out!

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Planting

Before you Begin

- 1) **Grid out your garden:** It is helpful to physically grid out your garden so you can see all of the squares. One method is marking off square feet with a grid made from string and screws partially screwed into the top edge of the boards. You can also use nails but note that whichever you use if you leave them in the bed they will rust over time if they are not meant for exterior use. Once your screws/nails are placed every foot you can use twine or string to create a pattern of squares starting at one end and moving across the bed continuously.
- 2) **Have your garden plan ready:** Find the north and south facing sides of your garden and put markers where plants should go according to your plan. Taller plants should be on the north side of the bed to avoid shading out the smaller plants.
- 3) **Get your seeds and seedlings ready:** Depending on the plant, sometimes you'll plant a seed directly in your garden, and other times you'll want to plant a seedling, a small "baby" plant. Look at your plan and determine which seeds and seedlings you will need.
- 4) **Get your labels ready:** Seedlings all tend to look very similar and you don't want to forget which is which or where you've planted seeds, so make sure you have labels ready! Clearly mark where you planted your vegetables as you plant.

Direct Seeding

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Direct seeding is the process of planting seeds directly into a garden. Root vegetables like carrots, beets, and radishes are always direct seeded. Others like lettuce, cucumbers, squash, and pumpkin can be direct seeded or transplanted depending on variety and season.

Planting: Best Practices

- 1) **Dampen the soil:** It is easier to plant in slightly damp soil.
- 2) **The smaller the seed, the more shallow you should plant it:** Small seeds like lettuce and carrots are best patted lightly into the soil or barely covered by soil. Bigger seeds like peas or beans should be buried deeper. See the planting information for each vegetable, pages 13-25.
- 3) **Determine how old your seeds are.** Older seeds will not germinate (start growing) as well. If they are more than a year old, you will want to drop a few extra seeds into each hole you plant. If you don't see a seedling after the suggested germination time, plant more seeds. Your seed packet will say how old the seeds are.
- 4) **Cover the seeds:** Cover all seeds lightly with soil and pat the soil gently to bring seeds into contact with soil.

Always water after planting!

Water seeds gently right after you plant them. This is best done with a spray bottle or mist nozzle on a hose. Keep the soil moist, not soaked, while seeds are germinating. Try to avoid watering in the middle of the day when water evaporates the quickest.



Thinning:

Thinning is a method of removing some sprouts to ensure strong sprouts have enough space to grow.

Often when you direct seed, you plant more seeds than you need. If all of these seeds sprout, you should "thin" the number of sprouts down to the ideal number for that area. Decide which ones seem the strongest and "thin out" the others. Thin your seedlings by gently pulling out the shoots you don't want.

Example:

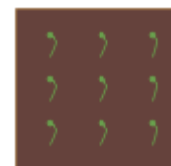
Seed spinach 9 per square, with a few extra seeds in case some don't grow



Not all the seeds will sprout, but more sprouted than you need



Thin down to 9 per square



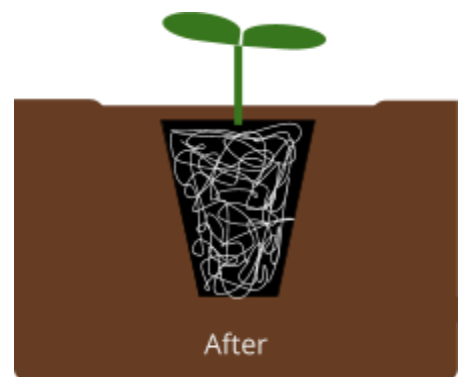
Transplanting

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Transplanting is the process of planting seedlings: plants that are already several weeks old. Crops that fruit in the summer like tomatoes, peppers, and eggplants are almost always transplanted in New England.

Transplanting Best Practices:

- 1) Dig a hole in the soil slightly larger than the container in which the seedling is growing.
- 2) Carefully remove the entire plant and surrounding soil from the pot. (Generally it helps to turn the plant upside down and apply gentle pressure)
- 3) If you see a clump of tangled roots at the bottom of the root ball, gently ruffle the roots loose. Place the plant, roots first, into the hole and fill it with soil. With vegetable transplants you should bury the plant up to the first set of leaves.
- 4) Pat down the soil firmly around the plant so the roots are in contact with the soil.
- 5) Smooth the soil out around the stem so that the surface of the soil drains slightly toward the plant. (This will help the plant collect moisture.)
- 6) Newly transplanted seedlings often suffer from “transplant shock” and look sad for a few days before they perk up. To reduce shock, transplant on cloudy days or early in the morning.



Don't Forget to Water!

Watering is extremely important for seedlings as they are very vulnerable when first planted.

Water the base (not the leaves) of each seedling immediately and for the next few days until they are established, especially in mid-summer.

“Hardening Off”

Hardening off is the process of letting seedlings become accustomed to being out of the greenhouse and outside without the added stress of being planted right away. Most seedlings you buy will be hardened off already. However, if you are starting your own seeds indoors, follow these steps to make sure they are not shocked by the sun and the wind and to keep them happy and healthy:

Days 1 & 2: Put the seedlings outside for part or all of the day and take them inside at night.

Day 3: Leave the seedlings out all day and through the night.

Day 4: Transplant the seedlings into your garden, following the transplanting instructions.

Watch the weather! Temperatures below freezing could harm your plants! Cover them with agricultural fabric or a clean old sheet if you want to protect them.

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Watering

Watering is a fun and relaxing activity. Here are a few tips and tricks to remember that will help your garden grow to its fullest potential!

Water in the evening or early in the morning

When you water cool soil in the evening or night, less water evaporates than would on hot soil during the day, so your plants get more of the water!

Water deeply

When you water, you want to make sure the water reaches the roots. **You will have to water more than you think!! Watering a 4'x8' raised bed garden can take up to 40 minutes during the heat of the summer!**

But avoid waterlogging

Waterlogging suppresses the roots' ability to breath, and the root cells drown without oxygen.

Not sure if you've watered too much or too little?

Don't know if you need to water today?

Just keep checking your soil!

How to check:

Check to make sure you have watered enough by sticking your finger into the soil to make sure the soil is moist about 2" down.

Keep leaves dry

Wet leaves become diseased leaves. Water gently at the bottom of the plant, directly on its roots to avoid soaking the leaves.



Watering Frequency

Watering frequency can vary depending on the time of year and the type of plant. Generally, during the summer or when it's dry, you will need to water more often, sometimes daily. Withering or wilting plants signal they are not getting enough water. However, most plants will wither a bit during the day in the hot sun, but if they perk up in the evening they are fine. Practice mulching in addition to the tips above to make your watering even more effective.

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Mulching:

Mulching is the process of covering your soil with plant matter such as straw (preferred), shredded leaves, and compost.

Why it helps:

- 1) Raised beds are susceptible to drying out. Mulching helps reduce water loss by preventing some evaporation.
- 2) Mulching cuts down on weeding by shading weed seeds. Lots of small organic farms use heavy mulching to cut down on weeding in place of chemicals.
- 3) At the end of the season, mulch can be mixed into your soil to add organic matter to the soil.

How to Mulch

After your plants have established themselves, spread the mulch several inches thick over the surface of the bed or lay down a layer of newspaper first and then cover it with mulch.

Note: We do not advise using grass clippings or hay (different than straw!) to mulch your garden. They often still have seeds in them that could grow into new weeds in your garden.



Weeding:

Weeding is an important part of caring for any garden, especially an organic garden. If uncontrolled, weeds can easily crowd out other vegetables and fruits.

Identifying Weeds

When you first begin gardening, it can be hard to tell what is and is not a weed. In the first year, it can be good to let most things grow until you can identify them as a weed or a vegetable you planted. Another best practice when you plant seeds is to look up **how long it will take for your seeds to sprout** and **what the sprouts of your vegetables will look like** so you know what to expect when they start growing.

Weeding Best Practices

- 1) Keep up with the weeds! Spend a few minutes pulling weeds every day or every few days so that the task stays manageable.
- 2) Remove weeds before they go to seed so they don't spread more weeds around your garden.
- 3) Use mulch in the garden to shade out weeds! (See above)
- 4) Weeding is always easier after a watering or a rainstorm when soil is moist.
- 5) Make sure you pull out the roots so they don't grow back. You can remove weeds by hand or with tools, just be careful not to damage the roots of your fruits and vegetables.

Trellising

Trellising is a method of supporting vegetables' vertical growth through a lattice-like structure.

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Why it's important:

- **Helps support your veggies:** certain vegetables like peas and cucumbers are vining vegetables that naturally like to climb and grab onto other plants and structures as they grow. Trellising allows plants to climb up without smothering other plants.
- **Saves space:** trellising helps you save space by directing your crops UP instead of OUT
- **Protects your veggies:** when your vegetables lay on the ground they are more susceptible to rot and disease when it's wet and to critters like mice and bunnies. Moving them up and off the ground helps avoid both.

Spotlight: Tomatoes

Tomatoes **always** need some sort of trellis or support. They are vining crops and their fruits are heavier than peas and other trellised veggies, so any type of trellis or cage you set up for them must be extremely sturdy. Look for the ☀ symbol to indicate trellising methods that are particularly effective with tomatoes.

Building an Effective Trellis

Chances are you have enough scrap materials to create a simple trellis!

☀ **The Florida Weave:**

This is good when you have a long row of tomato plants, and only requires a few stakes and strong twine. Secure one stake at each end of the row and then a stake for every two tomato plants. Tie a line of twine onto an end stake 8-10" above the ground. Weave the twine between your tomato plants across to the other stake. Pull the line as tight as you can. When you get to the end, return back down the row running the string along the opposite sides of the plants. This pulls each line (and therefore the plants) toward the center. Run lines every 8-10" up the stakes as the plants grow, and tuck new vines in every few days.



☀ **If you have an existing fence/ wall in or next to your garden:**

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Simply tie, staple, or nail mesh or old wire fencing to a wooden fence or wall so the plants have something to grab onto while climbing up. If you already have a chain link or wire fence, you can plant directly at the base of it and use it to wrap vines as they grow. This is best if the fence is facing west or south for maximum sun exposure.

☀️ If you have a cement wall or no wall in your garden:

Secure a post (can be scrap wood, branches or metal; at least 4 feet high so plants have room to climb) at each end of the row by staking them into the soil or screwing them into the wooden sides of your raised bed. Staple or tie chicken wire or mesh to the posts to create a trellis between them. Plant seeds on both sides of the trellis so they will grow up. With a cement wall, you can secure the posts into the soil or sides of the bed, lean the trellis up against it, and plant seeds on one side.

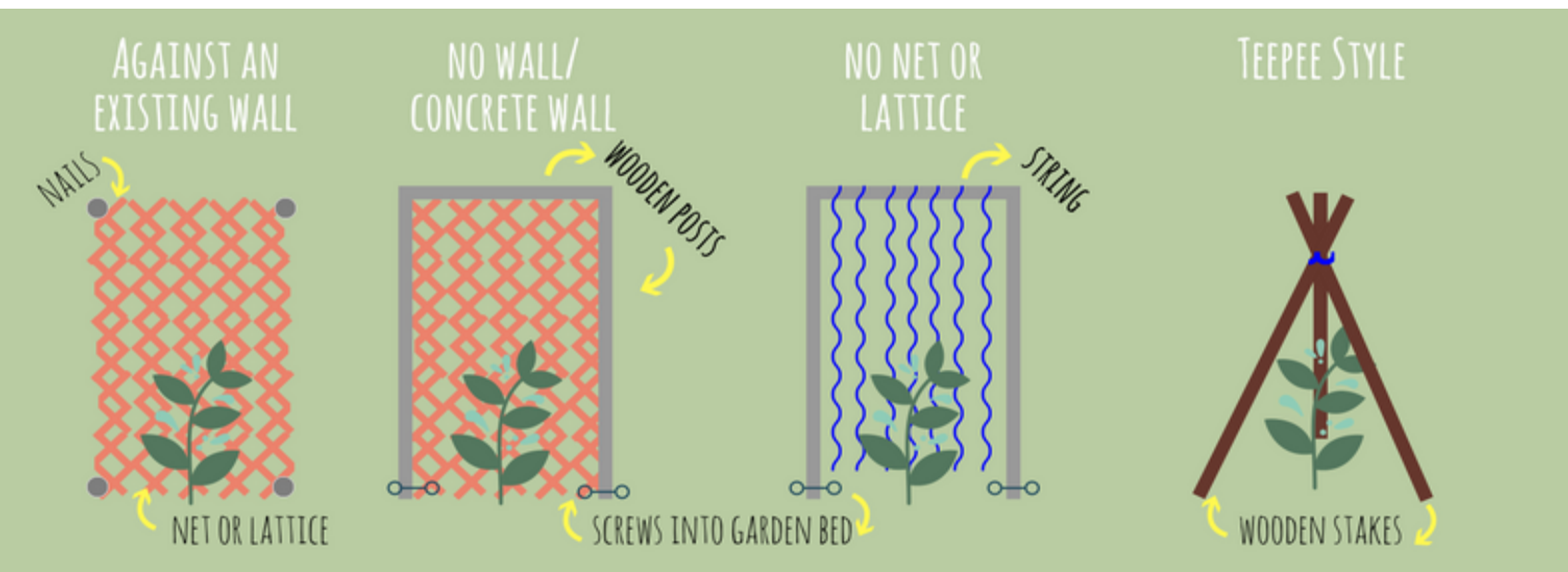
☀️ No mesh or screen - just string!

Secure a post at each end of the row (either in the soil or screwed to a raised bed). Attach a stick across the top of the posts to form a crossbar. Tie old pieces of twine or string to the cross bar and let them dangle down to each seed. You can secure the dangling string to small stakes in the ground or by tying small rocks to the end so they don't blow in the wind. The peas/ beans will reach for and climb the twine (sometimes with some guidance from you).

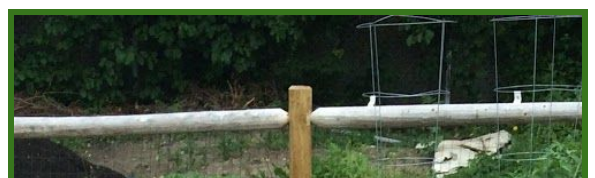
Teepees

Best for climbing beans, not tomatoes

Arrange branches or poles into a teepee and tie them together at the top. Be sure to stick the poles firmly in the ground so they don't blow over.



☀️ Cages





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You can use cages for many tall fruiting vegetables including peppers, eggplants, and tomatoes. If you are using them for tomatoes, make sure the cage is at least 4 feet tall and sturdy.

You can recycle any wire fencing you happen to have on hand and make it a tomato cage. The fencing should be at least 4 feet tall and about 4 feet in length. Roll the wire into a cylinder cage shape that encircles your plant and secure the cage well into the soil. You can also use these cages for cucumbers.

✿ Using a post and string

Use for tomatoes, peppers, or eggplant only

Secure some tall (at least 4 feet) stakes or posts into the ground next to each tomato plant or between two plants and loosely tie the plants to the stakes or posts as they grow.

OR:

Secure a post at each corner of your tomato growing area and one in the middle so that the posts make the pattern of the “5” side in dice. Tightly wrap string like a belt around the outer posts and tie off. Do this twice, once about 12 inches off the ground and again toward the top of the posts. Then run a piece of string from each outer post to the inner post, creating “X”s in the middle of the stakes. The string will support your plants as they grow.

Need more ideas?

Do a google image search for “DIY trellises” and you’ll find many more variations!

IT'S NOT OVER WITH THE TRELLIS!

You have to keep up with your plants after you build the trellis. You can:

- Tie your plants to the strings/poles/netting as they grow
- Weave your plants through the netting as they grow
- For tomatoes in cages: continue tucking your tomatoes into the cages as they grow



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Pest Control

BYG strongly encourages using organic methods in your garden. Pesticides and insecticides can lead to a variety of long-term problems, so please consider very carefully before using them.

Know the pest: There could be many things eating your plants, so identifying them is key to approaching the problem correctly. There are also many good insects and critters in the garden that you don't want to harm. Make sure you can identify which are pests and which are good for the garden.

Insect Best Practices

- *Know their life cycle and habits:* Knowing when a certain insect is most harmful in the garden can help you treat the problem better. For example, knowing that an insect is more harmful as larvae than an adult or that it is always worst in the spring.
- *Manually remove:* While time-consuming, it is easy to pick off bugs like slugs, snails, and bigger insects. If the insects are small and the plant is strong, use a hose to spray them off.
- *Welcome insect eaters:* Birds, lizards, and toads all love to eat insects that might be harmful to your garden. Making these animals comfortable near the garden by providing a bird bath or keeping that pile of rocks near the corner of the garden will encourage them to stick around.
- *Netting and trapping:* In extreme cases, you might have to put nets or covers over your most vulnerable plants. Make sure you do not trap the bugs or larvae inside.



Harlequin Beetle



Tomato Horn Worm

Specific Pests

Below are some suggestions for organic ways to treat specific pests. None of these suggestions will completely resolve a pest problem, but they will hopefully enable your plants to keep producing food long enough for you to enjoy it.

Aphids: Mix one teaspoon of dish soap with one quart of water. Spray the aphids with it once a week for 2-3 weeks.

Flea beetles: Sprinkle the leaves with ground cayenne pepper.

Cabbage worms: Look closely on the front and back of leaves (they blend in!) and manually remove.

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Cutworms: To prevent them from chewing through the stems of newly transplanted peppers, eggplant, and tomatoes, loosely wrap the stems of the transplants at the base with 2 inch wide strips of newspaper and bury the bottom edge ½ inch deep in the soil. The paper will discourage the cutworms when the transplants are young and will dissolve later as you water.

Harlequin beetles: Manually remove. If the problem continues, cover your garden with a light bug netting in early spring to discourage them from laying their eggs in your garden.

Japanese beetles, Mexican bean beetles, Colorado potato beetles, and cucumber beetles: Hand pick the adults and the larva and squish them or drop them into a jar of water. Be sure to scrape the egg masses off of the leaves as well. It is easiest to capture these pests in the early morning when the temperature is still cool.

Leaf miners: In early stages, cut leaves and remove from garden (do not compost).

Slugs: Manually picking them off is most effective. You can also make traps from jar lids filled with beer; slugs will drink the beer and drown. Spreading a gritty material such as sand or crushed eggshells around the base of the plants will also deter them.

Squash beetles: Put a short piece of a board between your squash plants; the slugs will hide under the board and be easy to capture in the morning.

Tomato hornworms: you might have these if your tomato leaves look like skeletons. You will need to look carefully to find these green caterpillars among the leaves. When you find them, pick them off and dispose of them. They look scary, but they do not bite.

Animals:

Deer: Tend to stay away from plants that smell particularly strong, so herbs and flowers like bee balm, lavender, and foxglove discourage them. Smells like garlic or rotten eggs will also do the trick. For extreme cases, fencing and netting must be at least 5 feet tall with small holes. Tie shiny ribbons on the netting to frighten the deer even more.

Rabbits, Squirrels, & Cats: The best solution is to install netting around your bed or row covers over your bed. Netting should be at least 2 feet tall with holes smaller than 1 inch. Row covers can be constructed easily with some breathable fabric and PVC pipes for the hoops over the garden. However, row covers can hold in a lot of heat in the summer, so be sure to water frequently so your bed doesn't dry out.

There are lots of good insects and animals in the garden too!

Worms, centipedes, and pill bugs are all decomposers who actively turn our garden waste into soil. **Ladybugs and hoverflies** prey on aphids, **spiders** prey on caterpillars and beetles, and **bees** pollinate the flowers. Even some **caterpillars** that eat our plants when they are young turn into butterflies that pollinate our gardens later! Remember: the garden is a whole ecosystem and most of all the insects out there are beneficial!





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Planting and Harvesting Instructions

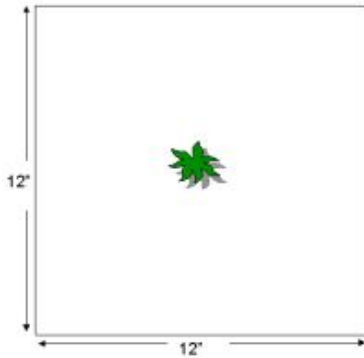
The following pages are instructional guides to planting and harvesting various vegetables and herbs. Plants are categorized according to family, but you can also use the appendix to search for specific plants by name.

GREENS (arugula, lettuce, salad mix, spinach, baby Asian greens, Swiss chard, kale, mustard greens, & collards)	
Planting	14
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CRUCIFEROUS VEGGIES (bok choy, broccoli, Brussels sprouts, cabbage, & cauliflower)	
Planting	16
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ROOTS & TUBERS (carrots, beets, turnips, radishes, potatoes, garlic, & onions)	
Planting	18
Harvesting	19
FRUITING CROPS (cucumbers, peppers, eggplants, tomatoes, summer squash, & melons)	
Planting	20-21
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HERBS (basil, cilantro, chives, dill, mint, oregano, parsley, sage, thyme, rosemary, etc.)	
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BEANS & PEAS	
Planting	24
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Thank you to The Food Project for the graphics of Square Foot Garden planting used in the following sections.

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Greens: Planting



Kale and Collard Greens

Square Foot Planting: 1 per square foot

When to plant: Plant from late April to early July and harvest from early summer to fall.

Seed Depth: ¼ to ½ inch, direct seed or transplant

Germination: 5-7 days

Height: Medium

Spinach

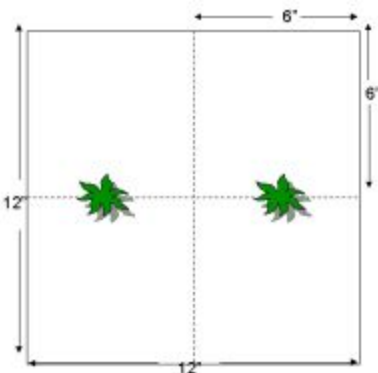
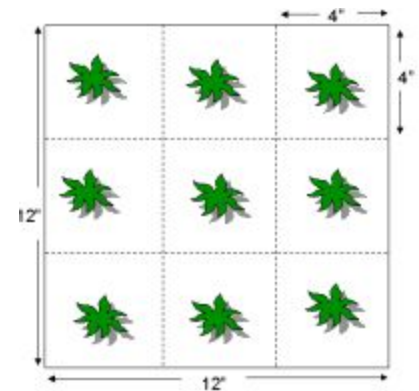
Square Foot Planting: 9 per square foot

When to plant: Plant every 1-2 weeks from late March through mid-May, harvest in late August. (They like cool, moist soil.)

Seed Depth: ½ inch direct seed

Germination: 7-14 days

Height: Short



Swiss Chard & Mustard Greens

Square Foot Planting: 2 per square foot

When to plant: These have a long growing season, so plant from early April until mid-July. A few plantings (every two months) will supply you for most of the season. Red chard is more pest resistant!

Seed Depth: ½ inch direct seed or transplant

Germination: 5-7 days

Height: Short-Medium

Leaf Lettuce, Arugula, and Baby Mustard Greens

Square Foot Planting: Sprinkle seeds evenly along 4 rows in a 1-foot square. Pat in very gently.

When to plant: Plant every ten days starting in early April. When it's hot, lettuce and baby greens will "bolt" or send up stalks to grow flowers and seeds which will make your lettuce bitter and not very tasty. If possible, use "slow bolt" varieties. During the hottest part of the summer, plant in shade.

Seed Depth: ⅛ inch, direct seed

Germination: 7-14 days

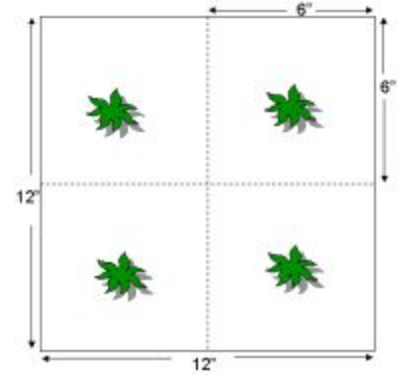
Height: Short

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Head Lettuce

Head lettuces are varieties like iceberg or buttercrunch that you harvest as a whole head. This lettuce is different from **leaf lettuce** which is lettuce that grows in rows (see above for leaf lettuce instructions).

Square Foot Planting: 4 per square foot



When to plant: Plant or transplant every ten days starting in early April. When it's hot, lettuce will "bolt" and send up stalks to grow flowers and seeds which will make your lettuce bitter and not very tasty. If possible, grow "slow bolt" varieties. During the hottest part of the summer, plant in shade.

Seed Depth: 1/8 inch, direct seed or transplant

Germination: 7-14 days

Height: Short-Medium

Greens: Harvesting

General Harvesting for Greens:

1. In general, veggies should be cooled immediately after harvest.
2. Harvest before the plant sends up a stalk and flowers.
3. Cool green, leafy vegetables quickly after harvesting by dunking them in cold water, shaking off the excess water, bagging, refrigerating, and using within the week.



Greens are "cut-and-come-again"
DON'T pull up the roots to harvest them
DO use the techniques below

Salad mix, arugula, and spinach:

1. Cut large clusters with scissors or hand pick individual leaves about an inch above the ground when leaves are small and tender.
2. **Let these plants re-grow and harvest again** 2-3 times before the end of the season.

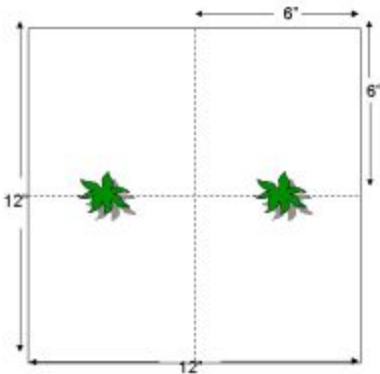
Swiss chard, kale, and collards:

- Pick the large outer leaves as needed and new leaves will continually grow at the center of the plant throughout the growing season, so you can harvest and enjoy all season!



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Cruciferous Veggies: Planting



Bok Choy

Square Foot Planting: 2-4 per square foot

When to plant: For a continuous supply, plant seeds every 2 weeks throughout the spring and again in mid-summer for the fall.

Seed Depth: ½ inch direct seed or transplant

Germination: 7-10 days

Height: Medium

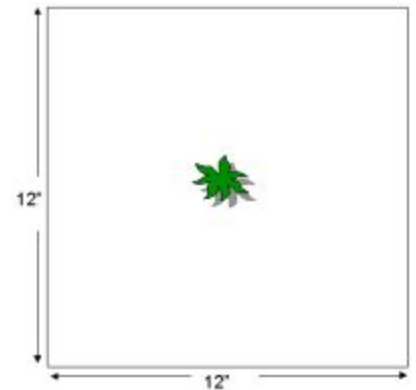
Broccoli, Cabbage, and Cauliflower

Square Foot Planting: 1 per square foot

When to plant: Transplant in late April for an early crop, or direct seed May to June for a fall crop. Water regularly.

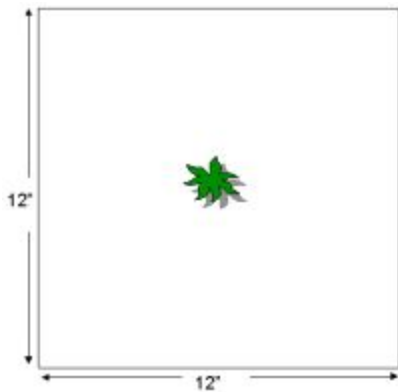
Seed Depth: ½ inch direct seed or transplant

Germination: 4-7 days **Height:** Medium



Pro Tip: Cauliflower

To get those big, white heads of cauliflower you see at the grocery store, tie the leaves around the head as soon as you see it start to take shape!



Brussels Sprouts

Square Foot Planting: 2-4 per square foot

When to plant: Plant in early spring

Seed Depth: ½ inch direct seed or transplant

Germination: 7-10 days

Height: Medium

Brussels Sprouts in Square Foot Gardening

Brussels sprouts can be tricky in a small garden. If you have the space, plant the Brussels sprouts close to the edge of the bed so they can lean out if they need more space.

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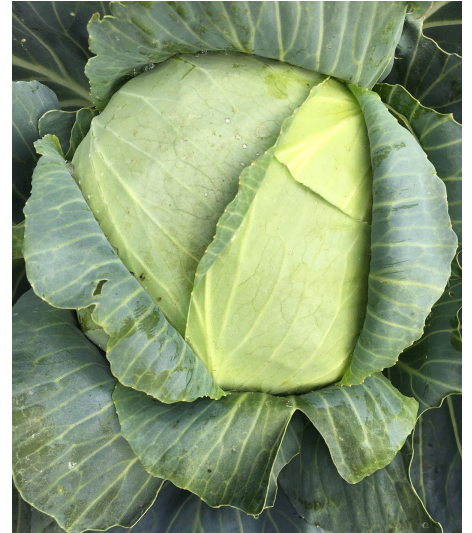
Cruciferous Veggies: Harvesting

General Harvesting Rules

- Harvest while the head of the plant is firm
(when it looks like the store-bought version of the veggie!)
 - Cut directly below the desired head

Cabbage

- Harvest when heads are fully formed and firm. Each cabbage should weigh about a pound.
- Cut closely below head.
- Pull off tough outer leaves and compost them.



Bok Choy

- Pick when leaves are about 6-10 inches high. Cut just above the root so the head stays together.
- For baby bok choy, see instructions on pg. 15 on harvesting baby lettuce.



Broccoli and Cauliflower

- Cut the heads off the stalk with a knife when heads are fully formed but still tight and compact - before flowering!
- Broccoli may grow a few smaller heads after you harvest the main head if you leave the roots in the ground.
- Cauliflower will not resprout, so you can pull the plant once it is harvested.

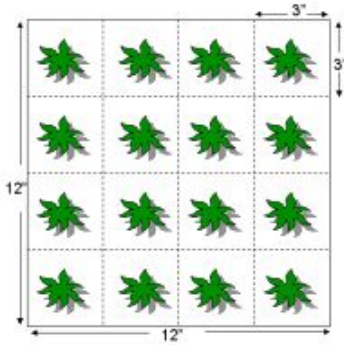


Brussels Sprouts

- Brussels sprouts will grow like mini cabbages on a stalk.
- Harvest by gently snapping the little head off the stalk.
- You can harvest up the stalk as they grow to your desired size or wait until they are all big enough and harvest the whole stalk at once. The sprouts will not grow back.

Backyard Growers Garden Guide

Roots & Tubers: Planting



Beets, Carrots, Radishes, & Turnips

The following root veggies can all be planted 16 per square.

To plant: Draw 4 evenly spaced lines $\frac{1}{4}$ in deep in the soil with your fingers. Sprinkle 8-12 seeds over each line and then lightly pack down soil. After germination, thin out the crops so that there is one plant every 2-3 inches, or 16 in the square. Keep soil moist.

When to plant: Every 3 weeks from mid-April to early/mid-August.

Seed Depth: $\frac{1}{2}$ inch direct seed (for carrots, $\frac{1}{4}$ is usually preferred)

Height: Short

Germination (beets): 5 days

Germination (radishes): 4-12 days

Germination (carrots): 6-12 days

Germination (turnips): 4-7 days

Potatoes

When planting potatoes, you use a "seed potato" which will look just like a sprouted piece of potato.

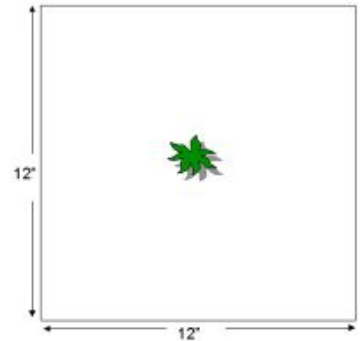
Square Foot Planting: 1 per square

When to plant: Mid-May to late June depending on variety.

Seed depth: 4-6 inches

Germination: 2-4 weeks

Height: Medium



Hilling Potatoes

As the stem emerges about 6 inches tall, cover the plant's stalk with about 4 more inches of soil, mounding the soil around the base of the plant like a hill. Hill 2-3 times throughout the summer.

Onions & Leeks

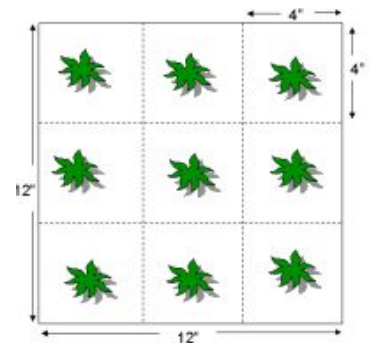
Square Foot Planting: 9 per square

When to plant: Late April - mid May

Seed depth: Bury transplants about 2-3 inches

Germination: 2-4 weeks

Height: Medium



Garlic

Garlic grows the same as onions and leeks (9 per square), with a different schedule. Plant garlic in October and cover with straw. It will emerge in early spring and be ready to harvest in Aug.- Sept. when its leaves turn yellow. You can also cut off and eat the garlic "scapes," the curled top that develops in mid-summer.

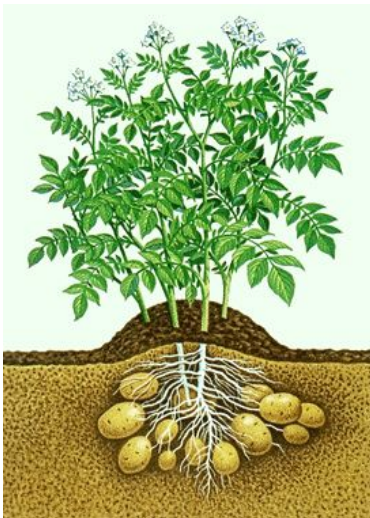
Backyard Growers Garden Guide

Roots & Tubers: Harvesting

General Harvesting:



1. Look for the vegetable poking out of the soil.
 - a. Beet, onion, and turnip tops should be 1-2 inches wide.
 - b. Carrots and radish tops should be about 1 inch wide.
2. Grab all leaves of one plant in a handful to pull the plant out of the soil
3. For beets, carrots, radishes and turnips: Hold the root and the leaves and twist the leaves off the vegetable. *You can eat the beet, radish, and turnip greens, too!*
4. For garlic and onions:
 - a. To store: Gently brush dirt off and hang to dry for a week or two. Then cut the stem about an inch above the head and store in a dark, cool place.
 - b. To eat immediately: Cut the stem about an inch above the head and enjoy.
5. For leeks: You can trim the leaves about where the stem and leaves begin to harden, so the leak is about 12-16 inches long.



Potatoes

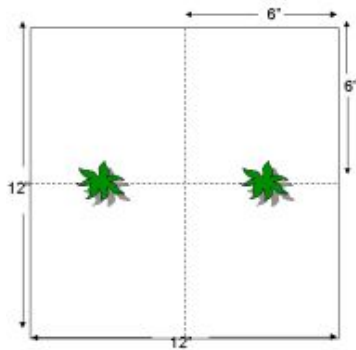


Potatoes grow under the ground, so often you won't recognize them. They look like this while they're growing.

- Harvest in the fall when the leaves/stems die and turn brown.
- Harvest by pulling up the base of the potato plant and digging underneath to find more potatoes.
- **Cut away any green parts on the potatoes or they will make you sick.**
- Store in a cool, dry, dark place and eat before they start to sprout. *Do not rinse potatoes before storage—just wash before cooking.*

Backyard Growers Garden Guide

Fruiting Crops: Planting



Cucumbers

Pro tip: trellis your cucumbers at the back of your bed to save space! Transplanting seedlings is always recommended.

Square Foot Planting: 2 cucumbers per square foot

When to plant: late May (after last frost)

Seed Depth: ½ inch direct seed or transplant

Germination: 3-4 days **Height:** Short (tall if trellised)

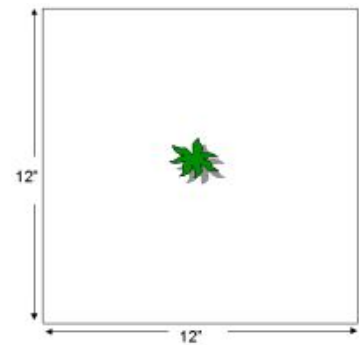
Pepper & Eggplant

Square Foot Planting: 1 eggplant per square foot

When to plant: late May (after last frost)

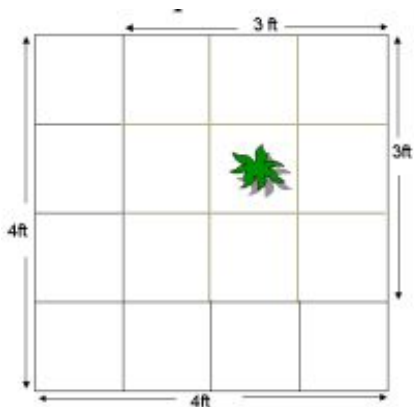
Seed Depth: always transplant in New England

Germination: 8-14 days **Height:** Medium



Fruiting Crops that Need More Space

The following crops will need more than the typical 1x1 square foot block. Look carefully at the spacing in the following diagrams.



Summer Squash (zucchini, yellow squash):

Square Foot Planting: 1 squash in a 3 foot by 3 foot block

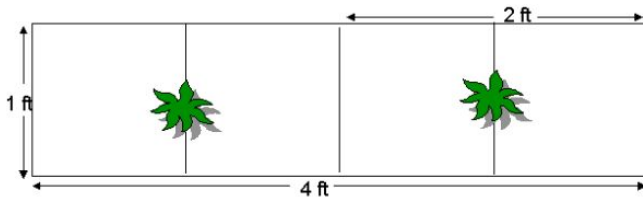
When to plant: late May (after last frost)

Seed Depth: ½ to 1 inch direct seed or transplant

Germination: 6-10 days **Height:** Medium

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Melons and Winter Squash (acorn, pumpkin, butternut)



Winter squash needs a lot of room, so plan ahead. Plant near the edge of the bed and train the vine to grow outwards. Smaller fruits such as sugar pumpkins can be grown on a trellis.

Square Foot Planting: 2 winter squash vines in a 1 foot by 4 foot row or under trellis

When to plant: late May (after last frost)

Seed Depth: ½ to 1 inch direct seed or transplant

Germination: 6-10 days **Height:** Medium- Tall

Tomatoes:

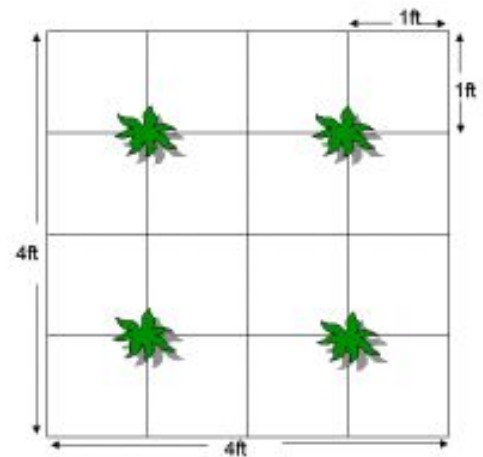
Must be trellised, caged or staked. See trellising section (pg. 8-10) for ideas on how to effectively trellis your tomatoes.

Square Foot Planting: 1 tomato in a 2 foot by 2 foot block or 2 tomatoes under 4 feet of trellis.

When to plant: late May, after last frost

Seed Depth: always transplant in New England

Germination: 6-14 days **Height:** Tall



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Fruiting Crops: Harvesting



General Harvesting Instructions for Fruiting Crops:

1. Harvest fruiting crops when fruit is the desirable size, as you would find them in a store, and/or color and flesh is firm but tender.
 - a. *Do not harvest too late or fruit can become bitter and seedy.*
2. Use one hand to stabilize the plant as you pull or cut the desired fruit off so as not to damage the rest of the plant.

Cucumbers, melons and squash:

Pick cucumbers, melons and squash by holding the stem with one hand, and using the other hand to turn the vegetable parallel to the stem and quickly snap off.



Eggplants and peppers:

Use scissors or clippers to cut the stems just above the fruit.

Tomatoes:

Harvest when red but still firm, with little or no cracking, spots, or bruises. Tomatoes will keep better if you leave the green flower top attached to the tomato when you harvest.



What's the difference between summer squash and winter squash?

Summer squash are almost always yellow and are often referred to as zucchini when they are green. Summer squash and zucchini have thin skin and tender flesh that you can eat raw or cooked directly after harvesting.



Winter squash, like acorn squash, butternut squash, or spaghetti squash, can come in many shapes and sizes. They all have thick skin and tough interior that makes them ideal for winter storage. They need to be cooked before eaten to soften the flesh.



Backyard Growers Garden Guide

Herbs: Planting

Best Practices

1. Most herbs are transplanted or started early in Massachusetts.
2. Most herbs do well in pots or planters. To save space in your garden, plant herbs in other containers.
3. **Do not plant mint in your raised bed.** Mint is extremely prolific and will spread throughout the garden bed.

Annual Herbs (planted each year)

- Basil: Can be planted alongside tomatoes (leave enough room so they are not shaded). Transplant 2 seedlings per square.
- Cilantro: *Direct seed only.* Draw 4 lines in a square and sprinkle 10 seeds in each. Plant every 3 weeks for continuous crop.
- Dill: *Direct seed only.* 4 per square.
- Parsley: Transplant 2 seedlings per square.

Perennial Herbs (will grow each year without replanting)

- Common perennial herbs include sage, oregano, mint, and thyme.
- Transplant 1 seedling per square.
- If possible, remove from garden in winter and store in a pot inside until late spring.

Herbs: Harvesting

Harvesting Tips for All Herbs

- 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.
- After harvesting, cool herbs immediately—they wilt fast.
- You can use scissors or your fingers to pinch off leaves, depending on the herb

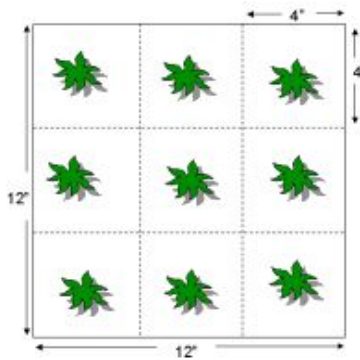
Basil:

- Basil will stay fresh longer if its stems are put in water. Do not put basil on ice or the leaves will turn black.



Backyard Growers Garden Guide

Beans & Peas: Planting



Bush Beans

Bush beans grow low to the ground and do not vine.

Square Foot Planting: 9 bush beans per square foot

When to plant: late May- mid July

Seed Depth: 1 inch, direct seed

Germination: 7-10 days **Height:** Medium

Pole Beans:

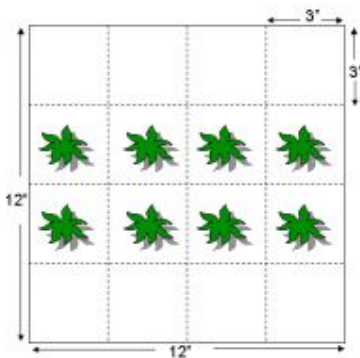
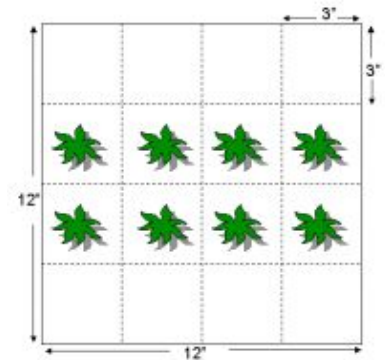
Use trellis to grow. For effective trellising methods see the trellising section (pg. 8-10)

Square Foot Planting: 4 pole beans per square foot of trellis

When to plant: plant once in late May

Seed Depth: 1 inch, direct seed

Germination: 7-10 days **Height:** Tall



Peas:

Use trellis to grow. For effective trellising methods see the trellising section (pg. 8-10)

Square Foot Planting: 8-12 plants per foot of trellis

When to plant: as early as late March- early May. Peas thrive in cool weather.

Seed Depth: 1 inch, direct seed

Germination: 14 days **Height:** Tall

Backyard Growers Garden Guide

Beans & Peas: Harvesting

To determine how to harvest beans and peas, it is important to pay attention to the variety you planted. See below for specific directions on harvesting different varieties.

Peas

There are two types of peas- **shelling peas and snap peas**- and they are harvested differently.

Snap Peas

- Harvest when the peas inside the pod have started to form and the pod becomes round.
- *Eat the whole pod.*

Shelling Peas:

- Harvest when the pods are plump and bright green. If you pick them past this stage the peas will be starchy instead of sweet.
- *Do not eat the pod—just the peas inside.*

Beans

There are also two types of beans - **dry beans and green beans** - that determine how you harvest them.

Dry Beans

- These are varieties like black beans or pinto beans that dry out in the pod before harvesting. You have to cook them before you eat them.
- *Let the plants and fruits dry out fully before harvesting. They will look dead, but they aren't!*
- Shell the beans and store or cook them immediately.

Green Beans (bush beans or pole beans)

- Harvest when they are about as thick as a pencil. The pods should be fairly smooth—no big bulges from the seeds inside.
- Some pole bean varieties, like Italian wax beans, will grow thicker and flatter than a pencil.

