

101

Vegetable Garden Tips and Techniques



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Welcome and Thanks



Welcome to 101 Vegetable Garden Tips and Techniques and thanks for being a reader of Harvesttotable.com. Collected here are 101 tips and techniques you can use to grow your best vegetable garden. Friends and fellow gardeners are the best source of advice when it comes to growing a bountiful garden and that's where these tips and techniques came from. After each tip you will find a link to a related post at Harvesttotable.com; just click over if you'd like to learn more. And if you have a question, a comment, or a tip or technique you'd like to pass along check out the Index at Harvesttotable.com find a related article and go to the comments section to share. Happy Gardening!

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Seed Starting



Seed Starting Soil

A sterile commercial seed starting mix is ideal for starting vegetable seeds. Seed starting mixes are formulated to help seeds germinate. If you want to make your own seed starting mixture, try this 1/3 sphagnum moss, 1/3 vermiculite and 1/3 perlite. When the seedlings get their first set of true leaves, pot them up into larger containers filled with regular potting soil.

■ **Potting Mixes**

Saved Seed Test

Seed left over from last season or the season before can be easily tested for viability. Pour the seeds into a glass of water. The ones that sink are viable and can be planted this year. The ones that float to the top will not sprout and can be tossed into the compost pile. Only test as many seeds as you are willing to sow right away; once seeds are soaked in water they need to be planted. Seeds dunked in water will sprout sooner than dry seeds.

■ **Seed Viability**

Light for Seed Starting Indoors

If you don't have a sunny window, start seeds under fluorescent lights. Place both a "cool white" and a "warm white" fluorescent bulb in a shop light fixture. Four-foot tubes will provide enough light for quite a few seed starting trays or pots. Keep the lights on 12 to 16 hours a day. Adjust the lights regularly so that they are always about 3 inches from the tops of the

plants. Close, intense light will keep seedlings from growing leggy. (Cool white tubes are rich in light from the blue end of the light spectrum – the light that seedlings need for best growth. Warm white tubes give off light from the red end of the light spectrum which encourages flowering and bright colors.)

■ **Seed Starting in Three Steps**

Warm Water Seed Soak

Soak seeds in warm water for 24 to 48 hours before planting. Warm water will soften the seed coat of most seeds and promote quicker sprouting. Soak seeds in a wide-mouthed thermos bottle to keep the water warm. The seeds will easily spill from the wide-mouthed after soaking.

■ **Seed Starting Basics**

Steep Hard Seeds in Tea

While warm water is good for preparing most seeds for sowing, seeds with hard coats such as beans, melons, and squash will benefit from being soaked in strong tea overnight. The tannic acid in the tea works to soften the outer covering of hard-coated seeds.

■ **Pre-Sprouting Seeds**

Water Before You Sow

When starting seeds indoors, first fill your containers with loosely scooped seed starting mix. Fill each container nearly to the top. Gently shimmy and shake the container to settle the starting mix.

Don't pack it down. Water the container so that the starting mix is moist but not sopping wet before you sow seeds. If you water after sowing, be careful not to wash the seeds to the corner of the container or bury them too deeply to germinate.

■ Indoor Seed Starting

Seed Planting Depth

Plant a seed at a depth that is twice its diameter. Seeds that fail to germinate are often planted too deep.

■ Seed Germination Requirements

Citrus Seed Planters

Kids will enjoy starting seeds in citrus rinds. After they've eaten or juiced half an organic orange, they can use the skin as a "pot" for germinating seedlings. Scoop out the remaining pulp, poke a few holes in the bottom, and fill the half rind with soil then sow the seeds. These citrus seed pots can be "planted" in the ground seedling and all. The citrus will slowly decay, adding nutrients to the soil and the seedlings will grow on.

■ Container Gardening

Prevent Damping-Off

Seedlings that are growing fine one day and keel over the next are likely the victims of damping off. Damping-off is a soil-borne fungus. To prevent damping-off make sure seed starting trays and pots are clean and use a fresh, sterile medium for each batch of seeds. Before sowing, soak used containers in 1-part bleach to 8 parts hot water. Make sure containers have drainage holes. Fill soil nearly to the top of each container. Be sure to avoid overwatering. Thin your seedlings so that they are not over-crowded and air can circulate between them.

■ Disease Problem Solver

Speedy Bean Germination

To improve germination place bean seeds on a moist paper towel then fold the towel and place it in a closed jar for a day or so. When the seeds are just soft you can sow them; this will cut the germination time in half. Another way to hasten bean seed germination is to lightly rub each bean with a piece of sandpaper. This too will weaken the seed coat and speed germination.

■ Bean Seed Sprouting

Roll Your Beets

If you have trouble getting your beet seeds to germinate, try spreading seeds on a piece of wax paper and rolling them gently with a rolling pin. This will crush the outside husks, giving the seeds a head start on germination.

■ Beet Seed Starting

Seedless Watermelon Seeds

Seeds that produce seedless watermelons can be difficult to germinate. Here's how to get them started: First, warm the soil to a minimum temperature of 80°F (as opposed to 55°F for seeded varieties). Then, when you sow make sure the pointed tip of the seed faces upward—the seed coats of watermelon seedless varieties tend to stick to the germinating plants, which can kill the young seedlings. Seedless watermelon varieties include 'Crimson Sweet', 'Sweet Affirmed', 'Harvest Moon', and 'Gurney's Delight Improved'.

■ Watermelon Seed Starting

Watering Seedlings

Let water warm to room temperature before watering seedlings growing indoors. Avoid water straight from the tap which is usually too cold and can chill seedling roots and slow growth. Also

avoid watering seedlings from overhead which can leave seedlings chilly. Fill a saucer or tray half full with water and set the seed starting containers in the saucer or tray to wick up moisture from below. Seedlings will be watered from the bottom in about 15 minutes.

■ **Watering Tips**

Not So Tough Seedlings

Some vegetables don't like to be transplanted. They want to live where they sprout, no moving about. Veggies that prefer to be sown where they will grow include beans, carrots, corn, cucumbers, dill, melons, okra, parsley, parsnips, peas, radishes, rutabagas, and squash. If you need to start these crops indoors, sow them individually in 2½ inch pots. When they have two true leaves they can be carefully transplanted. Avoid disturbing the roots and the soil around the roots as much as possible when transplanting.

■ **Seasonal Planting**

Prepare Seedlings for Transplanting

Prepare seedlings started indoors for the great outdoors. A week before transplanting, stop feeding seedlings started indoors and cut back on water; water half as much as you have been. Set young plants outside in a sheltered, shady spot for an hour or two starting a week or more before transplanting. Each

day increase the amount of time you set the young plants outside. Be sure to bring them in at night. (Use a garden wagon to make the journey indoors and out easier.) Plants will be "hardened off" and ready for transplanting in a week to 10 days.

■ **Hardy, Half-Hardy, and Tender Vegetables**

No Need to Rush Spring Planting

Seeds started in the garden too soon or seedlings set in the garden too soon—when temperatures have not warmed—will start the season in a slow-growth mode. They may never recover. Before you sow seed or set out warm-season transplants such as tomatoes, peppers, corn, melons, cucumbers, and squash take the soil temperature. For optimal growth, wait until the soil temperature is in the 70°F before sowing warm-season seeds or setting out transplants. If you can't wait, start these crops under the protection of a plastic tunnel. The temperature in a plastic tunnel will be 10 to 20 degrees warmer than the outdoor temperature.

■ **Seed Starting Indoors and Out**

Sowing Seed Outdoors

When daffodils bloom, it's safe to sow Swiss chard, spinach, beets, and onions in the garden. When the petals of apple blossoms begin to drop, it's safe to sow bush and pole beans outdoors. When peonies flower, you can transplant tomatoes, peppers, and eggplants seedlings into the garden.

■ **Nature Planting Signals**

Planting Time



Around the Seasons Planting

Get your crops in the garden at the right time of the year. In early spring and again in fall when the weather is cool, plant beets, broccoli, Brussels sprouts, cabbage, cauliflower, endive, kale, lettuce, parsnips, peas, radishes, spinach and turnips. These should be harvested in cool weather before temperatures reach 75°F or greater. In late spring and summer plant beans, carrots, celery, Swiss chard, corn, cucumbers, eggplant, leeks, melons, okra, onions, peppers, potatoes, pumpkins, rhubarb, squash, sweet potatoes, and tomatoes. These crops should come to harvest when the weather is warm.

■ Outdoor Seed Sowing

Raised and Mounded Beds

Raised and mounded planting beds warm quicker in spring giving you several weeks head start on ground-level planting beds. Raised and mounded beds produce a more bountiful harvest when plants are spaced equidistant across the planting bed rather than grown in rows of single plants. Here are two quick methods for making mounded and raised beds:

1. Mark off the area you want to plant. Lay plain brown cardboard over the area and soak the cardboard with water for several hours. Next, spread soil, aged compost, and aged manure atop the cardboard 6 inches deep or deeper. Rake the top of the mound smooth and gently slope the edges. Within a week or so, all the grass and weeds under the new

bed will die and decompose and your mounded bed will be ready for planting.

2. Use stakes and string to lay out a raised bed; a bed 4 feet wide and 6 to 10 feet long is a common size. Place 4 x 4-inch posts at each corner; the posts can be 6, 8, 12 or more inches high. Attach cedar or redwood boards to each post at the length you've decided forming an open-bottomed box. This is a raised bed. Turn the soil inside the box with a spade or tiller. Fill the box to the top with garden soil or commercial organic planting soil. You are ready to plant.

When it's time to plant, divide each bed into blocks and space the plants in each crop equidistant from one another instead of in rows. You can ignore traditional spacings recommended on seed packets; space plants equidistant from one another one or two inches closer than recommended on the seed packets.

■ Raised Beds

Maximum Harvest from Minimum Space

Interplanting is a great way to get the most out of your garden space. Interplanting means planting more than one crop within a block of space. It commonly means planting low growing plants with taller growing plants or a fast-maturing crop next to a slower-maturing crop; either way the plants do not compete for the same space, water, and soil nutrients; they complement one another. Here are a few interplanting suggestions.

- Lettuce with corn, peas, radishes, or tomatoes.
- Bush beans with carrots, corn, cucumbers, onions, or squash.
- Radishes with carrots, melons, onions or peas.

■ **Narrow Beds and Wide Rows**

Quick Transplanting

If you have lots of seedlings to transplant, use a bulb-planter to make your planting holes. Seedlings grown in small pots or plugs (individual plastic cells that allow seedlings to pop out easily) will fit especially well into these bulb-planter holes.

■ **Plan Your Garden**

Water Wisdom

At planting time, group plants by size at maturity. Tall and spreading growers like sweet corn, tomatoes, and melons, need a lot of water. Plant these in one section of the garden. Small plants like lettuce, beets, and carrots need less water. Plant these in another section of the garden. Grouping plants by their water needs will make irrigation much easier.

■ **Watering Times**

Light Hoeing

Avoid deep cultivation when weeding. Avoid disturbing the soil deeper than 2 inches when removing annual weeds. Most weed seeds in the top 2 inches of soil will germinate. Most weed seeds deeper than 2 inches will never germinate. Once all annual weeds have been eliminated few additional weeds will appear. Never let a weed flower and drop seed. The old farmers' adage is "One year of seeds, seven years of weeds."

■ **Managing Weeds**

Plant Beans Between Corn Rows

Short on plant stakes? Plant pole beans between corn hills or rows. The beans will climb the corn

stalks saving you the effort of staking or trellising the beans. The "three sisters" are pole beans, corn, and squash. Beans climb the corn stalks while squash vines run below.

■ **The Three Sisters**

Beets and Carrots at Home

Beets and carrots want to be free to grow deep and wide. Prepare the planting bed for beets and carrots by digging down 12 inches and turning the soil until it's fluffy. Remove any solid objects from the planting bed such as rocks and sticks. Roots will grow odd or even split if they hit a solid object. Sow seeds about a half inch deep. Thin the seedlings when they are about 2 inches tall to 3 or 4 inches or more apart depending on the variety (large beets should be thinned to 6 inches apart). The main reason beets and carrots don't grow full roots is that they have not been thinned.

■ **Growing Carrots**

Lettuce and Spinach Germination Trick

You can get greens such as lettuce and spinach up and growing fast in cold soil. Here's how: moisten the planting bed, sow the seed, then cover the bed with clear plastic sheeting. If the soil temperature is only in the 40's or 50'sF, the clear plastic will raise the soil temperature by 20 degrees--close to the preferred germination temperature for lettuce and spinach. In as few as three days, the ground will be green with seedlings, and you can remove the plastic.

■ **Lettuce Seed Starting**

Mightier Melons

Prep your soil to grow bigger muskmelons, cantaloupes, and watermelons. Plant an alfalfa cover crop across the melon patch in fall. Add aged cow manure

to the soil after you turn under the alfalfa in spring. The combination will produce more and larger melons than any other fertilizers or soil amendments.

■ Melon Success Tips

Pea Planting Time

Plant peas as soon as the soil temperature reaches 60°F in spring. Three weeks later, plant a second crop that is heat tolerant. 'Wando' is a pea that is both drought and heat tolerant. (The first crop will come to harvest in mid-spring; the second crop will come to harvest in late spring and early summer). Eight to 10 weeks before the first frost in fall, plant peas again for an early-fall harvest. Plant fall peas in the shadows of taller summer crops. The taller crops will protect young peas from heat. The fall peas will come to harvest after summer crops are out of the garden. If you live where winters are mild, plant peas in early winter for a late spring harvest.

■ Growing Peas

More Potatoes Per Square Foot

Want to get more potatoes per square foot of garden space? Here's how: keep potato plants growing upright; don't let the plants flop over and sprawl. Plant seed potatoes in loamy, loose soil—a raised bed is good. Place sturdy stakes at the corners of the planting bed then run garden twine from stake to stake and pull it taut. You can also place stakes in a grid across the planting bed and run the twine back and forth. Use the garden twine to train the potato plants up rather than allowing them to sprawl horizontally. Vertical growth will allow you to mound or "hill" up the soil around the plants more often which will, in turn, produce more tubers.

■ Potato Growing

Spinach and Daylight

Spinach is sensitive to light. It's best planted during the shorter days of early spring and fall. Spinach

plants will bolt (send up flower stalks) as soon as there are 14 to 16 hours of daylight. Check the weather station or the newspaper for the number of hours of daylight where you live; remember days grow longer by a few minutes each day in spring. Plan planting and harvest accordingly. You can plant bolt-resistant varieties including 'Melody', 'Bloomsdale Long Standing', and 'Sohshu' but there's no guarantee even those varieties will overcome the pull of Mother Nature when days grow long.

■ Grow Spinach

Strawberry Planting

Strawberries can be ready for harvest as soon as 8 weeks after setting out plants. Space plants 4 inches apart in 12-inch-wide rows. Mulch plants and let them flower. Carefully remove all runners so that plants direct their energy to fruit development. Strawberries that have runners removed will produce for 3 to 5 years—longer than strawberries allowed to run. Plants without runners will produce better formed berries than plants with runners. The advantage of allowing strawberries to produce runners is that there will always be new strawberry plants to take the place of those that have quit fruiting.

■ Grow Strawberries

Squashes Love Warm Soil

Place black plastic over the squash planting bed several weeks ahead of seed sowing. When the soil temperature reaches 70°F remove the plastic and sow seeds or set out transplants. Once the plants are well established spread an organic mulch to keep the soil cool as summer heats up. If you live where summers stay cool leave the plastic in place. Cut slits in the plastic where you want to sow seed or set in transplants. Be sure the plastic is anchored so it doesn't blow away or shift in breezy weather. Summer squash is usually ready for harvest 50 days after planting; winter squash will mature in 85 to 90 days.

■ Planting Squash and Melons Early

Planting Swiss Chard

Sow Swiss chard as soon as the soil is workable in spring. Keep sowing chard every two weeks through the season. Chard will keep producing even in summer heat as long as you keep the soil moist. In mild climates a chard plant can keep producing for several years; just keep the soil moist and feed the plant. When leaves are a foot tall, cut them back to just above the soil and they will grow back for a second and third harvest. If stems crack, sprinkle a little born-rich borax along the row.

■ [Grow Swiss Chard](#)

Tomatoes in the Trenches

To give a tomato transplant a strong start especially in cool spring regions, dig a long trench several inches deep, sprinkle in a handful of aged compost, lay the plant in horizontally, then bend back the top so that only the top few branches or leaves are above ground. The soil will be warmer the length of the shallow trench than it would be if the plant were set in a deeper hole vertically. The plant will root quickly along the length of the buried stem.

■ [Tomato Planting Tips](#)

Crop Drought Tolerance

Melons, asparagus, and beets are deeply rooted and so are considered mostly tolerant of drought. Deep watering once every 10 days should sustain these crops. Tomatoes and cabbage family crops are semi-drought tolerant; water these crops at least once a week. Celery, strawberries, lettuce, cucumbers, squash, and peppers are shallow rooted and not drought tolerant. The soil must be kept evenly moist for these plants. When a plant is wilted in the morning, the soil is dry and it's time to water.

■ [Weather and Watering](#)

Water is Crucial

Moisture is essential for seed germination and seedling growth. Before sowing seed or planting out seedlings, moisten the soil the evening before. Avoid planting in dry or very wet soil. Sow seed or set young transplants in the garden on a cloudy day or in the evening. Don't plant in the middle of the day when the sun is bright and the temperature hot; many seedlings will not survive. Always remember to water seedlings after you set them out.

■ [Vegetables and Water](#)

Growing Tips



Asparagus and Cherry Tomatoes

To reduce weeds in the asparagus patch, plant cherry tomatoes between the asparagus rows. Low growing and leafy cherry tomatoes will keep weeds from gaining a foothold in the asparagus bed, and cherry tomatoes self-sow so you only need to plant them once. You will have more cherry tomatoes next summer without planting again. Frost will kill the tomatoes in autumn at about the same time asparagus fronds die back. The fronds and tomato plants can be removed and replaced with a winter mulch of straw.

■ Growing Asparagus
and

■ Protecting Asparagus in Winter

Support Your Beans

Sow beans where they will grow; they don't like to be moved. Sow bush and pole beans 1 inch deep. Space bush and pole beans 2 to 3 inches apart. In humid regions space beans 8 to 10 inches apart. Put a pole, tripod, or trellis in place at the same time you sow pole beans. Keep the soil just moist—especially from pod set to harvest. Feed beans compost tea or fish fertilizer every 2 weeks for the first 6 weeks after that feed them every 3 to 4 weeks.

■ Vertical Gardening

Starry Borage

The starry, blue blossoms of borage attract honeybees and more honeybees. Plant borage around the edge of

the vegetable garden to ensure vegetable crop pollination and yield. Borage blossoms also are edible and make a colorful garnish atop summer salads.

■ Borage

Get Broccoli Right

Broccoli is temperature sensitive. Choose the right variety for the time of year you are growing. In spring plant fast growing varieties that can beat the heat of summer; choose 'Arcadia' or 'Green Comet'. In midsummer when you are planting for fall harvest, plant a cultivar that can make it through hot weather such as 'Green Jewel'. As a rule, broccoli prefers cool nights and daytime temperatures in the upper 60°F. (But start broccoli seeds indoors at about 75°F—seed should germinate in 3 to 6 days.)

■ Grow Broccoli

Under the Brussels Sprouts

Brussels sprouts have shallow roots and once loaded with sprouts can tip easily. Mound soil up around the base of the plant and firm it in with the palm of your hand or the back of a hoe. Tall types of Brussels sprouts can grow to 4 feet high; these plants require stakes to stay upright ahead of harvest. Brussels sprouts need lots of room to develop, leave at least 2 feet between plants. Below Brussels sprouts plant radishes and lettuce so you get ample production from the space underneath Brussels sprouts.

■ Growing Brussels Sprouts

Finicky Cabbage

Cabbage grows best when the soil is kept evenly moist. If heavy rain comes after a dry spell, cabbage heads can crack when roots take up too much water. To prevent cracking after heavy rain, put both hands on the cabbage head and give it sharp quarter turn; some of the roots will break and the head won't be able to take up so much water. When heads are round and the weather is dry, spread straw across the cabbage patch to keep soil moisture from evaporating. Harvest cabbage when hot weather comes; don't wait. Cabbage heads do not develop during hot weather.

■ [How to Grow Cabbage](#)

Grow a Bouquet of Cauliflower

Want a classic white cauliflower? Grow 'Snowball Self-Blanching', 'Amazing' or 'White Rock'. Want to add some color to your salads? Grow 'Orange Bouquet' cauliflower which has as much beta carotene as a handful of carrots. 'Violet Queen' and 'Purple Head' are purple cauliflowers. 'Alverda' and 'Chartreuse II' are green with cone-shaped heads. Time your planting so that cauliflower comes to harvest before hot summer weather sets in.

■ [Cauliflower: Kitchen Basics](#)

Leaning Corn

Corn is shallow rooted. If cornstalks begin to lean, pack soil around the base of the plant to give them support. Because corn is shallow rooted, it cannot draw up water from deep in the soil. Keep the soil evenly moist; do not let it dry out. Do not water corn from overhead, you will wash away pollen and your harvest will be light.

■ [Growing Corn](#)

Calcium for Cucumber Crunch

Calcium in the soil is essential for growing cucumbers with a crunch. Expert cucumber growers side

dress cucumbers with a calcium source such as bonemeal, gypsum, rock phosphate or dolomitic limestone. Also, pick your cucumbers young—mature cucumbers aren't as crunchy.

■ [Cucumber Growing](#)

Train Your Horseradish

To grow large, straight horseradish roots perfect for shredding, push soil back from around the crown of the plant early in the season (when leaves are about 12 inches tall). Then clip away all but one or two of the sprouts and some of the small roots. Leave larger roots in place and replace the soil. Repeat this culling about four weeks later. The roots that remain will grow straight and large.

■ [Growing Horseradish](#)

Fast Kale

To get a bumper kale crop with little flea beetle damage, harvest every leaf as soon as it reaches 8 inches long—or shorter if you like. This cut-and-come-again harvest seems to encourage tall, upright plant growth. Young kale leaves are tender and aren't in the garden long enough for flea beetles to riddle them with holes.

■ [Grow Kale](#)

Hot-Weather Lettuce

Lettuce usually performs best in cool spring or fall temperatures. But you can grow lettuce through the summer in the shade of taller plants. Prune away the lower branches of tomato plants to create a green canopy under which you can grow lettuce. Make successive summer sowings of slow-bolting lettuce varieties in the shade of the taller plants. Many red lettuce cultivars such as 'Red Sails', 'Ruby', 'Lolla Rossa', and 'Red Fire' are slow to bolt.

■ [Lettuce Heat Resistance](#)

Easy Lettuce

Leaf type lettuces are the easiest to grow; they don't form heads and they're ready for harvest in as few as 30 days. Leaf lettuce has a tender, sweet taste; the leaves can be lobed, curled, or frilly. Start harvesting leaf lettuce as soon as the leaves are big enough to eat. Clip the outer leaves cut-and-come again and the plants will keep producing until a central stem forms—usually when the weather turns warm. 'Black Seeded Simpson', 'Royal Oak Leaf', and 'Salad Bowl' are favorite leaf lettuce cultivars.

■ [Five Types of Lettuce](#)

Plastic Mulch for Melons

Black plastic is an excellent mulch for melons. Black plastic warms the soil which is essential for melons to do well. Lay black plastic across mounded planting beds or hills then transplant melons through the plastic by cutting Xs or holes. Melons growing on black plastic mulch yield earlier and more heavily than those planted in bare soil. Black plastic absorbs heat from the sun, holds it in at night, keeps down weeds, and helps retain soil moisture.

■ [Melon Growing](#)

Peas Are Like Beans

Peas are a lot like beans. Peas can be either bushy or climbers. Climbing peas need support. Put a trellis in place when you sow pole peas. Sow seeds on either side of the trellis. Bush peas like support too. Sow bush peas in the center of small tomato cages or drive recently pruned forked branches into the soil near pea plants; pea tendrils will cling to the branches and keep pods from brushing against the soil. Peas, like beans, also want the soil to stay moist, especially as pods develop. Feed peas like beans with compost tea or fish fertilizer every 3 or so weeks.

■ [Pea Growing Quick Tips](#)

Five Tips for the Best Peppers

Here are five things you can do to grow the best peppers:

1. Grow peppers in raised beds. The soil in a raised bed warms earlier in spring and stays warm through the season. Add plenty of aged compost to the bed to ensure good drainage.
2. Plant peppers only after nighttime temperatures stay consistently warmer than 65°F. (Plant peppers a week or two after you transplant your tomatoes.)
3. Space pepper plants at least 16 inches apart. Closer spacing may increase your yield, but plants will be crowded and fruits will be smaller.
4. Give peppers plenty of water and fertilizer, but not too much nitrogen. The soil must stay evenly moist for quick, full growth of peppers. Use a 5-10-10 organic fertilizer. Mulch with aged compost to keep the soil moist, fight weeds, and feed plants.
5. Protect developing peppers from sunscald by covering plants with 30 to 40 percent shade cloth once peppers begin to develop, not before. Drape the shade cloth across a frame set over the plants.

■ [Pepper Success Tips](#)

Boost Peppers and Tomatoes

When peppers and tomatoes begin to bloom spray them with one tablespoon of Epsom salt mixed into one gallon of water. Epsom salt contains magnesium. Magnesium is a nutrient boost that will help plants produce larger fruits. Spray a second time 10 days later.

■ [Epsom Salt](#)

Grow Potatoes in Straw, No Soil

Potato plants don't have to grow in soil to produce tubers. Set your seed potatoes on the ground (not in a trench) then cover them with at least 8 inches of clean straw (not hay). Water the straw and mat it down

with the back of a hoe or rake. Soon green potato leaves will emerge from the straw. Apply another 8 inches of straw about halfway through the growing season and water it in again. After the plant flowers and begins to die back, pull the straw back and harvest your potatoes. The straw can go in the compost pile or you can till it into the soil to decompose.

■ **Growing Organic Potatoes**

Perfect Pumpkins

Rotate pumpkins just slightly every 10 days to keep them symmetrical (be careful not to break the vines). Place a board, a piece of plastic, or a tile under each pumpkin to protect it from bugs, moisture, and rot. To grow the biggest pumpkins, remove all but two fruits from each vine. Give pumpkins plenty of water; a pumpkin can grow as much as 8 inches in a day.

■ **Growing Pumpkins**

More Radishes

Get a fall crop of radishes by letting every fifth or sixth spring-planted radish go to seed. Rather than harvesting every spring radish you plant, let some bloom and drop seed. Radishes allowed to flower will not have roots worth eating, but the seeds dropped can carpet a planting bed for a sizeable fall crop. Allow rain or overhead irrigation to help germinate dropped seeds.

■ **Grow Radishes**

Fall Spinach Likes It Cool

Sow seed for fall spinach only after the soil temperature has begun to cool in autumn (70°F is the optimum germination temperature.) If you live in an area that is still scorching in late summer, start spinach seeds in peat pellets or pots in the shade or a cool greenhouse. Transplant spinach seedlings

into the garden when they're three to four weeks old and temperatures are cooling daily.

■ **Fall and Winter Planting**

Strawberries and Spinach

Plant spinach with strawberries. Spinach releases a chemical compound called saponin. Saponin helps strawberries grow big. Sow spinach in the strawberry patch every two weeks in spring until the temperature reaches 75°F. Sow spinach again in autumn when temperatures fall. A strawberry plant will stay productive in the patch for three years.

■ **Planting Strawberries**

Squash Tips

For a bountiful squash harvest follow these steps:

1. Mound soil to prepare hills then dig a hole 12 inches deep and 18 inches wide on the top of each mound.
2. Fill the holes with aged compost and composted manure.
3. Cover each mound with compost-rich garden soil.
4. Plant a nitrogen-setting ground cover such as hairy vetch around the perimeter of each hill (the vetch will feed the soil by setting nitrogen and control weeds).
5. Sow seeds or set out transplants at the top of the mound after the soil temperature has warmed to 70°F; three plants per mound is good.
6. Keep the soil evenly moist as plants grow.
7. Use a small artist's brush to transfer pollen from male to female flowers.
8. Once squash is big enough to eat begin harvesting regularly; this will keep plants producing.

■ **Grow Summer Squash**

Sweet Potatoes Up North

You don't have to live in the South to grow sweet potatoes. The key to sweet potato success in cooler

northern regions is variety selection. Choose a short-season variety such as 'Beauregard', 'Centennial', or 'Georgia Jet' which need just 90 summer days from planting to harvest. Don't forget you need loamy, compost-rich, well-drained soil to grow sweet potatoes, and an occasional dose of a potassium-rich fertilizer will help.

■ **Grow Sweet Potatoes**

Basil Improves the Flavor of Tomatoes

Tomatoes and peppers are more flavorful when basil grows nearby. Basil will also repel houseflies,

tomato hornworms, aphids, asparagus beetles, mosquitoes, and other insect pests.

■ **Companion Planting**

Turnip Tenderness

The secret to tasty, tender root crops is to grow them fast. Plant your spring turnips when you plant your first peas. Thin turnip plants to stand 3 inches apart so the roots can fill out quickly. Harvest turnips when the roots are no more than 1 to 2 inches in diameter, before they become large and bitter tasting. By harvesting early, you may get three crops of turnips in the time it takes to get one crop of carrots.

■ **Growing Turnips**

Harvest Time



Pick Beans Early

To make snap beans produce over a longer period, pick the pods when they're pencil-width and the seeds are barely visible. If you let them get bigger, the plants will put their energy into seed production rather than more flower production. It's the flowers that give you more beans.

■ [Bush Snap Beans](#)

Beans in a Snap

Snap beans will grow up to 10 inches long if you let them, but they are much more tender and have few or no strings at 5 or 6 inches long. Harvest snap beans when the pods are still pliable and make a "snap" when bent. Longer, older pods are tougher and must be cut from the plant with a scissors or pruner.

■ [Snap Bean Harvest](#)

Edible Bean Flowers

If your bean plants are producing more pods than you can eat, try eating the flowers. Most bean flowers are sweet. Just pinch them off and sprinkle them on top of a salad after it's been tossed.

■ [Beans in the Kitchen](#)

Broccoli Harvest

Harvest broccoli with a sharp knife. Cut the stem at an angle so that moisture doesn't collect on the cut.

Fungus disease can start in open wounds. Harvest broccoli before you see yellow; once the flowers begin to open broccoli will be bitter tasting. (After harvest, submerge broccoli florets in salty water with a dash of vinegar for 15 minutes; this will kill any bugs hiding in the flowers, and they will float to the top.)

■ [Harvest Broccoli](#)

Bag Your Cauliflower

An easy way to bleach cauliflower heads is to simply place a paper grocery bag over the plant. The bag allows air to circulate around the heads and prevents rotting that often occurs when the leaves are tied over the heads in wet weather. It's easy to lift the bags to check for maturity. You will likely need to replace the bags after a rainfall. 'Snowball' is a classic heirloom cauliflower variety.

■ [Grow Cauliflower](#)

Melons, Ready or Not?

Here's how to tell whether your melons are ready to harvest:

- Standard muskmelons and cantaloupes are ripe when fruits change from green to yellow, become fragrant, and "slip" from the vine with a slight tug.
- Winter melons are ripe when the rind hardens, begins to get waxy, and turns a light greenish-tan. The blossom end of mature Honeydews "give" slightly when pushed. The skin of Crenshaws take on a glossy, waxy appearance when ripe.

- Watermelons are ripe when you see a creamy yellow ground spot and the tendrils wither and turn brown.

■ Harvesting Melons

Muskmelon Flavor

Muskmelons (what Americans call cantaloupes) taste sweeter if you start to cut back on water a week to 10 days before harvest.

■ Growing Melons

Remove Blossoms at End of Season

About 3 weeks before the first frost in fall, pinch off new blossoms on tomatoes, eggplants, and peppers. This will direct the plants' energy into maturing fruit already hanging on the plant.

■ Tomato Ripening and Frost Coming

Peppers Harvest

Peppers are ready to eat as soon as they are big enough to eat. The flavor of a pepper does not change as it matures. However, as peppers mature their store of vitamins A and C increases. Most peppers sweet or hot take at least 70 days from transplanting until you can eat the first fruit. In another 3 to 4 weeks they will reach full maturity and full color. (The number of days to maturity on seed packets are based on ideal conditions; if the weather is overcast or cool, additional days should be added.)

■ Harvesting Peppers

Hotter Hot Peppers

If you want hotter peppers, stress the plants. Stress causes hot pepper to "turn up the heat." How do you stress a pepper plant? Simulate a flood. Mound

up soil around your pepper plants and then flood the soil; do this three or four days before harvest. Plant roots will be stressed, and peppers will be hotter. Lack of water also stresses peppers. Stop watering a week before harvest. Too little water will increase pepper heat as well.

■ Grow Hot Peppers

Summer Squash Harvest

Harvest summer squashes when they are on the small side. To avoid damaging the plant and thus harming its productivity, use a very narrow-bladed sharp knife to make a clean cut across the stem. For the tastiest summer squash, pick young fruits and cook them right away with the flower still attached. Slice both squashes and flowers lengthwise, then sauté them or dip them in tempura batter and fry.

■ Summer Squash Harvest

Winter Squash Harvest

Pick winter squashes when they reach mature color and the skin is hard enough to resist denting by a thumbnail. Cut winter squash from the vine with a long stem attached. Leaving the stem attached in storage will slow dehydration. Cure winter squash in the sun for five to seven days or indoors at 80° to 90°F for two or three days before storing at 50° to 60°F.

■ Winter Squash Harvest

Pickling Success

Pickling cucumbers can be harvested when they are 3 to 4 inches long. If you don't have quite enough cucumbers to pickle a batch right away, don't refrigerate them. Cucumbers are tropical fruits and are injured at temperatures below 50°F. Keep cucumbers in a cool basement where temperatures are between 50° and 60°F. (Dry soil can cause cucumbers to be hollow at the center; make sure

your cucumbers get enough moisture throughout the growing season.)

■ Pickles

Save the Nicked Potatoes

Potatoes are easily sliced and nicked during harvest. These spuds won't store well, but you don't have to throw them away. To keep them for serving, place them in a clean wide-mouthed jar (a pickle or mayonnaise jar) filled to the brim with fresh water. Cap the jar tightly and place it in the refrigerator. Use these potatoes in the next few days for mashing, browning, boiling, or frying. Save the vitamin rich water for stock.

■ Potato Harvesting

Green Garlic Leaves

The tender green leaves of young garlic plants can be used like chives or green onions on salads and

other dishes. In fall, plant a few small garlic cloves especially for use as greens the following spring. Small cloves will never produce large heads of garlic, so plant them for greens. You can snip shoots from young garlic plants twice before slowing the growth of the plant.

■ Fall and Spring Garlic

Tomatoes Ripen from the Bottom

Tomatoes ripen from the bottom up. When the end of the tomato opposite the stem starts to color, the tomato is ripening. You can pick tomatoes when the skin looks smooth and waxy – even if the top of the fruit has not turned its mature color yet. Tomatoes can be picked when they are between firm and soft. Tomatoes that have begun to color will ripen off the vine; set them on the kitchen counter out of direct sun to finish ripening. For best flavor, let tomatoes ripen on the vine.

■ Ripen Tomatoes on the Vine

Pests, Diseases, and Weeds



Home Made Insecticides

Make your own insecticidal soap to spray vegetable pests. Mix one and a half tablespoons of unscented liquid hand soap into one gallon of warm water. For fruit trees: mix 1 cup of vegetable oil with 1 tablespoon of dish detergent—or larger amounts in the same ratio; add 1 to 2 tablespoons of this solution to 1 cup of water in a spray bottle. Shake well. Spray both sides of leaves until the solution begins to run off. (Be sure to test your homemade spray on a small portion of the plant before spraying the whole plant. There is a risk of injuring the plant if the mix is too strong.)

■ [Insecticidal Soap](#)

Cabbage Butterflies Be Gone

Cabbage butterflies bring cabbage loopers which can devastate a head of cabbage. Keep cabbage moths from landing on cabbage heads by draping bird netting over plants—double over the netting for extra protection. The moths will find it difficult to land. To further ward off cabbage moths steep 4 cloves of garlic along with a handful of wild mustard in a cup of boiling water; let the mix cool and then spray. This will keep cabbage moths from laying eggs and chase away potato beetles as well.

■ [Cabbage Loopers](#)

Eggplant End Rot

If eggplants (and tomatoes) suffer blossom-end rot, there's not enough calcium in the soil. When

planting eggplants and tomatoes add lime, crushed eggshells, or ground oyster shells to the planting hole. You can also let crushed eggshells soak in your watering can for a day before watering. This brew also will give eggplants and tomatoes a boost. (Calcium helps build strong cell walls in plants.)

■ [Blossom End Rot](#)

Protect Ripening Tomatoes

Protect ripening tomatoes from hungry birds by covering the fruit with small paper bags. Cut off the corners of bags with scissors to allow for ventilation and keep fruit from rotting. Use a stapler or clothes pin to fasten each bag around the fruit. You can also use paper bags to protect grapes, apples, peaches, and other fruits.

■ [Tomato Ripening](#)

Help Strawberries Survive Birds

Strawberries worst enemies are often birds. To shield your crop from birds, drive short pieces of re-bar rods or pipe into the ground at all four corners of the planting bed. Then stick the ends of two lengths of PVC pipe (at least 10 feet long) into those pieces to create two arches over the plants to support mesh bird netting. (Use flexible 5/8-inch PVC pipe for arches; pipe slightly larger in diameter than the anchor rods.) Secure the bottom of the netting with lengths of board or rocks.

■ [Grow Strawberries](#)

How to Control Damage from Pests and Diseases

Here are five simple ways to keep plant pests and diseases at bay:

1. Mulching around crops; this will keep fungus in the soil from splashing onto plants when it rains or when you water.
2. Avoid breaking branches, tearing leaves, or damaging roots; diseases and pests often enter plants through wounds.
3. Buy disease-resistant plant cultivars and inspect plants you buy at the garden center or plant sales; avoid bringing home pests and diseases.
4. Encourage beneficial insects such as ladybugs and green lacewings; beneficial insects can control many pest insects; no pesticides needed.
5. Walk the garden and inspect plants every few days for pest and disease damage. Remove diseased plants and go after pests right away.

■ Organic Pest and Disease Control

Head Off Powdery and Downy Mildew

Spray mildews with this anti-fungus home brew: ½ cup of baking soda, 2 drop of dishwashing soap, and 1 quart of water; mix in a spray bottle and spray plants lightly once a week.

■ Powdery Mildew

Cats Away

If your neighbor's cat thinks your garden is her litter-box, plant several catnip plants in a separate part of the garden. The distraction will be too much for the furry critter. Catnip is also a trap crop for whiteflies. You can also try orange, lemon, or lime peels; sprinkle these around the garden or plants you want to protect. The citrusy smell can be too intense for cats.

■ Cats and Animal Pests

Homemade Rabbit and Rodent Repellent

Try this brew to send pesky rabbits and rodents away: chop up several cloves of garlic, one onion, and three hot peppers and toss them in the blender; add one teaspoon of Tabasco sauce and puree the mixture. Pour the mix into one quart of warm water and let it sit overnight. Strain away any solids and pour the mix into a spray bottle. Spray around the edges of planting beds. Rabbits, rodents, dogs, cats, and even insects will turn away. (Use gloves to protect your hands and keep this brew away from your eyes.)

■ Animal Pests

Weeding Perennial Weeds

Most perennial weeds have fleshy taproots. If you leave any part of the root behind when weeding, a perennial weed can quickly regenerate. To stop perennial weeds, remove them root and all. Do your weeding after a good rain or water deeply before you weed. Plunge a weeder, hand trowel, or small garden fork into the moist soil next to the weed. Use the trowel or fork as a lever to loosen the soil. Pull upward from the base of the weed with your free hand. The entire weed should come away.

■ Weed Control

Orange Peels Help Kill Aphids and Slugs

Use an empty half orange rind to kill aphids and slugs. Place the orange rind near the aphid infestation; you can poke two holes in the rind and pass string through the holes then hang the rind from a branch or stems. Aphids will be overcome by the citrus smell. To catch slugs, place a half rind, round side up, next to plants that slugs frequent. Slugs will crawl under the rind during the day seeking shelter from the sun. Lift the rind trap and drop slugs into a bucket of warm, soapy water.

■ Aphids and ■ Slugs

Soil and Compost



Compost in 14 Days

You can make compost in just two weeks if you grind or shred all materials going into the compost pile. Shredding increases the surface area of material on which composting microorganisms can multiply and feed. It also improves moisture control and makes turning the heap much easier. You don't have to layer the material you're composting using this method; just heap up the material in a pile (not higher than 5 feet) and turn the material every three days. After 12 to 14 days, the heat of the pile should leave you with ready to use compost. This method will take longer in winter when microorganisms are less active.

■ [How to Compost Faster](#)

Cool-Weather Compost

Sheet composting is one way to keep composting through the winter. In fall, after harvest is complete, shred garden residues—leaves, spent plants, and grass clipping--and then spread them across the garden like a sheet. Use a tiller or spade to turn them under. If you have lots of autumn leaves (up to 6 inches thick), spread them over the garden surface then sprinkle with ground limestone and till them under. Tilling or spading will start the decomposition process. Till or spade again in spring. (Don't use weeds or diseased plants for sheet composting.)

■ [Making Compost](#)

Quick Test for Soil Wetness

Working the soil when it is wet can cause the soil to become compacted and less than ideal for planting.

To check garden soil moisture, scoop a handful of soil and squeeze it into a ball. If it sticks together like molding clay, it's too wet. Test again in a day or two. Soil is ready to work when it crumbles as it's squeezed.

■ [Improve Clay Soil](#)

Fix Acid Soil

Wood ashes take just a few weeks to neutralize soil acidity (limestone takes six months to a year). For best results, thoroughly mix wood ashes into the soil in the fall. Repeat this application every three or four years if soil tests indicate a need. As a rule of thumb, use 1¼ pounds of wood ashes for each pound of limestone recommended. Check soil acidity and alkalinity before applying wood ashes or other amendments. Use a soil pH test kit to know the acidity or alkalinity of your soil.

■ [Adjusting Soil pH](#)

Oyster Shells

Ground oyster shells are a good substitute for limestone. Either amendment will raise your soil's pH (make an acid soil more alkaline). The shells will contribute calcium and possibly a few other minerals. (Don't use either limestone or oyster shells if your soil pH is already 7.0 or higher.)

■ [Organic Fertilizers](#)

Sandy Soil in Reverse

If your soil is naturally well drained and sandy, you can build soil fertility and conserve soil moisture by

growing crops in recessed rather than raised beds. Recess beds 4 to 6 inches deep, then fill them almost to the top with aged or commercial organic planting mix compost. Water will drain through the beds, but compost, mulch, and seedlings won't drain out.

■ Soil Making

Cover Crops to Break Up Compacted Soil

Hard and compacted soil can be improved by planting a cover crop. A cover crop is a plant that easily roots in almost any soil; its roots grow deep into the soil breaking up clay and hardpan. At the end of its life a cover crop can be turned under to rot and add organic matter to the soil. Plant cover crops in any section of the garden that is bare or plant cover crops after harvest to cover and protect the soil through the winter. Easy to grow cover crops are alfalfa, buckwheat, clover, and winter rye. Turn cover crops under just before they flower.

■ Cover Crops and Green Manure

Cover Crops Good

Cover crops are good. They can help eliminate weeds by growing dense and smothering weeds. They can improve both sandy and clay soil by growing roots deep and adding organic matter to the soil. Bean family cover crops (legumes) feed the soil by fixing nitrogen in their roots. Four cover crops that can be planted almost anytime there's a bare spot in the garden are peas (plant in early spring or early fall), beans (plant any time between the last frost in spring and the first frost in fall), buckwheat (plant from spring to fall), and annual ryegrass (plant midsummer to early fall or later in mild-winter regions).

■ Crop Rotation

Spinach Soil Test

You know your garden soil has a very good balance of nutrients if you can grow a healthy crop of

spinach. Spinach draws a full spectrum of nutrients from the soil. If spinach looks good, the soil is nutrient balanced. If spinach grows small or stunted, the soil needs nitrogen. If spinach leaves are purplish or bronzed, the soil needs phosphorus. If spinach plants look punk or sickly or stems are thin, the soil needs potassium. If spinach leaves are yellow with green veins, the soil needs an all-purpose fertilizer; use a fertilizer that has iron, calcium, and magnesium added.

■ Grow Spinach

How to Make Perfect Topsoil

You can turn a weedy patch, or a section of lawn into a perfect vegetable planting bed without rototilling. Here's how:

1. Select the spot where you want to establish a new garden bed; make sure it gets plenty of sun exposure.
2. Put down a layer of newspapers 10 sheets deep (don't use color or glossy newsprint); just lay the paper over weeds or lawn.
3. Soak the newspapers with water and cover them with a thick layer of compost or commercial organic planting mix.
4. Go away and let things sit for about six weeks (eight or twelve weeks is better).

The newspaper will disintegrate, weeds or sod will die off, earthworms will start working the soil, and the bed will be ready to plant.

■ Prepare a Planting Bed

Protect Your Earthworms

Digging in the garden can be hazardous to earthworms. To keep earthworms from harm:

- Dig or till in the middle of the day, that's when worms burrow deep to avoid the heat.
- Use a digging fork instead of a spade or rototiller.
- Dig shallowly, not deeper than 3 to 6 inches.

If you want to attract earthworms to the garden bury a couple of pieces of bread or a lump of aged manure or a piece of cardboard soaked in vegetable oil. Worms will make their way to these tasty worm treats.

■ [Benefits of Earthworms](#)

Compost Tea Brew

Compost tea will give struggling plants a boost; it can also improve the soil in any planting bed. Put

a sack of finished compost or commercial organic planting mix into a large bucket filled with water and cover it. Let it steep for a few days until the water turns the color of weak tea. Your compost tea is then ready to use and it won't burn you plants. (You can make manure tea the same way; use aged manure.)

■ [How to Make Compost Teas](#)

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