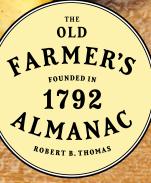
# HOW TO KEEP THE GARDEN GROWING!

WATERING, FERTILIZING, & HARVESTING TIPS





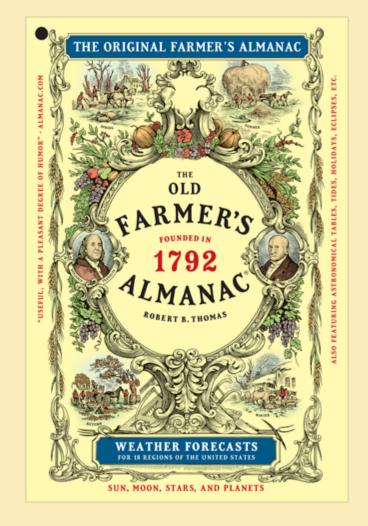
# HOW TO KEEP YOUR GARDEN GROWING!

EVERYTHING YOU NEED TO KNOW ABOUT CARING FOR THE TOP 10 HARVEST-ED SUMMER VEGETABLES—COVERING WATERING, FERTILIZING, PEST CONTROL, HARVESTING, AND STORING!

# THE TOP 10 SUMMER VEGETABLES

POTATOES	3
ZUCCHINI AND SUMMER SQUASH	4
TOMATOES	5
PEPPERS	6
ONIONS	7
EGGPLANT	8
CUCUMBERS	9
CARROTS	10
GARLIC	11
CORN	12

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# The Old Farmer's Almanac is North America's #1 Almanac

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# HOW TO KEEP YOUR GARDEN GROWING

# **1. POTATOES**

#### CARE

#### How to Grow Potatoes:

- Potatoes thrive in well-drained, loose soil.
- Potatoes need consistent moisture, so water regularly when tubers start to form.
- Hilling should be done before the potato plants bloom, when the plant is about 6 inches tall. Hoe the dirt up around the base of the plant in order to cover the root as well as to support the plant. Bury them in loose soil.
- Hilling keeps the potatoes from getting sunburned, which can cause them to turn green and produce a chemical called solanine. Solanine gives off a bitter taste and is toxic, so **do not eat green potatoes**.
- You will need to hill potatoes every couple of weeks to protect your crop.

#### PESTS/DISEASES

- <u>Aphids</u>
- <u>Flea Beetles</u>
- Leaf Hoppers
- Early/Late Blight
- Potato Scab: Most likely cause by a high <u>soil pH</u>. Remember: Potatoes like acidic soil (do not plant in soil with a pH higher than 5.2). Dust seed potatoes with sulfur before planting.



#### HARVEST/STORAGE How to Harvest Potatoes

- When you should harvest depends on what type of potato you have planted. Early-season potatoes take approximately 60–70 days to mature; mid-season, approximately 80; and late-season, more than 90.
- For the biggest and best potatoes, harvest only after the plant's foliage has died back. Cut browning foliage to the ground and wait 10–14 days before harvesting to allow the potatoes to develop a thick enough skin. Don't wait too long, though, or the potatoes may rot.
- Dig potatoes on a dry day. Dig up gently, being careful not to puncture the tubers. The soil should not be compact, so digging should be easy.
- Allow freshly dug potatoes to sit in a dry, cool place (45°–60°F) for up to two weeks. This allows their skins to "cure," which will help them keep for longer.
- "New potatoes," which are potatoes that are purposefully harvested early for their smaller size and tender skin, will be ready for harvest after about 10 weeks, usually in early July.
- New potatoes should not be cured and should be eaten within a few days of harvest, as they will not keep for much longer.
- After curing, make sure you brush off any soil clinging to the potatoes, then store them in a cool, dry, dark place. The ideal temperature for storage is 35–40°F.
- Do not store potatoes with <u>apples</u>; their ethylene gas will cause potatoes to spoil.
- Whether you dig your own potatoes or buy them at a store, don't wash them until right before you use them. Washing potatoes shortens their storage life.
- Find more tips on getting potatoes ready for the root cellar.

# 2. ZUCCHINI AND SUMMER SQUASH

#### CARE

- Mulch plants to protect shallow roots, discourage weeds, and retain moisture.
- When the first blooms appear, apply a small amount of fertilizer as a side dress application.
- For all type of squash, frequent and consistent watering is recommended. Water most diligently when fruits form and throughout their growth period.
- Water deeply once a week, applying at least one inch of water. Do not water shallowly; the soil needs to be moist 4 inches down.
- After harvest begins, fertilize occasionally for vigorous growth and lots of fruits.
- If your fruits are misshapen, they might not have received enough water or fertilization.

#### **PESTS/DISEASES**

- There are a couple of challenging pests, especially the <u>squash vine borer</u> and the <u>squash bug</u>. The best solution is to get ahead of them before they arrive.
- If your zucchini blooms flowers but never bears actual zucchini, or it bears fruit that stops growing when it's very small, then it's a pollination issue. Most squashes have separate male and female flowers on the same plant. To produce fruit, pollen from male flowers must be physically transferred to the female flowers by bees. If you do not have enough bees, you can manually pollinate with a Q-tip—or, add nearby plants that attract bees!
- <u>Cucumber Beetle</u>
- <u>Blossom-End Rot</u>: If the blossom ends of your squash turn black and rot, then your squash have blossom-end rot. This condition is caused by uneven soil moisture levels, often wide fluctuations between wet and dry soil. It can also be caused by calcium levels. To correct the problem, water deeply and apply a thick mulch over the soil surface to keep evaporation at a minimum. Keep the soil evenly moist like a wrung out sponge, not wet and not completely dried out.
- Stink Bug: If your squash looks distorted with dippled area, the stink bugs overwintered in your yard. You need to spray or dust with approved insecticides and hand pick in the morning.
  - Clean up nearby weeds and garden debris at the end of the season to avoid this problem.
- <u>Aphids</u>

- Harvest summer squash when small and tender for best flavor. Most varieties average 60 days to maturity, and are ready as soon as a week after flowering.
- Check plants everyday for new produce.
- Cut the gourds off the vine rather than breaking them off.
- Fresh summer squash can be stored in the refrigerator for up to ten days.
- Harvest winter squash when rind is hard and deep in color, usually late September through October.
- Winter squash can be stored in a cool, dark place until needed. It will last for most of the winter. If you have a cool bedroom, stashing them under the bed works well. They like a temperature of about 50 to 65 degrees F.
- Freezing Summer squash: Wash it, cut off the ends, and slice or cube the squash. Blanch for three minutes, then immediately immerse in cold water and drain. Pack in freezer containers and freeze.
- Freezing Winter squash: Cook as you normally would, then mash. Pack in freezer containers. Learn more tips for freezing zucchini.
- Pull up those vines and compost them after you've picked everything or after a frost has killed them. Then till the soil to stir up the insects a bit.

# **3. TOMATOES**

#### CARE

- Water generously for the first few days.
- Water well throughout the growing season, about 2 inches per week during the summer. Keep watering consistent!
- Mulch five weeks after transplanting to retain moisture.
- To help tomatoes through periods of drought, find some flat rocks and place one next to each plant. The rocks pull water up from under the ground and keep it from evaporating into the atmosphere.
- Fertilize two weeks prior to first picking and again two weeks after first picking.
- If using stakes, prune plants by pinching off suckers so that only a couple stems are growing per stake. Learn how to build stakes and other tomato supports with <u>this video</u>.
- Practice crop rotation from year to year to prevent diseases that may have overwintered.
- Check out this post for even more tomato tips.

PESTS/DISEASES (Tomatoes are susceptible to insect pests, especially tomato hornworms and whiteflies.)

- <u>Aphids</u>
- <u>Flea Beetles</u>
- <u>Tomato Hornworm</u>
- <u>Whiteflies</u>
- <u>Blossom-End Rot</u>
- Late Blight is a fungal disease that can strike during any part of the growing season. It will cause grey, moldy spots on leaves and fruit which later turn brown. The disease is spread and supported by persistent damp weather. This disease will overwinter, so all infected plants should be destroyed. See our blog on <u>"Avoid Blight With the Right Tomato."</u>
- <u>Mosaic Virus</u> creates distorted leaves and causes young growth to be narrow and twisted, and the leaves become mottled with yellow. Unfortunately, infected plants should be destroyed (but don't put them in your compost pile).
- Cracking: When fruit growth is too rapid, the skin will crack. This usually occurs in uneven water or uneven moisture due to weather conditions (very rainy periods mixed with dry periods). Keep moisture levels constant with consistent watering and mulching.
- <u>Basil</u> repels aphids, whiteflies, tomato hornworms, and mosquitoes from tomatoes.

#### HARVEST/STORAGE

- Leave your tomatoes on the vine as long as possible. If any fall off before they appear ripe, place them in a paper bag with the stem up and store them in a cool, dark place. If temperatures start to drop and your tomatoes aren't ripening, watch <u>this video for tips</u>.
- Never place tomatoes on a sunny windowsill to ripen; they may rot before they are ripe!
- The perfect tomato for picking will be firm and very red in color, regardless of size, with perhaps some yellow remaining around the stem. A ripe tomato will be only slightly soft.
- If your tomato plant still has fruit when the first hard frost threatens, pull up the entire plant and hang it upside down in the basement or garage. Pick tomatoes as they redden.
- Never refrigerate fresh tomatoes. Doing so spoils the flavor and texture that make up that garden tomato taste.
- To freeze, core fresh unblemished tomatoes and place them whole in freezer bags or containers. Seal, label, and freeze. The skins will slip off when they defrost.
- You can harvest seeds from some tomato varieties. <u>Learn how here</u>.

See more on properly storing tomatoes and other vegetables.

## 4. PEPPERS

#### CARE

- Soil should be well drained, but be sure to maintain adequate moisture either with mulch or plastic covering.
- Water one to two inches per week, but remember that peppers are extremely heat sensitive. If you live in a warm or desert climate, watering everyday may be necessary.
- Fertilize after the first fruit set.
- Weed carefully around plants.
- If necessary, support plants with cages or stakes to prevent bending. Try commercially available coneshaped wire tomato cages. They may not be ideal for <u>tomatoes</u>, but they are just the thing for peppers. Or, <u>build your own garden supports</u>.
- For larger fruit, spray the plants with a solution of one tablespoon of Epsom salts in a gallon of water, once when it begins to bloom, and once ten days later.

#### **PESTS/DISEASES**

- <u>Aphids</u>
- <u>Flea Beetles</u>
- Cucumber <u>Mosaic Virus</u>
- <u>Blossom-End Rot</u> appears as a soft, sunken area which turns darker in color.
- Pollination can be reduced in temperatures below 60° F and above 90° F.
- Too much nitrogen will reduce fruit from setting.

- Harvest as soon as peppers reach desired size.
- The longer bell peppers stay on the plant, the more sweet they become and the greater their Vitamin C content.
- Use a sharp knife or scissors to cut peppers clean off the plant for the least damage.
- Peppers can be refrigerated in plastic bags for up to 10 days after harvesting.
- Bell peppers can be dried, and we would recommend a conventional oven for the task. Wash, core, and seed the peppers. Cut into one-half-inch strips. Steam for about ten minutes, then spread on a baking sheet. Dry in the oven at 140° F (or the lowest possible temperature) until brittle, stirring occasionally and switching tray positions. When the peppers are cool, put them in bags or storage containers



# **5. ONIONS**

#### CARE

- Fertilize every few weeks with nitrogen to get big bulbs. Cease fertilizing when the onions push the soil away and the bulbing process has started. Do not put the soil back around the onions; the bulb needs to emerge above the soil.
- Generally, onion plants do not need consistent watering if mulch is used. About one inch of water per week (including rain water) is sufficient. If you want sweeter onions, water more.
- Onions will look healthy even if they are bone dry, be sure to water during drought conditions.



- Make sure soil is well-drained. Mulch will help retain moisture and stifle weeds.
- Cut or pull any onions that send up flower stalks; this means that the onions have "bolted" and are done.

#### PESTS/DISEASES

- <u>Thrips</u>: To control thrips—tiny insects about as fat as a sewing needle—take a dark piece of paper into the garden and knock the onion tops against it; if thrips are present, you will spot their tan-colored bodies on the paper. A couple of treatments with insecticidal soap kills them. Follow the package directions. Spray the plants twice, three days apart, and the thrips should disappear.
- Onion Maggots: Cover your emerging onion crop with a fine mesh netting. Seal it by mounding soil around the edges. The onion maggot likes to lay its eggs at the base of plants, so the netting should prevent that. You should also keep mulch away because the insects like decaying organic matter, and make sure you completely harvest your onions as the season progresses. Onion maggots are usually a problem in very rainy periods, so these precautions may be unnecessary if you have a dry season.

- When onions start to mature, the tops become yellow and begin to fall over. At that point, bend the tops down or even stomp on them to speed the final ripening process.
- Loosen the soil to encourage drying, and after a few days turn them up and let them cure on dry ground. Always handle them very carefully—the slightest bruise will encourage rot to set in.
- When tops are brown, pull the onions.
- Be sure to harvest in late summer, before cool weather. Mature onions may spoil in fall weather.
- Allow onions to dry for several weeks before you store them in a root cellar or any other storage area. Spread them out on an open screen off the ground to dry.
- Store at 40 to 50 degrees F (4 to 10 degrees C) in braids or with the stems broken off.
- Mature, dry-skinned bulbs like it cool and dry, so don't store them with apples or potatoes.

# 6. EGGPLANTS

#### CARE

- Eggplant will fall over once loaded with fruit. Be sure to stake plants 24 inches tall or use a cage to keep the plants upright.
- If growing eggplant in containers, stake the stems before the fruit forms.
- Water well without letting the soil get soggy. Consistent watering is best, and a soaker hose or drip system at ground level is ideal.
- Apply a balanced fertilizer every two weeks during the growing season.
- For bigger fruits, restrict to five or six per plant.
- Pinch out the terminal growing points for a bushier plant.

#### PESTS/DISEASES

- <u>Flea Beetles</u> are probably the most common pest, but a healthy eggplant should be able to withstand damage from their tiny holes.
- Verticillium wilt and <u>Powdery Mildew</u> can affect eggplant.
- <u>Tomato Hornworms</u> are sometimes an issue.
- Eggplant fruit may not ripen properly due to cold temperatures, pest damage, or infertile soils.
- Strangely-shaped eggplant are the result of inconsistent watering or low moisture.

#### HARVEST/STORAGE

- Harvest 16 to 24 weeks after sowing when the skin of the fruit is shiny and unwrinkled.
- Don't wait too long to harvest! As soon as the skin does not rebound to gentle pressure from your finger, it's ripe.
- When harvesting, do not pull the fruit (as it won't come off). Cut the fruit with a sharp knife or pruning shears close to the stem, leaving about an inch of it attached.
- Eggplants can be stored for up to two weeks in humid conditions no lower than 50 degrees Fahrenheit.
- Store in the refrigerator where it will keep for several days. Do not wash or cut in advance to avoid damaging the skin, which will quickly perish if exposed.

### 7. CUCUMBERS

#### CARE

- The main plant care requirement for cucumbers is water—consistent watering! They need one inch of water per week (more if temperatures are sky high). Put your finger in the soil and when it is dry past the first joint of your finger, it is time to water. Inconsistent watering leads to bitter-tasting fruit.
- Water slowly in the morning or early afternoon, avoiding the leaves so that you don't get leaf diseases which will ruin the plant. If possible, water your cucumbers with a soaker hose or drip irrigation to keep the foliage dry.
- Mulch to hold in soil moisture.
- Cover seeds with netting or a berry basket if you have <u>pests</u>; this will keep them from digging out the seeds.
- When seedlings emerge, begin to water frequently, and increase to a gallon per week after fruit forms.
- When seedlings reach 4 inches tall, thin plants so that they are 1½ feet apart.

# 7. CUCUMBERS

#### CARE (Continued)

- If you've worked organic matter into the soil before planting, you may only need to side-dress your plants with compost or well-rotted manure.
- If you wish, use a liquid fertilizer from your garden store such as vegetable plant food which is low nitrogen/high potassium and phosphorus formula. Apply at planting, 1 week after bloom, and every 3 weeks, directly to the soil around the plants. Or, you can work a granular fertilizer into the soil. Do not over-fertilize or the fruits will get stunted.
- If you have limited space or would prefer vertical vines, set up trellises early to avoid damage to seedlings and vines.
- Spray vines with sugar water to attract bees and set more fruit.

#### **PESTS/DISEASES**

- Cucumber plants may not set fruit because the first flowers were all male. Both female and male flowers must be blooming at the same time. This may not happen early in the plant's life, so be patient. (Female flowers are the ones with a small cucumber-shaped swelling at the base that will become the fruit.)
- Lack of fruit may also be due to poor pollination by <u>bees</u>, especially due to rain or cold temperatures, or insecticides. To rest assured, you could always hand pollinate. (Dip a Q-tip into the male pollen and transfer it to the center of the female flower.)
- Remember, gynoecious hybrids require pollinator plants.
- <u>Cucumber Beetles</u>
- <u>Whiteflies</u>
- Bacterial Wilt
- <u>Anthracnose</u>
- Mosaic Viruses

- Harvest regular slicing cucumbers when they about 6 to 8 inches long (slicing varieties).
- Harvest dills at 4 to 6 inches long and pickles at 2 inches long for pickles. The large burpless cucumbers can be up to 10 inches long and some types are even larger.
- Cucumbers are best picked before their seeds become hard and are eaten when immature. Do not let them get yellow. A cucumber is of highest quality when it is uniformly green, firm, and crisp.
- Any cucumbers left on the vine too long will also get tough skins and lower plant productivity.
- At peak harvesting time, you should be picking cucumbers every couple of days.
- Keep them picked. If you don't, as plants mature, they will stop producing.
- Cucumbers are over 90 percent water. Store wrapped tightly in plastic wrap to retain moisture.
- They will keep for a week to 10 days when stored properly in the refrigerator.

# 8. CARROTS

#### CARE

- Gently mulch to retain moisture, speed germination, and block the sun from the roots.
- Soil should be well drained and loose to prevent forking and stunting of the root growth.
- Once plants are an inch tall, thin so they stand 3 inches apart. Snip them with scissors instead of pulling them out to prevent damage to the roots of remaining plants.
- Water at least one inch per week.
- Weed diligently.
- Fertilize 5-6 weeks after sowing.
- Carrots taste much better after a couple of frosts. Following the first hard frost in the fall, cover carrot rows with an 18-inch layer of shredded leaves to preserve them for harvesting later.
- Get more tips for growing carrots.

#### PESTS/DISEASES

- Wireworms
- <u>Flea Beetles</u>
- Aster Yellow Disease will cause shortened and discolored carrot tops and hairy roots. This disease is spread by pests as they feed from plant to plant. Keep weeds down and invest in a control plan for pests such as leafhoppers. This disease has the ability to overwinter.

- Carrots are mature at around 2 ½ months and ½ inch in diameter. You may harvest whenever desired maturity is reached.
- You may leave mature carrots in the soil for storage if the ground will not freeze.
- To store freshly harvested carrots, twist off the tops, scrub off the dirt under cold running water, let dry and seal in airtight plastic bags, and refrigerate. If you simply put fresh carrots in the refrigerator, they'll go limp in a few hours.
- Carrots can be stored in tubs of moist sand for winter use.



# 9. GARLIC

#### CARE

- Northern gardeners should <u>mulch</u> heavily with straw for overwintering.
- Mulch should be removed in the spring after the threat of frost has passed. (Young shoots can't survive in temps below 20°F on their own. <u>Keep them under cover.</u>)
- Cut off any flower shoots that emerge in spring. These may decrease bulb size.
- Weeds should not be a problem until the spring. Weed as needed.
- Garlic requires adequate levels of nitrogen. Fertilize accordingly, especially if you see yellowing leaves.
- Water every 3 to 5 days during bulbing (mid-May through June).
- A note on garlic scapes: Some folks love cooking the scapes (the tops of hardneck garlic). Whether you trim the scapes or let them keep growing is your preference. We like to stir fry scapes the way we cook green beans—similar, with a spicy kick!

#### PESTS/DISEASES

Garlic has very few problems with pests in the garden (in fact, its a natural pest repellent!), and also very few problems with the diseases that plague other veggies. White Rot is one concern, but you should also keep an eye out for the same pests that plague <u>onions</u>.

• White Rot is a fungus that may attack garlic in cool weather. Not much can be done to control or prevent that problem except rotating your crops and cleaning up the area after harvesting. The spores can live in the soil for many years. The fungus affects the base of the leaves and roots.

- Harvest time depends on when you plant, but the clue is to look for yellow tops. Harvest when the tops begin to yellow and fall over, before they are completely dry.
- In Northern climates, harvesting will probably be in late July or August. In Southern climates, it will depend on your planting date.
- Check the bulb size and wrapper quality; you don't want the wrapper to disintegrate. Dig too early and the bulb will be immature. Discontinue watering.
- To harvest, carefully lift the bulbs with a spade or garden fork. Pull the plants, carefully brush off the soil, and let them cure in an airy, shady spot for two weeks. We hang them upside down on a string in bunches of 4 to 6. Make sure all sides get good air circulation.
- The bulbs are cured and ready to store when the wrappers are dry and papery and the roots are dry. The root crown should be hard, and the cloves can be cracked apart easily.
- Once the garlic bulbs are dry, you can store them. Remove any dirt and trim off any roots or leaves. Keep the wrappers on—but remove the dirtiest wrappers.
- Garlic bulbs may be stored individually with the tops removed, or the dried tops may be braided together to make a garlic braid to hang in the kitchen or storage room.
- Bulbs should be stored in a cool (40 degrees F), dark, dry place, and can be kept in the same way for several months. Don't store in your basement if it's moist!
- The flavor will increase as the bulbs are dried.
- If you plan on planting garlic again next season, save some of your largest, best-formed bulbs to plant again in the fall.

# **10. CORN**

#### CARE

- When your plants are 3 to 4 inches tall, thin them so they are 8 to 12 inches apart.
- Be careful not to damage the roots when weeding.
- Soil must be well drained and able to keep consistent moisture.
- In dry conditions, be sure to keep corn well watered due to its shallow roots. Water at a rate of 5 gallons per sq yard. Mulch helps reduce evaporation.

#### **PESTS/DISEASES**

Corn plants are susceptible to several common garden pests:

- <u>Raccoons</u>
- Spotted <u>Cucumber Beetles</u>
- <u>Flea Beetles</u>
- <u>Cutworms</u>

- Harvest when tassels begin to turn brown and cobs start to swell. Kernels should be full and milky.
- Pull ears downward and twist to take off stalk.
- Sweet corn varieties lose their sweetness soon after harvesting.
- Prepare for eating or preserving immediately after picking.
- Sweet corn freezes well, especially if removed from ears before freezing. Learn how to properly freeze <u>corn</u>.



# LAST PLANTING DATES FOR A FALL GARDEN

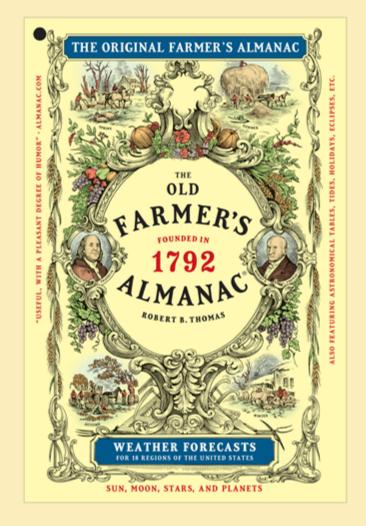
# LAST PLANTING DATES FOR SECOND-SEASON CROPS

To calculate the best time to plant your second vegetable first expected freeze dates in the chart below. Choose th closest to the expected first killing frost in your area. If yo date, call your local county extension agent or go to our We com for more frost-date information.

FIRST EXPECTED FREEZE:	SEPTEMBER 10	SEPTEMBER 20	SEPTEMBER 30	OCTOBER 10	OCTOBER 20	
VEGETABLE	PLANT BY					
Beets	June 25	July 5	July 15	July 25	August 5	
Broccoli (transplants)	*	June 15	June 25	July 10	July 25	
Bush beans	*	*	June 15	July 1	July 15	
Cabbage (transplants)	4	June 15	June 25	July 10	July 25	
Carrots	June 25	July 5	July 15	July 25	August 5	
Chard	June 25	July 5	July 10	July 20	July 30	
Corn	*	*	June 15	June 25	July 10	
Cucumbers	*	*	June 15	June 30	July 15	
Leaf lettuce	July 20	August 1	August 10	August 20	September 1	
Peas	June 25	July 10	July 20	August 1	August 10	
Peppers (transplants)	4	June 20	June 30	July 7	July 15	
Radishes	August 1	August 15	September 1	September 10	September 20	
Spinach	July 15	July 25	August 5	August 15	August 25	
Tomatoes (transplants)	June 15	June 20	June 25	June 30	July 5	

See all our Growing Guides for over 100 Vegetables, Fruit, and Flowers here.

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