# Section 4. Fall in the garden

We're lucky. Fairfax County has a long growing season – around seven months! If you're a new gardener, the growing season may last longer than you expect. Our first frost usually isn't until mid-November. Warm, sunny days will fuel the garden even as nighttime temperatures drop. Beans, tomatoes and tomatillos are some of the crops that can still be growing

## Important dates for Zone 7a/b gardeners:

Last frost date: April 15 First frost date: Nov. 15 strong as Thanksgiving approaches.

To plant a fall garden of cool-season crops, you'll need to make decisions about how to create space for them. Many fall vegetables have to be planted while your summer crops are still producing. It can be hard to remove plants that are still healthy and growing.

To make it easier to decide whether to plant fall crops, how many and where, consider these questions:

- How much more yield are you likely to get out of each summer crop? Keep in mind that as the days shorten and temperatures decline, plants will grow more slowly. Growth can take two weeks longer in autumn. You may want to give the extra time to the fall crops.
- Do flowering plants have enough time to grow fruit to maturity? This is an especially important question to ask about slow-growing crops like winter squash and melons.
- Can you maximize space by planting low-growing cool-season crops under tall warmseason crops?
- By when do you need to start planting?

The last planting dates in the table on the next page will help you figure out when garden space needs to be freed up. You might be surprised at how early some crops should be started; this is especially true of the larger vegetables. Pay attention to these dates. If you cut your timing too close, you risk losing the crop to frost.

Garlic and onions are included in the table and will be discussed in more detail afterward. Plan carefully for where they'll go because they need a lot of time – they won't be ready for harvest until May or June.

Crop	Last planting date	Cold-hardiness*	
Beets	Sept 30	Light frost	
Broccoli	July 31 (transplants by Aug 31	Light frost	
Cabbage	Aug 31	Mid-20°F	
Carrots	Early September	Light frost	
Cauliflower	Mid-August	Light frost	
Collards	Mid-September	Down to 20°F	
Garlic	By Thanksgiving (don't plant before Oct 1)	Overwinters	
Kale	Mid-September	Down to 20°F	
Lettuce	Early October	Light frost	
Onions (bulbing)	Oct 31 (don't plant before Labor Day)	Overwinters	
Radishes	Oct 31	Light frost to 20°F	
Spinach	Oct 25	Light frost to overwinters	
Swiss chard	Aug 25	Light frost	
Turnips	Oct 31	Light frost	

\*Cold-hardiness can vary by variety, so read the seed packet or look up your specific varieties to confirm what temperatures they'll tolerate. Also, many crops can extend their production time if protected by frost cloth or enclosures.

#### Planting bulb onions and garlic

There are many types of onions, but the focus here is on the bulbing onion. In the fall, onion seeds can be sown or you can plant onion sets, which are small, dormant onions. There are three types: short-day, long-day and intermediate. Here in the Mid-Atlantic, gardeners can try all three, although if you select a long-day variety, pick one with fewer days to harvest.

A cold frame is generally recommended if starting from seed, or you can start the seeds inside in trays and under a grow light. Transplant in early spring when the seedlings are as big around as a skinny pencil. If you use onion sets, plant them in the fall about 2 inches in the ground, with the pointy end up.

Onions like moisture but do not like weeds. They'll indicate when they're ripe: the shoulders of the bulbs will emerge from the soil and their tops will turn brown. Gently dig them up and let them completely dry. After that, you can remove the outermost skins, brush off the dirt and cut all but 1-2 inches of the stem. Store in a cool, dry place or a mesh bag.

Garlic also is available in different types: soft-necked and hard-necked. The soft-necked can be braided, stores well, and thrives in temperate winters. Hard-necks produce fewer, larger

bulbs but don't store as well. Although they generally prefer colder winters than we have, local gardeners have had luck with varieties such as German Extra Hardy and Music.

Plant garlic by breaking up the head into individual cloves. They need to be planted more deeply than onions – about 3 inches underground, also with the pointed end up. A few inches of straw provides an easy mulch. Garlic must be planted in full sun, but you won't see anything until skinny shoots emerge in the spring. At that point, remove or reduce the mulch.

Hardneck varieties grow a flower, called a scape. Commonly this scape is cut while still curly to save nutrients for the bulb; they're edible and give a light, garlicky flavor to salads and stir fries. For both garlic types, when three leaves on a plant have dried up and turned brown, loosen the soil and gently lift the garlic head up. Dry out of the sun until the skin is papery, then brush off the dirt and clip the roots. Store in a cold place; they can sprout in 40°-50°F temperatures. Don't refrigerate.

### Tips for fall gardening

- Download a weather app, bookmark the National Weather Service's website, subscribe to a nursery's email list or pay attention to the radio; these sources will announce frost alerts. When frost is forecast but temperatures will be above freezing, you can either cover your sensitive crops or harvest them. These include cucumber, eggplant, melons, peppers, squash and tomatoes.
- If the days are still warm and you just want to protect your sensitive plants from an occasional light frost before fully harvesting them, don't buy garden fabric. Use whatever you have at home: baskets, burlap, bedsheets or blankets, boxes, buckets. There probably are other items that don't start with the letter "b," too.
- Replenish your soil's nutrients by spreading 1-2 inches of compost or fully composted manure. After planting fall crops, lightly mulch the soil. The goal is to keep the soil cool and moist, but not inhibit the seeds from emerging. In extreme heat, you may want to use straw instead of shredded hardwood or leaves.
- Because fall crops are mostly planted when it's hot and dry, sow seeds after a rain or water the soil the day before.

#### **Extending the season**

Even though our growing season is long, sometimes we want it to be even longer – or year-round. Many materials and structures are available to make this happen. As mentioned in Section 3, row covers or low tunnels draped with frost cloth can boost the temperature.

Another good insulator is called a cloche (pronounced "klōsh"). The name of a bellshaped hat, a cloche is a glass or plastic covering shaped like a dome that can protect an individual plant or a row-sized frame covered in clear material. Cloches are small, portable greenhouses that use the sun's energy to create a warm climate. You can make your own out of well-rinsed, gallon-sized milk cartons or one-liter soda bottles. Make sure cloches are secured to the ground so they don't blow away in a strong wind.



*Here's an example of a cold frame at the US Botanic Garden's Bartholdi Park in D.C. Photo by USBG vegetable gardener Thomas Crawley.* 

A more permanent seasonextending structure is a cold frame, which is usually built from four wooden sides with a glass or plastic cover. The frame should face southeast and be angled so that the cover slants. These two adjustments will maximize sunshine into the box. Because they are so sturdy, cold frames provide much

greater protection from wind, frost and cold temperatures than other extenders.

Any structure used to protect plants from the cold needs to be monitored. Local temperatures can be unpredictable; warm, sunny days will cause heat to build up under the covers. Cloches and row covers may need to be removed or tilted to allow air flow.

This guide doesn't cover greenhouse gardening. The range in greenhouse models is vast, and the expertise required to grow in the larger ones calls for a manual of its own. Fortunately, the U.S. Botanic Garden has one. You can find a link to it below under "Book and online resources," along with other greenhouse resources.

#### Seed-saving

Gardeners love to share seeds and plants with each other, so seed-saving is a great way to get to know new people. But that's just one reason for saving seeds from your garden. Here are some more:

- You don't have to pay for seeds if you save and trade them.
- You can help save varieties not sold in grocery stores.
- The plants that grow from saved seeds learn how to adapt, or live successfully in your garden's microclimate. The type of soil, the amount of sun and rain, and the temperatures are different in every garden.
- You can affect a variety's adaptation by selecting seeds from plants with favorable traits. You may notice that one plant resists disease, tolerates drought or is especially productive. Tie a piece of yarn around that plant's stem so you'll remember to save its seeds.

The most reliable seeds for saving are from open-pollinated and heirloom plants. Look for seed packets or seedlings marked "OP" or "heirloom." These plants are just like their parent plants, and their children and grandchildren and so on will also be the same. Unless you like experiments in the garden, don't buy seed packets that say "hybrid" or "F1" if you plan to save seeds. In a couple of years, you could be growing a completely different variety!

Also, plant just one variety of each crop or plant them far apart so they don't crosspollinate, which is when plants get mixed up with each other. You can look up online how far apart varieties should be planted from each other.

#### When to harvest seeds

With some plants, like tomatoes and winter squash, it's easy to tell when the seeds are ready for harvest. They're ready when the fruit is ripe. Other vegetables need more time. If you want to save these vegetables' seeds, you end up growing some plants just for the seeds and not to eat. Crops in this category include peppers, whose seeds are ready when peppers are shriveled on the stem, and cucumbers, whose bloating and unexpected coloring tell you the seeds are ripe.

See the table on the next page to learn what crops are easy to start with and a trick for successfully saving tomato seeds. "Book and online resources" at the end of the workbook also has more information about how to save seeds.

Easy crops for seed-saving				
Туре	Grows in warm or cool weather?	How to know when the seeds are ready to be picked	How long the seeds should be good for, if saved in a cool, dark and dry place	
DRY SEEDS				
Beans	Warm, except fava beans	Pods start to turn brown and feel like leather.	4 years	
Lettuce	Cool	When you can see the hard, brown seeds in the white feathers of the flower.	2 years	
Peas	Cool (except sweet peas, which are a different species)	Pods start to turn brown and feel like leather.	3 years	
Peppers	Warm	After the fruits have stopped changing color and are wrinkled.	2 years	
Sunflowers	Warm	When you can see the seeds set in the head and they are hard, but before the birds take them all!	2 years	
WET SEEDS				
Cucumbers	Warm	Cucumbers grow very fat and turn yellow, orange or brown.	3 years	
Squash/pumpkins	Warm	Squash (pumpkins are a squash) become very big and hard. The vine will be brown and crispy and maybe even breaking.	3 years	
Tomatoes	Warm	The tomatoes are ripe and ready to be picked.	4 years	

#### **Preparing tomato seeds**

After harvesting wet seeds, you need to thoroughly rinse them to remove all bits of the fruit. For tomatoes, this isn't good enough. Tomatoes need extra attention. A special gel coats tomato seeds to stop them from sprouting inside the fruit, where it's very warm. Before drying and storing the seeds, you have to conduct a simple science experiment to remove the gel:

- 1. Scoop the seeds into a glass jar.
- 2. Cover the jar with a paper towel or cloth and fasten it with a rubber band.

3. Let the mix sit for a few days, stirring it twice a day.

4. When it starts to smell OR when it stops bubbling, pour the mix into a strainer that the seeds can't get through. Rinse repeatedly in cold water until you can't feel the gel any more. Spread the seeds onto a flat surface, not touching, and let them dry for about two weeks.

#### Putting the garden to bed

Eventually, unless you're a diehard enthusiast, the garden season comes to an end. It's time to prepare the garden for its long winter nap. You may need the rest, too.

Cut at soil level any plants still rooted in the ground and either put them on top of the soil or in the compost pile. Exception: All pest-infected or diseased plants should be pulled out completely and thrown away. Remove any remaining weeds and pull up all stakes and trellises not still in use. Rinse them off, then put them away.

Give your garden a vitamin boost by spreading a layer of compost. The nutrients will have ample time to enrich the soil. Fall is also prime time for taking a soil test; any recommended amendments will have months to affect the soil's chemical composition.

Plant cover crops in any beds or plots you don't plan to use. If you don't remember cover crops, which are grown to benefit the soil, give yourself a refresher in Section 3. And if you don't want to plant cover crops, cover the soil with mulch, shredded fall leaves or straw for the winter.

Finally, clean, oil, sharpen and repair tools before putting them away until spring. Then go inside, start planning for the next year and wait for the seed catalogs to arrive.

# **Congratulations!**

Now you have a full season of gardening under your belt! We hope it's been a fulfilling, food-filled year. Don't be disappointed if crops failed or insects took over. Mother Nature is unpredictable and there's always more to learn. You'll use your new knowledge and Garden Journal notes to set yourself up for a more successful garden next year.

For a fun way to celebrate the start of the second year of your community garden, plan a seed swap in late January or transplant swap in early March. Invite all the gardeners to bring their extra seeds or seedlings. Put them all on a table and see who wants what. You can combine this with a potluck or invite a garden speaker.

Please let us at the Northern Virginia Soil and Water Conservation District know how your gardening is going: email us stories and photos, let us know what you learned or want to learn, invite us to your garden, and share with us on Facebook. And, of course, reach out any time with your questions and requests for support.

We want all Fairfax County residents to be able to eat fresh food and to have a space to grow it if they choose.

Thank you for helping to make these goals a reality.



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We promote soil and water conservation in Fairfax County and beyond. We are innovators. We promote hands-on conservation. We provide technical expertise. We develop young environmental leaders. We help you bring conservation home.