

Summer to Fall Garden Transition

Timing, sorting, and soil for the crossover season

You have two deadlines, not one

Most fall planting advice counts backward from the first frost date. That is only half right, and it is the half that trips people up.

Frost date is the deadline for anything that dies when it freezes. Tomatoes, peppers, eggplant, basil, squash, beans, cucumbers. Once frost arrives, they are finished.

Daylight is the deadline for everything else. When days drop below roughly ten hours, plant growth nearly stops no matter how mild the weather is. Whatever size a plant has reached by then is close to the size it will stay. Cold-hardy crops keep sitting there in good condition, so you harvest through the winter, but they are not growing much.

Look up when your own daylight drops under ten hours. Across most of the United States it lands somewhere between the first week of November and the first week of December.

Write both dates at the top of this page before you go any further. Your first frost date, and your ten hour daylight date. Every decision below is counted back from one of them.

The counting-back math

Take the days to maturity off the seed packet. Add about fourteen days, because plants grow more slowly in cooling weather and shortening light. Count that total backward from your ten hour daylight date. That is the last day the seed can go in.

If you are starting in trays instead of sowing direct, count back a further three to four weeks for the time the seedling spends in the tray.

Worked example

Crop	Brussels sprouts, 100 days on the packet
Add fall factor	$100 + 14 = 114$ days
Count back from	Your ten hour daylight date
Result	Transplant goes in the ground roughly four months earlier
So the seed	Gets started in a tray three to four weeks before that

Why the summer crop gets refreshed, not replaced

A tomato flower needs roughly forty five to sixty days to become ripe fruit, and ripening slows badly once nights fall below fifty five degrees. Count back from your frost date and you get a cutoff: flowers that open after that will not finish.

A brand new transplant spends its first three or four weeks building roots before it flowers at all, which puts its first flowers right at or past that cutoff. An established plant has already done that work. Cut it back to a workable height, feed the soil underneath it, and the energy goes straight into new growth and new flowers as the heat breaks.

This also explains the flower drop people panic about in August. Tomato blossoms abort in extreme heat. The plant is not finished, it is waiting. As temperatures come down, it sets fruit again, and it will do that faster if you have fed it.

Sorting the seeds: direct sow or start in a tray

Two separate questions decide this, and it helps to keep them apart.

- **Does the plant mind being moved?** Anything that makes a taproot resents transplanting and should go straight in the ground.
- **Is the bed free yet?** This is the one people forget. In a crossover season the summer crop is still standing. Time in a tray is time the plant grows while the bed is still busy. Direct sowing means waiting for the bed, and that wait comes out of your calendar.

Direct sow	Start in trays
Carrots, radishes, turnips, beets, parsnips. Taproots snap or fork when moved.	Cabbage, brussels sprouts, broccoli, pak choi, chinese cabbage. Long to mature and happy to transplant, so the head start matters most here.
Dill and cilantro. Both bolt or sulk after transplanting.	Kale and chard. Transplant easily and appreciate the protected start in heat.
Salad greens, arugula, spinach, mustards. Fast enough that waiting on a bed costs little.	Lettuce, when soil is still too warm to germinate outside. Trays let you control temperature.
Peas, beans, and anything else that resents root disturbance.	Anything going into a bed that is still full of summer crop.

Starting seeds in August heat

Fall seed starting is the opposite problem from spring. In spring you are fighting cold. Now you are fighting heat, and heat causes its own failures.

- Lettuce and spinach will not germinate reliably above about eighty degrees soil temperature. They go dormant instead. Start them somewhere cooler, or sow late in the day and keep them shaded.
- Trays dry out fast in August. Check them twice a day. A seed that swells and then dries out is dead, not delayed.
- Give young trays afternoon shade. Full August sun cooks seedlings and makes them stretch and go leggy.
- Brassica seedlings germinate happily in heat and then sulk in it. Getting them out of the worst afternoon sun matters more than getting them the most light.
- Label everything. Fall brassica seedlings look identical to each other and you will not remember in October.

Sow salad greens in small batches every two weeks rather than all at once, right up until your last sowing date. Fall greens hold well in cool weather, but a single big sowing all comes ready in the same week.

What grows well in a fall garden

These do well in fall across most of the country. Days to maturity vary a good deal by variety, so treat these as a working range and trust your seed packet over this page. **D** means direct sow, **T** means start in a tray.

Salad and cooking greens

Crop	Days	Sow	Cold notes
Arugula	30 to 40	D	Hardy. Milder in cool weather than it ever is in spring
Spinach	35 to 45	D	Very hardy. Often overwinters under cover for an early spring cut
Mustard greens	30 to 45	D	Hardy. Heat makes them sharp, cold makes them mild
Tatsoi	40 to 50	D	Very hardy. Keeps going well past a hard frost
Lettuce	45 to 60	D or T	Light frost. Romaine and butterhead take more cold than leaf types
Swiss chard	50 to 60	D or T	Light frost. Slow but steady, keeps producing a long time
Mache	50 to 70	D	Extremely hardy. One of the last things standing in winter
Endive and escarole	45 to 65	T	Hardy. Bitterness softens as it cools

Brassicas

Crop	Days	Sow	Cold notes
Broccoli rabe	40 to 50	D	Hardy. Fast, and one of the easiest fall brassicas
Pak choi	45 to 55	T or D	Light frost. Bolts in heat, so fall suits it better than spring
Kohlrabi	45 to 60	D or T	Hardy. Harvest before it gets woody
Kale	50 to 65	T or D	Very hardy. Sweetens noticeably after frost
Chinese cabbage	50 to 70	T	Light frost. Needs steady water or it splits
Broccoli	55 to 80	T	Hardy. Side shoots keep coming after the main head is cut
Collards	55 to 75	T	Very hardy. Sweetens after frost
Cauliflower	55 to 80	T	Light frost only. The fussiest thing on this page
Cabbage	60 to 100	T	Very hardy. Choose a variety by days, the range is wide
Brussels sprouts	90 to 110	T	Very hardy. Needs the longest runway, start earliest

Roots

Crop	Days	Sow	Cold notes
Radish	25 to 30	D	Hardy. Fastest thing you can plant, good for filling gaps
Turnip	40 to 60	D	Hardy. Greens and roots both, and it sweetens in cold
Beets	50 to 70	D	Hardy to a light freeze. Greens are worth eating too
Daikon	50 to 70	D	Hardy. Doubles as a soil breaker in compacted beds
Carrots	60 to 80	D	Very hardy. Sweetens after frost, holds in the ground under mulch
Rutabaga	80 to 100	D	Very hardy. Needs an early start, sweetens in cold

Alliums, peas, and herbs

Crop	Days	Sow	Cold notes
Cilantro	45 to 70	D	Hardy. Fall is the only season it does not bolt immediately
Dill	40 to 55	D	Light frost. Resents transplanting, sow where it will grow
Parsley	70 to 90	T	Very hardy. Often carries through winter with a little protection
Scallions	60 to 80	D or T	Hardy. Forgiving, and they hold in the ground
Snap and snow peas	55 to 70	D	Light frost. A gamble in fall, but a cheap one
Garlic	Next summer	D	Planted in fall, harvested the following summer. Its own timeline

If a bed is not getting replanted, sow a cover crop instead of leaving it bare. Crimson clover, winter rye, hairy vetch, or daikon all work, and they feed the soil over winter instead of letting it wash and compact. This is the same principle as everything else here, just running on a longer clock.

One regional note. Gardeners in the deep South and low desert run a different calendar, with fall planting stretching well into October and November, and some of these crops growing straight through winter. Gardeners well to the north lose the window earlier and lean harder on the fast greens, radishes, and cold frames. Everything above still applies, the dates just shift.

Feed the soil, the soil feeds the plants

A bed that has carried a summer crop is depleted. The tomatoes and squash spent all season pulling from it. Dropping fall transplants into that spent soil is the single most common reason a fall garden looks sad, and people usually blame the weather instead.

Refresh the bed before anything goes in. Compost, worm castings, and a liquid feed give the new transplants something to land in, and they give a cut-back tomato the fuel it needs to push its second round of flowers.

Liquid fertilizer with an air stone

Ingredient	Amount
Non chlorinated water	4 gallons, in a 5 gallon container
High quality worm castings	2 cups, in a mesh brew bag
Chopped comfrey leaves	2 to 3 cups, in the mesh bag
Unsulfered blackstrap molasses	1 tablespoon, dissolved first in warm water
Kelp meal or liquid seaweed	1/4 cup meal, or 2 tablespoons liquid
Finely ground alfalfa meal	1 tablespoon
Epsom salt	1 teaspoon

Brewing

- Fill the bucket, leaving a few inches at the top.
- Put the comfrey and worm castings in a mesh bag for easy cleanup and straining.
- Add the dissolved molasses and any optional kelp or alfalfa meal.
- Run the air pump continuously for 24 hours. Thirty six hours is fine in cool weather.
- The finished tea should smell earthy. Not sour, not rotten, not swampy. If it does, pour it out and start again.
- Use it immediately after brewing.

Dilution and application

Where it is going	Dilution	How
Established vegetables, berries, flowers, fruit trees	1 part tea to 4 or 5 parts water	Drench the soil around the root zone
Seedlings, transplants, containers	1 part tea to 10 parts water	Gentle soil drench
Foliar feeding	Skip it on edible crops	If used at all, reserve for ornamentals

Crossover season tips

The weeks where the summer garden is still producing and the fall garden is going in are the busiest of the year. These are the things worth knowing while you are in it.

Working two gardens at once

- **Interplant before you clear.** You do not always have to wait for a bed to empty. Fall seedlings can go in between fading summer plants, and the older plants give them shade through the worst of the heat.
- **Pull what is done.** A cucumber vine limping along is taking up a bed and feeding pests. Decide honestly whether it is still producing enough to earn its space.
- **Pest pressure drops as the season turns.** Squash bugs, cucumber beetles, and hornworms wind down. Fall crops often come through cleaner than the same crop did in spring, which is one of the real pleasures of a fall garden.
- **Cabbage worms are the exception.** They stay active into fall and they love brassicas. Cover new transplants or check the undersides of leaves regularly.
- **Mulch the refreshed beds.** It keeps soil temperature down for new transplants, holds moisture through the last hot stretch, and saves you watering.

Sanitation matters more now

- Diseased plant material does not belong in the compost pile. Pull it and get it off the property.
- Late blight is not something you manage. Pull the plant, destroy it, and do not leave fruit lying in the bed.
- Clean up fallen fruit and old foliage as beds come out of production. What you leave behind is what overwinters.

Looking further ahead

- **Have row cover ready before you need it.** A light cover buys several degrees and can carry tender crops past an early frost that would otherwise end them.
- **Some crops improve after frost.** Kale, brussels sprouts, cabbage, carrots, and parsnips convert starch to sugar in the cold. Do not rush to harvest them.
- **Garlic is its own conversation.** It goes in well after everything here, usually a few weeks before the ground freezes hard, and comes out the following summer.
- **Write down what happened.** What you sowed, when, and what actually finished. Next year that page is worth more than any chart.

Your dates

First frost date	
Ten hour daylight date	
Last day to sow, fast greens	
Last day to transplant brassicas	
Tomato flower cutoff	
Date beds were refreshed	