

# Plan for a Back-to-School Harvest

Just like the merchants who start displaying the back to school fashion lineup when it's still beachwear weather, school gardeners who want to enjoy a fall vegetable harvest need to think ahead during summer's heat to cooler times to come. A little planning and planting beginning in midsummer can pay big dividends when students return at the end of the summer by allowing your school garden harvest to continue into the fall or even winter months, depending on your climate and the protection you give your crops.

There are two broad categories of plants that can be planted in midsummer for a later harvest - those that can't tolerate any frost, but mature quickly enough to be ready for picking before frost shuts them down, like bush beans and basil, and those that tolerate some frost and will keep growing - sometimes even improving in quality - until cold temperatures hit in mid to late fall. Beets, cilantro, kohlrabi, broccoli, spinach, carrots, chard, cabbage, Chinese cabbage, bok choy, radishes, turnips, lettuce, and hardy greens like arugula and mizuna are all cold-tolerant plants that will take light frost. And some crops, such as kale and Brussels sprouts actually taste sweeter when harvested late in the season after they have been touched by frost. In areas with mild winters, like southern California, the Gulf Coast, and warm parts of the Southwest, you may even be able to grow cold tolerant crops throughout the winter.

## Fall Planting Formula

To figure out when to start what in your climate, begin by finding out the date of the first expected killing fall frost in your area. While tender crops like beans and basil will be killed by light frost (32 degrees F), many cool season crops survive until hard frost, when temperatures dip to 28 degrees F or lower. Especially hardy kale, cabbage, collards, and Brussels sprouts can withstand hard frosts, but will usually be killed when temperatures get down to 20 degrees F or lower. To determine when these temperatures arrive in your area, check with your local Extension Service or check out information available online from NOAA.

Next, find the days to maturity (DTM) for the particular crop and variety you plan to grow. Find this information on the seed packet, plant tag, or in the seed catalog. (Check to see if the days to maturity are from direct seeding or transplanting. For most of the crops you'll be planting for fall harvest, the DTM will be from seed, except for cabbage, broccoli, and other cole crops, which will be from transplant. If the DTM are from transplant to harvest, add another 2-4 weeks if you are growing your own transplants from seed.) When possible, choose varieties with the shortest DTM for fall harvests.

Then add in a fall factor of about 14 days. This takes into account the slower growth of plants as the days get shorter and cooler in late summer and fall. Add to this the length of the average harvest period, usually 7-14 days.

When you arrive at the total (days to maturity + fall factor + harvest period), count back this number of days from the fall frost date to arrive at your planting date. If you plan to protect your crops with a cold frame, cloche, or low tunnel, you can plant 2-4 weeks later than you would for unprotected crops. If you garden where frost comes in early fall, you'll need to start planning for and planting fall crops earlier in the summer than gardeners in milder areas, who may wait to plant until late summer or early fall.

**Here are a couple of examples to make this clearer, using a hard frost date of October 25;**

### **Bloomsdale Long Standing Spinach (DTM 42 days from seeding)**

- 42 days (DTM) + 14 days (fall factor) + 14 days (harvest period) = 70 days
- October 25 minus 70 days = August 16 (date to plant seeds to harvest mature leaves)

## 'De Cicco' Broccoli (DTM 48 days from transplanting)

- 48 (DTM from transplanting) + 14 (fall factor) + 14 (harvest period) = 76 days
- October 25 minus 76 days = August 10 (date to plant transplants)
- To grow broccoli from seed to transplant stage, add 28 days more: 76 +28 = 104 days
- October 25 minus 104 days = July 13 (date to plant seeds)

Because plants like broccoli, cabbage, and Brussels sprouts take a long time to mature from seed, it's more practical for many gardeners to purchase transplants from a greenhouse or garden center to plant at the appropriate time for fall harvest, rather than growing the plants from seed themselves.

If you'd like to have someone else do the figuring, take advantage of Johnny's Selected Seeds online Fall Harvest Planting Calculator. Enter your average first frost date and the calculator will tell you when to plant a wide variety of crops for fall harvest. It's fast and easy!

A common quandary for many gardeners when planning for fall vegetable crops is where to put them when all the garden space is still taken up with summer-producing crops. While it won't work for everything, many crops can be started in flats or cell packs and transplanted into the garden as space opens up at the end of the season. Even plants that are traditionally direct-sown, such as beets, can be successfully transplanted if care is taken to disturb their roots as little as possible.

## Crops for Fall Harvest

- **Salad Greens:** Crops such as lettuce, spinach, arugula, endive, mache, and mesclun are great for fall harvest because they mature quickly, grow well when the weather is cool, and are less likely to bolt or go to seed than spring planted crops. Both spinach and lettuce germinate poorly in warm soil (above 60 degrees) so if you are starting plants in late summer, cover beds with shade cloth after planting or start seeds indoors and transplant.
- **Hardy Greens:** Fall is a great time to grow these nutritious crops. Kale, collards, Swiss chard, mustard greens, and bok choy all thrive in cooler weather. A few frosts will even sweeten the taste of your kale. If you are growing it as "baby" greens, you can sow seeds just a few weeks before frost. Some varieties of kale, such as 'Siberian', are especially cold tolerant and can be harvested even after snow covers the ground.
- **Cole Crops:** Like kale, Brussels sprouts taste best after sweetened by a light frost. But they take a long time to mature, so be sure to get them on your planting schedule in early to midsummer if you plant to grow from seed. Other cabbage family members that are suited to fall harvest include broccoli, cabbage, Chinese cabbage (napa), kohlrabi, and cauliflower.
- **Root Crops:** Beets, carrots, turnips, and radishes are all suitable for fall harvests. Root crops that mature in the cooler weather of fall will be sweet and mild. In the warmest areas, you can grow these crops right through the winter months.
- **Peas:** These grow well in the cooler weather of fall, but can be damaged by frost, especially the developing pods. So try to time your fall pea sowing so plants mature a week or two before the fall frost date, and be prepared to cover plants if an early frost threatens. Keep the seed bed well watered to ensure good germination.
- **Herbs:** Dill, cilantro, and chervil all grow well in cool fall weather and unlike spring crops, are less likely to bolt or go to seed quickly. Make successive sowings of these crops every few weeks from midsummer up until about 6 weeks before your frost date. In mild winter areas, these herbs can be harvested through the winter months.
- **Leeks and Onions:** Sow seeds of scallions or bunching onions about 8 to 10 weeks before your fall frost date; then begin harvesting when plants reach about 6 inches tall. In mild winter parts of the country, leek seeds may be started in late summer or early fall for harvest in the winter and spring. In cold winter areas leeks may be harvested in the fall, but because they take a long time to mature they are planted in spring.

So remember, even though the weather is in the 90s and the garden is overflowing with zucchini and tomatoes, when you see the bathing suits go on sale, it's time to think about planting for fall!