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Planting Vegetables Midsummer for a Fall Harvest

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For most Utah gardeners, midsummer is the time of tasselling corn, ripening peas and new potatoes. Midsummer is also a great time to plant hardy vegetables for a fall harvest. In general, any vegetable that can be sown or transplanted in the cool days and frosty nights of spring is a candidate for midsummer planting.

Midsummer planting allows growers to make their garden more productive by utilizing space that would otherwise sit idle after early crops are harvested. It is just the ticket for ground that cannot be planted (for whatever reason) in the spring. For example, a garden area that is badly weed-infested can be cultivated repeatedly in spring and early summer to suppress weeds before being planted to vegetables in midsummer. Flavor-conscious gardeners will appreciate the exceptional quality of vegetables that ripen in the bright days and brisk nights of autumn. Vegetables that mature in the fall are typically milder and sweeter than those that mature in the heat of summer. Finally, fall temperatures make it possible to harvest vegetables at the peak of quality and place them directly into root cellars or storage systems that rely on natural cooling to preserve the crop.

Peas, radishes, lettuce, spinach, carrots, beets, Swiss chard, turnips, kale, kohlrabi, broccoli, cabbage and cauliflower are all good candidates for midsummer planting. Since vegetable seed may not be available in local garden centers by midsummer, plan ahead and purchase extra seed in the spring. Crops that are transplanted (broccoli, cabbage and cauliflower)

also require special planning since garden centers generally will not have transplants available in midsummer. Gardeners who want to grow these crops should start their own transplants in pots or cell packs 5 or 6 weeks before they intend to plant them in the garden (Banks, 2011). For example, broccoli can be planted in pots in June and transplanted into the garden in July to take the place of carrots or early potatoes that have been harvested.



Figure 1. Cabbage and beets planted in July in a space where carrots had been harvested.

The midsummer planting date depends on the hardiness of the vegetable, the number of days it takes the vegetable to mature after planting, and on the average date of the first fall freeze in your area.

Beets, lettuce, radishes, spinach, peas and Swiss chard are “semi-hardy” crops that will be damaged by temperatures in the mid to upper 20s. Kale, cabbage, broccoli, cauliflower, carrots and turnips are “hardy” crops that will not be damaged until temperatures dip into the low 20s (Marr, 2000). Semi-hardy vegetables should be planted early enough to allow them to mature before fall temperatures drop much below freezing. Table 1 lists the average dates of the first fall freeze in selected Utah cities (Utah Climate Center, 2012). Note the days from seeding to maturity listed on the seed packet and count backward from the average date of your average first fall freeze to determine the last date when semi-hardy crops can be planted. Hardy vegetables can be planted a week or two later. Broccoli, cabbage and cauliflower transplants must be started about 5 weeks before the planting date for hardy vegetables. In general, plant or transplant in August if your first fall freeze is in October or November and in July if your first fall freeze occurs in September.

If your first fall freeze occurs in August, your growing season is too short to succeed with midsummer-planted crops. The autumn growing season can be extended by providing protection against early fall freezes. Semi-hardy vegetables should be covered on frosty nights to prolong the harvest. For example, blooming peas can be covered with a tarp or blanket to prevent tender

blossoms and pods from being damaged. Covers will not be needed every night. In Utah it is not unusual to have days or weeks of mild weather after the first fall cold snap. Discontinue the protection once night temperatures are consistently cold enough to harm hardy vegetables. By this point days are so short that vegetables are not growing, anyway.

The planting process is the same in midsummer as it is in the spring. Seed packets, or USU Extension vegetable fact sheets (ext.usu.edu/publications) provide specific planting instructions for each crop. In general, apply any needed fertilizer or soil amendments and cultivate the soil to provide a fine, firm, weed-free seed bed. All of the crops suitable for midsummer planting (except peas) have small seeds that should be planted no more than ½ inch deep. Peas should be planted 1 to 1 ½ inches deep. Make a planting furrow of the appropriate depth and sow seeds at the spacing recommended by the seed packet or USU vegetable fact sheet. Small seed should be covered with sand, potting soil, peat moss or other non-crusting material since soil crusting can stop seedlings from emerging. Peas can be covered with the soil removed from the planting furrow, since the seeds are large enough that crusting usually doesn't hinder seedling emergence. Tamp the planted row lightly with the head of a hoe or garden rake to provide good seed-soil contact. Irrigate the planted area after planting, and sprinkle

Table 1. Average Date of First Fall Freeze, Selected Utah Cities

City	Ave. 1 st Fall Freeze	City	Ave. 1 st Fall Freeze	City	Ave. 1 st Fall Freeze
Beaver	Sept. 15	Blanding	Oct. 11	Brigham City	Oct. 11
Castle Dale	Sept. 22	Cedar City	Oct. 4	Coalville	Aug. 31
Delta	Sept. 27	Draper	Sept. 22	Duchesne	Sept. 24
Dugway	Sept. 29	Enterprise	Sept. 25	Escalante	Oct. 3
Fillmore	Oct. 3	Grantsville	Oct. 14	Green River	Oct. 5
Gunnison	Sept. 14	Hanksville	Oct. 5	Heber	Sept. 7
Hurricane	Oct. 29	Kamas	Sept. 6	Kanab	Oct. 18
Koosharem	Sept. 7	Loa	Sept. 5	Logan	Sept. 25
Manti	Sept. 25	Milford	Sept. 22	Moab	Oct. 16
Morgan	Sept. 11	Nephi	Sept. 21	Orderville	Oct. 3
Panguitch	Sept. 3	Park City	Sept. 7	Price	Oct. 1
Provo	Sept. 24	Richfield	Sept. 19	Roosevelt	Sept. 24
Salt Lake	Oct. 17	Spanish Fork	Oct. 2	St. George	Oct. 29
Tooele	Oct. 13	Tremonton	Oct. 7	Vernal	Sept. 21
Wellington	Sept. 17	Wendover	Oct. 21	Woodruff	Aug. 19

lightly once or twice daily to keep the soil moist until seedlings emerge.

Mulch the planted area to conserve soil moisture and to keep the soil cool. Seeds of many cool-season vegetables will not germinate well if the soil temperature is above 85 degrees. Grass clippings, peat moss or compost can be used as mulch to shade and cool the soil, but do not apply mulch so thickly that it stops vegetable seedlings from emerging. Sprinkle the mulch lightly over the planted area so that some soil is still visible when you're finished. Another alternative is to plant, irrigate the soil and then use a board or scrap of old carpet to cover the planted row. Lift the board or carpet daily to check the soil moisture and irrigate as needed to keep the soil moist. Remove the board or carpet as soon as you see seedlings emerging.



Figure 2. Newly-planted small-seeded vegetable rows covered by peat moss (left), peat moss plus grass mulch (center) and peat moss plus board (right).

The same soil preparation guidelines apply for transplants as for seeded crops. Sunburn and transplant shock are real possibilities when transplanting in midsummer, so take steps to minimize stress on the young plants. Make sure that transplants are “hardened off” before they are planted in the garden. Transplants that have been grown outdoors are usually tough enough to withstand transplanting, but plants grown indoors need to be acclimated to the sunnier, windier conditions they will face once planted in the garden. Plants are hardened off by gradually increasing their exposure to direct sunlight over a 7 to 10-day period, by cutting back on fertilizer, and by

applying lighter, but more frequent irrigation (Swift, 2009).

Water transplants well just before transplanting, and irrigate the soil deeply after plants have been set in the garden. Transplanting on a cloudy day or in the evening helps plants recover before they face the full glare of the summer sun. Under very hot, sunny or windy conditions it is helpful to provide transplants light shade for a few days after they have been placed in the garden. A recently-dug potato vine or small branch pruned from a tree or shrub can be arched over the transplant in a way that provides shade without crushing the small plant. Empty Number 10 cans (available free from commercial kitchens such as restaurants) can also provide shade and protect transplants against drying winds. Wash the inside of the can and use a can opener to open the bottom of the can, leaving a 2-inch section uncut. The bottom of the can serves as the lid of the plant protector, and the uncut section as the lid's hinge. Place the open end of the can over the transplant with the hinge facing south and press the can into the soil an inch or two to prevent it from blowing over. Lift the lid at a 45-degree angle to allow some light into the can while still providing shade for the transplant. Remove the can after 2 or 3 days.



Figure 3. A Number 10 can provides temporary shade for a transplant.

The same cultural practices apply whether vegetables are planted in spring or summer. USU Extension vegetable fact sheets provide detailed recommendations for each crop. Thin seedlings as

needed to provide the recommended spacing between plants. Weed weekly, and apply mulch between plants and rows to suppress weeds, cool the soil and conserve moisture. Fertilize according to the recommendation from a soil test, or use the guidelines provided by USU fact sheets. Regular irrigation is important, especially during the heat of summer.



Figure 4. Midsummer-planted vegetables harvested in October. Clockwise from top: Spinach, turnips, beets, peas, broccoli, carrots and cabbage.

The type, number, and timing of insect and disease infestations vary from season to season. Summer-planted vegetables may have more or fewer pest problems than spring-planted vegetables, depending upon the year. Check regularly for insects and diseases so that control measures can be taken in a timely manner. This is especially critical when plants are small. An adult grasshopper might chew a few holes in a mature lettuce leaf, but can quickly defoliate a young lettuce plant. Information on

insect and disease control can be found at the USU Extension Plant Pest website (<http://utahpests.usu.edu>).

Harvest vegetables promptly when they reach their prime, and before they become over-mature. Plants grow rapidly in the heat of summer. For example, summer-planted radishes reach a useable size in 25-30 days and quickly become “pithy” if not harvested.

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