



William T. Kemper Center for Home Gardening

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Warm Season Vegetables

Warm-season vegetables are those which are most easily damaged by cold temperatures. For this reason, they are planted outdoors only after the last chance of frost in the spring. Warm season vegetables include: tomato, pepper, eggplant, corn, cucumber, winter squash and melons.

One of the biggest reasons for failures is planting vegetables in the garden too soon or too late. Planting time for some vegetables can be very important, not only relative to temperature, but also because some require a long growing season. Many vegetables require a long growing season (80 to 100 days) to produce fruit and need to be planted as soon as possible to avoid effects of extreme heat in summer that can affect fruit set and development.

Which vegetables can be grown in your area is determined by the overall climate. The most important factors include average first and last frost dates, extremes in summer and winter temperature and the climate modifying effects of windbreaks, hills, lakes etc. which determine how rapidly temperatures will change.

For the St Louis area, our average last frost date is April 15. In the fall, the first killing frost date is October 15. That gives an average growing season of around 185 days; long enough to produce most vegetables.

However, at higher elevations and more northern latitudes, the growing season can be as short as 100 days. In the southern U.S., gardeners may be able to grow vegetables all year long.

Temperature extremes in the summer and winter often dictate the degree of success. For warm season vegetables, hot conditions generally are favored for fruit development. However, extremes in heat during the period when the plants are in flower and ready to set fruit (pollination) are not good. Tomatoes, peppers and eggplant may produce very little fruit if planting is delayed or summer heat in the 80s comes very early.

Microclimates are small areas of climate within larger climates that can be quite different. Slope, wind direction, sun exposure and bodies of water can modify the climate of the local area and extend or decrease the growing period. Around the home, many different microclimates may exist. The soil on the north side of the house is cooler and wetter than on the southern or western side because of the lack of direct sun exposure. Therefore, planting on a northern exposure may be acceptable for cool-season vegetables, but quite limiting for warm-season vegetables. Likewise, low areas on a site tend to collect cold, heavier air and these planting beds would also be slow to warm. This would affect tender warm season vegetables which may be damaged by cold spells in the early spring. When you select a site to plant, consider the potential for microclimate differences.

Planting Schedules for Warm Season Vegetables

Vegetable	Seeding Date	Transplanted to Garden	No. of Days to Harvest (after transplanting)
Tomato	Indoors: March 15	May 10-20	75 to 90
Pepper	Indoors: March 15	May 10-30	70 to 80
Eggplant	Indoors: March 15	May 10-25	80 to 90
Cucumber	Indoors: April 26	May 17-30	65 to 70
Corn	Outdoors: May 5-30		
	Outdoors: May 10 through August 10		60 to 90
Summer Squash	Indoors: May 3-10	May 24-31	60 to 90
	Outdoors: 10-30		
Winter Squash	Indoors: May 3-10	May 24-31	100+
	Outdoors: May 10-30		
Okra	Indoors: April 5-12	May 31	55 to 60
	Outdoors: May 1-25		
Sweet Potato	Indoors: March 15 (roots)	May 10-June 10	150
Watermelon	Outdoors: May 1-20		85 to 95