PURDUE UNIVERSITY | Extension
Department of Horticulture and Landscape Architecture
https://ag.purdue.edu/hla
HO-186-W

Indiana Vegetable Planting Calendar

Author: Rosie Lerner, Department of Horticulture and Landscape Architecture

Planting vegetable seeds or transplants at the correct time is important for a successful garden. The correct timing is determined by two factors: the soil temperature required for seeds to germinate and the temperature tolerance of the plants.

The best planting dates can vary from season to season. Planting dates also differ from one location to another based on the microclimatic effects of urban areas, natural terrain, moisture, sunlight, wind exposure, and garden devices such as cloches and mulches.

Because of this variation, we can only suggest a range of safe planting dates based on statistical dates of the last frost in the spring (Figure 1) and the first frost in the fall (Figure 2). You should note the current weather conditions and projections as well as your site's conditions to determine the correct planting date for a specific crop and variety.

Making several plantings within these date ranges can increase the likelihood of success. Several plantings will also extend the harvest season over a longer period. If you make only one planting, then make it about midway through the range.

Table 1 indicates spring planting dates, while Table 2 suggests appropriate dates for fall garden planting.

Soil Temperature

Many summer vegetable crops do not grow well until soil temperatures are warm. In years when cool air temperatures and rainfall do not allow the soil to warm up, delay planting warm season crops such as beans, tomatoes, squash, sweet potatoes, and

sweet corn until the soil temperature has reached at least 60ºF for optimum germination and/or growth. Otherwise, seed and root rot disease and related disorders are likely.

For more experienced gardeners, soil temperature measurements offer an alternative to planting according to frost dates. Soil can be warmed early by using black or clear plastic mulches. Seeds that require warm temperatures for germination can then be planted successfully before the recommended dates. However, protection against late frosts for the seedlings may be required. Table 3 provides seed germination temperatures for several vegetables.

When deciding fall planting dates, be sure to consider the days to maturity for your crop. If planting after September 1, expect a longer time to maturity the later you plant. Choose faster maturing cultivars when possible. Also note that soil can be too dry in late summer for optimum germination. Be prepared to irrigate frequently until crop is established.

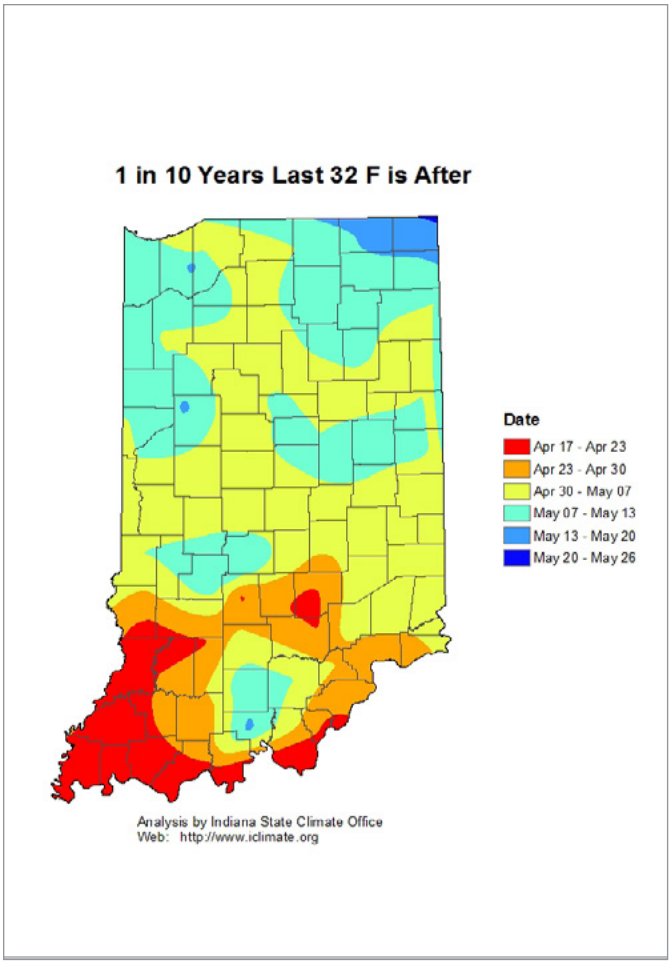

Figure 1. Frost Dates in Spring. There is a 10% chance that the last occurrence of 32ºF will occur after these dates. About two weeks earlier, that chance increases to 50%. Tender crops may need some protection from frosts.

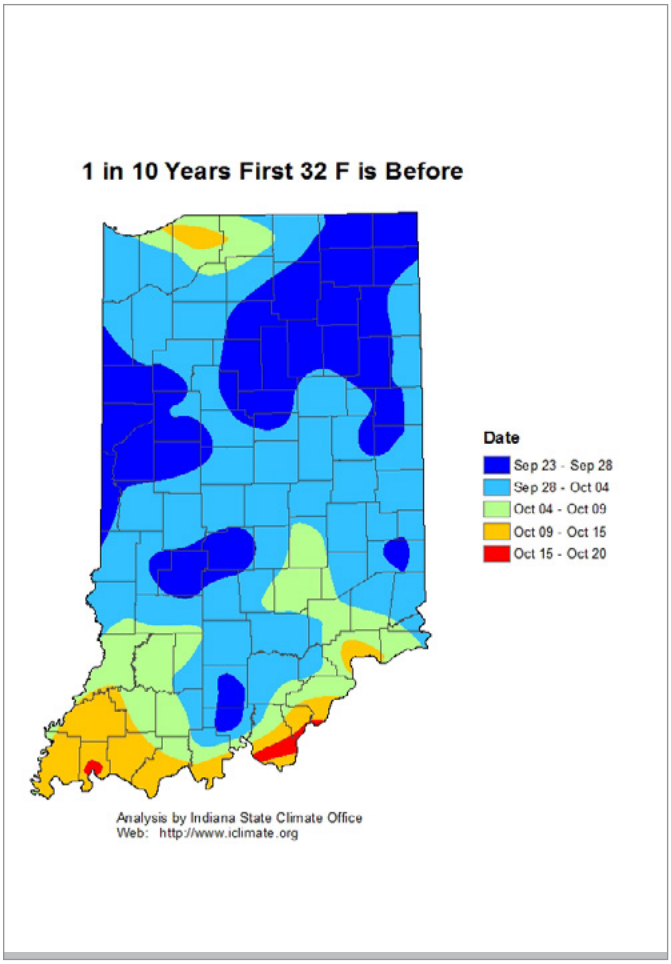

Figure 2. Frost Dates in Fall. There is a 10% chance that the first occurence of 32ºF will occur before these dates. About 2 weeks later, that chance increases to 50%. Tender crops may need some protection from frosts.

Table 1. Some common vegetables grouped according to their relative requirements for cool and warm weather.

Cool season crops for early-spring planting		
Hardy (tolerates hard frost) plant 4-6 weeks before last spring frost (see Figure 1)		
asparagus[4]	kale[3]	potato[4]
broccoli[2]	kohlrabi	radish[1]
Brussels sprouts[2]	leek[2]	rhubarb[4]
cabbage[2]	mustard[3]	spinach[3]
collards[3]	onion[3, 4]	turnip[1]
horseradish[4]	peas[1]	
Semi-hardy (tolerates light frost) plant 2-4 weeks before last spring frost		
beet[3]	celery[2]	lettuce[3]
carrot[1]	chard[3]	mustard[3]
cauliflower[2]	chinese cabbage[2]	parsnip[1]
Warm season crops for later-spring or early-summer planting		
Tender (damaged by frost) plant after average last spring frost (minimum air temp 50°F)		
bean[1]	tomato[2]	sweet corn[1]
Very Tender (damaged by light frost and air temperature below 50°F) plant at least two weeks after average last spring frost (minimum air temp 60-65°F)		
cucumber[3]	okra[2]	pumpkin[3]
eggplant[2]	pepper[2]	squash[3]
melons[2]	sweet potato[4]	

Table 2. Cool season plants for late-summer or fall planting (plant at least 4-8* weeks before first fall frost) (See Figure 2)

beet[3]	green onion[2]	radish[1]
broccoli[2]	kale[2]	spinach[3]
Brussels sprouts[2] (transplant by mid-summer)	kohlrabi[2]	turnip[1]
cabbage[2]	lettuce[3]	
collards[2]	mustard greens[1]	

*** When deciding fall planting dates, consider the days to maturity for your crop and choose faster maturing cultivars when possible.**
[1] typically direct-seeded
[2] typically transplanted
[3] can be either direct-seeded or transplanted
[4] typically vegetatively propagated

Table 3. Soil Temperatures for Vegetable Seed Germination

Vegetable	Optimum/Optimum Range (°F)	Minimum/Maximum (°F)
Bean	80/60-85	60/95
Bean, Lima	85/65-85	60/85
Beet	85/50-85	40/95
Cabbage	85/45-95	40/100
Carrot	80/45-85	40/95
Cauliflower	80/45-85	40/100
Celery	70/60-70	40/85
Chard, Swiss	85/50-85	40/95
Cucumber	95/60-95	60/105
Eggplant	85/75-90	60/95
Lettuce	75/40-80	35/85
Muskmelon	90/75-95	60/100
Okra	95/70-95	60/105
Onion	75/50-95	35/95
Parsley	75/50-85	40/90
Parsnip	65/50-70	35/85
Pea	75/40-75	40/85
Pepper	85/65-95	60/95
Pumpkin	95/70-90	60/100
Radish	85/45-90	40/95
Spinach	70/45-75	35/85
Squash	95/70-95	60/100
Tomato	85/60-85	50/95
Turnip	85/60-105	40/105
Watermelon	95/70-95	60/105

December 2020