

Spring Soil Temperature and Frost Offset Planting Chart for 25 Common Crops

Companion Reference Sheet for: Spring Vegetable Planting Dates: Read Frost Windows Correctly
Save this PDF to your phone or print a copy for field reference. Verify local conditions and manufacturer specs before use.

Key Takeaways

- **Use frost dates as probability guides.** A local average last spring frost date helps frame risk, but it cannot guarantee a frost-free night.
- **Check your actual garden conditions.** A sheltered bed and a low, exposed spot can have different frost windows even when they share the same regional estimate.
- **Match the crop to the season.** Cool-season crops can often go in while the soil is workable. Tender warm-season vegetables need warmer soil and safer nights.
- **Use more than the calendar.** Read the forecast, measure soil temperature, and make sure the bed drains well before planting.
- **Plan the whole growing season.** The seed packet's days to maturity, summer heat, and the first fall frost help show whether a crop has time to produce.
- **Keep exploring:** Our [gardening guides at The Garden Den](#) offer more practical help with planning, sowing, and transplanting.

An average date describes risk, not certainty

Risk level	Temperature	Likely concern	What to do
Frost risk	Near 32°F	Frost may form on exposed leaves and surfaces. Damage varies with crop tolerance and exposure.	Protect tender seedlings and review the overnight forecast before planting.
Hard frost or freeze	Below 26 to 31°F	More severe cold can injure plants beyond their most exposed leaves.	Postpone tender planting or move container seedlings to shelter. NC State Extension identifies temperatures below this range as a hard frost or freeze.

Start with a nearby match, then read your microclimate

Crop group	Examples	Planting approach	Practical temperature or timing cue
Cool-season crops	Peas, spinach, lettuce	Direct sow when the soil is workable, or transplant sturdy seedlings suited to cool weather.	These crops usually tolerate light frost better than tender warm-season crops. Avoid soil that is saturated or compacted.
Warm-season crops	Beans, cucumbers, melons	Direct sow or transplant after soil has warmed and frost risk has passed.	Beans, cucumbers, melons, and other crops that require soil temperatures of at least 60°F need those temperatures to germinate, according to University of Maryland Extension .

Use this field checklist before you plant

Make the decision at the bed, not just on the calendar

- ☐ **Write down the local average last frost date.** Remember that it describes probability, not certainty.
- ☐ **Identify whether the crop is frost tolerant or tender.** Choose direct sowing or transplanting to suit its needs.
- ☐ **Measure soil temperature at seed depth.** Compare it with the crop's germination needs, including the warm soil threshold for beans, cucumbers, and melons listed above.
- ☐ **Review the short-range forecast.** Check overnight lows and frost warnings, and delay tender planting when damaging cold is forecast.
- ☐ **Check moisture and drainage.** Sow at the crop's recommended depth and spacing, using marked measurements to place seeds consistently.

The Fiskars 340110-1001 Seed Planting Trowel, Black is a lightweight FiberComp 4-in-1 tool for digging, measuring, spacing, and placing seeds. Its removable stylus, debossed English and metric measurements, narrow widger shape, and full lifetime warranty make it useful for keeping seed placement consistent.

Moisture and drainage are easy to judge at the bed itself. These images show watering around young plants and seedlings in wet soil, a helpful visual check when deciding whether the ground is ready to work.