

Seeding Guide

NAME: _____

Seeding Guide For:		Average Last Frost: April 15
	<i>Meaning:</i>	<i>Instruction:</i>
Germination Temperature		
Seeding Depth		
Days to Germination		
Days to Transplant		
Days to Maturity		
Number of Seeds		
Hardiness		

Transplanting Requirements:



This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under agreement number 2023-38640-39573 through the North Central Region SARE program under project number YENC24-208. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and should not be construed to represent any official USDA or U.S. Government determination or policy.

Transplant Care Tips

Temperature: Most seeds prefer to be at about 75°F to germinate and begin their growing. Some cold-hardy crops will germinate and grow at temperatures as low as 40°F, although more slowly. A warm space with moderate air movement is the best for keeping plants healthy; check your seed packet for more specific needs, if there are any. Heat mats are a good option if near a draft.

Light: Seedlings need strong, consistent light daily. 6-12 hours of sunlight per day will fill the needs of most seedlings. Supplemental light, using LED or fluorescent growlight bulbs, can be used if there isn't a good way for the seedlings to get sunlight, but you may need to keep these lights on for longer, depending on the type of bulb. Growlights should be kept close to the top of the seedlings to maximize the light the plants can take in. If plants aren't getting enough light, they will appear "leggy:" their stems will be long and skinny with large gaps between leaves.

Water: Soil should be kept moist but not wet. A light, even spray of water once a day should maintain most seedlings, but make sure to check the soil regularly to ensure that it is damp. If strong sunlight is on the seedlings for most of the day (like in our greenhouse), they may need to be watered more often. Use a gentle rain or mist of water when watering unsprouted seeds so that you don't wash the seeds out of their cells. Make sure you have a drainage hole in your pot to not drown the roots; air is just as important as water to the roots. You can also water your seedlings by placing your pot in a water-filled trough, as the soil will draw the water up into it, but take care that the pot is not sitting in standing water for too long.

Crop	Hardiness	Germination Temperature	Days to Germination	Seeding Depth	Days to Transplant	Seeding Date (approx.)
Basil	Low	70-85	5-10	0.25 in	60	3/7-3/14
Beets	High	50-80	5-8	0.5 in	35	2/26-3/8
Broccoli	High	50-85	7-21	0.25 in	28	2/21-2/28
Cabbage	High	45-85	7-10	0.25 in	28	2/21-2/28
Chard	Moderate	50-85	7-14	0.25 in.	28	2/21-2/28
Cilantro	Low	50-85	5-10	0.25 in.	35	3/21-3/28
Corn	Moderate	65-85	4-7	1 in.	21	3/23-4/20
Cucumbers	Low	70-75	3-6	0.5 in.	14	4/18-4/25
Dill	Low	65-70	7-21	Barely cover	49	3/7-3/14
Eggplant	Low	75-90	5-10	0.25 in.	49	3/14-3/21
Kale	High	55-95	5-14	0.25 in.	28	2/21-2/28
Lettuce	Moderate	40-80	2-7	Barely cover	28	4/1-4/12
Marigolds	Low	75-80	4-7	Barely cover	42	3/28-4/4
Nasturtium	Low	60-65	7-14	0.25 in.	28	4/11-4/18
Parsley	Moderate	50-85	14-30	0.25 in.	70	2/14-2/21
Peas	High	50-65	9-14	1 in.	28	1/27-2/17
Peppers	Low	70-95	7-14	0.25 in.	49	3/14-3/21
Spinach	High	45-75	7-14	0.25 in.	28	2/28-3/7
Sunflower	Low	75-85	7-14	0.5-1 in.	28	4/11-4/18
Tomatoes	Low	65-85	5-10	0.25 in.	42	3/28-4/4
Watermelon	Low	75-80	3-10	1.5 in.	28	4/6-4/13

SOURCES

<https://hortnews.extension.iastate.edu/germination-requirements-annuals-and-vegetables#vegetables> (2024)

<https://extension.oregonstate.edu/gardening/soil-compost/soil-temperature-conditions-vegetable-seed-germination> (2024)

Johnny's Seed Starting Date Calculator (2024)

<https://www.mdpi.com/2077-0472/13/3/608>(2024)