

Starting your own seedlings is a great way to get a head start on the short growing season in Zone 3. Here's a simple guide to help you begin, from what equipment you need, to when to plant and transplant your seedlings into your garden.

What You'll Need

1. **Seed Trays or Small Pots:** You can buy seed trays at garden centers or use recycled containers like yogurt cups or Styrofoam or plastic cups. These can be stacked and reused every year. Just make sure to add drainage holes by poking a few holes in the bottom of each container/cup before you fill with soil and seed.
2. **Seed-Starting Mix:** This is a special lightweight soil that helps seeds germinate. Avoid garden soil, as it's too dense for seedlings.

DIY Seed Starting Soil Mix:

$\frac{1}{2}$ cup peat moss
 $\frac{1}{4}$ cup perlite
 $\frac{1}{4}$ cup fine compost

Optional: one trowel of kelp meal or fish meal

You can also use soil blocks to grow seedlings, which are free-standing cubes without any container required. The benefit in soil blocks is how the roots grow – instead of being cramped and circling around the soil in the container, they grow straight out of the soil and then are air-pruned. The entire mass of soil becomes filled with roots and there is little disruption to the plant when transplanted.

Soil Block Recipe

3 parts brown peat
 $\frac{1}{2}$ cup (64g) lime
2 parts coarse sand or perlite
3 cups (384g) base fertilizer
1 part soil
2 parts compost
water, as needed

In a flat-bottomed container or wheelbarrow, add brown peat and lime. Mix. Next, add coarse sand or perlite and base fertilizer and combine. Add soil and compost and give one final stir. Add water to make the mixture really wet. This will help it stick together.

3. **Seeds** - Choose vegetable varieties that are well-suited to Saskatchewan's climate. Examples: tomatoes, peppers, carrots, beets, potatoes, beans, cabbage, and onions.
4. **Labels and Marker:** Keep track of what you plant by labeling each tray or pot.

5. **Grow Lights (optional but helpful):** In Saskatchewan, winter days are short, so grow lights can help give your seedlings the light they need. A sunny windowsill on a south-facing window can work if it gets enough direct light. Your seedlings will get leggy if they do not get enough light.
6. **Spray Bottle:** Seedlings need to stay moist but not waterlogged, so a spray bottle is ideal for gentle watering.
7. **Clear Plastic Dome or Plastic Wrap:** These will help create a mini-greenhouse effect to trap humidity while seeds are germinating. Once the seedlings have sprouted, remove the dome or wrap.

Cost Estimate

Starting seedlings can be inexpensive if you're using recycled materials, but here's an approximate breakdown:

Seed trays/pots: \$10–\$20
 Seed-starting mix: \$5–\$10 per bag

Seeds: \$3–\$5 per pack

Grow lights: \$50–\$100 (optional)

Spray bottle: \$2–\$5

Total cost: \$25 to \$150**

**Costs will vary depending on your setup and quantity of seedlings started



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When to Start Seeds Indoors

In Zone 3, the growing season is short, so you'll need to start seeds indoors in late winter or early spring. Zone 3's last frost date is typically around May 21–June 1, so use that to calculate your exact indoor planting time. Here's a general guide for some common vegetables:

6–8 Weeks Before Last Frost (late January–Mid March)	4–6 Weeks Before Last Frost (Late March–Early April)	2–4 Weeks Before Last Frost (Mid-April–Late April)
Tomatoes	Broccoli	Cucumbers
Peppers	Cabbage	Squash
Onions	Kale	Zucchini
Leeks	Lettuce	Beans
Delphinium (perennial)	Eggplant	Ageratum
Lupine (perennial)	Celery	Celosia
Foxglove (perennial)	Petunia	Coleus
	Snapdragon	
	Verbena	
	Hollyhock (perennial)	
	Rudbeckia (perennial)	

Step-by-Step Guide to Starting Seedlings

1. Pre-moisten the Soil: The day before you plan to plant your seeds, moisten your soil. Typically, the soil comes quite dry. It's best to have your soil damp but not soggy. You can do this either the day before or a few hours before you plant your seeds.
2. Fill Containers with Seed-Starting Mix: Fill your trays or pots with your seed-starting mix of choice, leaving a little room at the top.
3. Plant the Seeds: Follow the instructions on your seed packets for planting depth, typically $\frac{1}{4}$ to $\frac{1}{2}$ inch deep. Cover seeds lightly with soil.
4. Water Gently: Mist the soil with water until it is evenly moist, but not soggy.
5. Cover for Humidity: Cover trays with a clear plastic dome or plastic wrap to maintain moisture until seeds sprout.
6. Provide Light: Once seeds germinate, they need 12–16 hours of light each day. If using grow lights, keep them just a few inches above the plants, raising the lights as they grow. Without grow lights, place seedlings in a bright south-facing window, rotating the tray every few days to ensure equal growth.
7. Water as Needed: Keep the soil moist but be careful not to overwater. Seedlings are delicate and can rot if waterlogged.
 - a. Note: If you overwater and have mold growing on the top of your soil, sprinkle ground cinnamon on top of the mold spots. Cinnamon has anti-fungal and anti-mold properties.
8. **Important!! Harden Off Seedlings:** Before transplanting outdoors, your seedlings need to "harden off" by getting used to outdoor conditions. About 1–2 weeks before transplanting, start taking seedlings outside for a few hours each day, gradually increasing their time outside.



When to Transplant Outdoors

After Last Frost: Wait until all risk of frost has passed (around late May to early June in Zone 3) to plant your seedlings outdoors.

Transplant Schedule

- Tomatoes and Peppers: Late May–Early June
- Broccoli, Cabbage, Kale, Lettuce: Early to Mid-May (can handle cooler temperatures)
- Cucumbers, Squash, Zucchini: After all frost risk is gone (Late May–Early June)

Tips for Success:

Keep an Eye on the Weather: In Zone 3, frost can sneak up unexpectedly. Be ready to cover plants with a sheet or move them inside if a cold snap is forecast. You can also purchase a floating row cover that can be used to protect your seedlings from frost. It can also be used later in the growing season to keep invasive pests, such as grasshoppers, from eating your plants.



Fertilize Gently: Once seedlings have a few sets of leaves, consider using a diluted fertilizer every couple of weeks to give them a boost.

Plan Your Planting Day: Transplant on a cloudy day as it helps reduce transplant shock by preventing seedlings from being exposed to direct sun right away. But also look at the forecast for the 5-7 days after your planting day to make sure that there aren't high winds, frost risk, or heavy rain.

Valuable Online Resources for Starting Seedlings and Gardening in Zone 3 (Saskatchewan)

1. **Saskatchewan Horticultural Association** <https://skhorticultural.com/>
Offers a wealth of information on gardening in Saskatchewan, including planting schedules, tips for Zone 3, and local events.
2. **University of Saskatchewan Gardening Resources** www.gardening.usask.ca
The University of Saskatchewan provides region-specific gardening advice, including seed-starting guides, pest management, and soil care tips.
3. **Saskatchewan Perennial Society** www.saskperennial.ca
Provides gardening tips, plant selection advice, and access to workshops and educational materials tailored to Saskatchewan's climate.
4. **Alberta Agriculture and Forestry** www.alberta.ca
Though based in Alberta, this resource has many guides applicable to similar growing conditions in Saskatchewan, including seed-starting and vegetable gardening advice.
5. **Old Farmer's Almanac - Gardening for Zone 3** www.almanac.com
Offers a planting calendar, frost dates, and guides for vegetable gardeners in Zone 3.

6. **Seed Savers Exchange** www.seedsavers.org

Learn about saving seeds, selecting the best vegetable varieties, and accessing a large library of heirloom seeds well-suited to colder climates.

7. **Gardening Know How** www.gardeningknowhow.com

Provides detailed articles and expert advice on a variety of gardening topics, including seed starting and caring for seedlings.

8. **Saskatchewan Vegetable Growers Association** www.svga.ca

Dr. Doug Waterer conducted many trials to find suitable varieties of vegetable plants that will grow well in Saskatchewan summers.

Social Media Resources:

- @shifting_roots <https://shiftingroots.com/insta-links/>
[Facebook](#), [Instagram](#), [Pinterest](#), and [Twitter](#)
- [Saskatchewan Gardeners Facebook Group](#)
- [Gardening in Saskatchewan Facebook Group](#)

These resources will give you further guidance on starting seedlings, understanding local growing conditions, and ensuring a successful garden in Zone 3.