

How to Transplant Your seedlings

Let's get your plant babies in the garden!



Who are we?



Tracie Ward

Vegetable Team Leader in
her 35th year at Russell's
Garden Center!




Sarah Pellegrini

3rd year Seasonal Veggie
Grower here at Russell's.
Home grower for over
35 years.



Workshop Topics Overview

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- 1 Potting Up
 - 2 Soil Depth
 - 3 Watering
 - 4 Transplanting
vs. Direct Sow
 - 5 Timing (Temp)

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Potting Up



What is potting up?



When your seedlings have grown as much as they can in their initial containers, they need to move to where they have room to grow.

- Prevents growth problems like root bound
- Does **NOT** have to be final container
- Still too cold outside





Why do seedlings need to be potted up?

- Outgrowing their first containers
- Prevent from becoming root bound
- Need more space, not ready for outside

Choosing the container



Size

Is the the new container a good size for the type of plant and its future needs or is it transitional?

Is it going to be a small or large plant when it matures?



Space

Are you keeping this plant in a container that's good for smaller spaces or portability?

Do you have a large growing space?



Growth Habit

Will it need to be trellised as it grows?

Will it sprawl along the ground?

Does it grow tall or wide?

Types of Containers



Pots



Grow Bags



Raised Beds



Garden Bed

Able to Move

Immovable

Soil Types for Potting Up

Potting Soil

is designed specifically for container gardening. It's also lighter, well-draining, and often sterile.

vs.

Garden Soil

is heavier, naturally occurring soil meant for in-ground planting and may contain microbes and pests not ideal for pots

We're focusing on **Potting Mix** for indoors.



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Soil Depth



Transplant Soil Depths



Same Level

Most of your seedlings will want to be transplanted at the same level

Half Depth

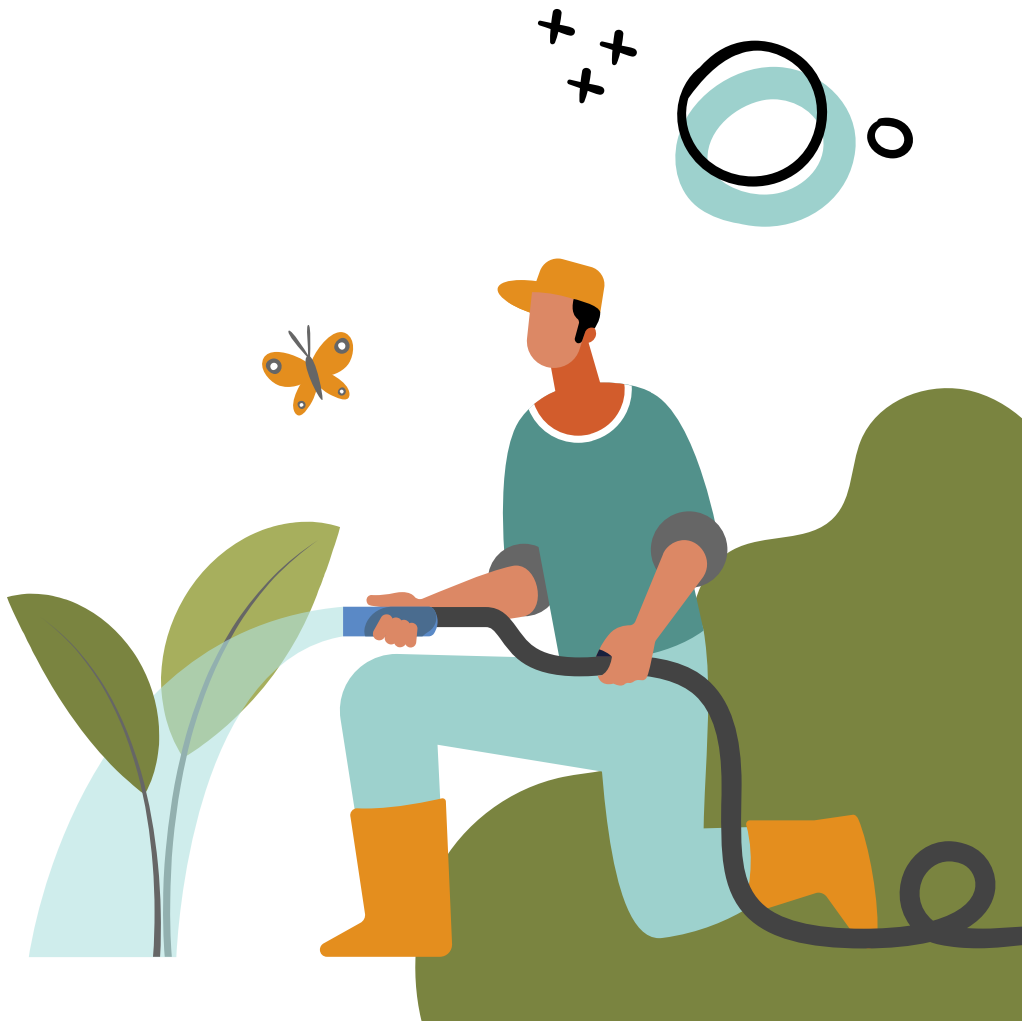
Some plants will do well a little deeper like Peppers and Eggplant.

Full Depth

Very few plants like being planted deep, tomatoes being the most common exception to the rule.

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Watering





The Finger Test



Does the soil feel dry?

Yes

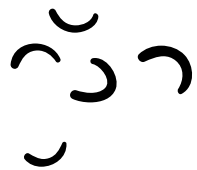
Add water

No

Do not water

Overwatering will kill your plants!





Ways to water

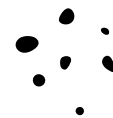


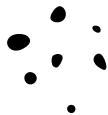
Bottom Watering



Top Watering

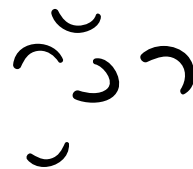
Avoid watering the leaves!





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Transplanting vs. Direct Sow



General Veggie Planting Guide

Transplant

Veggies that need to be transplanted

Tomatoes, peppers, eggplant, brassicas

Direct Sow

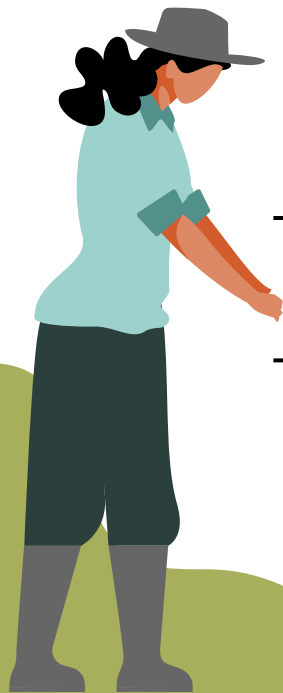
Veggies that need to be direct sown

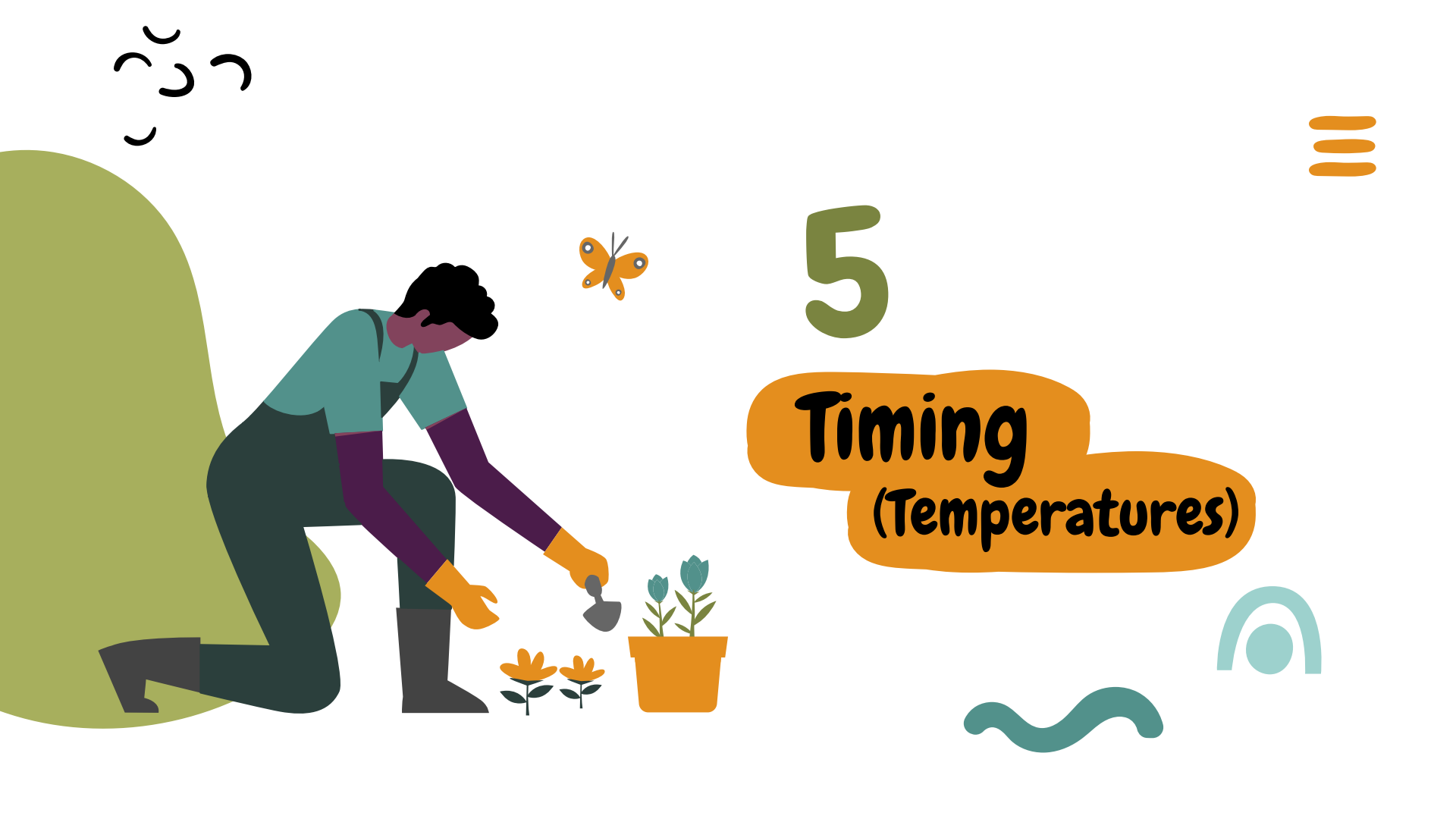
Carrots, radishes, turnips, parsnips

Both

Veggies that can be planted either way

Cucumbers, melons, greens, corn, beans





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Timing
(Temperatures)

Start Seeds Indoors				Plant Seed/Transplant						Harvest	
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
				Beans							
		Beets				Beets					
		Broccoli				Broccoli					
			Brussel Sprouts								
			Cabbage								
		Carrots				Carrots					
		Cauliflower									
			Corn								
			Cucumber								
		Kale				Kale					
		Lettuce				Lettuce					
		Onions									
		Peas				Peas					
		Peppers									
		Spinach				Spinach					
			Squash								
		Tomato									

Zone
6

When is our last frost date?



May 1

Estimated last frost



Oct 6

Estimated first frost



Transplant outside
from April through Sept.



Additional Resources:
[Sow True Seed](#)
[Farmer's Almanac](#)

Types of Hardiness

Safe



Cold Hardy

Plants will survive
frigid winters

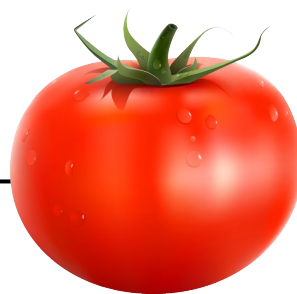
Frost Tolerant



Semi-Hardy

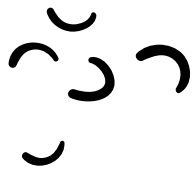
Can survive low
temperatures, but
not freezing

Not Safe

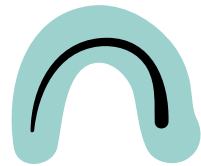


Tender

Will not survive
even a light frost



Soil Temperature



On sunny days, the ground can be much warmer than the air. During cold winter nights, the ground temperature can be cooler than the air. After a continuous warm period, soil keeps its warm temperature when the air cools at night.



Generalized Temperatures

- **60–65°F:** Ideal for cabbages, beans, lettuce, and peas.
- **Below 75°F:** Best for corn, as excessive heat can dry out soil too quickly.
- **75°F:** Preferred for peppers, tomatoes, eggplants, and squash.





True Leaves Appear



Seed Leaves

The first leaves that sprout from the seed, otherwise known as cotyledons.

True Leaves

The seed leaves have done their job and now that the plant can get nutrients from the soil, true leaves appear.






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Preparation



A close-up photograph of dark, rich soil. The soil is moist and crumbly, with small white specks visible. Scattered around the soil are several brown, dried leaves and thin, dark twigs. The lighting is natural, highlighting the textures of the soil and organic matter.

**Is your soil
workable?**

New Soil vs. Old Soil – Both work!

New Soil

When you use a bagged mix of potting soil or garden mix, it comes with all the nutrients and amendments needed for your plants success.

Old Soil

Using your older soil is eco-friendly and cost effective. Till the first 4” of the soil and add amendments to revitalize the soil.





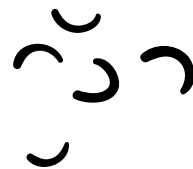
Soil Amendments

- Compost
- Manure
- Worm castings
- Fertilizers
- Vermiculite
- Perlite



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Hardening Off

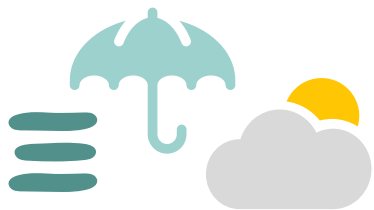




What is hardening off?

Taking your plant starts that have been babied for the past few weeks and getting them to toughen up so they'll survive outside.





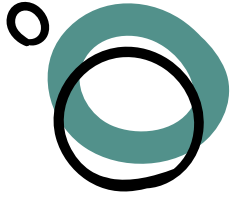
Hardening Off Timeline

Your timeline may look different, that's ok!

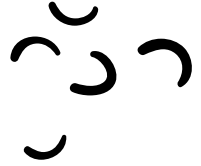


Day 1	2 hours with shade
Day 2	4 hours with shade
Day 3	6 hours with shade
Day 4	8 hours, no more shade
Day 5	10 hours
Day 6	12 hours
Day 7	All day outside

Day 1	1 hour, in shade	Day 8	7 hours
Day 2	2 hours, in shade	Day 9	8 hours
Day 3	3 hours, in shade	Day 10	9 hours
Day 4	4 hours, in shade	Day 11	10 hours
Day 5	5 hours, in shade	Day 12	11 hours
Day 6	6 hours, in shade	Day 13	12 hours
Day 7	6 hours, no more shade	Day 14	All day, 24 hours



Considerations before moving out



- **Wind** - your seedlings are not used to gusts, choose a still day
- **Sun** - even if your starts were under lights, nothing compares to the sun, do not begin on a sunny day unless you have shade cover
- **Rain** - your plants have been gently watered indoors, they're not strong enough to withstand heavy rains

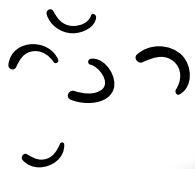




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How to Transplant





Demonstration Time!

Tracie is going to be showing us how
to pot up our seedlings!



Container Varieties



Egg Cartons



Paper Tubes



Plastic Cups

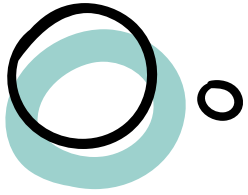


Cell Trays

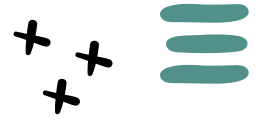
Biodegradable

Reusable





Ways to transplant tomatoes

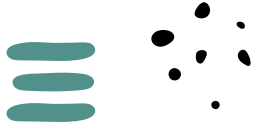


- **Plant DEEP**

All the fuzzy hairs on the stem can become a root to aid the plant

- **Plant horizontally!**

If the stem is too leggy or wonky, trench it. The plant will right itself and grow up toward the sun



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Transplant Shock





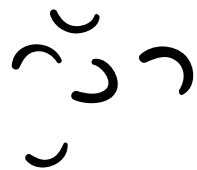
What is transplant shock?



Transplant shock is a common phenomenon that occurs when a plant is moved, whether from a seed tray to a garden bed, from a container to the ground, or even from one pot to another.

Is it dead?





NO!

Believe it or not, this is the
same plant 3 days later!

How to handle transplant shock

Avoid it by hardening off properly and being careful with the roots. It can still happen though and when it does, you can fix it by...



Shade

Get your plant out of full sun



Water

Make sure the roots stay moist

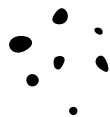


Prune

Dried leaves or lower leaves that aren't needed

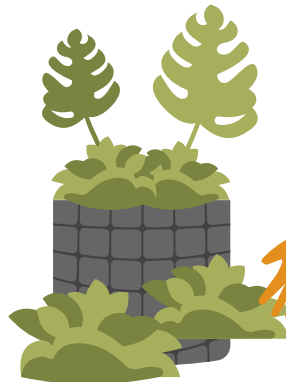
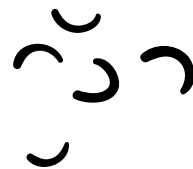
Time

Wait.



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Maintenance



How to keep your plant happy



Water

Consistent watering is very important.



Pest Control

Keep an eye out for bugs and pests



Feeding

Growing food takes a lot of energy!

Pruning

Remove dead and dying leaves, clean away debris.

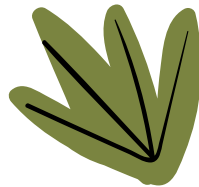


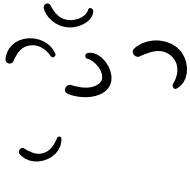


More workshops!

Container gardening, general plant maintenance, etc. Keep an eye on the site for all the new workshops coming this season.

Dates are coming soon!





Thanks!

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