Growing Peppers From Seed

Love Apple Farms
www.LoveAppleFarms.com
Welcome to Love Apple Farms
Class Rules

● Please keep talking to a minimum to help the other students hear the lecture

● What this class doesn't cover:
  - Any other crops besides peppers
  - Garden design
  - Compost, etc.
  - How to cook with peppers
Class Structure

- Heat Units
- Pepper Categories
- Sowing Instructions
- Sowing!
- Flat Care
- Garden Care
OMG PEPPERS!
Pepper Categories

**Sweet bell peppers** come in various sizes and colors, and the fruits’ colors change as they mature. They grow best where summers are long and warm.

**Specialty sweet peppers** include pimentos, frying peppers, and other sizes, shapes and flavors. Small-fruited varieties are among the easiest peppers to grow.

**Southwestern chile peppers** have complex flavors with varying degrees of heat. Many varieties bear late and all at once, so they can be a challenge to grow in climates with short summers.

**Specialty hot peppers** range from moderately spicy jalapeños to hotter cayennes to hottest-of-all habaneros. Most are easy to grow.

**Ornamental peppers** may feature spicy, brightly colored fruits, purple or variegated foliage, or both.

Scoville Units

- The **Scoville scale** is a measurement of the spicy heat of a chili pepper.

- Wilbur Scoville, in 1912, devised the test and is quite an accurate measurement of SHU (Scoville Heat Units).

- The number SHU indicates the amount of capsaicin present. Capsaicin is a chemical compound that stimulates chemoreceptor nerve endings in the skin, especially the mucous membrane.
World's Hottest Peppers

- Red Savina from Mexico - started out as hottest pepper (a Habanero type) with 300,000 SHU
- Bhut Jolokia (ghost pepper) recorded at 1,000,000 SHU
- Naga Viper is around 1,359,000 SHU
- Dorset Naga from Bangladesh is highest ever recorded pepper at 1,598,000 SHU
How Hot is Your Pepper?

SCOVILLE HEAT UNITS

200,000-350,000

Habanero pepper
HOT-HOT-HOT! Use extreme caution when eating and preparing Habaneros.
Uses: A little goes a long way. Good for salsas, seasoning rubs and jerk marinades.

50,000-100,000

Thai Peppers:
For such a small chili pepper, it packs an incredibly fiery punch.
Uses: use in Thai soups and curries, or in marinades and stir-fry dishes.

5,000-19,000

Serrano Peppers: Available year-round. Don’t let size fool you – the smaller they are, the more kick they have!
Uses: used in Asian, Mexican and Southwestern cuisine. Serranos are often used in salsas and as flavoring in sauces, casseroles, stews and egg dishes.

5,000-9,000

Jalapeño Peppers: Available year-round! Great flavor and a good amount of heat.
Uses: used often in Thai and Mexican recipes, the jalapeno is perfect for soups, stews or flavoring meats.

1,000-1,500

Pasilla Peppers: A mild-medium, rich-flavored pepper. Offers a gentle but somewhat complex flavor to your dish.
Uses: Great for chiles rellenos or stuffing. Most commonly used in salsas and stews.

No Heat

Bell Peppers: These cultivars come in different colors including red, yellow, green & orange. Green bells are less sweet and slightly more bitter than the others.
Uses: Use any way you can think of! Vegetable platters, pastas, salads, stews and sandwiches. Also great roasted, stuffed and stir-fried.
Pepper Colors

- Green
- Yellow
- Orange
- Red
- Purple
- Chocolate
- White
Harvesting Peppers

• Both sweet and hot peppers can be eaten at all stages of growth but are most flavorful when mature and fully ripe.
• Hot peppers are typically green in early maturity but quickly turn colors including yellow, orange, purple, red, or chocolate brown depending on the cultivar. The different cultivars vary drastically in size and shape. Although they can be picked when green, their heat and flavor increases as they are allowed to mature and ripen to colors.
• Sweet Bell type peppers are can be harvested when firm and full size (at least 3 1/2 to 4 inches) but still green. If left to ripen, they may also turn red, yellow, orange, purple or even chocolate-colored depending on the cultivar. The less green you see, the sweeter the taste in both sweet and hot peppers.
Normal Pepper Ripening Stages
Over Ripening Issues

- Once peppers begin to turn colors, they progress quickly so should be monitored carefully.
- Once they turn their final color, they deteriorate very fast and should be picked.
When to Start Pepper Seeds

- Start seeds indoors under bright fluorescent lights in early spring, 10 to 14 weeks before your last spring frost date.
- If possible, provide bottom heat to keep the plants’ containers near 80 degrees Fahrenheit.
- Make sure the seeds stay slightly moist. Seeds should sprout within three weeks.
- Transfer seedlings to larger containers when they are about six weeks old.
- Don’t set peppers outside until at least two weeks after your average last frost date, during a period of warm weather.
Culture

- All peppers grow best in warm conditions, but gardeners in cool climates can keep peppers happy by using row covers.
- Choose a sunny site that has fertile, well-drained soil with a pH between 6.0 and 6.5.
- Add fertilizers and compost to planting beds.
- Be careful with nitrogen when preparing your planting holes, as overfed plants produce lush foliage but few fruits. Use a high-nitrogen fertilizer only if you’re growing peppers in poor soil.
Spacing Peppers

- The larger the pepper at maturity, the further apart
- Bell Peppers, Jalapaño, Habañero need about 18 inches
- Thai, Serrano, Padron need about 24 inches
Staking Peppers

First Method:

Horizontal netting
aka "Horti-Net"

On your links list
Staking

Regular conical tomato cages

Not good for tomatoes, but great for peppers
Staking

Half height, Love Apple Farms' preferred tomato cage, but wider in diameter.

Made out of concrete reinforcing wire 3 feet high is perfect.
Clear or Black Mulch

- Add to bed 2 weeks before planting.
- Lay over irrigation lines.
- Make contact with soil.
- Cut an "X" and plant
- Cover with straw after weather turns hot in July.
Bed Covers and Row Covers

- In cool climates, use black or clear plastic mulch in addition to row covers to create warm conditions for peppers.
- In warm climates, use shade covers during summer to reduce sunscald damage to ripening peppers.
- Cover surrounding soil with a mulch of clean straw or grass clippings so ripening peppers don’t come in contact with soil, which can cause them to rot.
Row Covers are Important!

- Floating Row Covers
- Lightweight gauze fabric that lets in light and air
- Affix to PVC hoops over beds.
- From plant date through first 30 days
- Huge help.
Flat Sowing Instructions

- You have 48 cells in your tray
- Sow 48 different types of peppers and eggplants
- One type per cell
- Three seeds per cell
- Place seeds apart on top of cell
- Don't poke into the soil
- Don't compress the soil
- We will cover later with a scant 1/4" of soil
- Write label when you receive seed, not before
- Don't put label in cell until you sow
- Only have one packet open at a time
Passing Seeds

- We reserve right to unblock bottle-necks
- We will pass seeds many times
- Pass seeds in clock-wise fashion
- Don't sow more than 3 seeds per cell, we don't have an infinite number of seeds!
Germinating Seeds

- PDF of explicit instructions will be emailed to you
- Water three times when you get home
- Cover with plastic
- Place on heat mat - keep between 75 and 85 degrees
- Will take longer to sprout than tomatoes
- Once first seed sprouts, remove cover and expose to light
- Artificial light vs. natural light
- Don't let soil dry out
- Seedlings need airflow too - put fan for at least 8 hours a day
- Unheated greenhouse too cold at night, maybe too hot during day
- Sunny window inadequate
Pricking out = Potting up

- Once seedlings have second set of leaves, pot up
- Use little pots and good, Gardner & Bloome Blue Ribbon Blend potting soil.
- Don't compress
- Bury a bit deeper in new pot
- One plant per pot
- Keep warm - above 50 degrees at night
Supplemental Fertilizing

- Crucial when growing in pots
- We use worm casting tea
- Recipe: one handful in 5 gallon bucket of water
- Let steep 48 hours
- Use WCT each time you water
- If seedlings turn yellow, you are not fertilizing!
Watch out for Aphids

- Watch for curling leaves
- Can be green or red
- Rub out with hands and follow up with spray
- Gardner & Bloome Insecticidal spray or Pyrethrin
Beginning to Plant Out

- Hardening off is important if plants have never been in all day long sunlight
- Plants need to be slowly exposed to direct sunlight
- Several hours on first day
- Add another hour each day
- Then can plant out
Planting out date

- Never before May 1
- In colder climates, like mountains, best to wait until May 15
- Cover with FRC for first month
Troubleshooting and Tips

- Remove first few blooms in order to push plants' energy into green growth
- Don't let dry out between watering
- Need more water than tomatoes
- If blossoms drop on their own, it means nights are too cold.
- Tobacco mosaic virus - don't smoke around plants
- Blossom end rot: calcium deficiency.
Available for Purchase Today

Worm castings: $12

Mychorrizable Fungae - $5

Set of 1 tray & 32 pots: $8

*How to Grow Better Tomatoes* Booklet - $5

Jams & Pickles - prices on jars

Love Apple Farms Kids Tie-Dye T-Shirt - $15

Manresa Cookbook Signed by Chef David Kinch - $49