

UF/IFAS Extension Presents  
**SPRING INTO VEGETABLE GARDENING**  
Interactive Video Series for Novice Gardeners



### Seeding and Transplanting in the Spring Garden

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### What is a seed ?



- A seed is the offspring of a plant, a mature ovule, which has been fertilized.
- The purpose of the seed is two fold
  - Insure variability of offspring through genetic recombination
  - Disperse offspring away from parent



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### Seed Germination

- The process of germination is as follows:
  - swelling of the endosperm
  - rupture of seed coat by emerging root
  - emergence of the shoot and the seed leaves (cotyledons)



Soilflower seedlings, just 3 days after being planted. Source: Created by user:GDF (X)(cc-by-vn-2.0)

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## Germination Conditions

- **Conditions for germination:**
  - Light requirement
    - no light requirement
  - **Moisture**
    - Seeds imbibe moisture to increase in size and begin the growth process
  - **Temperature Requirements**
    - varies widely, but often moderate heat is helpful, especially if germination area is very cold
  - **Oxygen is needed**
    - compacted, or waterlogged soil will cause rot or damping off of seedlings

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## Prevent damping off

- Caused by fungal organisms in media that is too damp
- Roots will turn brown
- Plants will wilt, even though there is plenty of moisture
- Plant seed treated with fungicide to reduce the occurrence of damping off
- Many seed companies offer treated seed



Image Credit: Dan Gilbert  
UP 2014

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## Seed Storage

- **Humidity:**
  - should be low
  - store in sealed containers for long term
  - Desiccant can be used
  - Seeds can keep a year or more
- **Temperature:**
  - Best is 40-50°F




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## Seed Media Selection

- Commercial seed germination mix
- Media must be moist but not saturated
- Germination media should not contain fertilizer
- Make your own
  - 2 parts peat/ coconut coir
  - 1 part perlite (grit)
  - Or Vermiculite



Image Credit UF IFAS

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## Transplanting

- Most transplants need to be planted at same depth as when in container
- Tomatoes are exception, can be planted below grade
- Handle transplants by leaves
- Lift from under the root
- Some plants MUST be direct seeded



Image Credit UF IFAS

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## Seeds Need Sunlight

- Place seed germination area in a sunny location
- Seeds that do not receive adequate sunlight will be leggy and slow to perform



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## Direct Seeding

- Pay attention to label
- Follow planting depth recommendations
- Do not plant too deep
- Cover lightly with soil



Image Credit: UF IFAS

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## Bush Beans, Pole Beans

- 8 Hours of sun
- Plant in March-April for Spring
- Direct seeding is best, transplanting difficult
- Seed Depth; 1-2 inches
- 50-60 days to harvest
- Pole: 3-6 inches 40 inch rows
- Bush: 2-3 inches on 18-30 inch rows



Image Credit: UF IFAS

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## Southern Peas

- Planting Dates: March through August
- Days to Harvest: 60 to 90
- Seed Depth: 1-2 inch
- Spacing: 2-3 inches on 30 -36 inch rows
- Direct Seed Only



Image Credit: UF IFAS




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## Lima Beans



Image Credit UF IFAS

- Plant: Mar - August
- Days to harvest 65-75
- Seed Depth 1-2 Inches
- Spacing 3-4 inches on 24 -36 inch rows
- Direct seed – not best as transplants

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## Cantaloupe / Musk Melon



Image Credit UF IFAS

- Planting Dates: March - April
- Days To Harvest: 75-90
- Seed Depth:1-2 inches
- Plant Spacing: 24-36 inches on 62-72 inch rows
- Transplanting not recommended, direct seed.

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## Summer Squash

- Planting Dates: March to April
- Biennial
- Days to harvest: 40-55
- Seed Depth: 1-2 inches
- Spacing:24 to 36 inches on 36 – 48 inch rows
- Direct seed is best, will outperform containerized transplants



Image Credit LSU Horticulture UF IFAS

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## Watermelon

- Planting Dates: March to April
- Days to Harvest: 85-95
- Seed Depth 1-2 inches
- Spacing: 48-60 inches on 84-108 inch rows
- Direct seed



Image Credit: Matthew Orndt, UF IFAS

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## Cucumbers

- Planting Dates: February to April
- Days to Harvest: 50-65
- Seed Depth: 1-2 inch
- Spacing: 12 to 24 inches on 36-60 inch rows
- Direct Seed



Image Credit: UF IFAS

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## Sweet Corn

- Planting Dates: March to April
- Days to Harvest: 60 to 95
- Seed Depth: 1-2 inch
- Spacing: 12 to 18 on 24-36 inch rows
- Direct seed only



Image Credit: UF IFAS



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## Collards

- Planting Dates: February to April
- Days to Harvest: 70-80
- Seed Depth: ¼ to 1 inch
- Spacing: 10 to 18 inches
- Direct seed or transplant



Image Credit: UF IFAS

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## Eggplant

- Planting Dates: February to July
- Days to Harvest: 90-110
- Seed Depth: ½ inch
- Spacing: 24 to 36 inches on 36 to 42 inch row
- Easily survives transplanting



Image Credit: UF IFAS

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## OKRA

- Planting Dates: March to July
- Days to Harvest: 50-75
- Seed Depth: 1 to 2 inch
- Spacing: 6 – 12 inches on 24-40 foot rows
- Direct seed only, plant early to help exclude nematode infections, rotate planting location every year



Image Credit: UF IFAS

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## Peppers & Tomatoes

- Planting Dates: February to April
- Days to Harvest: 80-110
- Spacing: 12-24 inches for peppers and 18-24 inches for tomatoes
- Best grown from transplants

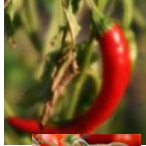


Image Credit: UF IFAS

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## Turnips

- Planting Dates: January to April
- Days to Harvest: 40-60
- Seed Depth: ½ to 1 inch
- Spacing: 4 to 6 inches on 12 to 20 inch rows



Image Credit: UF IFAS

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## Potatoes

- 15 pounds per 100 feet of planting area, 3-4 inches deep.
- 85-100 days to harvest
- Plant 8-12 inches apart.



Image Credit: UF IFAS

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