

Beginner Seed Starting



**CITRUS
HEIGHTS
WATER
DISTRICT**

- ▶ WaterSmart Classes posted on our YouTube
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Beginner Seed Starting Propagating Plants by Seed

Presentation for Citrus Heights
Water District

By Ruth Ostroff
March 13, 2025

Methods of Propagation

Asexual
reproduction
(cuttings,
divisions)

Sexual
reproduction
(seeds)

Methods of Propagation

**Propagation
By Seeds**

Why Plant from Seed?

Cost-effective for
large gardens

Greater variety
selection

Grow heirlooms &
unique species



Seed Options: Hybrid, GMO, & Heirloom Seeds



Hybrids (F1):

Bred for
specific
traits



GMO/BE:

Genetically
modified for
benefits



Heirlooms:

Open-
pollinated &
true-to-type
reproduction

Understanding Seeds

- ▶ A seed consists of:
- ▶ - Plant embryo
- ▶ - Food reserve
- ▶ - Protective seed coat



Seed Dormancy & Germination

Environmental cues
required for
dormancy break
include:

Moisture,
Temperature,
scarification (nicking
the seed coat)



When to Plant?

Timing is Everything

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Persephone Days

Days when daylight drops below 10 hours/day. Mid Nov. to the end of Jan.

Plant growth is limited due to insufficient light.

Plant your Fall gardens to reach 75% growth by Mid November.

Growth picks up again when days are longer than 10 hours.



Tools for Seed Starting

- Heating mats
for warm
season plants &
grow lights

- Clean
containers &
humidity domes

- Soil-less mix
& plant labels

Reading Your Seed Packet

Plant Name



BEAN
Tavera

Plant Description



Seedling illustration

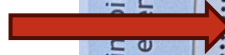


Seedling

How to Start Seeds

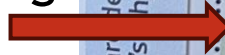


Days to Germination



Days to Emerge:
6 - 12 Days

Spacing and thinning



Seed Depth:
1"

Seed Spacing:
1 seed every 4"

Row Spacing:
24"

Thinning:
Not required

Maturity:
54 Days

You can add your
info here. I don't.



Date Seed Sown

These *haricot verts* (French for "green beans") are superb when harvested frequently and at a petite size, about 1/4" wide. An excellent choice for container gardening, and plants need no staking. Disease resistant to anthracnose and bean common mosaic virus. *This packet sows up to 19 feet.*

When to sow outside: RECOMMENDED. 1 to 2 weeks after your average last frost date, and when soil temperature is at least 65°F, ideally 70°-85°F. *Successive Sowings:* Every 7 to 14 days up to 80 days before your average first fall frost date. **NOTE:** In very hot summer areas, skip sowing as high heat approaches; temperatures consistently above 90°F will prevent beans from forming.

When to start inside: Not recommended; bean seedlings are sensitive to root disturbance.

cut out for
plant tag

OPEN POLLINATED
AND
UNTREATED



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Certified Organic
by the Colorado Dept. of Agriculture

Lot# 37409 Packed for 2023
Sell by 12/31/2023

Packed for Date



Soil Temperature is important

Most seeds will germinate in soil at 65 - 70 degrees F.

Soil Temperature & Seed Germination

Crop	Minimum Temp	Best Temp Range
Beans	60 F	75-85 F
Beets	40 F	65-85 F
Cucumber	60 F	65-95 F
Lettuce	32 F	60-75 F
Peas	40 F	65-75 F
Spinach	32 F	65-75 F
Squash	60 F	85-95 F

Seed Longevity

How Long do seeds last?

How do I know if they are still viable?





Planting & Thinning

Thin seedlings
with scissors
after true
leaves develop

Follow seed
packet for
plant spacing

Seed Storage

- Store dry seeds in clean containers, such as Paper envelopes, jars, zip-lock bags
- Keep in a cool, dry location
- Note seed longevity chart



Common Seedling Issues

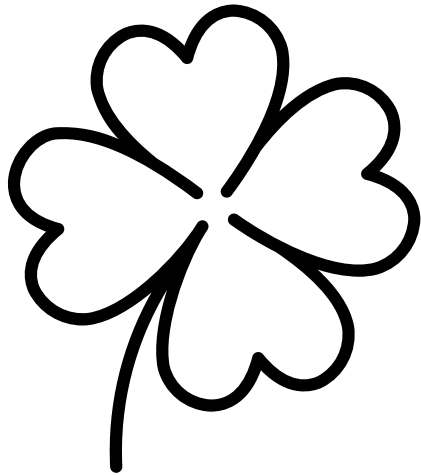
- Be sure your pots are clean
- Use sterilized, fast draining seed starting mix
- Use fresh high-quality seeds



More Common Seedling Issues

- Prevent damping-off with sanitation & drainage - don't keep plants soggy
- Seeds are planted too deeply
- Protect seeds from birds & critters





Happy
Planting
and
Good Luck!

Questions?