



UC Master  
Gardeners  
Napa County

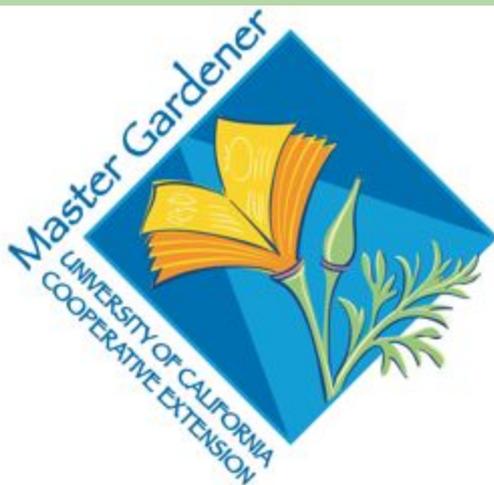
# FOOD GROWING FORUM SEED STARTING

FEBRUARY 14, 2021



UNIVERSITY OF CALIFORNIA  
Agriculture and Natural Resources

UC Master Gardener Program



UC Master Gardeners of Napa County  
<http://napamq.ucanr.edu/>

*Our mission: "To extend research-based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California and be guided by our core values and strategic initiatives."*

# WHY START PLANTS FROM SEEDS ???

What IS a seed? “An embryonic plant in a dormant state enclosed in a protective outer covering”

- Countless Varieties
- Cost efficiency
- Open Pollinated/Heirlooms or Hybrids?

\*Seeds breed true to parent plant-same genetic characteristics

\*Cross-Bred for desired characteristics ( ie size disease resistance)

- Adaptability to your garden
- Many veggies are BEST from seed (ie carrots, radishes, turnips, roots)
- It's FUN AND SATISFYING!



# WHERE DO I BEGIN ???

- Desired plants
- Available space
- Zone, final size, color, growth habit
- Succession planting
- Seasonal timeline: 6-8 weeks before in-ground planting
- Soil preparation
- Supplies & Resources



## WINTER/SPRING VEGETABLE PLANTING GUIDE FOR NAPA COUNTY

VEGETABLE	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	NOTES/COMMENTS
Broccoli														Harvest time depends on planting date and weather
Beets														
Cabbage														Harvest time depends on variety and weather
Cantaloupe														
Carrots														
Cauliflower (early) (late)														
Chard														
Corn														
Cucumber														
Eggplant														
Lettuce														Harvest time depends on variety and weather
Onions, Shallots														Harvest and store
Peas														
Peppers														
Potatoes														Harvest and store
Pumpkin														
Radish														
Snap Beans														Plant Lima beans 1 week after earliest snap beans, and until late May
Tomatoes														
Watermelon														
Zucchini														

Code:

Plant seeds

Plant seedlings

Harvest

Range of season

Plant seeds indoors/in greenhouse

4/29/11

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## GERMINATION

- Plan for germination rate
- Read package light? Darkness? Depth?
- Pre-Soaking for some
- Humidity dome
- Heat mat until germination + temperature
- Number of days to anticipate
- Viability-Some seeds can be held over for several years



THEY  
ARE  
UP!!



# Heat Mats for plants

- Provide bottom heat until germination
- Can set specific germination temperature as recommended in seed catalog- frequently 65-75



Trays, pots, and medium fine aerated soil: Weed free, disease free, hold moisture, but drain well.



Six packs, soil mix, labels



Deep pots for veggies with deeper roots. Firm the soil after watering.

# SOIL MIX FOR SEEDS

- Use Reputable Commercial Seedling mix ( easiest): Sanitary, good texture-but without fertilizers
- Homemade mix:  $\frac{1}{3}$  vermiculite or perlite,  $\frac{1}{3}$  sterilized sand,  $\frac{1}{3}$  peat moss or more sustainable coconut coir
  
- Potting soil- is not optimal for seedlings, as it may be more conducive to damping off.
- Ground soil in pots is not recommended- too dense, less drainage, possible pathogens and weeds

Plan for larger seeds, and direct sown seeds.

- Deep pots
- Quick transplants
- In ground
- Soil prep
- Note seed packet for depth(ie 2x diameter vs surface soil)
- spacing



Remove from heat  
and dome once  
germinated



## Lighting (Once germinated)

- Bright South window
- Grow lights-full spectrum fluorescents, LEDs, 6" below tube lights-consider heat
- 16 hours on

## Watering/Misting

- Gentle, consistent watering. Mist as needed Remove dome once sprouted.
- Watch for first TRUE leaves.

## Fertilizing

- Fertilize with half-strength soluble, every 2 weeks (ie fish emulsion, seaweed)
- Can spray on foliage

## Transplanting Time



# TRANSPLANT and HARDEN OFF

- Gently handle by leaves
- Tease apart tangled roots
- Same depth
- Firm soil down
- Gradually lower temperature & humidity
- In shade a few days
- Reduce watering to thicken cell walls
- 1-2 weeks before transplanting into garden



CONGRATULATIONS ON YOUR SUCCESS!





**Questions?**

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<http://napamg.ucanr.edu>

# Resources

A Month-By-Month Guide to Gardening in Napa County (for sale at our website and office)

California Master Gardener Handbook--2nd Ed. Publication Number 3382 Copyright 2015

Napa County Master Gardeners : <http://napamg.ucanr.edu/>

Two versions of planting calendars:

<https://ucanr.edu/sites/ucmgnapa/files/153875.pdf>

<https://ucanr.edu/sites/ucmgnapa/files/218030.pdf>

UC Vegetable Research and Information Center

<https://vric.ucdavis.edu/>

The California Garden Web

<http://cagardenweb.ucanr.edu/>

UC Statewide Integrated Pest Management Program

<http://ipm.ucanr.edu/>