

Advice to Grow By
... Ask Us!

UCCE Master Gardeners
San Mateo & San Francisco Counties



Sustainability at Home

Creating a Spring Herb & Vegetable Garden

February 24, 2021
Shilpa Thanawala

Mini, opal, and Genovese basil interplanted with tomatoes

Introduction & Poll

1. Are you new to food gardening?
2. Are you gardening in the ground, containers, or indoors?
3. On a scale of 1-10 (10 = most), how desperately do you need to grow tomatoes?



Benefits of Homegrown Produce

- Flavor! Freshness = better flavor, more nutrients
- Connect with & learn about the natural world
- Teaches kids to appreciate vegetables & gardening
- Lower carbon footprint for your family's food
- Varieties!





Getting Started

Start small

Garden overwhelm is real! Just 2-3 favorite herbs you love, some tomatoes and cucumbers will offer plenty of rewarding benefits to start

Work with your conditions

Indoor gardening, foggy areas, wind, containers, shade.

[Make a sun map >](#)

Know your zone

[Frost dates](#), SF Bay Area coastal influence, [climate zones](#), planting calendars for [sunny areas](#), [foggy areas](#)

[CA Garden Web](#)



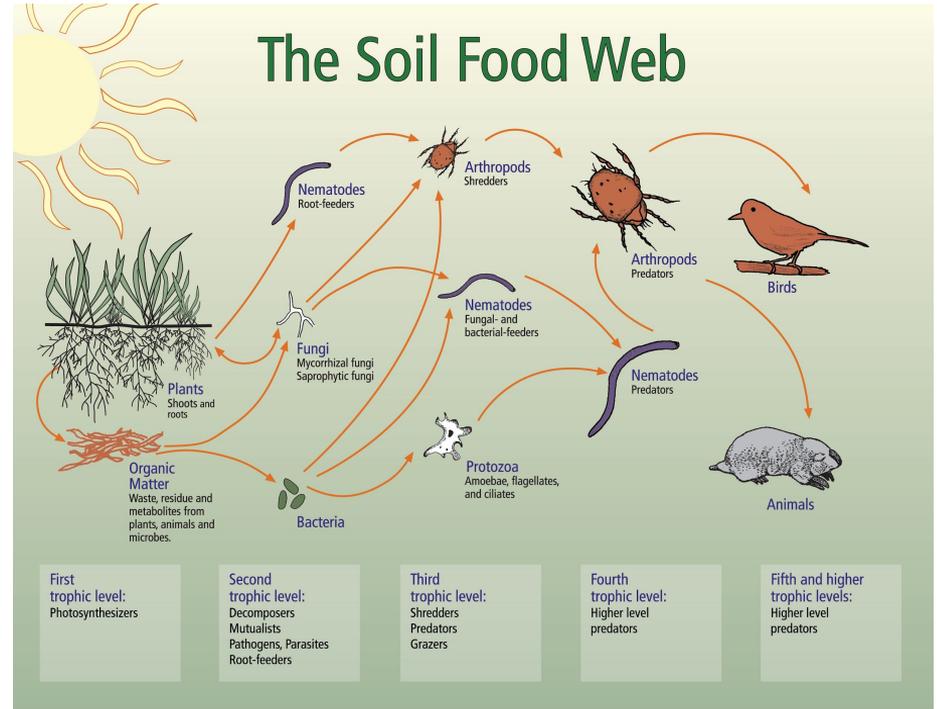
University of California
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Soil Rules

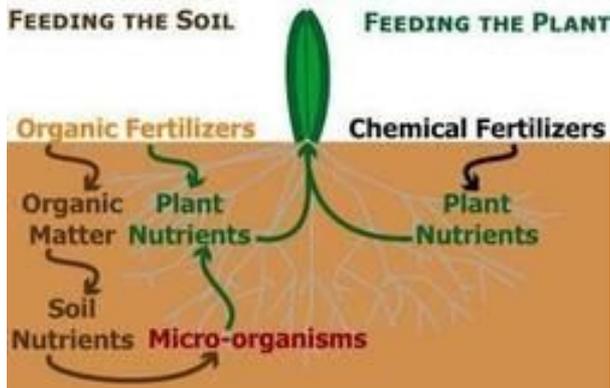
The best way to grow great plants is to care for your soil

- Healthy soil is a balanced, living ecosystem
- Healthy soil has structure
- Feed your soil, not your plants
- Avoid:
 - Chemical pest & weed control
 - Chemical fertilizers
 - Bare soil
 - Leaf blowers
 - Walking on soil
 - Driving cars or equipment on soil
 - Tilling



Soil Rules

- Feed the soil, not the plants
- Always & often::
 - Add compost
 - Add more compost
 - Cover the soil (mulch)
 - Leave the leaves
 - Use cover crops + “chop-and-drop”



Soil Rules



UNIVERSITY OF CALIFORNIA AGRICULTURE & NATURAL RESOURCES
UC IPM
Statewide Integrated Pest Management Program

What is IPM? Identify & Manage Pests Research Publications Training & Events Links About Us Contact Us Subscribe

HOME PRINT

Home, garden, turf, and landscape pests

University of California's official guidelines for managing pests with environmentally sound methods. [\(More...\)](#)

Pests of homes, structures, people, and pests

[Household pests](#)

- [Pests that sting, bite, or injure](#)
- [Wood-destroying, food, fabric, and nuisance pests](#)
- [Vertebrate pests](#): birds, mammals, and reptiles

Pests in gardens and landscapes

Choose a plant to find the most likely source of your pest problem

- [Flowers](#)
- [Fruit trees, nuts, berries, and ornamentals](#)

QUICK LINKS

- [Pest Notes library](#)
- [Quick Tips library](#)
- [Video library](#)
- [Seasonal Landscape IPM Checklist](#)
- [Pests in the Urban Landscape Blog](#)
- [Plant problem diagnostic tool](#)

IPM = Integrated Pest Management

- Ecosystem-based approach to minimizing pest damage
- Monitoring and correct identification of pests
- Management using habitat manipulation and fostering a healthy overall balance
- Plant 'companion' flowers to support beneficial insect populations



Water-Wise Gardening

- Install a drip irrigation system (or retrofit)
- Monitor and repair to prevent leaks and run-off
- Water in the early morning
- Avoid overhead watering
- Mulch!
- Reduce or remove lawn areas (sheet mulch)



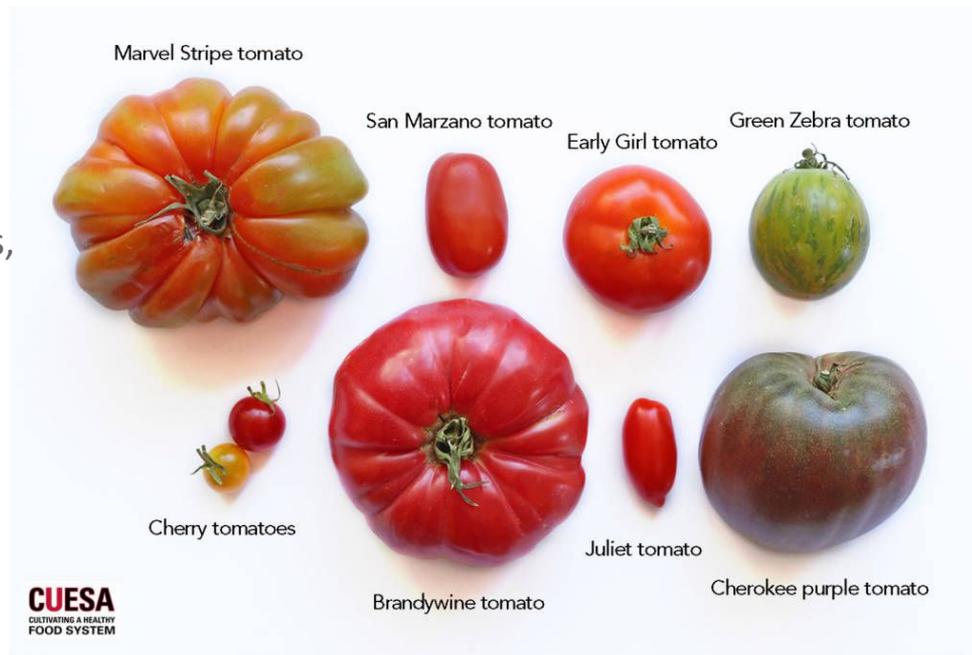
Reuse & Repurpose Materials



Site Selection

Sun - Based on your [sun map](#) & observation data, which locations get the most sun? How many hours?

- Sun = full, unobstructed sun
- **8+ hours**
Large tomatoes, peppers, eggplant, cucumbers, pumpkins, melons, corn, potatoes
- **6-8 hours**
Can still grow the above, but choose fast-maturing varieties
- **4-6 hours**
Cherry tomatoes, pickling cucumbers
Beans, peas, brassicas, root crops (beets, carrots, radishes)
- **> 4 hours**
Lettuce, greens (kale, swiss chard, arugula)



Site Selection



The legendary Los Altos front yard edible garden of [Rosalind Creasy](#)

Other Considerations

- Wind protection
- Heat-sink (eg. south-facing wall)
- Morning vs. afternoon sun
- Access to water source
- Proximity to trees or other established plants
- Soil quality and safety
- Pest protection (deer, rabbits, gophers)





Raised Beds

- Improved drainage
- Safer ergonomics
- Custom-mix soil (raised bed blends in bulk)
- No digging or turning needed
- Can be simple or elaborate
- Can be kitchen counter-height or just 6" high
- Discourages foot traffic
- Can facilitate netting or row cover use, or feature built-in supports
- Can line with gopher mesh if needed
- Can use recycled or repurposed materials (ensure they don't leach)
- Elevated planters vs. raised beds

Container Gardening

- Great for balconies or rooftop terraces, patios and decks, urban areas with contaminated soils
- Can shift containers as plants grow and seasons change
- Choose the largest containers you can find, or build planters. Make sure they are sanitized.
- Drill drainage holes
- Select varieties developed for containers
- Water regularly and evenly -- containers dry out fast in hot weather. Check using finger-test
- Use new, high-quality potting mix (not garden soil)
- Starting a month after planting, apply organic fertilizer every two weeks



See [this Treehugger post](#) for several recommended varieties



Seedlings or Seeds?



- Beginning gardeners find it easier to start with seedlings
- After a few successes, try starting your plants from seeds
 - unusual, rare, or new varieties
 - more control over timing
- Select seedlings with:
 - healthy leaves and stems
 - few flowers (or none), no fruits
 - uncrowded roots

A smaller, healthier plant will be less stressed and stunted, and will be able to grow faster once transplanted.



Seedling Care

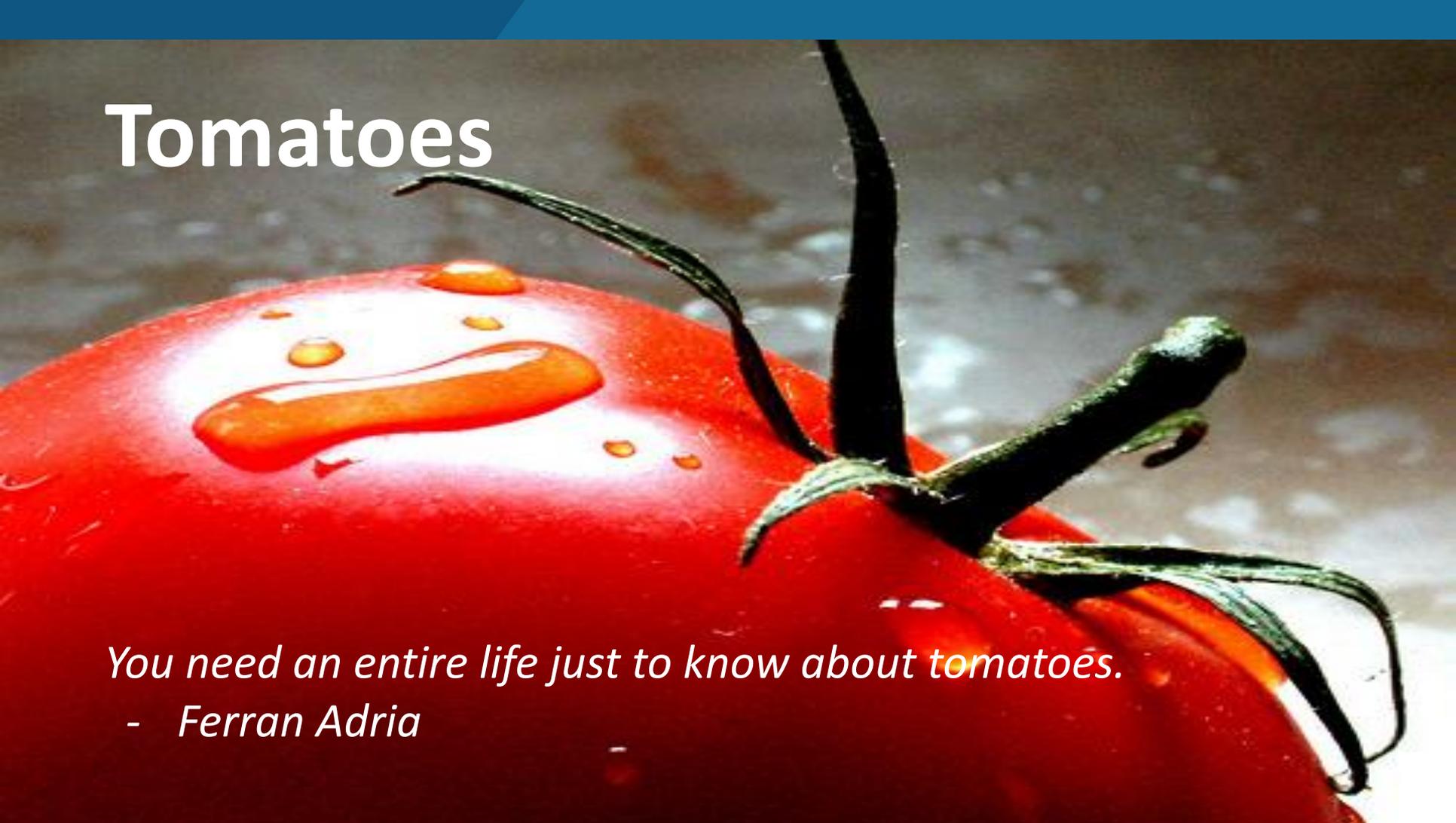
Hardening Off

gradually acclimating a young plant from a controlled climate to one with more extreme conditions (outdoors)

- Ask the nursery staff if your seedlings have already been hardened off
- Bring plants home and place them in a bright but sheltered location
- If not hardened off, do so over a 2-week period
- If the plant is ready but the weather is too cool, up-pot the plant. Don't let it get rootbound



Tomatoes



You need an entire life just to know about tomatoes.

- Ferran Adria



Two Types

Indeterminate

- Growth and fruit development continue until stopped by frost
- Fruit development is spread out **over many months**
- Usually more flavorful, more leaves per fruit

Determinate

- Short, bushy, fruit all at once
- Better for small yards or short seasons
- Good for canning or drying



Days to Maturity



Days to Maturity (DTM)

- **Extra-early:** 50 - 60 days
- **Early:** 52 - 70 days
- **Mid:** 72 - 80 days
- **Late:** 75 - 90 days

Days to maturity =

of days from **transplanting seedlings in the ground** to first ripe fruit

- Ideal growing conditions
- Based on **degree days**

ipm.ucanr.edu/WEATHER/abtddcalc.html



Common Tomato Types



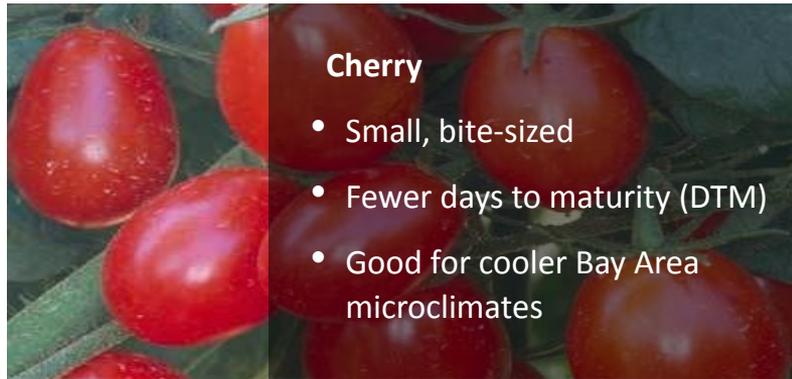
Classic

- Round & smooth, from medium-small to medium-large
- Also called main crop, salad, or slicing tomatoes



Beefsteak

- Large to very large, often irregular in shape, usually later to mature



Cherry

- Small, bite-sized
- Fewer days to maturity (DTM)
- Good for cooler Bay Area microclimates



Paste

- Generally elongated shape, usually meatier with less seed gel
- Good for processing as sauce & paste or for drying



When to Plant

Wait

- Soil is warm, nights are **55°F**
- Usually around late April / early May
- Don't plant-out too soon. Seedlings planted later frequently catch up and are stronger, less susceptible to disease and infestation

Harden Off

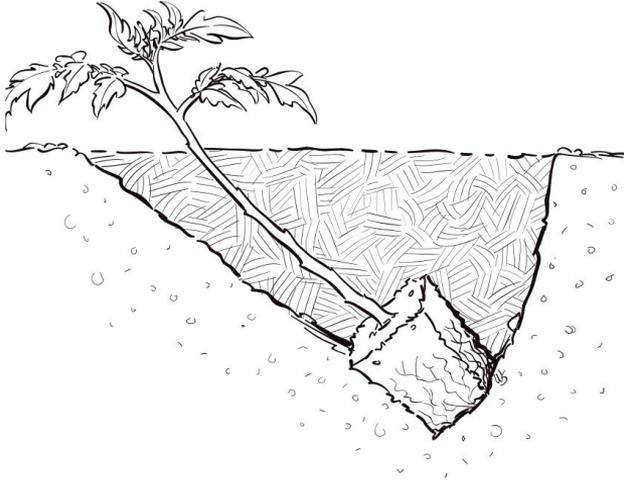
- Set outside during the day for a week or two
- Move to a location protected from wind, sun, and night-time chill

Transplant

- Leave outdoors at night before transplanting
- Transplant on a cloudy day or a late afternoon



Planting Tomato Seedlings



Plant deep! Or sideways

- Pinch off leaves and bury $\frac{1}{2}$ the stem
- Plant on an angle, if necessary
- Space 1 to 4 feet apart
- Stake or cage the same day you plant



Support your Plants

Why?

- Better **air circulation** helps prevent foliage diseases & fruit-rot
- Keep the fruits up **off the soil**



Many methods

- **Stakes** - tie or clip-up new growth weekly
- **Cages** - sturdy, large
- 6" concrete reinforcing wire
- Hog fencing
- Wrap black roofing paper or plastic around bottom foot, if windy
- Tomato ladders
- Florida weave
- etc.



Pruning Tomatoes

To pinch or not to pinch?

Determinate: **No**

- All stems produce fruit

Indeterminate: **Maybe**

- Pinch early for earlier, larger fruit
- Hot weather locales - less pruning
 - Foliage protects from sunscald
- Cool weather locales - more pruning to allow more light and air flow.



Sucker



Herbs



Chives

Benefits & Use

- Historically used by farmers to ward off pests
- Milder flavor than other *Allium* species

Cultivation

- Well-drained soil, rich in organic matter

Propagation

- Grown from seed, division

Maintenance

- Pinch off the flower buds to encourage leaf growth
- Continually regrows leaves, so regular harvesting encouraged



Parsley

Benefits & Use

- Widely used for its fresh flavor and bright green color
- Attracts pollinators and beneficials

Cultivation

- Start with seeds indoors or buy a plant
- Allow some to flower and set seed

Propagation

- Start from seeds

Storage & Preservation

- Store refrigerated as a tender herb
- Does not dry or freeze well



Rosemary

Benefits & Use

- Versatile and widely used
- Strongly flavored
- Attracts pollinators

Cultivation

- Start with a plant
- Hardy and easy to grow in our climate

Propagation

- Stem cuttings or layering

Maintenance

- Will grow larger over many years; prune for size and health

Storage & Preservation

- Store as a hardy herb
- Can be dried or frozen



Herbs for Pollinators and Beneficial Insects

Many **herb flowers** support important **pollinators** and **beneficial insects**

- Plant amongst vegetables, fruit trees
- Allow some to **flower**
- Create habitat gardens to attract **butterflies, bees, hummingbirds, parasitic wasps**
- Support a population of **beneficial insects**



Hoverfly



Habitat Landscape



Native Bee



Which Herbs to Grow?

Consider...

- **where**
 - your microclimate
 - space
 - sun & light exposure
 - containers or in-ground
 - ease of access
- **personal preferences**
 - gardening skill level
 - taste preferences & aversions - eg. cilantro, fennel
 - your cooking style - what you use most, what you buy
 - other cuisines you'd like to explore
- **availability**
 - herbs that are difficult to find
 - herbs that are better fresh than dried
 - potency - how much is used at one time



Mints in pots for containment and easy access
[photo: S. Thanawala]



Cilantro

Benefits & Use

- Essential in many cuisines
- 2-in-1 leaves & seeds (coriander)

Cultivation

- Start seeds indoors or direct sow
- Prefers cooler weather and shorter days
- Succession-sow for a consistent supply

Propagation

- Start from seeds

Maintenance

- Pinch back flowers to extend harvest

Storage & Preservation

- Refrigerate in a jar with 1" water and a lid or sealed bag over top
- Don't bother with dried cilantro



Basil

Benefits & Use

- Much beloved essential herb
- Complements tomatoes, eggplant, peas, and more

Cultivation

- Start seeds indoors in spring
- Leaves sunburn easily
- Succession-sow for a consistent supply

Propagation

- Start from seeds
- Stem cuttings (eg. non-flowering types)

Maintenance

- Pinch back flowers to extend harvest

Storage & Preservation

- Don't bother drying - flavor is lost
- Store like cut flowers
- Freeze chopped in oil, or infuse



Maintaining Herb Gardens



Lovage

Use them! “Herbs like haircuts”

Perennials

- Prune / use frequently
- For less-hardy herbs, don't cut severely before winter
- Have a plan for flowers and / or seeds
- Divide, propagate, or replace when plants become woody
- Rosemary, sage, thyme, oregano, tarragon, lemongrass, chives, winter savory, leaf celery, lavender

Annuals

- Plant in spring
- Succession-sow for herbs with short growth cycle (cilantro, dill)
- Basil, cilantro, dill, summer savory, parsley, chervil



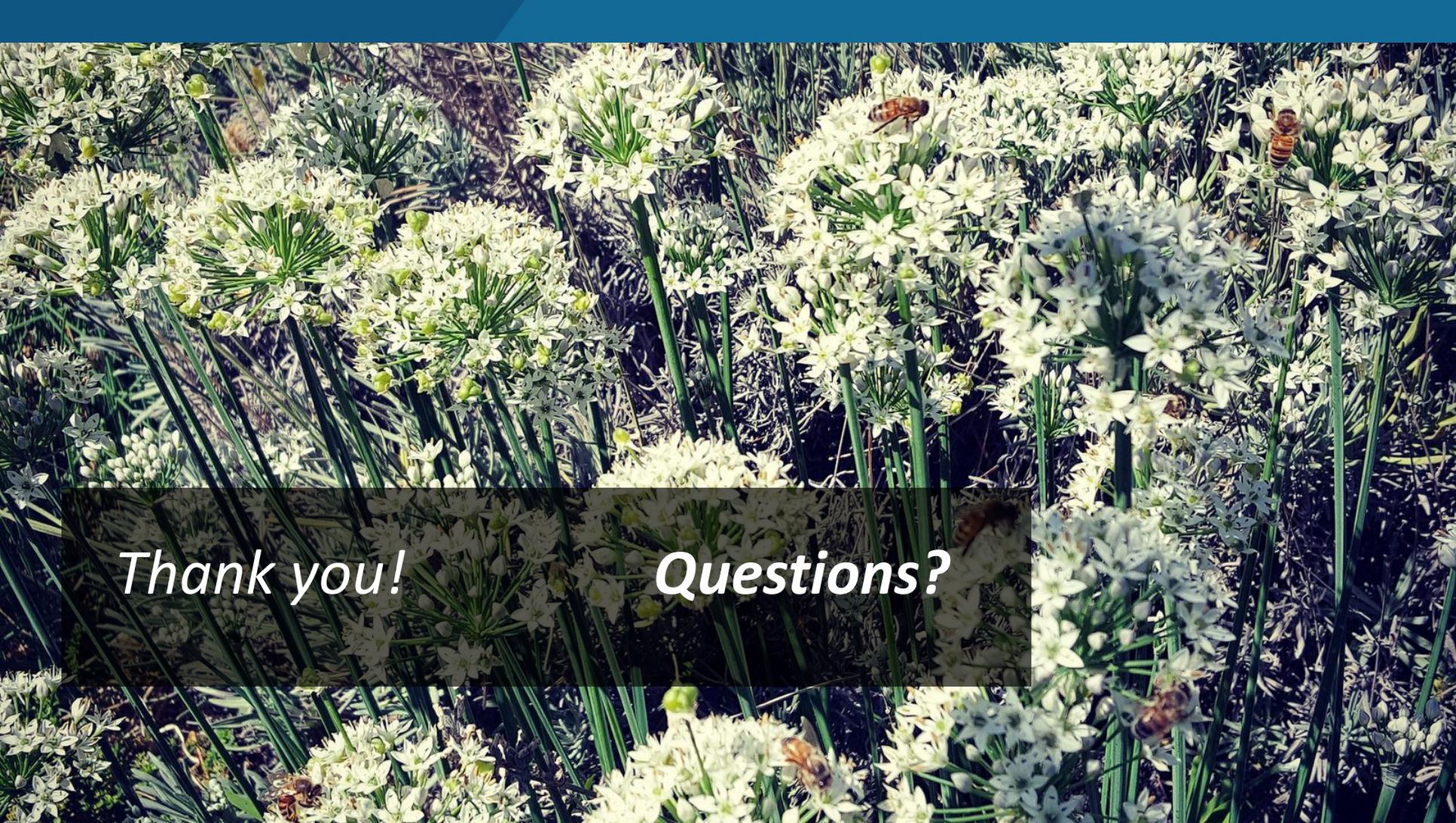
Live in a Cave? Try Microgreens!

- No light source required
- No feeding, up-potting, hardening off
- Quick 2-3 week cycle
- Nutrient dense
- Unique & unexpected flavors
- Basil, cilantro, dill, chervil, peas, radishes, broccoli, kale, mustard, etc.

Introducing Microgreens: Younger, And Maybe More Nutritious, Vegetables > [via NPR]

Microgreens seed suppliers:
True Leaf Market, Johnny's, High Mowing



A close-up photograph of a field of white flowers, likely Allium, with several bees flying around and landing on the blooms. The flowers are small and star-shaped, clustered on green stems. The background is a soft-focus field of similar flowers.

Thank you!

Questions?

Acknowledgements

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UCCE Master Gardeners of San Mateo & San Francisco Counties



Advice to Grow By
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Got Questions? Ask a Master Gardener!

Call our helpline at: (650) 276-7430

Email questions to: mgsmsf@ucanr.edu (please include your name, city, phone # (best time to call), question/description of problem, photos)

When our helpline offices reopen, visit us in three locations (closed on holidays). If bringing samples, please enclose in a sealed container.

Website: smsf-mastergardeners.ucanr.org

Follow us on social media for seasonal tips:
@SFBayGardeners



Mondays 9am-4pm
Elkus Ranch
Conference Center
1500 Purisima Creek Road
Half Moon Bay, CA 94019

Wednesdays 10:30am-2pm
San Francisco Botanical
Garden (SFBG) Library
(no samples please)
1199 9th Avenue
San Francisco, CA 94122

Thursdays 9am-4pm
Veterans Memorial
Senior Center
1455 Madison Avenue
Redwood City, CA 94061



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