



Trees in your Community Trees for Tomorrow

March 24th, 2022

Presented by the San Bernardino County Master Gardeners

Si necesita el audio de la presentación traducido al español, haga clic en el icono del globo y seleccione donde dice "Spanish".

Hablan Español?



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Classes & Events

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Monthly Gardening Tips

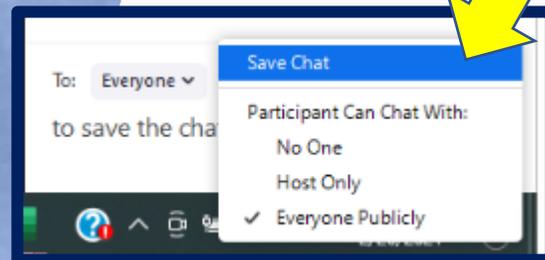
Newsletters

Recent Presentations

Seed Library (SBRSL)

House Keeping:

- This presentation will be recorded
- Please feel free to ask questions as we go along in the chat, I will answer questions at the end of each section (please put your general location with questions if it's relevant to your question)
- Please turn off cameras to save bandwidth, and keep mic on mute when not in use
- If you would like a PDF of this presentation, check out our website and click on "Recent Presentations" at <http://mgsb.ucanr.edu/>



You can save the chat with the links that we have added by clicking the 3 dots on the top right-hand side of the chat window, and clicking "save chat"





Where's the Shade?!

The Importance of Urban Forests in a Heating World



Taylor Hollman • Community Conservation Technician | Inland Empire Resource Conservation District • 09.19.2021

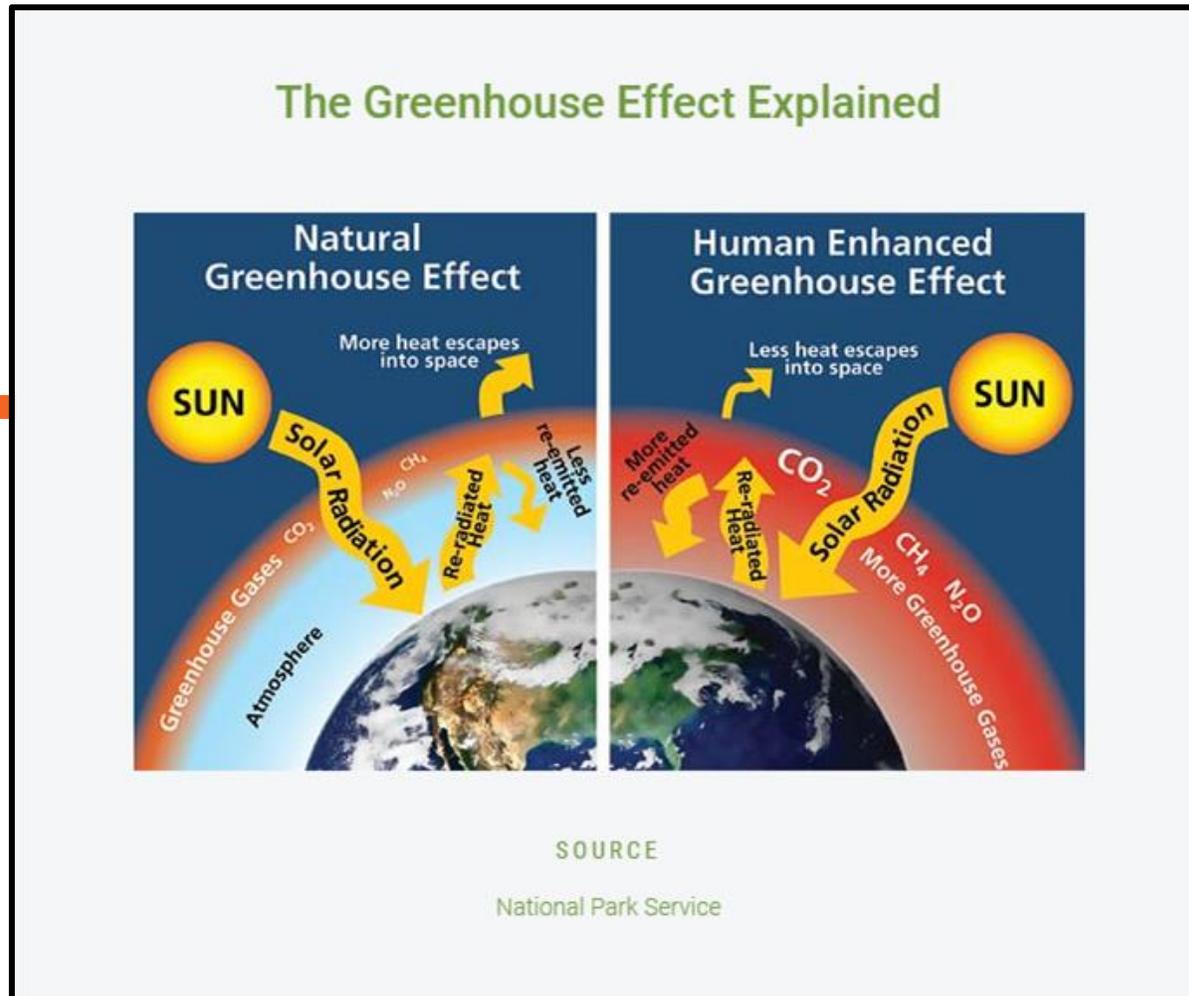
Project Partner Overview



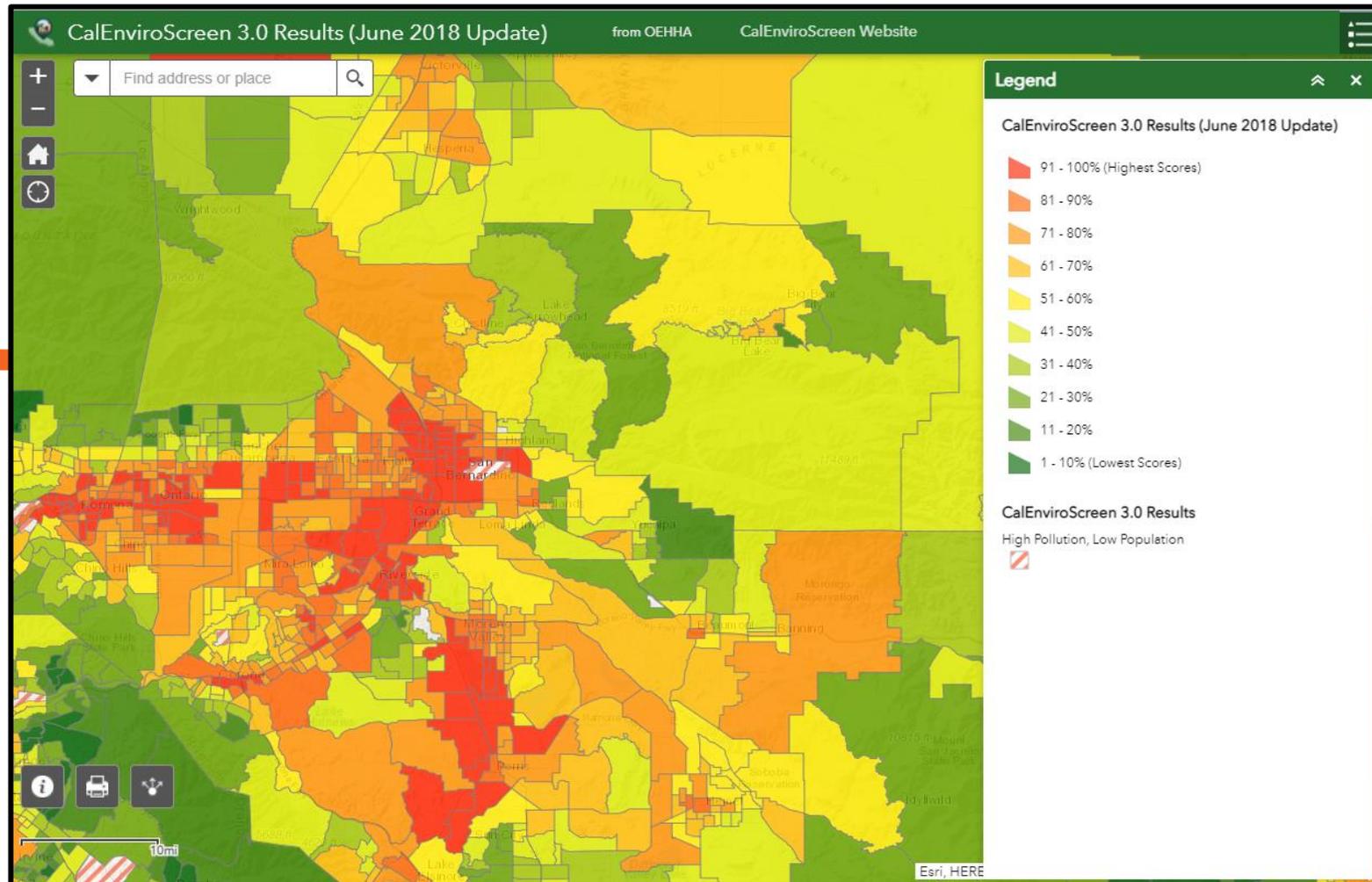
5 Partner Entities:

- Inland Empire RCD (Host)
- CA Climate Action Corps
- Common Vision Coalition
- UC Master Gardeners
- University of Redlands

Climate Change and a Warming Earth

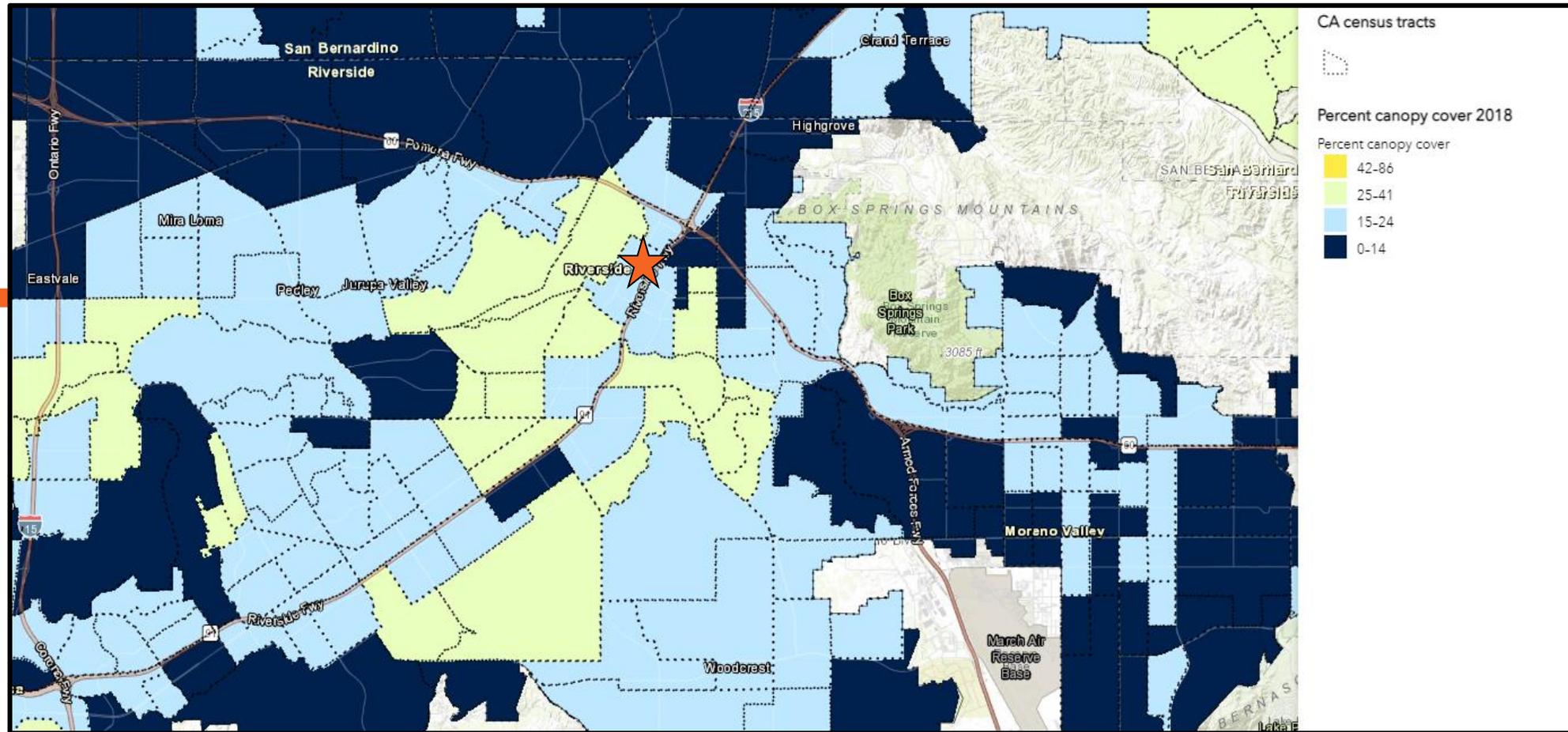


CalEnviroScreen 3.0 and Environmental Effects



Via: CalEnviroScreen 3.0

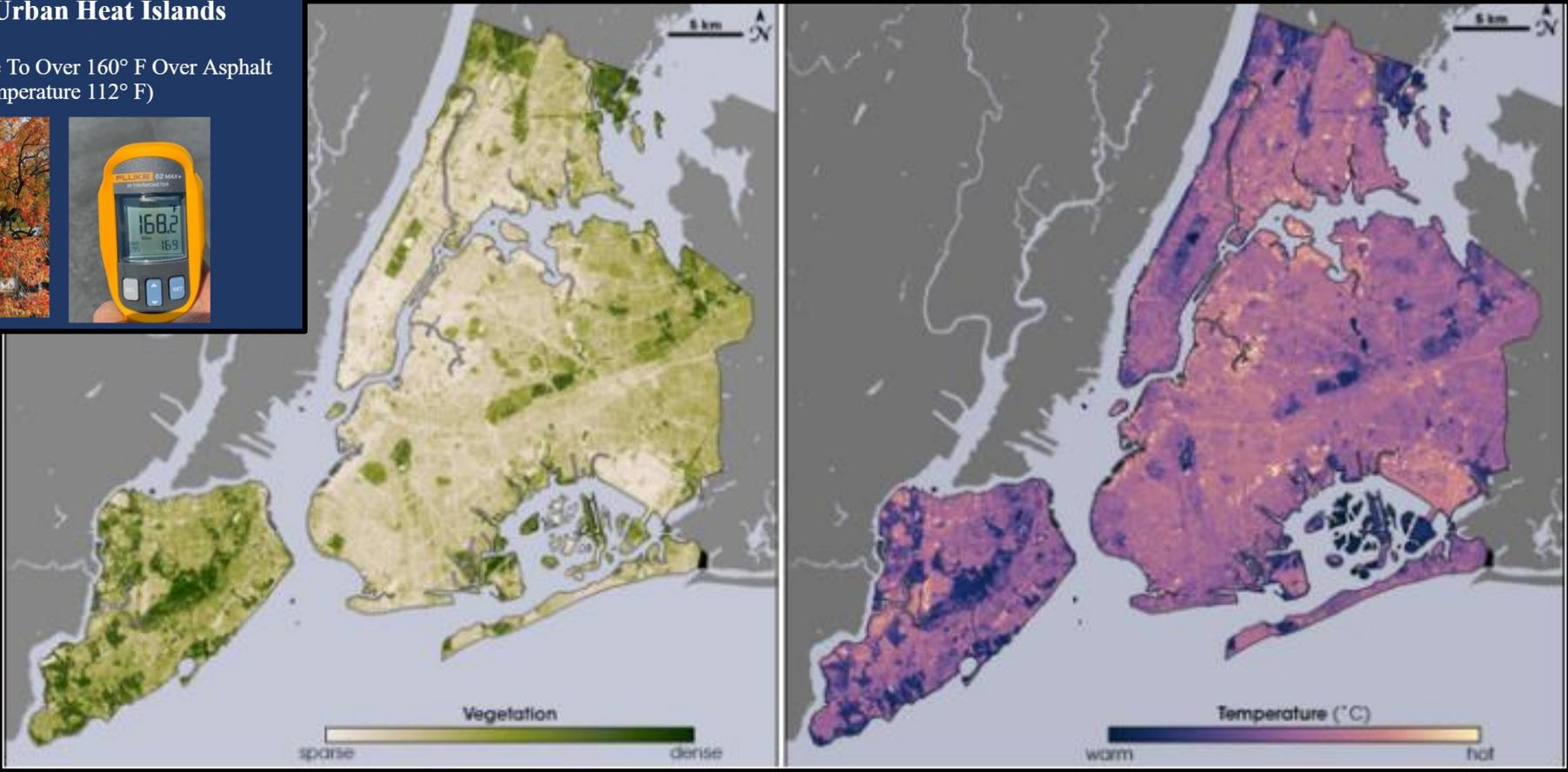
Inland Canopy Cover



Via: US Forest Service

Urban Heat Island Effect

Shade Cools Urban Heat Islands
(Range: 95 °F in Shade To Over 160° F Over Asphalt w/Air Temperature 112° F)



Via: (a) Janet Hartin, UCANR
(b) NASA > Robert Simmon, using data from the Landsat Program

North Redlands Tree Canopy Project

Stewardship Community Education



Project Overview



Project Start:

Feb 2021

Outcomes from last cohort:

- 13 Participating Households
- 2 Park Planting Events
- Total of 84 trees planted
- Varied educational outreach: K-12 content, Arbor Day Talk, Tree Care Workshop

Next steps:

- Project continuation with outreach to neighboring San Bernardino and Highland community groups.
-

Residential Outreach

Residential Stewards

- Free tree w/ installation
- Essentially free project advertisement
- Provides tangible agency

UC Master Gardener Mentors

- Pairing participants w/ UCMG that can provide assistance concerning tree maintenance



Community Climate Action



Redlands Sport Park

- Provided 53 shade trees for a community sports park in North Redlands
- Opened the door for other park plantings around the city

Collab w/ University of Redlands - Treestock

- U of Redlands Climate Action Fellows hosted a free tree sapling drive-thru event
-

Environmental Education

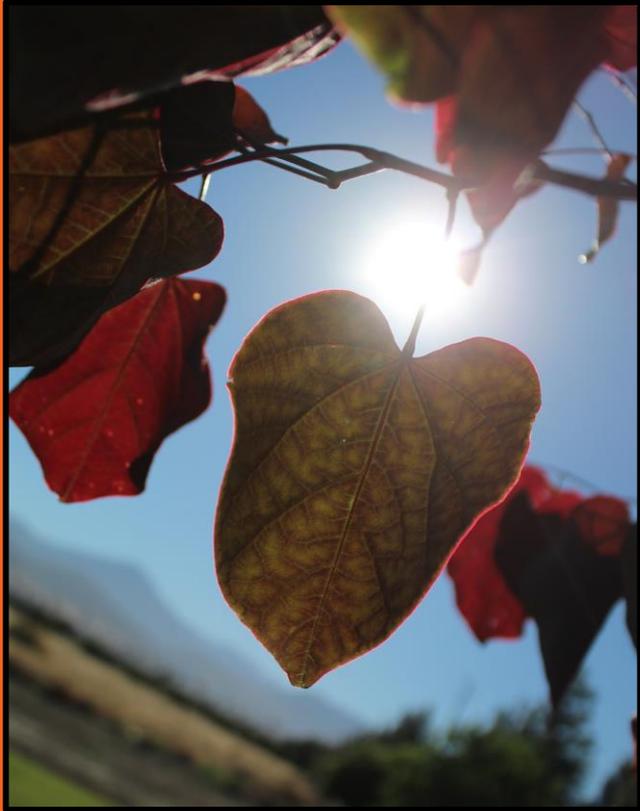


K - 12 Educational Content

- Geared at preparing youth for environmental stewardship in their own communities

Tree Care Workshops

- While 1st cohort could only host one workshop, plans for a quarterly tree care workshop w/ experts (i.e. UCMG, City officials, and other local experts)



Thank You!

“The greatest threat to our planet is the belief that someone else will save it.” - Robert Swan

Please follow Inland Empire RCD on Facebook, Instagram, and Youtube to stay up to date on our projects and programming!

Instagram: @inlandempirercd ••• iercd.org



Project Overview: Urban Canopy Increase in North Redlands, West Highland, and San Bernardino



**CALIFORNIA CLIMATE
ACTION CORPS**



**UC
ANR**



CALIFORNIA CLIMATE ACTION CORPS

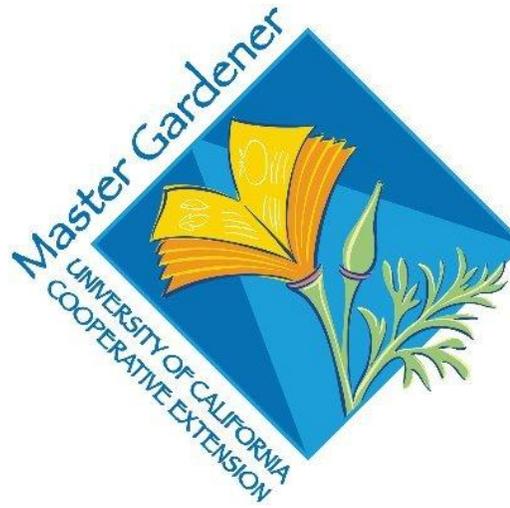
- In September 2020, Governor Gavin Newsom launched the California Climate Action Corps, the country's first statewide corps of its kind with the mission of empowering Californians to take meaningful action to protect their homes, health, and communities against the harshest impacts of climate change.
- Corps Fellows are matched with host sites in five cities in California. In Redlands, the Inland Empire Resource Conservation District (IERCD) is hosting two Fellows working to increase urban canopy in the Inland Empire, focused on communities with low tree cover and designated as disadvantaged.



INLAND EMPIRE
RESOURCE CONSERVATION DISTRICT



Program Trees being distributed and planted in the Inland Empire are from UC Ag and Natural Resources' Climate-Ready Trees List, based on UCANR concept for urban canopy expansion as a remedy for impacts from climate change



UCCE Master Gardeners are providing technical planning and ongoing support for healthy, sustainable growth of trees for long-term climate benefits

PROVIDED BY THE INLAND EMPIRE RESOURCE CONSERVATION DISTRICT & CALIFORNIA CLIMATE ACTION CORPS
TREE CANOPY PROJECT AVAILABLE TREES

FRUIT TREES MAY BE SUBJECT TO AVAILABILITY



| | |
|---|---|
| Name (Common/Botanical): Nombre (Familiar/Científico): | Red Bush Pistache Hybrid between <i>P. atlantica</i> x <i>P. integerrima</i> |
| Max canopy: Cobertura máxima: | H: 25-40ft W: 20-40ft |
| Recommended usage: Uso Recomendado: | Street tree, park tree, screen Calle, Parque/Campo, Particion |
| Leaf type: Tipo de Hojas: | Deciduous Caduco |



| | |
|---|--|
| Name (Common/Botanical): Nombre (Familiar/Científico): | Desert Willow "Bubba" <i>Chilopsis linearis</i> |
| Max canopy: Cobertura máxima: | H: 15-20ft W: 10-15ft |
| Recommended usage: Uso Recomendado: | Screen Particion |
| Leaf type: Tipo de Hojas: | Deciduous Caduco |



| | |
|---|---|
| Name (Common/Botanical): Nombre (Familiar/Científico): | Netleaf Hackberry <i>Celtis reticulata</i> |
| Max canopy: Cobertura máxima: | H: 25-40ft W: 15-30ft |
| Recommended usage: Uso Recomendado: | Shade Sombra |
| Leaf type: Tipo de Hojas: | Deciduous Caduco |



PROVIDED BY THE INLAND EMPIRE RESOURCE CONSERVATION DISTRICT & CALIFORNIA CLIMATE ACTION CORPS
TREE CANOPY PROJECT AVAILABLE TREES

FRUIT TREES MAY BE SUBJECT TO AVAILABILITY



| | |
|---|---|
| Name (Common/Botanical): Nombre (Familiar/Científico): | "Eva's Pride" Peach Durazno "Eva's Pride" |
| Max canopy: Cobertura máxima: | H: 12 - 15 ft W: 10 - 12 ft |
| Recommended usage: Uso Recomendado: | Specimen, Shade, Fruit Pasatiempo de Jardinero, Sombra, Fruta |
| Leaf type: Tipo de Hojas: | Deciduous Caduco |



| | |
|---|---|
| Name (Common/Botanical): Nombre (Familiar/Científico): | "Dorsett Golden" Apple Manzana "Dorsett Golden" |
| Max canopy: Cobertura máxima: | H: 12 - 15 ft W: 10 - 12 ft |
| Recommended usage: Uso Recomendado: | Specimen, Shade, Fruit Pasatiempo de Jardinero, Sombra, Fruta |
| Leaf type: Tipo de Hojas: | Deciduous Caduco |



| | |
|---|---|
| Name (Common/Botanical): Nombre (Familiar/Científico): | "Spice Zee" Necta-Plum |
| Max canopy: Cobertura máxima: | H: 12 - 15 ft W: 10 - 12 ft |
| Recommended usage: Uso Recomendado: | Specimen, Shade, Fruit Pasatiempo de Jardinero, Sombra, Fruta |
| Leaf type: Tipo de Hojas: | Deciduous Caduco |



2021-22 Urban Greening Project Work

- IERCD, Climate Action Corps, and our community partners came up with a plan to give away free climate-appropriate shade and fruit trees.
- In the current program year, there is a goal to give away and plant 400 trees throughout North Redlands, Highland, and San Bernardino.
- The program's first event was done in conjunction with San Bernardino-based Music Changing Lives where 36 trees were planted on-site and another 60 given away to interested community members.



Why Trees?

- Trees have many environmental benefits such as combating Urban Heat Island Effect, limiting air pollution by taking in CO₂ and other particulate matter like emissions from factories and vehicles. Trees also help limit storm water runoff which helps keep water supplies less polluted
- Trees have other benefits too like: lowering electricity bills especially in the summer, increase property value, areas with higher tree coverage tend to have lower cardiovascular disease, shade from trees can increase protection from UV-B exposure (skin cancer), and trees can provide food

San Bernardino County Master Gardeners



- ▶ Part of Agriculture and Natural Resources Division (UCANR)
- ▶ Trained volunteers educating the public by sharing peer reviewed scientific research done by University of California and other universities on a wide variety of topics including growing food, sustainable landscaping and better living through gardening





Other UCCE* Programs in San Bernardino County

Master Food Preservers

Expanded Food and Nutrition Education Program (EFNEP)

4 H youth development

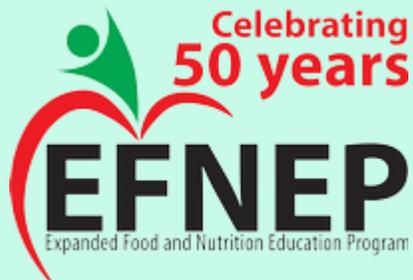
Academic Advisors (Natural Resources, Horticulture, Dairy, Urban Ag and more!)

*UCCE: University of California Cooperative Extension also commonly known as "Cooperative Extension"



UNIVERSITY OF CALIFORNIA Agriculture and Natural Resources

UC Master Food Preserver Program

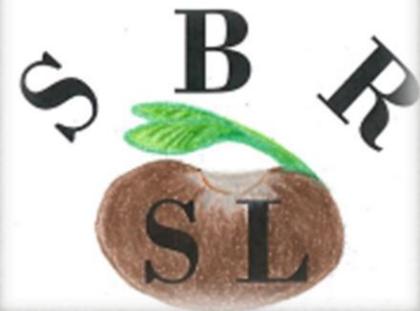


San Bernardino Regional Seed Library (SBRSL)

Share: our seed library shares community and store donated seeds to the public at various locations and information tables around the county

Check us out for free seeds and to ask seed and gardening questions: Highland Library 2nd Sat of each month from 11am to 1pm

Free Classes online and in person: Check out our free monthly seed saving classes online on our website! For in person classes check our website! If you would like us to teach classes for your organization, please email our helpline at mgsanbern@ucanr.edu



Tonight's topics:

- Fruit tree basics and vocab to know
- 10 tips for fruit tree success
- How Master Gardeners are here to support



Deciduous Fruit Trees: care for in similar ways

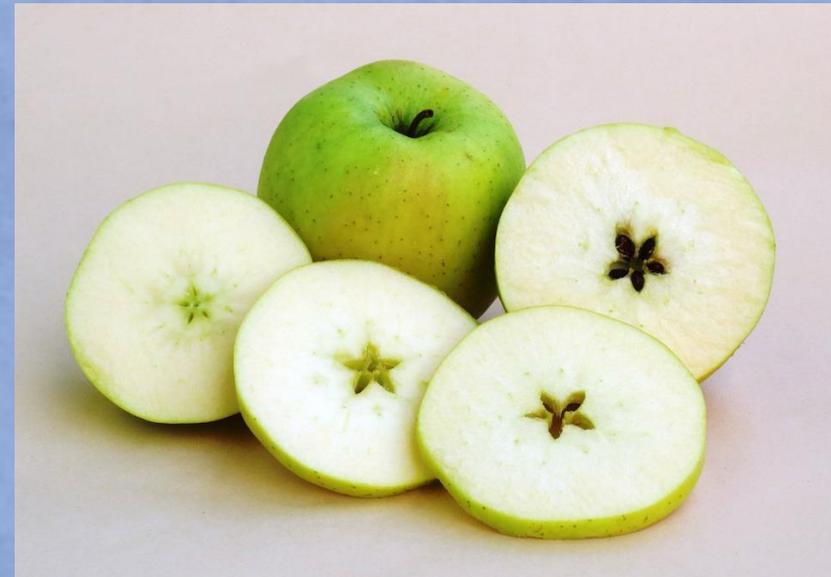
Stone Fruit

- Have pit ("stone")
- Peach, nectarines, apricots



Pome Fruit

- Generally, have star pattern to seeds, no pit
- Apples, pears, quince



Characteristics of these trees

- Need “Chill Hours” to produce good fruit crop
- Are deciduous/lose leaves in the winter
- Are sold in pots or as “bare root”
- Need shaping a pruning for good growth



“Subtropicals”

- Citrus & Avocados
- Do not need chill hours, cold weather can cause damage
- Not available as “bare root”, only sold in pots
- Do not go dormant, not deciduous



Chilling Requirement

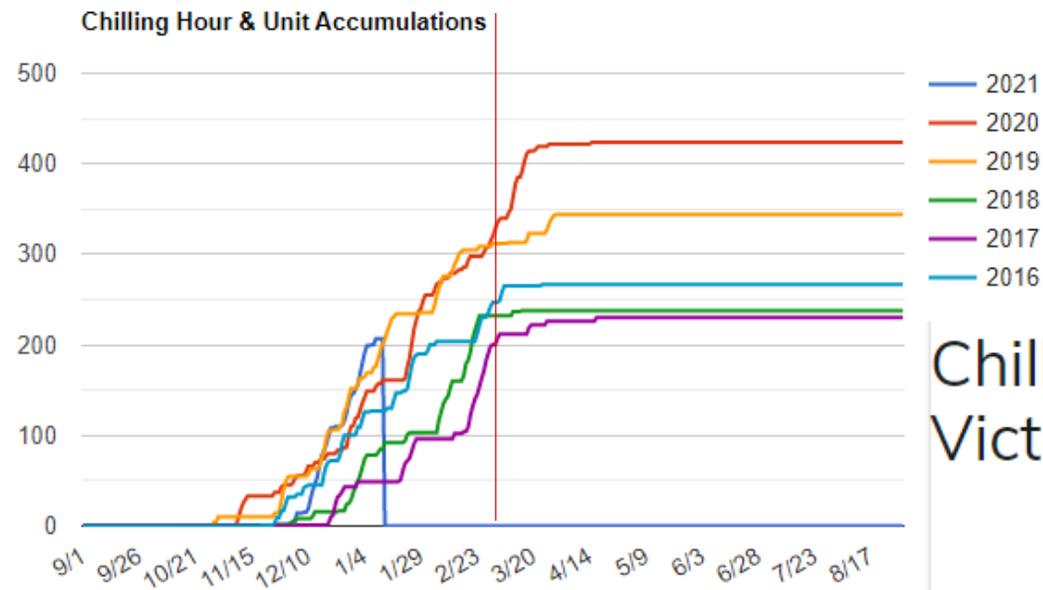
The number of hours below 45°F required by a fruit species or variety between November 1 and February 15

Lack of chilling causes:

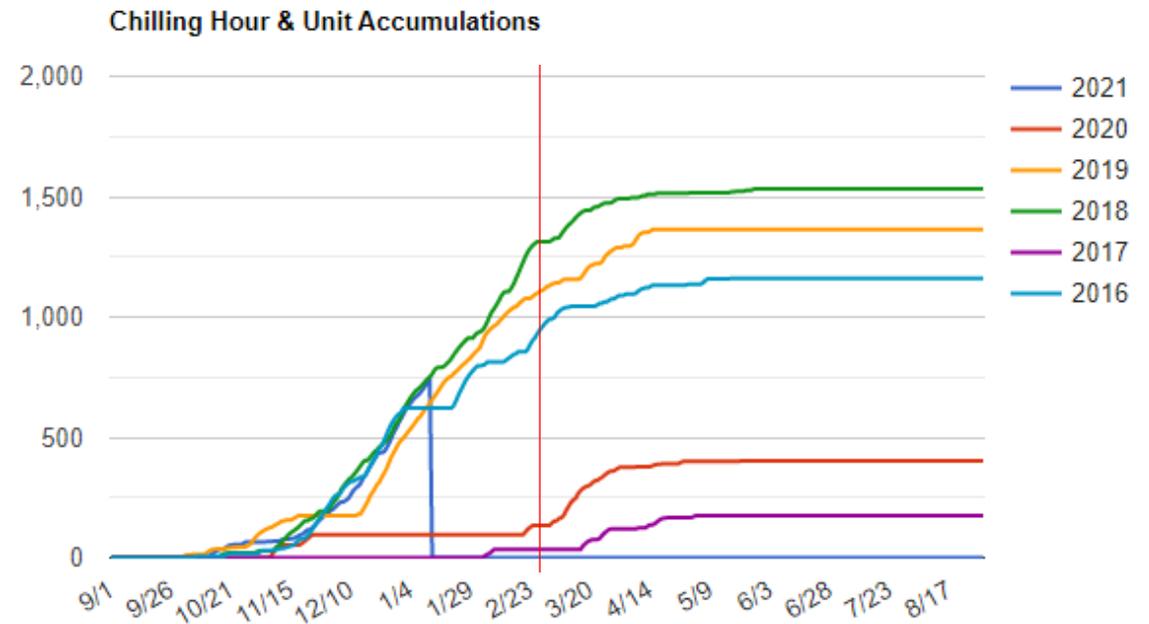
Death of buds, extended bloom, and poor fruit set

Extended bloom increases time pathogens may enter flowers

Chilling Hour & Unit Accumulations - Station #44 U.C. Riverside - Sep 1 2021 - Aug 31 2022



Chilling Hour & Unit Accumulations - Station #117 Victorville - Sep 1 2021 - Aug 31 2022



Chilling Hour Requirements

(Some newer varieties have lower requirements)

| | |
|-------------------|----------|
| Almond | 250-500 |
| Apple* | 500-1000 |
| Apple (low chill) | 400-600 |
| Apricot* | 300-800 |
| Cherry, sweet | 700-800 |
| Fig | 100 |
| Peach/nectarine | 500-800 |
| Pear* | 700-800 |

| | |
|----------------|---------|
| Pear (Asian) | 350-450 |
| Pecan | 250 |
| Persimmon | 100-200 |
| Pistachio | 800 |
| Plum, European | 600-800 |
| Plum, Japanese | 700-800 |
| Pomegranate | 100-150 |
| Walnut | 500-700 |

The two biggest problems growing deciduous fruit trees in the Inland Empire are:

- Planting the wrong variety that requires more chill hours than available
- Not having adequate pollination

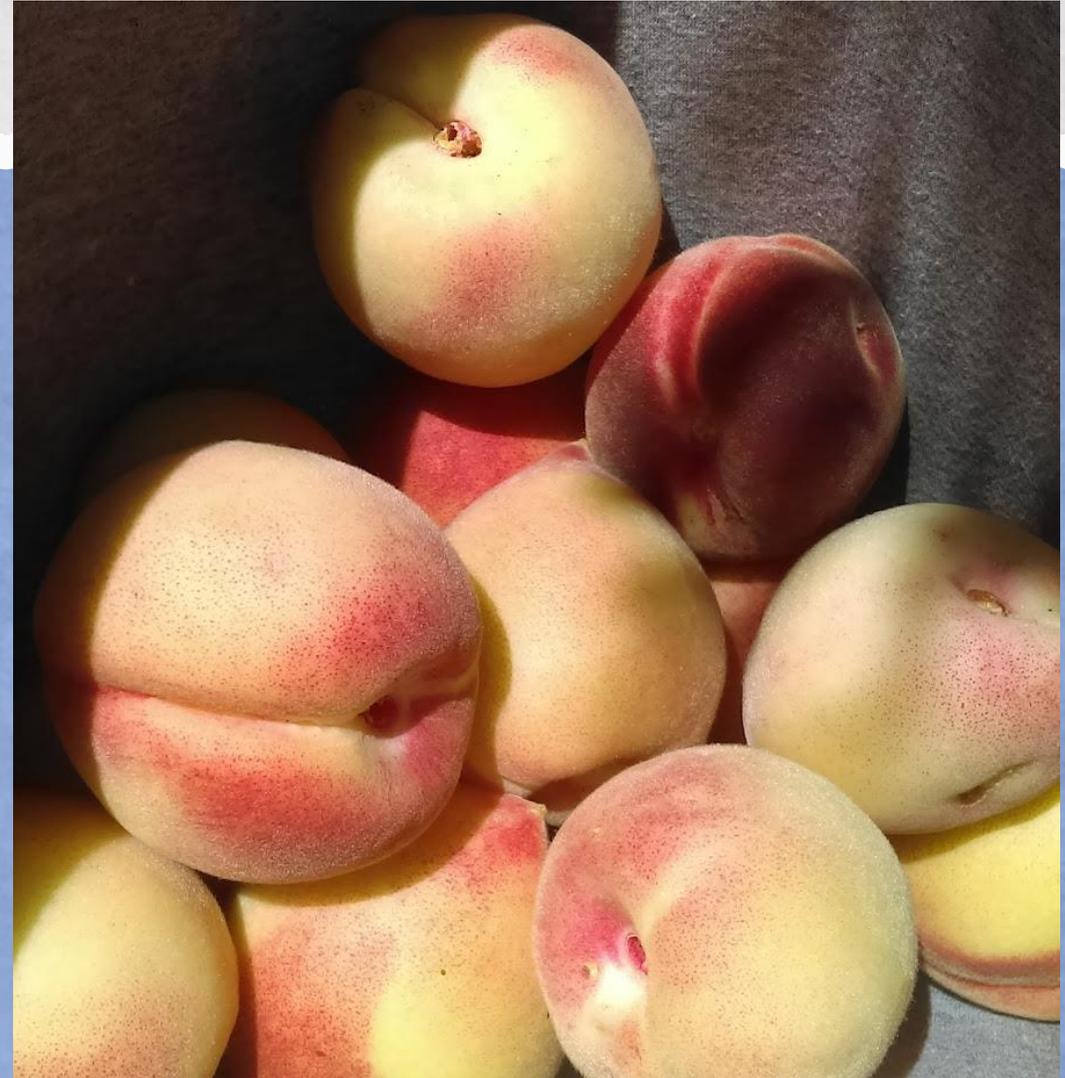
Pollination

- Polle(i)nize: To supply with pollen
- Pollinate: To convey pollen to a stigma and so allow fertilization
- Polle(i)nizer: Another variety planted or grafted nearby to provide pollen (and fruit)
- Pollinator: An insect that pollenizes



Pollination and Fruitfulness

- Self-fruitful = The pollen from one flower will pollinate the pistil of the same flower
 - A nearby pollinizer may still enhance pollination
 - Apricot, peach, nectarine, pomegranate
 - Cherry: Lapins & Stella, Apple: several
- Partially self-fruitful = Will set some fruit, but set far more with pollinizer
 - Many pome fruit, plum, & plum hybrid varieties



Pollination and Fruitfulness

- Self-unfruitful / Self-sterile: Use another variety
 - Many pome fruit, cherry, plum (& hybrid) varieties
 - The closer the better for pollinizer
 - Bloom timing must overlap (they often don't, so more than one pollinizer variety is best)
 - 50 ft. – Stark Bros., Chuck
 - 75-100 ft. – The New Fruit Grower
 - 100 ft. – UC Calif. Backyard Orchard, Amherst Nurseries, sfgate.com, Lowes
 - 100-200 ft. – Purdue Univ.



A decorative wreath of various fruits and greenery is arranged on a light-colored gravel surface. The wreath includes several oranges, some of which are partially eaten, a large red pomegranate, several green lemons or limes, and a few red apples. The fruits are interspersed with greenery, including sprigs of lavender, rosemary, and holly leaves with red berries. The entire arrangement is set against a background of light-colored gravel.

10 Tips for Fruit Tree Care

1. Plant the right variety for your area

- Select a tree that will get enough chill hours for your area
- Make sure you have enough pollinators/Pollinizers
- Make sure tree has enough room to grow
- Dwarf trees stay smaller and produce lots of fruit (can also prune trees to keep them smaller)
- Check your soil to make sure it's well draining (hole should drain within 8 hours)

2. Planting tips

- Dig hole twice as wide and as deep as soil in pot
- Do not add any amendments to soil, plant in “native soil”
- Do not plant tree too deep, keep at same depth as in pot
- Can face “dog leg”/graft union to the north to prevent sunburn

Planting a Bare Root Tree



Dig hole ↑
to fit roots



Lightly
tamp soil

Emitters
1 ft. away



Planting a Containerized Tree



Pull out
wound roots



Don't cover
soil in pot



Water in

3. Watering tips

- Water in well when planting
- For first few weeks of establishment don't let dry out too much
- After tree has been in ground for few weeks allow to dry between watering*
- Young trees need more water/more often than older trees
- Check soil before watering, avoid overwatering
- Cut back water in winter, but still needs some water (usually rain is enough but might need to do some extra watering)

4. Fertilizing tips

- Fertilize trees in Spring when they “break dormancy”
- Do not fertilize in fall before dormancy
- Use an all-purpose fertilizer* (10-10-10/16-16-16)
- Citrus can be fertilized in spring and fall (does not go dormant)
- Band fertilizer around base of tree at “Drip Line”
- Can fertilize after harvest of crop in summer
 - Do not do this in drought year
 - Optional

What to Fertilize

- Feeding your Garden



NITROGEN (N), PHOSPHORUS (P) AND POTASSIUM (K)

5. Pruning Tips

- Prune stone/pome fruit in winter when dormant (except Apricots and Cherries, prune those in August)
- Prune young trees in the winter to build “scaffold” branches to hold weight of fruit
- Prune in summer to bring down height if needed
- Pruning technique depends on tree type (central leader vs open center)
- General rules: Prune out dead, diseased and crossing branches
- Citrus is pruned differently, not every year)

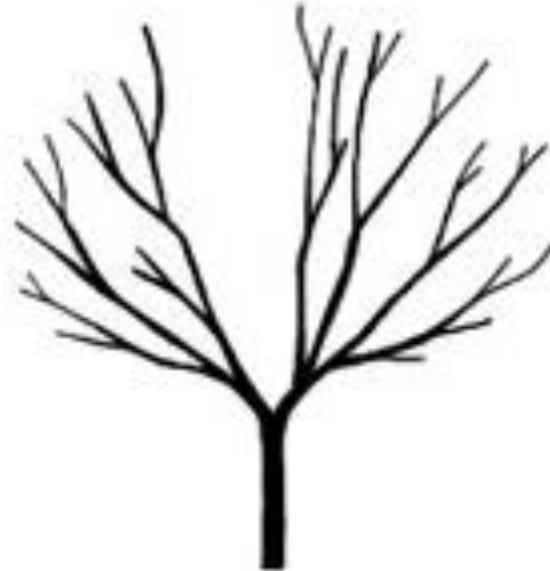
Modified Central Leader



Central leader



Modified
central leader



Open center or
vase shape

6. Pest management tips

- Treat for pests when you first see them
- Keep ants out of trees
- Keep branches off ground to reduce disease and pest problems
- Use least toxic methods for pests (see UC IPM page)



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

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ON THIS SITE

- What is IPM?
- Home & landscape pests
- Agricultural pests
- Natural environment pests
- Exotic & invasive pests
- Weed gallery
- Natural enemies gallery
- Weather, models & degree-days
- Pesticide information
- Research
- Publications

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 pets

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 grapevines

QUICK LINKS

- Pest Notes library
- Quick Tips library
- Video library
- Pests in the Urban Landscape Blog
- Seasonal Landscape IPM Checklist
- Plant Problem Diagnostic Tool
- Wildlife Pest Identification Tool

7. Weeding tips

- Keep weeds down to reduce pests
- Weeds take nutrients and water from trees
- Mulch is great to keep weeds down



8. Mulching tips

- Use 2" to 3" of mulch around tree
- Do not mulch up to trunk of tree
- Replace mulch as needed
- Do not dig mulch into soil (most fruit tree roots are very shallow, some in the top 2" of soil)
- Keeps weeds down
- Keeps water in (avoid overwatering with mulch, check soil below mulch before watering)
- Keeps roots cool



9. Pollinators/Pollinizers?

- Is your tree self fruitful? Still needs pollinators
- Does it need a pollinizer?
- Do you have pollinators in your yard or neighborhood
- Encourage pollinators by:
 - using least toxic pest control methods
 - Planting pollinator plants in yard



10. Check your trees!

- Time spent with your trees is just as good for you as the tree
- Just like us, finding pests, diseases and problems early makes them easier to treat
- Observe your trees (the shape, how they fruit, what works what doesn't)



You have your tree/s...what's next



Make sure to get them planted as soon as possible this spring



Check the soil before you water



Email or Call the Master Gardener Helpline if you see problems before it's too late!



Enjoy your time outside with your trees!!



Take photos and send them over!

How Master Gardeners are here to help!

- Master Gardener Helpline (Phone and Email, English and Spanish)
- Attend our online classes (English and Spanish)
- Check out our Ask a Master Gardener time
 - In person, 2nd Sat Highland Library 11 to 1pm
 - Online, 2nd Sun 11 to 1pm See website for more info!
- Check out our upcoming workshops in April, July and September to learn more about caring for your tree in that season
- Check out our “coffee/cocktail” hour all about trees!

Join us anytime!

- Apr 7, 2022 06:00 PM
- Apr 21, 2022 06:00 PM
- May 5, 2022 06:00 PM
- May 19, 2022 06:00 PM
- Jun 2, 2022 06:00 PM
- Jun 16, 2022 06:00 PM
- **15 min presentation on trees or fruit preservation**
- **45 min for Q & A**
- **Open to drop in or stay and chat**
- **English and Spanish**





Website for classes and more:
<http://mgsb.ucanr.edu/>
Follow us on Facebook, Twitter and
Instagram
@MGPSanBern
Sign up for our newsletter on our
website:





Contact our Master Gardener
Helpline at:
By phone: (909) 387-2182
By email: mgsanbern@ucanr.edu



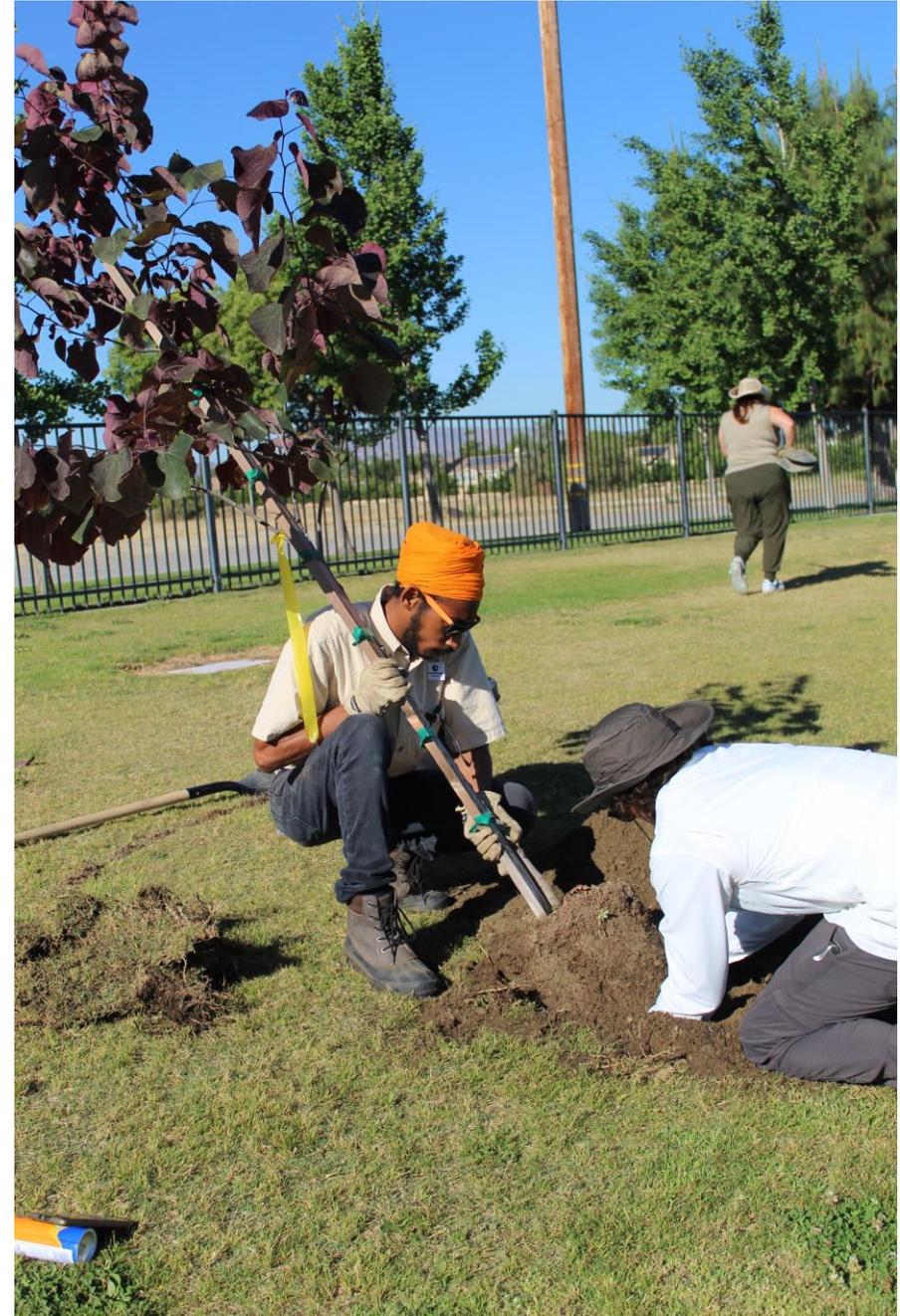
Thank you for Coming! Questions?

Want a Free Tree?

- Visit our website and fill out the survey. When you navigate, a pop up will ask if you want to sign up. Click “Lets Go” and fill out the information:

www.iercd.org/climate-corps

- Follow our Instagram to keep up with upcoming Tree Give-Aways
[@inlandempirercd](https://www.instagram.com/inlandempirercd)



Want a Free Tree? You can attend one of our upcoming events!

- **Saturday, 3/26:** Cesar Chavez Resources Fair, Redlands Community Center
- **Sunday, 3/27:** MCL March Soulful Sunday Event
- **Saturday, 4/2:** James C. Ramos Food and Resources Drive-Thru
- **Saturday, 4/23:** Akoma Center Earth Day, Anne Shirrells Park, San Bernardino

ASSEMBLYMEMBER
James C. Ramos
DISTRICT 40

FOOD & RESOURCES DRIVE-THRU

Saturday April 2nd
10 A.M. - 1 P.M.

SANDALS CHURCH SAN BERNARDINO
3701 N. SIERRA WAY
SAN BERNARDINO, CA 92405

ENTER ON SIERRA WAY

Food boxes and resources will be first-come,
first-served, while supplies last.

Helping People. Changing Lives.
Community Action
PARTNERSHIP
AMERICA'S POVERTY FIGHTING NETWORK
Community Action Partnership
of San Bernardino County

**SANDALS
CHURCH**
SAN BERNARDINO

M&L
MUSIC CHANGING LIVES

INLAND
EMPIRE
RESOURCE
CONSERVATION DISTRICT

Workshop Questions and Answers





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magoneill@ucanr.edu



SB County MG Info:
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Thank You!

Questions?

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