

**We will  
start  
our  
meeting  
at 6:05  
pm.**

## INTERPRET THE FOLLOWING:

1 SAND	2 MAN BOARD	3 STAND I	4 READING
5 WEAR LONG	6 R ROADS A D S	7 ↓ T O W N	8 CYCLE CYCLE CYCLE
9 LE VEL	10 O M.D. P.H.D. B.S.	11 KNEE LIGHTS	12 III I OO
13 CHAIR	14 DICE DICE	15 H C O T ↓	16 GROUND FEET FEET FEET FEET FEET
17 MIND MATTER	18 HE'S/HIMSELF	19 ECNALG	20 DEATH/LIFE
21 G.I. C C C C C C C	22 PROGRAM	23 RECYCLED	24 YOU JUST ME

# Humboldt & Del Norte

## August 2020

Meeting will be recorded and made  
available upon request



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# COVID-19 Updates

- State Conference has been postponed.

## REMINDER

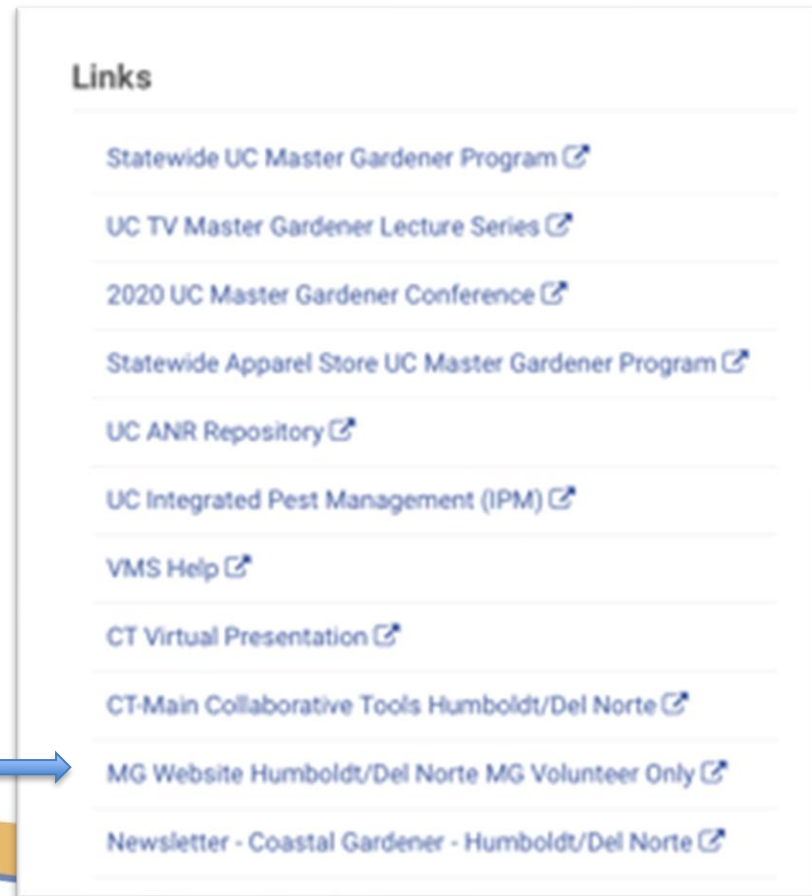
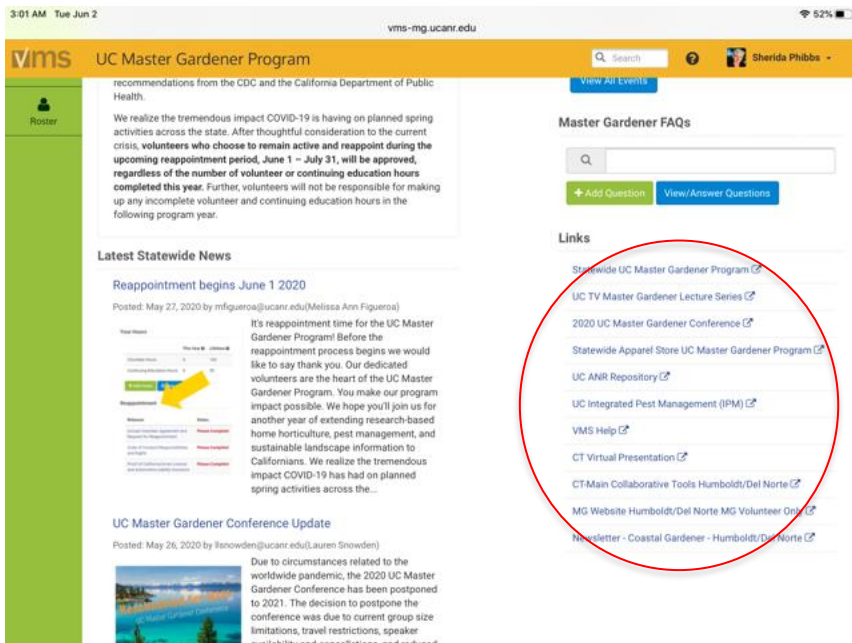
**ALL In-person activities** require pre-approval from County Director, Yana. This is a UCANR State Office directive. Submit your activity(s) using [the My form](#). Approval must be obtained in order to volunteer as a MG and log hours for service and CE.

- COVID-19 training is **required** for all UCANR volunteers – upcoming time and date to be announced. – Awaiting more info from Yana



# UCANR COVID-19 Documents

- Access through VMS home page – click on MG Website Humboldt/Del Norte MG Volunteer Only



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# UCANR COVID-19 Documents

- Stay updated with current protocols. Find these on our MG website within the Volunteer only pages.
  - Access directly on website to Volunteer only Pages this requires signing in with your sign-in and password (same as your VMS sign-in and password)



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# UCANR COVID-19 Documents

- Once in the Volunteer only section, from the left side navigation panel select COVID Updates and Protocols
- Make sure to read COVID-19 Phase 2 Information for UCANR Programs & Volunteers
- Earn CE hours and read documents on this page

***Remember, you must receive an approval from Yana for all in-person activities before engagement.***



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# HSU Presentations

## Live Presentations – L4HSU

- 55 - 6/25 Vegetable Garden Basics
- 27 - 7/07 Heather Growing Basics
- 11 - 7/14 Designing with Heaths and Heathers
- 22 - 7/16 IPM
- 50 - 7/21 Success with Houseplants
- 137 - 7/23 Wildfires

302 Total

## Recorded Virtual Classes

- 18
- 8
- 3
- 4
- 12
- 26

71 Total thru 8/4/20

Do you have a subject you would like to speak on?  
Sept, Oct, Nov, Dec can be recorded or live

Earn 1 hour of CE - Virtual recorded classes – access on our website.



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# Treasury Report Thru 6/30/2020

## Appropriations:

2/1/20 Beginning Balance	\$ 30.00
Donations	172.14
Big Dig Day Fundraising (net of fees)	<u>794.10</u>

Total Funds Received \$996.39

## Program Expenses:

Awards Gold/Platinum Badges	<u>-22.85</u>
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Total Expenditures -22.85

**Cash Fund Balance \$961.39**

Receiving July from UCANR \$250.00 Award for Big Dig Day

**Who would like to volunteer to be the treasurer?**



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# CE – Steps to Diagnosing Plant Problems

## Today's Objectives

1. Identify the plant, common and scientific name
2. Define it's cultural needs
3. Define known likely pest problems
4. Define it's known problems with the information currently at hand
5. With the information known – could this be a biotic problem?
  1. What probable insect or disease problem
  2. What additional questions should we ask to help with diagnosis of this biotic problem
6. With the information known – what are the possible abiotic problems?
  1. What possible environmental problem
  2. What additional questions should we ask to help with diagnoses of abiotic problems?
7. What science-based answers based on the list of possible diagnoses?
8. What resources would you provide to the client?



# Query #1 – Smoke Tree

I have always loved the look of the smoke tree when it is in bloom, and was thrilled when I inherited a plant in a pot from a friend who moved away. It was not doing very well in the pot, so I planted it in a sunny location in my front lawn. It loved its new home and grew vigorously in its first year and was filled with smoky blooms. Passers-by would comment on its unique appearance. This spring, I noticed that there were no blooms on the tree, and when I looked closely, I could see that the new leaf growth was stunted and shriveled, almost like it had been scorched. The older leaves are fine. What happened to my tree? (April 15)



# Steps in Diagnosing

## 1. Identify the plant

- Failure to do so can make an accurate diagnosis difficult
- Know the common and scientific name
- What plant are we diagnosing?

Smoke Plant – *Cotinus Anacardiaceae C. coggygria*

Sunset Zones 2-24 Full sun Moderate Water

Source - Page 267 Sunset Western Garden Book (2017)



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# USDA Cold Hardiness Zones

## Del Norte

Ranges 8a far inland and moves to 9b on the coast



## Humboldt

Ranges 8a far inland and moves to 9b on the coast



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# Sunset Zones in Humboldt and Del Norte Counties



Image from Sunset Western  
Garden Book 2017 3<sup>rd</sup> Edition

Zone 1a –Mountains Humboldt and Del Norte

Zone 4 – Transitional Humboldt

Zone 7 – Transitional Humboldt and Del Norte

Zone 14 – Interior Humboldt

Zone 15 - Coastal Humboldt

Zone 17 – Maritime Humboldt and Del Norte

***Locate your zone by referring to:***

Sunset Zone Map on our Website

and “The New Sunset Western Garden Book”



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# Steps in Diagnosing

## 2. What are the cultural needs?

- Easily grown in average, medium moisture, well drained, full sun
- Tolerate range of soil except poorly drained soil
- Prefers somewhat infertile loams
- Will perform well in poor rocky soil
- Plants have shallow fibrous root system
- For bloom – prune lightly in early spring only if needed
- Prefers slightly alkaline or neutral pH

Source - Fact Sheet –Missouri Botanical Garden – *Cotinus coggygia*

<http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=c390>



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# Steps in Diagnosing

## 3. What are the typical pest problems for this plant?

- Usually no serious or disease problems however, some susceptibility to:
  - Leaf spot
  - Rust
  - Verticillium wilt

Source - Fact Sheet –Missouri Botanical Garden – *Cotinus coggygria*

<http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=c390>



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# Steps in Diagnosing

## 4. Define the problem

- What is abnormal?
- Which part of the plant is affected?
- Are few or many plants affected?
- Are symptoms on one or several species?
- *Keep an open mind and avoid snap conclusions*



# Possible Biotic Disorders

## 5. Verticillium Wilt

- Purdue Extension – Verticillium Wilt of Shade Trees  
[https://www.uaex.edu/environment-nature/forestry/health/BP\\_6\\_W.pdf](https://www.uaex.edu/environment-nature/forestry/health/BP_6_W.pdf)
- UC IPM <http://ipm.ucanr.edu/PMG/GARDEN/PLANTS/DISEASES/vertwilt.html>
  - What do we know about this?
    - Soilborne fungus *Verticillium dahliae*
    - Infects plants through the roots and plugs the water conducting tissues
  - What are the symptoms for this type of tree?
    - Leaves turn yellow at the margins, then brown and dry
    - Sudden wilting of leaves on one or several branches
    - Often only one side of the tree shows symptoms
    - The wood under the bark of the wilted branches is discolored in streaks



## Verticillium wilt resistant woody plants

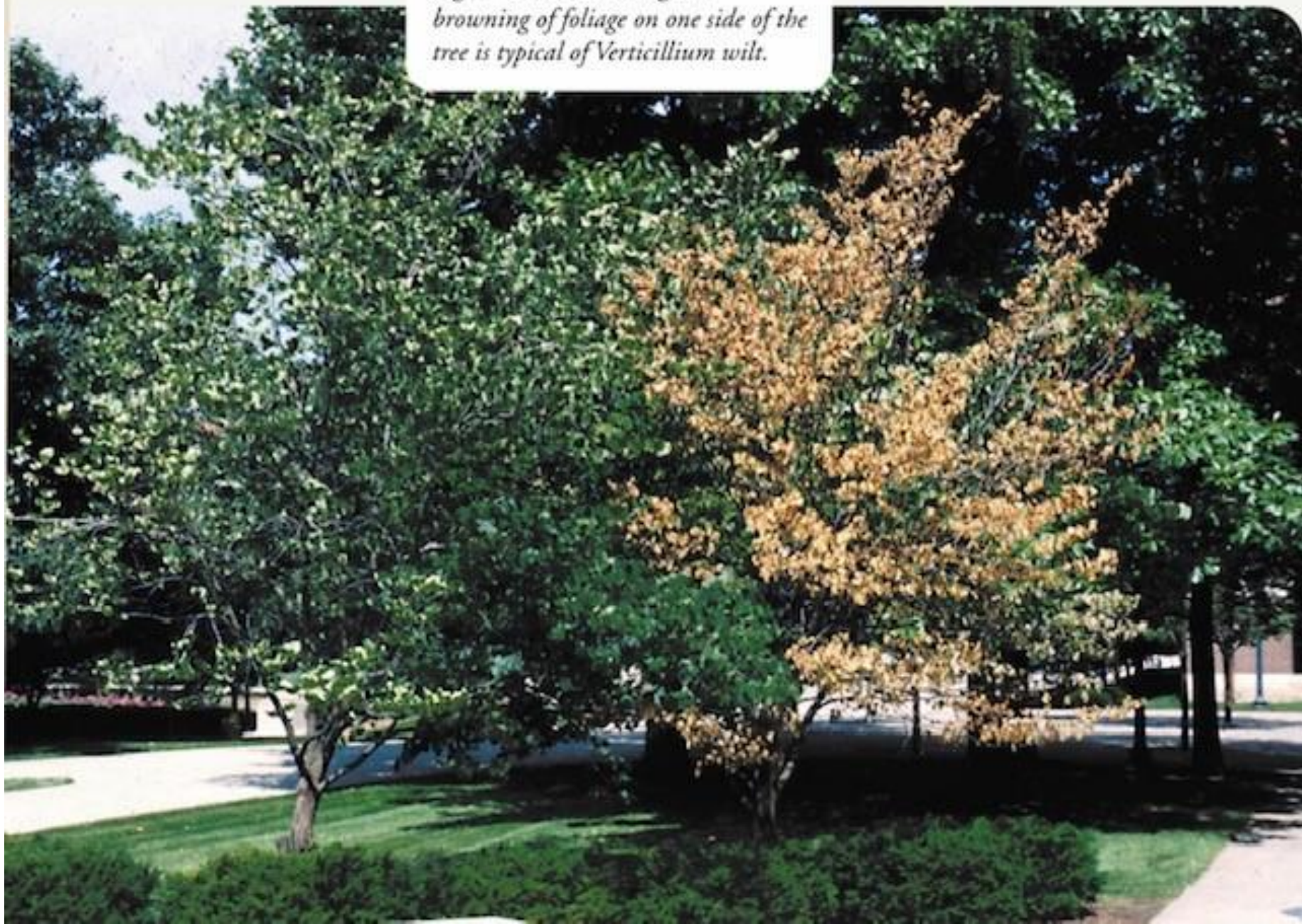
Apple	Holly	Pear
Beech	Honey locust	Poplar
Birch	Hornbeam	Pine
Crabapple	Juniper	Rhododendron
Dogwood	Katsura tree	Spruce
Fir	Larch	Sweet gum
Firethorn	Linden	Sycamore
Ginkgo	Mountain ash	Walnut
Hackberry	Mulberry	Willow
Hawthorn	Oak	Yew
Hickory	Pawpaw	Zelkova

## Verticillium wilt susceptible woody plants

Ash	Elm	Rose
Azalea	Golden rain tree	Russian olive
Barberry	Honeysuckle	Sassafras
Boxwood	Horse chestnut	Serviceberry
Brambles	Japanese pagoda tree	Smoke tree
Buckeye	Lilac	Sumac
Black gum	Kentucky coffee tree	Tree-of-heaven
Black locust	Magnolia	Tulip tree
Box elder	Maple	Tupelo
Catalpa	Osage orange	Viburnum
Cherry & other Prunus	Persimmon	Weigela
Cork tree	Privet	Yellow wood
Currant	Redbud	



*Fig. 1 - Sudden wilting and browning of foliage on one side of the tree is typical of Verticillium wilt.*



*Fig. 2 - Cross-sections of Redbud stems infected with verticillium show brown solid bands in individual wood rings.*



*Fig. 3 - Redbud trees infected with Verticillium will have chocolate-brown streaking in the sapwood.*



# Possible Biotic Disorders

- What questions can we ask to help identify if verticillium wilt is a possible diagnosis?
- Are there any other biotic disorders to consider at this time?



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# Possible Abiotic Disorders

## 6. Based on the information known at this time, what are the possible abiotic issues?

- Water stress - too little or too much
- Girdling or circling root ball from previously potted state
- Improper planting –
  - Too deep or below grade
  - Not root pruned if it was needed
  - Planted in lawn
- Poor drainage
- Sunburn
- Improper pruning – indicating no blooms
- Salt burn – over fertilizing
- Herbicide damage



# Possible Abiotic Disorders

What additional questions would you ask to determine an abiotic disorder?

- Is your tree being watered by sprinklers in your lawn or do you water the tree with a soaker hose or other slow watering method?
- How many hours of full sun exposure does it have?
- Did you notice if the root ball was dense and compacted or “root bound” when you planted it?
- How often and for how long do you water it?
- Did you prune it, and if so, when?
- Have you inspected the leaves closely? Did you see any rolled leaves or small insects?
- How quickly does your soil drain?
- Soil type, if known?
- Have you had any other trees or shrubs that seemed to shrivel after doing well?
- Can you send photos, both close up of where the trunk emerges from the ground, and a whole tree view?
- Have you fertilized the tree and if so what product and how much did you use?
- Have you fertilized your lawn or used a weed-and-feed product (fertilizer/broadleaf herbicide) on your lawn?
- How often have you used the weed-and-feed product on your lawn over the past year since you transplanted the tree from the pot to your front lawn?



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# Steps in Diagnosing

## 6. Provide solutions and options

- Diagnosis may consist of two or more likely but unconfirmed causes.
  - Offer potential solutions or treatment options for each possible cause.
  - Not every problem can be solved or cured.
- Effective solutions are available from a variety of reference materials
  - UC IPM
  - UC publications
  - Other land grant universities
  - Other reliable, unbiased science-based resources.
- Give client entire range of treatment or solution options as articulated in published or web-based UC guidelines or recommendations, then allow the client to decide which option is best for them to employ.

A MG diagnosis should always be presented to the client as “possible diagnosis” and **never** as a “definitive diagnosis”.



# Science Based Answers for the Possible Diagnosis

- Smoke Tree (*Cotinus coggygria*) is a unique appearing, low water tree that does well in all zones.
- Applicable facts: Susceptible to Verticillium Wilt Does not tolerate poor drainage
- Does well in poor or rocky soil
- Prefers slightly alkaline or neutral soil pH
- Resistant to Oak Root Fungus Oblique banded leaf roller may cause leaf damage, not severe (unknown if this pest is found here) Best to prune immediately after bloom to avoid eliminating next year's flowers Salt tolerance is moderate Potted trees may be affected by circling or girdling root masses which predisposes them to water stress, will not self correct when planted in ground Installing drip irrigation around drip line of tree is recommended



# Cultural and Mechanical Controls

What information do we share with the client?

- Remove lawn from soil for at least the diameter of the canopy, using mechanical method.
- Expose trunk flare if not visible by gently digging and removing soil.
- Mulch with 4 inches of mulch to within 6 inches of trunk, over entire root zone.
- late fall, replant in 12-18 inch raised berm if soil doesn't drain well; or relocate it.
- Provide water at least weekly over entire root zone for the first year if this is done, less often when established.
- It is best not to use weed-and-feed products if you have a tree in your lawn.
- Hand-weeding your lawn is the first recommendation to remove weeds from your lawn.
- Practice grass cycling to minimize need for lawn fertilizer.
- The Sunset Western Garden book recommendation for care of Cotinus: Plants are at the best under stress in poor or rocky soil. In cultivated gardens give them fast drainage and avoid overly wet conditions. This would suggest that planting in a "Lawn" would not be the best planting location for this plant



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# Chemical Controls

What information would you provide to the client?

- If your lawn is properly maintained, herbicides are generally not necessary.
- When herbicides are needed, use them as part of an integrated management program that includes good cultural maintenance practices.
- No single herbicide will control all lawn weeds.
- include a publication on “Weed Management in Lawns” to provide you with more information on maintaining a healthy lawn.



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# Final Probable Diagnosis

- Herbicide damage and/or fertilizer burn:
- From the information you have provided, I believe the lack of blooms, stunted and shriveled new leaf growth is due to the weed-and-feed product you have used on your lawn.
- Weed-and-feed, fertilizer and either preemergence or postemergence herbicides (or both), are for broadleaf weed control.
- Trees are in the broadleaf category and when weed-and-feed products are applied too close to the tree's drip line the roots can absorb these herbicides and cause injury to the tree.
- If the weed-and-feed product is overused, misused, used frequently or consistently, these herbicides can cause leaf discoloration, curling, or burning, branch dieback, and even kill your tree.



# Resources to Provide to Client

Provide any UC or land grant, or science based resources to support and help with care of plant and lawn.



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# Current Volunteer Opportunities

## Earn Volunteer Service Hours:

- In-person activities – *only after Yana approves the in-person activity*
- Pictures for Facebook sharing – email to Sherida
- Help Desk responding/research
- CE Presentation at our monthly Zoom MG meeting
- Recording How to Videos – Will be posted on our Website and Facebook.
- Record a short PowerPoint Presentation – Your choice of subject – Will be posted on our website
- Help develop Website content
- Newsletter articles – Due 9/15 for October edition
- Committees – Let's form committees -
- **PLEASE RECORD HOURS MONTHLY OR AT THE VERY LEAST QUARTERLY**

# Our ask a MG Help Desk

## Needs Help from MGs

- Advise to Grow by Help Desk for is for home gardeners in Humboldt and Del Norte Counties. The Help Desk is located on our website. They complete a Help Desk Ticket and submit online.
- [https://ucanr.edu/sites/hdnmastergardeners/Help\\_Desk\\_-\\_Ask\\_A\\_Master\\_Gardener/](https://ucanr.edu/sites/hdnmastergardeners/Help_Desk_-_Ask_A_Master_Gardener/)
- Please help with providing responses when the Help Desk email goes out to you. Provide your recommendations and links to approved online resources. Earn volunteer service hours for your time responding and researching.



# Our Online Presence

- UCCE Master Gardeners of Humboldt & Del Norte Website  
<https://ucanr.edu/sites/hdnmastergardeners/>
- Facebook [www.fb.me/HumboldtMG](http://www.fb.me/HumboldtMG)
- Newsletter The Coastal Gardener - Sign up  
<https://ucanr.edu/survey/surveyadmin/surveyLink.cfm>



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# Other Topics/Questions?

CE for next month:

MG send in pictures and description of one of their plant problems for diagnosis at our upcoming meetings. This MG must be present at the meeting for dialog Q&A for group diagnosis.



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