## CLEVELAND COUNTY MASTER GARDENER ASSOCIATION

### EXTENSION MASTER GARDENER DESK GUIDE





#### INDEX

TOPIC	PAGE
SOME DOS	1
SOME DON'TS	2
MASTER GARDENENER DESK PROCEDURE - QUICK GUIDE	3
MASTER GARDENER DESK – HELPFUL TIPS	4-5
MASTER GARDENER DESK PROCEDURE - DETAILED GUIDE	6-11
ADDITIONAL MATERIAL	
MASTER GARDENER DESK SIGN UP	SAMPLE 1
G REPORTING LOG SAMPLE 2	
XAMPLE OF A PROFESSIONAL EMAIL SAMPLE	
UESTIONS TO ASK DURING DIAGNOSTIC PROCESS SAMPLE	

#### SOME DOS

DO sign up for your MG Desk hours on the computer MG Desk Calendar (or Team Up app). Be sure not to schedule over dates/times for which others are signed up.

DO document your hours worked (both at MG Desk and Demo Garden) for your Master Gardener certification in the "Pay Back Log" (3-ring binder above MG Desk).

DO delete any scheduled desk hours you are unable to keep from the MG Desk Calendar (or Team Up app). Notify Cherry, especially when a mentor is involved.

DO always make entries in the computer MG Daily Log for every contact you have (whether by phone, email, or walk-in).

DO type "RESOLVED" or "UNRESOLVED" at the end of every MG Daily Log entry.

DO click the save button at top far left of computer screen at the end of **every** entry you make in the MG Daily Log. If you return to the entry to correct/edit it (using double left click), click the save button again after correction/edit is made.

DO (only if unable to complete research and respond to contact within a reasonable time) leave a request with sufficient information for the next person on the MG Desk to complete the task.

DO always stress to contacts the importance of following label directions and application limitations to the letter, and of wearing Personal Protective Equipment (long-sleeve shirt, long-leg pants, socks and non-absorptive shoes, rubber or nitrile gloves, eye protection, mask), when addressing the use of chemicals, herbicides, or pesticides.

DO try to get comfortable with the fact that no one can know everything. It is perfectly okay to tell contacts that you want to do some research. Get their contact information and get back with them within a specified time period with what you have found.

DO check the MG Desk Calendar (or Team Up app) to see who is on the next desk shift. Give them a courtesy call to remind of their upcoming shift date/times.

#### SOME DON'TS

**DON'T EVER** engage in research, advice, or identification with a contact -- or make referrals to anyone else who does or might -- concerning mushrooms or other edibles.

DON'T recommend any chemical controls (herbicide, fungicide, or pesticide) except as found in the *OSU Extension Agents' Handbook of Insect, Plant Disease and Weed Control* (located at the MG Desk) for the particular plant/pathology/pest/weed. Look It Up First!!

DON'T give referrals or recommendations for any specific service provider(s), whether an individual or a company. Encourage contacts to look for providers themselves on the Internet. If you must give a list, make sure that you list at least 2 providers and that you state very clearly that you are not making a referral or a recommendation.

DON'T change any settings or codes on the computer. DON'T enter your personal password(s) into the computer. DON'T engage in personal social media communications on the computer. DON'T visit sites on the computer that are unrelated to your MG Desk work or to horticultural/entomological research. This is a government computer subject to audit and monitoring, and everything you do with or on it is a matter of public record not subject to personal privacy protections.

DON'T email OSU Fact Sheets which begin with the single letter "E." (Ex: E-832) These are bound publications issued and sold by OSU and too voluminous to email. Invite the contact to look up these "E" publications for themselves at the OSU website (www.osufacts.okstate.edu) and to contact University Mailing Services at (405) 744-5385 if interested in purchase information.

DON'T ask a caller's or emailer's race or gender -- these information columns in the MG Daily Log are for walk-in contacts. Gender, if apparent from a phone or email contact without asking, should be entered.

#### MASTER GARDENER DESK PROCEDURE - QUICK GUIDE

- Use the MG Desk Calendar program (or Team Up app) to sign up for desk hours. Can use MG Desk Calendar program on computer (in Firefox) or access it remotely at <a href="www.clevelandcountymastergardeners.org">www.clevelandcountymastergardeners.org</a> (under Member News). <a href="Don't check the "All Day" or "Repeat" options</a>. Save info once it is entered to your satisfaction (otherwise, people will inadvertently calendar over you). <a href="Master Gardener Desk Sign-Up">Master Gardener Desk Sign-Up</a> instruction screen shots are included in these materials. (Sample #1) Mentors calendar/save their hours themselves.
- Enter your hours worked (for both MG Desk and Demo Garden) in "Pay Back Log."
   Mentors keep their own hours separately per usual procedure.
- If beginning 8 a.m. shift, turn on computer (power button on tower under desk) and turn on desk lights (switch underneath overhead metal cabinets).
- Note Pad to write down (and confirm for accuracy) contact's name, phone #, email address and gardening questions, to take notes while speaking with contact. Makes easier to compose your subsequent entries into MG Daily Log. Extra pads in bottom left desk drawer.
- Check the blue "Pick-Up Folder" to see if expecting anyone to pick up materials.
- Open MG Daily Log (uses EXCEL) and minimize (as you will return to log to make entries each time a contact occurs).
- Review at least the last week's MG Daily Log entries. Helps identify trends and **UNRESOLVED** problems which need follow up.
- Open Firefox, where you will find and use 5 tabs along upper toolbar for MG Desk hours sign-up, research and emailing. Keep open as many tabs as you like.
- Open the Yahoo email folder (<a href="https://mg.mail.yahoo">https://mg.mail.yahoo</a>). Review at least the last week's emails. Respond where necessary (all new emails; prior email responses which appear unfinished).
- When conducting internet research, remember to type ",ext" at end of the search term to access science-based sites.
- Call the next student scheduled for desk hours to remind them of date/time they are scheduled.
- If ending 4:00 p.m. shift (or any shift after which no one will be covering the desk for rest of the day), close down computer via Windows button located on bottom far left of computer screen.

#### MASTER GARDENER DESK - HELPFUL TIPS

MG DESK EMAIL ADDRESS: ccmastergardener@yahoo.com

MG DESK EMAIL PASSWORD: goodtomatoes2015

#### EXTENSION OFFICE PERSONNEL:

1.	Brenda	County Director, Family & Consumer Sciences
2.	Courtney	Educator, Horticulturalist
3.	Cherry	Administrative Support Assistant, Agriculture & Horticulture
4.	Patti	Administrative Support Assistant, 4H & Youth Development
5.	Brad	Educator, Agriculture & Livestock, Youth Development
6	Ruth	Educator 4H & Youth Development

Paraprofessional 7. Kristina

Small Business Development Coordinator 8. James

The Extension Office is closed when Cleveland County OFFICE CLOSINGS: government offices are closed (holidays, weather closures).

GARDEN KEY: Located in second drawer on left side of MG Desk area. Key is to be signed in and signed out. See Cherry if any questions.

THE RV PARK: The OSU Extension Office does not manage or have access to information about the RV Park west of the Extension building. RV Park information is available at the Fairgrounds Office in the building north of the Extension building (phone number on yellow "Information Numbers" sheet posted at MG Desk).

**SOIL TESTS AND PROBES**: There is a process to this, and Cherry will handle it; Patti will do so in Cherry's absence; ask contacts to wait until one is available. A helpful pamphlet is on the wall to the right of the MG Desk and should be reviewed so you know the basics of what is needed for a proper soil test.

**DOWN TIME AT THE DESK**: Learn during down time by browsing OSU Fact Sheets, folders of select research on the computer, the OSU Extension Agents' Handbook and Internet websites (remember to follow Internet search terms with ",ext" to access science-based sites). You are welcome to bring reading material from home.

**SAVED OSU FACT SHEETS AVAILABLE FOR DIRECT EMAIL ATTACHMENT**: A "Saved Fact Sheets" icon is located on the right side of the computer screen. It opens a folder containing saved Fact Sheets addressing some more frequently asked questions. The folder does <u>not</u> contain <u>all</u> OSU Fact Sheets, but those which are saved to the folder can be directly attached to emails by using the paperclip (attach) icon at bottom of the email screen.

WHEN OSU FACT SHEETS ARE TOO LARGE OR NUMEROUS: A single Fact Sheet, or multiple Fact Sheets, can contain too much volume to send in one email. Trying it can tie up the computer overlong or cause unsuccessful completion of the email. In this instance, give the contact the OSU Fact Sheet website address and correct Fact Sheet number(s) and ask that they pull up the Fact Sheet(s) themselves. If the contact is unable to do so, you can send the Fact Sheet(s) by regular mail to or leave a copy for the contact in the blue "Pick-Up Folder."

#### MG COMPUTER - MANAGING THE 5 FIREFOX TABS IN THE UPPER TOOLBAR:

Once you click the Firefox icon in the bottom dock/toolbar of the computer, 5 tabs/sites will appear **as an upper toolbar** (Ento Digital Diagnostics, OSU Fact Sheets, MG Desk Calendar, Cleveland County Master Gardener Association, and <a href="http://mg.mail.yahoo">http://mg.mail.yahoo</a>).

- Train your eyes to stay **in the upper toolbar area** when working in one or more of these 5 tabs/sites.
- You can keep as many of these tabs/sites open at once as you like to aid in copying/pasting information back and forth while researching and composing emails.
- Pay attention to the "X" and the "+" signs in the tab boxes. Clicking on the X will close the previously-opened tab/site and cause you to lose any unsaved information. Clicking on the + will let you open a tab/site and work in it.

#### **SOME USEFUL WEBSITES** (definitely not exclusive):

- <a href="mailto:entoweb.okstate.edu/ddd/index.html">entoweb.okstate.edu/ddd/index.html</a> (a tab in Foxfire) (OSU diagnostic tool for common insects and plant diseases and more. The last line of identification pages often refers reader to local Extension office for current information, which is found in the OSU Extension Agents' Handbook of Insect, Plant Disease and Weed Control and on your jump drive.)
- <u>www.osufacts.okstate.edu</u> (full list of OSU Fact Sheets)
- www.okproven.org (Oklahoma Proven plants consumer information)
- www.okinvasives.org (common and emerging invasive plants in Oklahoma)
- www.oksnakes.org (Oklahoma snakes pictorial identification)

#### MASTER GARDENER DESK PROCEDURE - DETAILED GUIDE

- "PAY BACK LOG" AND REQUIRED HOURS FOR CERTIFICATION 3-ring binder in metal cabinet above MG Desk. Use form in binder to record MG Desk and Demo Garden hours. Document 48 hours of MG Desk and 12 hours of Demo Garden work by November 1 for Master Gardener certification.
- **TURN ON LIGHTS** switch located behind computer on underside of metal cabinet above MG Desk.
- **TURN ON COMPUTER** (if first at MG Desk for the day) power button on tower underneath and to right of MG Desk. Be patient. If screen remains black, make sure monitor's power button is turned on.
- **OPEN MG DAILY LOG** click icon located in middle of computer screen. Opens EXCEL spreadsheet onto which you enter **all contact** information and problem identification and solution. Minimize Daily Log because you work in it during entire shift. Review prior entries to see trends and proposed solutions. An example of the daily log is included with these materials. (Sample #2)
  - o In first available blank line, enter today's date. Move right to the next information block and enter your name and shift hours. [Ex: 02/01/2019 John Doe 8-12] Hover cursor over the # in the far left column of this line and right click (highlights data you've entered on this line). Go to upper toolbar and click on the downward arrow to the immediate right of the paint can icon (opens color palette). Click on a color (color-highlights the line). This visually separates each new desk attendant's daily entries, making it easier to search information later.
  - o On next blank line, enter contact information, including problems and solutions. Begin a new line for each new contact. Do not color-highlight any of these lines. (To correct/edit entries, double left click at the location in the text where you want to make correction/edit).
  - O At end of each entry, type a summary of the outcome (in **BOLD**) = "**RESOLVED**" (if problem has been solved and all relevant information distributed) or "**UNRESOLVED**" (if problem resolution incomplete and/or contact needs more information). This helps next desk attendant quickly determine when follow-up should be attempted.
  - Once the entry is complete, ALWAYS HIT THE SAVE BUTTON (at top far left of screen). If the entry is later corrected or edited, SAVE ANY CORRECTION/EDIT as well.

 OPEN FIREFOX – click red/blue/yellow curling fox icon located in dock/toolbar across bottom of screen.
 5 tabs/sites will appear across an upper left toolbar on screen:

Ento Digital Diagnostics (selected entomology and plant pathology)
OSU Fact Sheets (called Docu Share once it is opened)
MG Desk Calendar (sign up for MG Desk hours)
Cleveland County Master Gardener website
<a href="https://mg.mail.yahoo">https://mg.mail.yahoo</a> (our email)

- o **Open the tab(s)/site(s)** you want to use by clicking on the "+" sign in a blank box at top of computer screen and then clicking on the selected tab(s)/site(s). Keep open at least the ones you will likely use frequently.
- o **Ento Digital Diagnostics** in spare time, explore this program to become familiar with usage of and information in it. Helps prepare you for questions/solutions concerning identification of pests and plant diseases.
- OSU Fact Sheets limit your search term to <u>one or two key words</u>. [Ex: Grafting Pecans – use the search term "Grafting;" Pruning Crapemyrtles – use the search term "Pruning"]
- o **Research Other Than OSU Fact Sheets** Firefox is also where you conduct Internet research (i.e., Google). Open a tab for research by clicking on the "+" sign in a blank box at top of computer screen and typing search terms into the far right-hand "Q" (Question/Query) box. **Always type ",ext" at end of search terms** accesses science-based research from extension, university, botanical and related sites. [Ex: Pruning Crapemyrtle,ext]
- o **Yahoo Email Procedure** Always check Inbox and Unread for new emails that need response or follow-up. Also check Sent to review at least one week's worth of prior emails to get a feel for trends in questions/problems coming to the MG Desk and for solutions proposed/research materials sent. Periodically clean the email streams (helps with computer memory and stability) by deleting both Inbox (completed emails and advertisements) and Sent emails which are over a month old. Remove Spam, Drafts and Deleted emails as well. When in doubt about deleting emails, check with Cherry.
- o **Yahoo Email Sign-In** when you are the first to open the email for the day. After opening the Yahoo email tab, at Sign-In screen left click on <a href="mailto:ccmastergardener@yahoo.com">ccmastergardener@yahoo.com</a>. Click on "Next" until you reach the password screen. **Enter our email password = goodtomatoes2015**.

- open Firefox), click on "+" sign and click on the MG yahoo email tab to open email. Once email is open, click on "Compose" to write the email. [NOTE: don't click on the "X" sign or it will close the email program, erasing all of your work and making you think bad thoughts.]
  - o If you even think you will be doing research into OSU Fact Sheets or on the Internet, go ahead and click on the next "+" sign and open up the OSU Fact Sheets site and/or an Internet search site so you can move back and forth from email to research to email without losing data. [NOTE: don't click on that "X" sign or you will close the research program and lose your research data; see bad thoughts above.]
  - o Type the email address in the "To" line and make sure it is correct. Bounce-backs due to incorrect addresses are frustrating, waste time and may be overlooked if you are busy, leading to complaints from the public of not receiving promised communications and poor perception of our program.
  - o Type a brief but relevant description in the "Subject" line. Leaving a "Subject" line blank is not only unprofessional, but also makes it difficult to find the email thread if further communications need to be had.
  - o In the body of the email, memorialize the date the contact was made and summarize the question/problem posed. Compose at least a draft of your discussion of solutions or possible solutions. It is normal to compose a draft and then return to edit and polish it before hitting "Send." One example of a professional email is included in these materials. (Sample #3)
  - o Space down 2 spaces after you've completed your draft/final communication. This spacing helps to visually cue the reader to any attached materials you are sending and can avoid the occasional bizarre font change caused by attachments.
  - o Attach whatever materials or websites you want to send with your email.
  - o Sign your name above the pre-typed "MASTER GARDENER DESK" line at bottom of the email; don't send out anonymous emails.

#### • SENDING ATTACHMENTS IN EMAILS – Using the open email and open research (OSU Fact Sheets and/or Internet search) tabs in upper toolbar:

- Click on the open yahoo email tab by clicking somewhere in the address "ccmastergardener@yahoo.com" (don't click on the "X" at the end of this line or you will close your email); or open the email tab/site if not previously opened.
- o Once email is open, click on "Compose" and compose at least a draft of your email as per the "Composing an Email" directions on previous page. Leave the email open, as you will return to it later.
- o Click on the "+" in the next open box in the upper toolbar to open a new tab.
- o Do your Internet/Google research by typing your search term (always followed by ,ext) into the far right "Q" search box on upper screen.
- o When you find what you want to send in your email, and with your selected site open, left click on the http line (to highlight the address).
- o Right click on the http line (which opens up a menu).
- o Left click on "Copy" in the menu.
- o Return to the yahoo email tab you left open on the upper toolbar and click somewhere in address "ccmastergardener@yahoo.com" (don't click on the "X"). This accesses your open email with all the information you've previously composed in it.
- o Right click in the body of the email below the information you've previously composed (which opens up a menu).
- o Left click on "Paste" and the selected item you want to send now appears as a link in the email.
- o Finish composing and sign your email, and click "Send" (blue button at bottom of email screen).
- o Make your entry for this task in the MG Daily Log.

- SENDING SAVED OSU FACT SHEETS AS EMAIL ATTACHMENTS: Compose your email ("To" and "Subject" lines and at least a preliminary draft of message in the body of the email). Left click on the paperclip (attach) icon at bottom of email screen this opens a menu, the left side of which includes OSU Fact Sheets, Documents and other saved items. Left click on OSU Fact Sheets (or other saved item) this opens a list of previously-saved Fact Sheets (or other items). Left click on the Fact Sheet/item in this list which you have chosen to send this automatically imports the chosen Fact Sheet/item to the bottom left of your email screen as an attachment. Wait for the Fact Sheet/item to fully load. Repeat the process to attach an additional saved Fact Sheet/item. Once all are fully loaded, complete your email, including your signature, review it and hit Send.
- ADDITIONAL MG RESEARCH ICONS/SITES ON COMPUTER SCREEN On right-hand side of computer screen are various icons taking you to documents or folders that contain data gathered on recurring issues (Army Worms, Seed Life Chart, a list of sod farms, etc.). Examine these in your spare time.
- "QUESTIONS TO ASK DURING DIAGNOSTIC PROCESS" SHEET this excellent tool by David Hillock is posted at the MG Desk. At the beginning of each shift, review it to refresh and prepare yourself for the day's contacts. A copy is included in these materials. (Sample #4)

#### MG DESK PHONE OPERATION AND ETIQUETTE

- O Calls are screened by Extension personnel before reaching the MG Desk. You will be notified a call is waiting for a Master Gardener on "Park 1" (or another "Park" button). Push that "Park" button to pick up the call (call will then automatically roll to the "M Gardener" line).
- o Pushing "Hold" puts your call on hold while you get information (if doing so does not take overlong; otherwise, take caller's information so you can call back). Retrieve your call by pushing the flashing line button.
- o Pushing "Park 1" (or "Park 2" if "Park 1" is engaged) puts the call on hold to transfer it.
- o Dial "9" for an outside line.
- Do not make long-distance calls on the MG Desk phone unless you first clear it with Cherry or Courtney.

- O Your phone presence represents the Cleveland County Master Gardener Association and OSU Extension. Before speaking, please take a good breath, slow your speech rate and speak as clearly as possible. Many folks have hearing deficits and the phones are not state-of-the-art. Don't add to yours and callers' frustrations by rushing or mumbling your words.
- o Answer the call cordially but professionally. [Ex: "Good morning/afternoon, master gardener desk, this is Petunia"] There's no need to ask a caller to go to Prom. But, if you want someone to trust and share information with you so you can better diagnose problems and arrive at solutions, you should be willing to at least share your first name with them.
- o Let the caller speak first, listen and do not talk over them. A caller's initial effort at explaining the problem or question may be less than clear. But, listening without interrupting lets you adopt the caller's own language as an ice-breaker to asking questions that help you narrow and better identify the nature of the problem. In this way you will acquire, practice and improve your Diagnostic Process skills.
- o Be sure to get AND CONFIRM -- the caller's name, phone number and email address. If the caller balks (they rarely, but on occasion, do), explain politely that you are asking for contact information in case, after you have hung up, you find something helpful you want to call back about or email to them. Some people do not have or use email; if so, be sure you have an accurate postal address to mail materials to them, or offer to place materials in the blue "Pick-Up Folder" for them to pick up at the Extension office.
- **"PICK-UP FOLDER"** blue folder on far left side of desk, used to keep information for contacts who want to pick up information at Extension office. Use a Post-It note to identify the date and the name of the caller who will pick up the materials. Review folder contents occasionally to see if material needs to be discarded. Check with Cherry before discarding.
- CALL THE NEXT PERSON IN LINE FOR DESK HOURS courtesy call to remind
  of scheduled date/time on the MG Desk. It is okay to leave a message. A list of
  recent class students, with phone numbers, is posted at the MG Desk.
- SHUTTING DOWN COMPUTER (if last at MG Desk for the day) close all tabs and programs. Click the Windows button on the bottom far left of computer screen. Click the Power button (directly above Windows button). Then click the Shut Down. NOTE: Never click "Update and Shut Down" button unless you are certain the computer's usage is ended for the day (otherwise computer access may be lost for hours while updates download).

#### Master Gardener Desk Sign Up

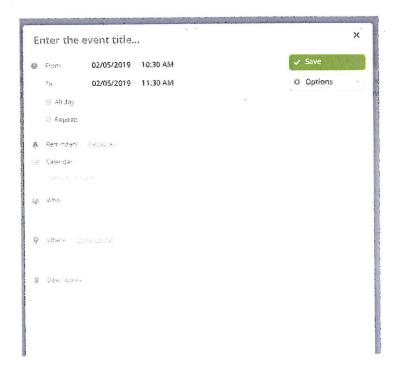
1.) Open the link in your browser or on the app:

Link: https://teamup.com/ksdb661cf882cd99d7

Should bring you to a page like this:



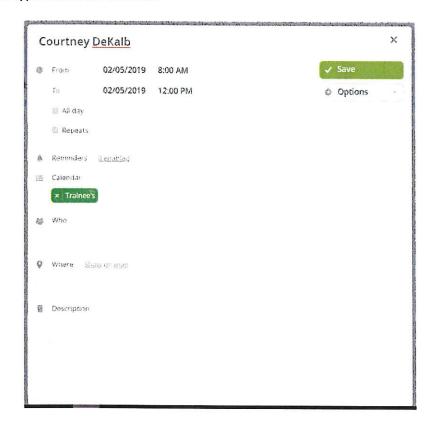
2.) Click on the date you want to work; this opens an event box



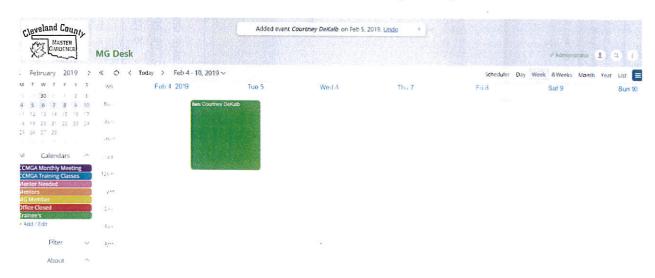
#### 3.) Fill out your information:

Event title is your first and last name
Make sure "all day" is unchecked . Don't check "repeats."

Put "From 8:00 AM to 12:00 PM", "From 12:00 PM" to 4:00 PM", or From "8:00 AM to 4:00 PM" Calendar type should be  $\mbox{Trainee's}$ 



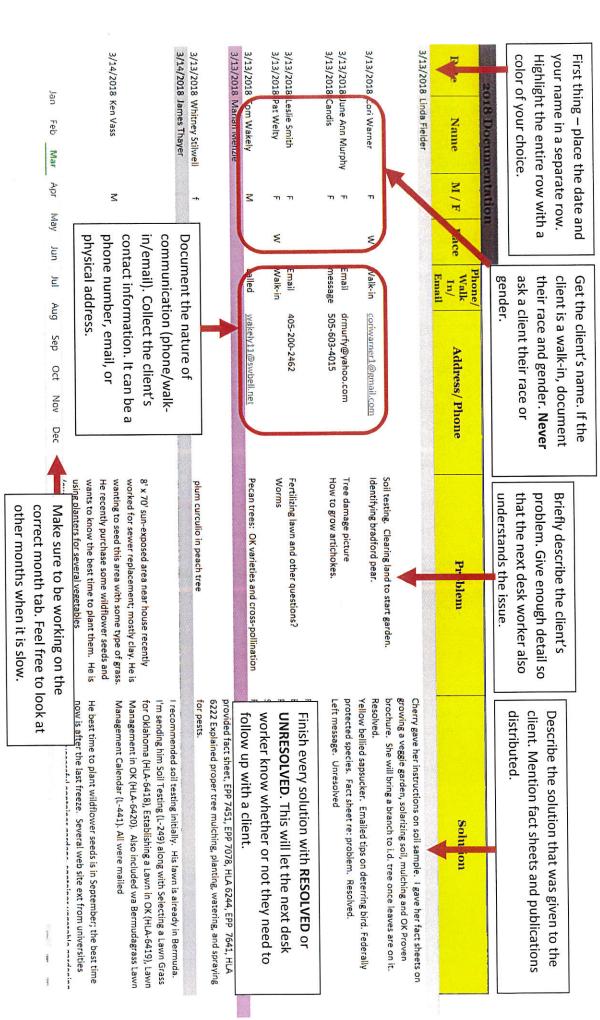
4.) Click save, double check everything is correct, and you're all good to go!





# Always, always press the save button after entering into the reporting log. Do this by pressing the floppy disk icon in the top left corner of the screen.

# MG REPORTING LOG



#### Dekalb, Courtney

Subject:

Attachments:

FW: Crape Myrtle Pests Pruning\_Crape\_Myrtles.pdf

From: Master Gardener < ccmastergardener@yahoo.com>

Sent: Friday, February 22, 2019 3:18 PM

To: Dekalb, Courtney < courtney.dekalb@okstate.edu>

Subject: Fw: Crape Myrtle Pests

\*\*External Email - Please verify sender email address before responding.\*\*

We spoke today about pests and black ash-like material on your crape myrtles. When you squash the bugs, a pinkish liquid oozes out. From this pinkish ooze, we were able to conclusively identify the pest as Crape Myrtle Bark Scale, a pest which causes black sooty mold to occur and is infesting crape myrtles and other ornamentals throughout Oklahoma. I know you love your crape myrtles. Sometimes things are great to plant, but conditions change and a new pest or disease moves in later and makes that plant vulnerable to disease.

We discussed a simple treatment you can try, which is to use a soft brush and gently brush down the trunk and limbs you can reach with a mixture of water and gentle dishwashing soap. The idea is to remove the black sooty mold and suffocate the scale with the soapy residue in order to kill them. Inspect your crape myrtle weekly for scales and repeat this treatment several times. This may clear the scale infestation if it is not too bad. In the end, though, an infestation is often so bad the entire plant has to be destroyed.

You also want to prune out any dead or diseased limbs and clear away all the plant matter and debris from underneath your crepe myrtle and outward at least 6 inches from the trunk. Strive to prune and tidy in a way that provides good air flow underneath and throughout the plant. To keep the scale and sooty mold condition from spreading to other plants, once you've pruned limbs and raked away debris, be sure to put all of it in the trash and not in the yard waste that goes to the City's composing site.

There are other strategies and things to consider, so I am sending an article and a link to more information about treatment and pruning from the OSU Extension.

Good luck with solving this problem.

Lessons from the Garden. The New Crape Myrtle Malady — Oklahoma County Cooperative Extension Service

Lessons from the Garden: The New Crape Myrtle Malady — Oklahoma County C...

Terry J. Hull

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#### QUESTIONS TO ASK DURING THE DIAGNOSTIC PROCESS

David Hillock Assistant Extension Specialist/ Consumer Horticulturist



#### Things to remember:

- Keep an open mind. Do not jump to conclusions.
- 2. Avoid assigning "Guilt by Association". The insect, animal, or disease observed may not be the cause of the problem or symptoms.
- 3. Take a thorough history: weather extremes, site alterations, fertilizer and pesticide use, cultural practices, etc. Once mature trees (especially pines and oaks) begin to decline, there is often no way to reverse the process.
- 4. The symptom may indicate a problem in a different part of the plant.
- 5. At least one half of all observed landscape problems are not caused by insects or diseases. Try to eliminate other causes first.
- 6. A particular problem may be caused by several factors.
- 7. There is a great variation in the expected life-span of landscape plants. All plants go through periods of growth, maturity, and decline. Plants grown in urban locations generally have shorter lives.
- 8. Many pests and diseases are plant-specific. Symptoms affecting more than one plant species may indicate cultural and environmental problems.

Accurate diagnosis is very dependent on accurate observation. When making observations we must ask the following questions:

- 1. What does a healthy plant look like? (proper identification of the species and knowing what is normal for that species is important; i.e. fuzz or pubescence, bumps, hairs and variegated foliage; woody wings on stems of such plants as Winged Euonymus and Sweetgum).
- 2. What symptom(s) is the plant expressing?
- 3. How many plants are affected?
- 4. Is there a pattern associated with the problem? (i.e. is the problem located in one area; such as a low area, on the north side, south side, etc.)
- 5. Are there any differences in susceptibility or species? (i.e. is it just the tomatoes or are other plants affected too.)
- 6. Ask about obvious causes first such as temperature changes, frost, water practices, or mechanical damage.

- 7. Which part of the plant is actually affected? Wilts, for instance, frequently are only response to some damage to the roots. Dieback of stems or branches is sometimes caused by cankers or mechanical damage farther down the stem.
- 8. Are the roots healthy appearing (not black or mushy) and moist? NOTE: You may not be able to diagnose the problem without the roots.
- 9. What about the texture and wetness of the soil? Is it too heavy, sandy or compacted? Are salt encrustation's evident?
- 10. What is the weed makeup like? (They may indicate a particular soil problem.)
- 11. Find out as much as possible about the previous history: fertilizer, pesticides, land leveling, excavation (digging), irrigation schedules and climatic conditions and basic horticultural (growing) practices.
- 12. There are many other questions that you may think to ask based on the specific sample in question. REMEMBER, WE CAN NEVER ASK ENOUGH QUESTIONS! THE MORE THOROUGH YOU ARE THE BETTER THE DIAGNOSIS WILL BE!