

Dear Extension Master Gardener:

I am pleased to introduce this “Procedures Manual” as a tool that will assist you when working in the Plant Clinic. The purpose of this manual is to help you operate more effectively and efficiently when fielding calls and walk-in questions from home gardeners.

As volunteers, you are responsible for the majority of our interaction with clients who look to the North Carolina Cooperative Extension as a viable resource of information. Without your selfless commitment of time, effort, determination, and hard work, the Horticulture-based programs that we offer in Brunswick County would be limited. Citizens look to us for answers, and we count on you to give them non-biased, research-based information that works! I want to acknowledge your effort in helping to support Cooperative Extension and the Extension Master Gardener Program. Because of your dedication, Brunswick County has one of the most successful EMGV programs anywhere in the state, and that is something in which you should take pride!

This Procedures Manual is a handbook of office protocols that will help you feel more at ease when you are in the Master Gardener office. In it you will find procedure outlines for processing soil samples, e-mailing clients’ publications, and much more. I hope you will find this a useful tool for helping to improve knowledge of clients and yourself, as well as making your volunteer time a more worthwhile and meaningful experience!

Sincerely,

Sam Marshall
Horticulture Agent, Brunswick County



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**Brunswick County Extension Master Gardener
Procedures Manual**

Created January 2014

Table of Contents

Liability and the Info Line	4
Info Line Procedures	6
<i>Telephone Protocol</i>	6
<i>Walk-in Inquiries</i>	7
<i>Mailing & E-mailing Publications</i>	8
Office Procedures.....	9
Info Line Logbook	10
Google Docs and Online Contact Sheet	11
Printed Resources.....	12
Lawn Analysis Data Sheet	23
Landscape Plant Analysis Data Sheet.....	24
Insect/Pest Analysis Data Sheet.....	25
Collecting/Processing Soil Samples	26
Using Extension-based recommendations	28
Info Line Computer.....	29
Where do I count my hours?	30

LIABILITY AND THE INFO LINE

An Extension Master Gardener Volunteer (as an agent of NC State University) is covered by North Carolina State University liability policies when performing volunteer service provided he/she is following a job description and is adhering to Extension Master Gardener Program policies. Master Gardeners are not covered under this policy when volunteering at Master Gardener Association sponsored events.

The main purpose of volunteers is to provide non-biased, research-based information to home gardeners. When researching a particular topic, you should always refer to NCSU publications first. However, because of our geographic location and climate, we may receive questions that can be better answered from other universities. These include (but are not limited to):

- Clemson University
- University of Florida
- Texas A&M University
- University of California, Davis

Rules of Thumb When You Volunteer

- No recommendations or endorsements should be made of a particular product or place of business.
- Chemical pesticide recommendations must be restricted to only those in the North Carolina Agricultural Chemicals Manual or recent Extension publications. **When in doubt, refer chemical recommendations to an extension staff member.**
- Clients are *always* encouraged to read the pesticide labeling for instruction about application or dilution rates.
- Both chemical and cultural recommendations should be given so clientele can make an informed decision concerning pest management.
- Volunteers should not answer questions outside their expertise or training. This includes answering questions concerning household pests, commercial horticulture, hazardous tree evaluation, medical or legal questions, and determining if a questionable plant or mushroom is edible.

- Printed materials (news articles, news releases, newsletters, leaflets) prepared by a volunteer must be reviewed and approved by the Extension agent.
- Requests for information by news media should be referred to the Extension Agent.
- Possible poisoning cases should be referred to the Carolina's Poison Center (1-800-848-6946).
- Volunteers should not make copies of copyrighted material for distribution without written permission of the copyright owner.
- Volunteers do not have the authority to sign contracts on behalf of Cooperative Extension or the EMG program.

When in doubt, always ask a staff member! Referrals should be made to:

1. Horticulture Agent
2. Master Gardener Coordinator
3. Horticulture Program Assistant
4. Agriculture Agent/CED (last option)

Commercial nursery/landscape questions will be referred to the Horticulture Agent.

Agriculture/farm questions are referred to the Agriculture Agent.

Sometimes, a suitable staff member may not be available. In this case, simply tell a client that you will refer the question to an appropriate staff member and that we will have to get back in touch with them. *There is no harm in telling someone that they may have to wait to get an answer!*

Most clients will be okay if they have to wait to get an answer. Simply take down their contact information, a brief description of the question, and tell them that someone will be in touch within 24-48 hours. Leave a note for one of the above-listed staff members.

INFO LINE PROCEDURES

Phone calls

Calls are always transferred to the MG office from the front desk. Once the outside caller is connected to you:

- Answer the phone by saying: "Hello. This is _____ [your name] _____ with the Extension Master Gardener Volunteers. How may I help you?"
- Next, collect and record the needed information on the Hot Line Call Summary Sheet (Google Docs or hardcopy).
- All commercial horticulture inquiries are referred to the Horticulture Agent.
- Repeat the question to the client to ensure you have interpreted it correctly.
- Gather as much information as you can on the problem (become familiar with the questions on the back of the Summary Sheet).
- If you can diagnose the issue over the phone, do so. However, certain questions cannot be answered unless we have a physical sample or a picture sent in from the client.
- Most calls will require that a client bring in a sample. Most calls also will require that you call the client back so that you can properly research the question.
- Research the question using NCSU or other land-grant publications. **Do not** use Wikipedia or other “.com” sites as primary literature.
- To research an inquiry:
 - Refer to the publication directory notebook and the corresponding publication number.
 - You must make a copy of the publication and give the copy to the client.
Master copies must be returned to the appropriate folder.
 - All articles can be found online at:
http://cals.ncsu.edu/hort_sci/extension/extension-publications.php

- Make sure that you call back after researching the question and preparing the answer. Discuss the resolution with the caller and mail/e-mail written material to the client.
- Not all questions will have a resolution! While this is rare, it does happen. Remember that you should always refer questions to extension staff if you do not feel comfortable answering a particular question.

Walk-in Inquiries

Like a telephone call, walk-in clients will first be referred to the Master Gardener Office. When you are informed that a client is at the front desk:

- Walk to the front, introduce yourself as a Master Gardener Volunteer, ask the name of the client, and how you can help.
- Use the same procedures for dealing with a telephone call.
- If the client cannot wait, research the issue and call back before you leave for the day
- Soil tests are **free** April-November; December through March, there is a \$4 processing fee. All other tests require a nominal charge:
 - Insect/Diseases: \$20
 - Animal waste/Compost: \$8
 - Diagnostic Solution: \$5
 - Nematode Assay: \$3

*Checks are made out to the appropriate place where analysis will be conducted. Do not make checks out to Cooperative Extension or Brunswick County!

- If a sample is provided, try to diagnose the issue (refer to the Insect or Disease checksheet).
 - If you cannot diagnose the issue, place a tag on the sample, and refer to the appropriate staff. If no one is available, make sure that you leave a message and the contact information of the client so that we can promptly answer client inquiries.

- Do not leave inquiries for the next volunteer. If it can be answered on your shift, please do so.
- If you have an outstanding call at the end of your session:
 - Take it home and contact the client
 - Place a message with an appropriate staff member asking them to call the client

Mailing a publication

If you are mailing a letter to a client, bring items to Gina. Do not hand address envelopes or leave in basket in the Master Gardener office.

- The mail should include Sam's enclosure slip.
- Personal notes should be avoided

E-mailing a publication

E-mailing information to a client may seem daunting, but it's really very simple.

1. Find the webpage or document that you wish to send to a client.
2. At the top right-hand corner of the page, select "Page"
3. Scroll down (about halfway) until you see "Send page by e-mail."
4. A new window will come up with a link in the e-mail
5. Enter the client's information and hit "send."

*Note: There is a delay from the time you hit "send" until the client actually receives the document. Please tell clients that it will take about a day before they receive the information.

OFFICE PROCEDURES

Hours of Operation

January—November
9a-12p; 1p-4p

- Avoid clutter around the Master Gardener Office! Always make sure that you leave the office clean and tidy when your shift is over.
- Extension Master Gardener Volunteers will be required to volunteer a minimum of 10 hours on the Info Line *each year*. Time that counts towards “Info Line” is time spent at one of two locations:
 - Cooperative Extension Office in Bolivia
 - Satellite Campus at Hickman’s Crossroads Library*
- To sign up for a volunteer slot, please register for a time on the NCSU Garden site.
- If you need to cancel your shift, you must find a substitute to replace you within one week of cancellation. It is your responsibility to find a replacement.
- Should you need to cancel because of an emergency, please do your best to let someone at the office know that you will not be available that day.
- Name tags must be worn at all times.
- Volunteers must be appropriately dressed and will be held to the same standards of professionalism as Extension Staff.

*Please note that the Info Line at Hickman’s Crossroads only operates **MARCH** through **OCTOBER**.

INFO LINE LOGBOOK

When fielding walk-in clients or telephone calls, you will log each call into the Info Line logbook (red notebook). This logbook helps to us to better understand what recommendations are made to clients as well as what types of questions we can expect throughout the year. Please see the example below to see how the contact sheet should be filled out.

INFORMATION LINE CALL SUMMARY INFORMATION SHEET

Contact: Telephone Walk-in _____ Mail-in _____ E-mail _____
Name: Fay AHUJA
Mailing address: 1061 Rutledge Ct, Calabash, NC 28467
Phone number(s): 910-287-7565
Email address: _____

Question (please mark all that apply):

- | | | |
|---|--|--|
| <input type="checkbox"/> Soil, nematode, water or waste sample | <input type="checkbox"/> Plant identification | <input type="checkbox"/> Pest identification and control |
| <input checked="" type="checkbox"/> Weed identification and control | <input type="checkbox"/> Soil or fertilizer question | <input type="checkbox"/> Turf question |
| <input type="checkbox"/> Tree question | <input type="checkbox"/> Woody ornamental question | <input type="checkbox"/> Annual perennial question |
| <input type="checkbox"/> Vegetable question | <input type="checkbox"/> Fruit question | <input type="checkbox"/> Pond question |

General question: Honeysuckle - how to get rid of it

Background Data (eg. When problem first noticed; soil conditions: sun level; pesticide, herbicide, fertilizer last applied)

Wants to eliminate honeysuckle from area so she can plant a garden

Action taken: (please mark all that apply)

- | | | |
|--|--|--|
| <input type="checkbox"/> Requested sample for diagnosis | <input checked="" type="checkbox"/> Answered inquiry | <input type="checkbox"/> Sent publication/material |
| <input checked="" type="checkbox"/> Researched and re-contacted client | <input type="checkbox"/> Referred to Tom Woods | <input type="checkbox"/> Referred to Mark Blevins |

Sample picture taken and labeled: _____

Action by Master Gardener Comments:

1. Recommended glyphosate - Round up.
2. May take repeated applications

Ron Wedekind 4-19-2003
Master Gardener's Name Date

USING THE ONLINE CONTACT SHEET VIA GOOGLE DRIVE

In an attempt to make recording contacts easier and more accessible, we have created an online version of the Info Line logbook through Google. This contact sheet is a way that we can periodically track the types of questions that are coming into the Info Line so that Master Gardeners can be better prepared for seasonal questions. To access the online contact sheet:

1. Click on the link on the desktop that says “2014 Info Line Contact Sheet.”
2. A new window will appear.
3. The window will look exactly like the paper copy of the Info Line sheet.
4. Fill out all the information as you would on the paper copy.
5. Hit “submit” and the information is recorded in an online database.

If filling out the paper contact sheet is easier for you while dealing with the client, you may fill it out as you normally would. Afterwards, fill out the online form and place a checkmark in the upper right hand corner of the paper form to indicate that it has been recorded.

Using the Database

Once the online sheet has been submitted, all information is entered into an online spreadsheet. If you would like to look at this sheet to see what types of questions are coming into the office, follow these steps:

1. Open internet explorer
2. Type in: drive.google.com in the search bar
3. The log-in information is:
 - a. Username: bcmastergardener
 - b. Password: Password1*
4. Once the drive is opened, you will see “2014 Information Line Contacts”
5. Click on that link and the spreadsheet will open.

From there, you can review the types of questions that have been recorded throughout the year. This is a good opportunity for you to see what types of questions you can expect each month and also how other volunteers are fielding certain types of inquiries.

PRINTED RESOURCES

Brunswick County Extension
Master Gardener Program
Publication Index

Letter Symbols

FV = Fruits and Vegetables

I = Insects and Plant Diseases

L = Landscape and Ornamentals

LN = Lawns

(Publications Are All Research Based.
No Commercial Publications Are Included)

A

ANNUALS AND PERENNIALS (How to Publication)

<i>Annuals for Coastal NC</i>	L
<i>Perennials in the Landscape</i>	L
<i>Perennials for Coastal NC</i>	L

ANTS

<i>Fire Ants in Your Yard</i>	I
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APHIDS

<i>Aphids-Control</i>	I
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APPLE

<i>Apple fire Blight</i>	FV
<i>Apple Root Stock and Spacing</i>	FV
<i>Apple Training and Pruning</i>	FV
<i>Apple Varieties for the Home Orchard</i>	FV

ARTICHOKES

<i>Florida Betony</i>	LN
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ASPARAGUS

<i>Asparagus: Growing in Home Garden</i>	FV
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AZALEAS

<i>Azaleas</i>	L
<i>Azalea Caterpillars</i>	I
<i>Azalea Diseases</i>	L
<i>Azaleas Pest Management Calendar</i>	I
<i>Azaleas: Cultures for NC Gardeners</i>	L

B

BAGWORMS

I

BARKLICE

I

BEDDING PLANTS

<i>Bed Prep and Fertilization</i>	L
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BEEES

<i>Carpenter</i>	I
<i>In Turf</i>	I

BEETLE

<i>Asian Ambrosia</i>	I
<i>Japanese</i>	I
<i>Lady Beetles</i>	I
<i>Multicolored Asian Lady Beetle</i>	I

BERMUDAGRASS

<i>Bermuda grass Lawn Maintenance Calendar</i>	LN
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BIRDS

<i>Plants to Attract Birds</i>	L
<i>Plants to Attract Hummingbirds</i>	L

BLACKBERRIES

<i>Blackberries for the Home Garden</i>	FV
<i>Blackberries Grapes and Berries for the Garden</i>	FV
<i>Blackberries Pruning and Training</i>	FV

BLACK TWIG BORER

I

BLOSSOM END ROT

<i>Tomatoes</i>	FV
<i>Tomatoes, peppers and watermelon</i>	FV

BROCCOLI

<i>Broccoli Home Garden Production</i>	FV
<i>Broccoli Production for Coastal Plain</i>	FV

BUGS

<i>Lace</i>	I
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BULBS

<i>Bulbs Basic flowering</i>	L
<i>Bulbs Perennial Care and Maintenance</i>	L
<i>Bulbs Spring and Early Summer Bulbs</i>	L

BUTTERFLY

<i>Butterfly Attracting Butterflies</i>	L
<i>Butterfly Gardens</i>	L

C

CAMELLIAS

Camellias Culture and Care in NC

L

CATTERPILLARS

Caterpillars Eastern Tent

L

CENTIPEDE GRASS

Centipede Grass Large Patch

LN

Centipede Lawn Maintenance Calendar

LN

COMPOSTING

Compost Curriculum

LN

Composting for Home Gardeners

FV

Composting to Reduce Waste Stream

LN

CONTAINER GARDENING

Container Plants – Plantings and Repotting

FV

Vegetables for Container Gardening

FV

D

DAFFODILS (NARCISSUS)

Forcing Daffodil Bulbs

L

DEER RESISTANT PLANTS

Deer Resistant Plants for Coastal Southeast NC

L

DISEASES

Diseases of Cool Season Grasses

LN

DROUGHT TOLERANT PLANTS FOR NC LANDSCAPES

- See Landscape - Landscaping, Protect Water Quality

E

EARTHWORMS

Raising Earthworms Successfully

FV

F

FIG		
	<i>Fig Culture in NC</i>	FV
FIRE ANTS		
	<i>Fire Ants</i>	I
	<i>Managing Fire Ants in Your Yard</i>	I
FLORIDA BETONY		
	<i>Florida Betony Management</i>	LN
FLOWERING PLANTS		
	<i>Annuals and Perennials</i>	L
FRUITS		
	<i>Fruits for Southeastern NC</i>	FV
	<i>Fruit Trees – Producing Tree Fruit for Home use</i>	FV

G

GARDEN		
	<i>Garden – Handicap</i>	FV
	<i>Growing a Fall Vegetable Garden</i>	FV
	<i>Home Vegetable Gardening Quick Reference</i>	FV
	<i>Vegetable Gardening</i>	FV
GLADIOLUS		
	<i>Summer and Fall Flowering Bulbs for the Landscape</i>	L
GRAFTING & BUDDING		
	<i>Nursery Crop Plants</i>	L
GROUND PEARL		
	<i>Ground Pearls</i>	LN
GRUB		
	<i>White, Grub Control in Turf</i>	I

H

HERB GARDEN

Cultivating a Small Culinary Her Garden

FV

Herbs: General

FV

HOLLY/HOLLIES

Diseases and their Control in the Landscape

L

HORTICULTURAL OILS

Horticultural Oils as Insecticides

I

I

INDOOR PLANTS

Indoor Plant Selection and Care

L

INSECTS

Ants, Red Imported or Fire Ants – see Ants

Aphids – see Aphids

Asian Ambrosia Beetle – see Asian Ambrosia Beetle

Bag Worms

I

Carpenter Bees – see Bees

Cottony Cushion Scale

I

Fall Web Worm

I

Insect Pests of Vegetables

I

Pests in Shade and Ornamental Trees

I

IVY, POISON

Things You should Know about Poison Ivy

L

K

KUDZU

Kudzu Bug

I

L

LANDSCAPE – LANDSCAPING

<i>Landscaping: Drought Tolerant Plants for NC Landscapes</i>	L
<i>Landscaping for Wildlife with Native Plants</i>	L
<i>Residential Landscaping</i>	L

LAWN CALENDAR

<i>Bermuda Grass Maintenance Calendar</i>	LN
<i>Centipede Grass Maintenance Calendar</i>	LN
<i>St. Augustine Grass Lawn Maintenance Calendar</i>	LN
<i>Turf: Algae and Moss Control</i>	LN
<i>Zoysia Grass Maintenance Calendar</i>	LN

LAWNS

<i>Carolina Lawns, a Guide to Maintenance</i>	LN
<i>Diseases of Cool Season Grasses</i>	LN
<i>Improving Lawn Care and Gardening in Coastal NC</i>	LN
<i>Shade – Grasses for Shaded Areas</i>	LN
<i>Water Quality and Home Lawn Care</i>	LN

LEYLAND CYPRESS

<i>Leyland Cypress Diseases</i>	L
<i>Pest Control Calendar</i>	L

LOQUAT

<i>Loquat (Eriobotrya Japonica)</i>	L
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M

MAGNOLIAS

<i>Southern</i>	L
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MOLE CRICKETS

<i>A Complete Guide to Mole Cricket Management</i>	I
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MULCHES

<i>Plastic Mulches and Drip Irrigation</i>	FV
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MUSCADINE GRAPES		
<i>In Home Garden</i>		FV
	N	
NARCISSUS		
<i>Narcissus – see Daffodil</i>		L
NITROGEN FERTILIZER CALCULATIONS		
<i>Nitrogen Fertilizer Calculation Cheat Sheet</i>		FV
	O	
ORNAMENTAL GRASSES		
<i>Ornamental Grasses for North Carolina</i>		LN
	P	
PALMS		
<i>Growing Palms for Outdoors in the Southeast</i>		L
PECAN		
<i>Pecans – Growing in North Carolina</i>		FV
PEPPERS		
<i>Peppers, Bell – for Garden</i>		FV
PERENNIALS		
<i>Perennials for Coastal Southeast North Carolina</i>		L
<i>In the Landscape</i>		L
PH SCALE		
<i>Ph Scale</i>		FV
PLANTS		
<i>Deer Resistant – see Deer Resistant for Coastal Southeast NC</i>		L
<i>Indoor Plant Selection and Care</i>		L
<i>Rain Gardens</i>		L
<i>Wetland Plants for Coastal North Carolina</i>		L

POWDERY MILDEW		
<i>Of Ornamental and Shade Trees</i>		L
PROPAGATION		
<i>Home Propagation of Ornamental Trees and Shrubs</i>		L
<i>Leaf, Cane and root Cuttings for Home Gardener</i>		L
<i>Of Woody Plants from Stem Cuttings</i>		L
PRUNING		
<i>Camellia – see Pruning Trees and Shrubs</i>		L
<i>Pruning Young Shade Trees</i>		L
<i>Pruning Trees and Shrubs, Guide for Ground Managers</i>		L
<i>Pruning Trees, Flushcuts and Wound Dressings</i>		L
	R	
RAIN GARDENS PLANTS		
<i>Rain Gardens – see Plants</i>		
ROSE		
<i>Diseases and Their Control</i>		L
	S	
SALT TOLERANT PLANTS		
<i>Salt Tolerant Plants</i>		L
SANDBUR		
<i>Control in Turfgrass</i>		LN
SEASHORE PLANTS		
<i>Plants for Seashore conditions</i>		L
SEED (S)		
<i>Starting Plants from Seeds</i>		L
SHITAKE MUSHROOMS		
<i>Producing Shitake Mushrooms</i>		FV
SHRUBS		
<i>1' – 4' for NC Landscapes</i>		L
<i>2' – 4' Small Shrubs</i>		L

	<i>4' – 8' for NC Landscapes</i>	L
	<i>8' Plus for NC Landscapes</i>	L
SOIL SAMPLES		
	<i>Understand the NC Soil Sample Report</i>	FV
SOIL TESTING		
	<i>Soil Testing – A Gardener's Guide</i>	FV
SQUASH		
	<i>Growing Summer Squash</i>	FV
	<i>Squash Vine Borer</i>	FV
STRAWBERRY		
	<i>Disease and Control</i>	FV
	<i>Strawberries in the Home Garden</i>	FV
T		
TOMATO		
	<i>Tomato Blight, Late</i>	FV
	<i>Tomato Blossom End Rot in the Home Garden</i>	FV
	<i>Tomato Disease Control</i>	FV
	<i>Tomato Growing for the Home Use</i>	FV
TREES		
	<i>How to Plant New Trees</i>	L
	<i>Large Trees for North Carolina, Over 30' Tall</i>	L
	<i>Small Trees – 10' - 30' Tall</i>	L
TURF – see LAWN OR LAWN CALENDAR		
V		
VEGETABLE		
	<i>Home Vegetable Gardening Quick Reference Guide</i>	FV

W

WEBWORM

Fall Webworm

I

WETLANDS

Soil Facts: Wetland Effect on Surface Water Quality

LN

Wetland Plants for Coastal NC

L

Z

ZOYSIA – see LAWN OR LAWN CALENDAR

LAWN ANALYSIS DIAGNOSTIC QUESTIONS

1. What type of turfgrass does the client have?
2. What type of damage is present? (i.e. does it appear to be insect-related? Disease?)
3. When was the turfgrass installed?
4. When did the client first notice the damage? (i.e. did symptoms appear suddenly within 1-2 weeks or has it progressed for several months?)
5. Does there appear to be a pattern of progression or is it random?
6. How much do they irrigate?
7. What chemicals (if any) have you used recently in your lawn (i.e. herbicide, insecticide, fungicide, etc.)?
8. How often have you sprayed?
9. Time of day that pesticides were applied?
10. HAVE YOU HAD YOUR SOIL TESTED?!
11. Bring in a sample if no diagnosis possible.

LANDSCAPE PLANT ANALYSIS DIAGNOSTIC QUESTIONS

1. What genus, species, and /or variety is the plant?
2. How long has the plant been in its present location?
3. When did the client first notice symptoms?
4. Where is the plant located (i.e. sun exposure, etc.)?
5. How frequently does the client water his plant?
6. How long is water present on the ground after a rain event?
7. Has the client looked at the roots of the plant? Did they appear to be healthy? (i.e. smaller feeder roots are not blackened)
8. Have you fertilized your plant in the past year? With what type of fertilizer did the client use?
9. Has the client conducted a soil test?
10. Has the client applied lime? How much and when?
11. Are there other plants of the same genus and species in this area? Do they appear healthy?
12. Are different plants in the same location experiencing the same issue?
13. Has the client looked for insect damage? What was the damage like? (i.e. chewing, piercing/sucking, etc.)
14. Has the plant been pruned?
15. Does the plant appear to have mechanical injury? (i.e. weedeater damage, mower damage, etc.)
16. Are they practicing proper sanitation measures to clean pruning equipment?
17. Bring in sample;

Sample procedures

- A. If insects, bring sample.
- B. If disease, bring in branch with good leaves and infected leaves. If small plant, bring entire plant including roots and soil.
- C. If turf bring in a 1 foot x 1 foot square sample, including root zone-take sample from problem area at interface of good and dying turfgrass.

INSECT/PEST IDENTIFICATION DIAGNOSTIC SURVEY

1. What is the genus and species of the plant where the insect was found? If no plant, where did the client find the pest?
2. When did the client first notice the insect? Has this appeared previously or is this the first time?
3. What percentage of the plant appears to be damaged?
 - a. 0-10% probably does not warrant chemical control
 - b. 11-25% continue monitoring. At this point the recommendation would be to prune out branches that appear to be infected. If this is not possible, chemical recommendations can be made.
 - c. 26-50% chemical control is the best option
 - d. >50% the plant is probably a total loss and should be removed to avoid colonization of other plants
4. Describe what the insect was doing when found on the plant. Was it chewing, is it stationary, etc.?
5. Describe in as much detail as possible the type of damage being caused.
6. Always inspect plant material for the presence of microscopic insects/pests using the microscope in the Master Gardener office.
7. Refer to the reference materials in the library to determine whether the insect is actually beneficial. If it is, explain to the client why there is no need to treat and why it is beneficial.
8. If you cannot make a positive ID, place the pest into a plastic bag or jar, along with the client name, contact information, and as much detail about the damage as possible. Contact the Horticulture Agent and notify him about the need for an insect ID. He will contact the client as soon as he makes a determination.
9. If the agent is not available, contact other appropriate horticulture staff as they are available.

SOIL SAMPLE POLICY AND PROCEDURE

Purpose: *Accurately receive and process soil samples*

Procedure

1. Check that Grower information on the Soil Sample Information sheet is completed:
 - a. Name
 - b. Address
 - c. Phone number
 - d. Email address

2. Verify that the soil information is filled in. Crop Codes for consumers are under Home lawn & Garden on back of Soil Sample Sheet:
 - a. Sample identification
 - b. Lime applied (*if applicable*)
 - c. First Crop and Code
 - d. Second Crop and Code

3. Cross check information on Soil Sample Information sheet and Soil Sample box.

4. Fill in the following information under Sample Information on the Soil Sample Sheet:
 - a. Sample Date
 - b. NC County
 - c. Number of samples

5. Examine Soil Sample box to see that it is closed correctly. If it is taped closed, remove the tape.

6. Make a copy of the soil Sample Information Sheet and place it in the file drawer in the office. Place the original and the soil sample(s) in the box that is to be sent.

7. See Example Soil Sample Sheet on the next page.

FRONT

SOIL SAMPLE INFORMATION — N.C. Soil Only



NCDA&CS Agronomic Division Soil Testing Section
 Mailing Address: 1040 Mail Service Center, Raleigh NC 27699-1040
 Physical Address (UPS/FedEx): 4300 Reedy Creek Road, Raleigh NC 27607
 Phone: (919) 733-2655 Website: www.ncagr.gov/agronomi

April–November: no fee
 December–March: \$4 / sample

SAMPLE INFORMATION	PAYMENT	GROWER INFORMATION <small>(please print legibly)</small>	CONSULTANT/OTHER RECIPIENT
FARM ID <small>(optional)</small>	FEE TOTAL METHOD OF PAYMENT ESCROW ACCOUNT ONLY <small>(write account name below)</small>	LAST NAME FIRST NAME ADDRESS <small>(in N.C. where samples were collected)</small>	LAST NAME FIRST NAME ADDRESS
SAMPLE DATE <small>(optional)</small>	To pay with credit card, you MUST use online sample submission.	25 Referendum Drive	25 Referendum Dr
NC COUNTY <small>(where collected)</small>	Reminders Use NCDA&CS sample boxes only. Fill to red line. Bags not accepted. Select crop code(s) from list on back of form.	CITY STATE ZIP Bolivia NC 28470	CITY STATE ZIP Bolivia NC 28470
NUMBER OF SAMPLES 2		PHONE (910) 253-2610	PHONE (910) 253-2595
		E-MAIL ADDRESS <input type="checkbox"/> Do Not notify me when report is available. goldendelicious@yahoo.com	E-MAIL ADDRESS <input type="checkbox"/> Do Not notify me when report is available.

LAB NUMBER <small>(Leave blank)</small>	SAMPLE IDENTIFICATION	LIME APPLIED WITHIN PAST 12 MONTHS			You must specify a crop CODE to receive a recommendation (see reverse side of form)			
		Tons/Acre	Month	Year	FIRST CROP	CODE	SECOND CROP	CODE
1	FIRION	0			CENTIPEDE	022	CENTIPEDE	022
2	BLACK	0			CENTIPEDE	022	CENTIPEDE	022
3								
4								
5								
6								
7								
8								
9								
10								
11								

Taking a Soil Sample

BACK

In soil areas. For each sample, collect 15–20 cores at the appropriate depth (0–8" for plowed soils; 0–4" for no-till, sod & lawns). Mix cores in a plastic bucket, then fill the sample box.
DO NOT PUT SOIL IN PLASTIC BAGS.

Filling out the Sample Information Form

LAB NUMBER <small>(Leave blank)</small>	SAMPLE IDENTIFICATION	LIME APPLIED WITHIN PAST 12 MONTHS			FIRST CROP	CODE	SECOND CROP	CODE
		Tons/Acre	Month	Year				
1	J J J	1	9	2012	Corn	001	Small Grain	004
2	S 1	2	9	2012	Clover / Grass, M	050	Clover / Grass, M	050
3	S 2	0			Bermuda Hay, E	043	Bermuda Hay, M	044

REQUIRED INFORMATION
The lab **MUST** have this information.

DESIRABLE INFORMATION
The lab can make better suggestions if this information is provided.

SAMPLE & GROWER INFORMATION — Provide as much information as possible. Print neatly.

CONSULTANT/OTHER RECIPIENT — List name & contact information for anyone else who needs to know about the report.

SAMPLE IDENTIFICATION — Print an identifier (use numbers and/or letters) for each sample on a separate line. The identifier should help remind you where the sample came from (Example: J1, S1). Make sure the sample identifiers on the boxes and on the information form are the same. Use pencil or waterproof markers.

FIRST CROP — List the crop for which you want lime and fertilizer recommendations. Be sure to include the appropriate CODE from the list below (e.g., Bermuda hay or pasture establishment, 043).

A. Use Lawn (code 026) for all lawn grasses except Centipede. Use one of the **Fine Turf** codes only for golf and athletic field turf.
 B. Use Shrubbery (code 029) for all shrubs, except azalea, camellia, rhododendron and mountain laurel.
 C. For all home garden vegetables, use code 024.

LIME APPLIED WITHIN PAST 12 MONTHS — Provide the amount of lime applied in tons/acre, as well as the year and month of the last application, if made during the past 12 months. (50M = 50 lb/1000 ft², which is equivalent to one ton per acre.)

SECOND CROP — List the name of the crop that will follow the one listed as FIRST CROP. Include its CODE from the list below. This will enable us to make suggestions for this crop, assuming that the field is treated as suggested the first year. List the second crop even if it will be grown the same year as FIRST CROP.

- ### CROP CODES
- | | | | | | |
|--|--|---|--|--|---|
| <p>E = establishment (1st year)
M = maintenance
SG = small grain</p> <p>000 No Crop</p> <p>Field Crops</p> <p>001 Corn, grain
002 Corn, silage
003 Cotton
004 Small Grain
006 Milo (Grain Sorghum)
007 Peanut
010 Soybean
011 Sunflower
012 Tobacco, burley
013 Tobacco, flue-cured
014 Tobacco, greenhouse
015 SG silage/ Soybean
016 SG silage/ Corn silage
017 Kenaf
018 SG/ Soybean (double crop)</p> | <p>Home Lawn & Garden</p> <p>020 Azalea/ Camellia
022 Centipede lawn
023 Flower garden
024 Vegetable garden
025 Min. laurel/ Rhododendron
026 Lawn (not centipede)
028 Rose
029 Shrubs
030 Berries/ Fruit/ Nuts
031 Tree, shade
032 Blueberries, home</p> <p>Christmas Trees</p> <p>034 Leyland cypress
035 Line-out/ Seed Beds
036 Fir/ N Spruce/ Hemlock, E
037 Fir/ N Spruce/ Hemlock, M
038 Pine, White or Virginia
039 Blue Spruce/ Red Cedar</p> <p>Forage & Pasture</p> <p>040 Alfalfa, E
041 Alfalfa, M
042 Common bermuda/ Bahia</p> | <p>Forage & Pasture (cont.)</p> <p>043 Bermuda hay/ pasture, E
044 Bermuda hay/ pasture, M
047 Bluegrass pasture
048 Bluegrass/ White Clover
049 Clover/ Grass, E
050 Clover/ Grass, M
051 Gamagrass
053 Legumes, misc.
054 Fescue/ Orchard/ Timothy, E
055 Fescue/ Orchard/ Timothy, M
056 Prairiegrass
057 Switchgrass
059 Sudan/Sorghum/Millet/Red Crabgrass
060 Sudan/ Sorghum silage</p> <p>Roadside Areas</p> <p>061 Critical area
062 Roadside grass, E
063 Roadside grass, M</p> <p>Wildlife Areas / Food Plots</p> <p>066 Deer / Turkey
067 Upland game
068 Waterfowl
069 Fish pond</p> | <p>Commercial Hort Crops ONLY
(024 = all Home Vegetables)</p> <p>070 Asparagus, E
071 Asparagus, M
072 Beans/ Peas
074 Beet
075 Blueberry, E
076 Blueberry, M
077 Broccoli/ B. sprouts/Cauliflower
079 Cabbage
080 Cantaloupe/ Watermelon
084 Corn, sweet
085 Cucumber
088 Grape, E
089 Grape, M
119 Hops
090 Kale/ Mustard/ Spinach
093 Okra
095 Pea, southern
096 Pepper
097 Plant bed, vegetable
098 Potato, Irish
099 Sweetpotato
100 Radish
101 Rape/ Canola</p> | <p>Commercial Hort Crops (cont.)</p> <p>102 Raspberry/ Blackberry, E
103 Raspberry/ Blackberry, M
107 Squash/ Pumpkin
108 Strawberry, E
109 Strawberry, M
118 Strawberry, Plasticulture
110 Tomato
111 Tomato, greenhouse
115 Turnip
116 Vegetables, other</p> <p>Commercial Nursery & Flowers</p> <p>120 Dahlia
121 Gladiolus
122 Greenhouse
123 Gypsophila (Baby's Breath)
124 Flower, bulbs
125 Flower, roots
126 Nursery, container
132 Rhododendron/ Ginseng/
Native ornamentals
136 Nursery/ Trees</p> | <p>Orchard, Fruit & Nut</p> <p>130 Apple, E
131 Apple, M
138 Peach, E
139 Peach, M
140 Pecan, E
141 Pecan, M</p> <p>Forest Trees & Seed</p> <p>133 Hardwood, E
134 Hardwood, M
137 Nursery, pine
142 Pine, E
143 Pine, M
144 Hardwood, seed
145 Fir/ Spruce, seed
146 Pine, seed</p> <p>Fine Turf</p> <p>150 Fairway/ Athletic turf
151 Tee
152 Greens</p> <p>Stormwater</p> <p>200 Bioretention cell</p> |
|--|--|---|--|--|---|

USE EXTENSION-BASED RECOMMENDATIONS FIRST

Anyone can do a quick “Google” search and find an answer to a question. However, the reason people seek out Extension-based resources is because our answers have been research and work. This is what sets us apart from the Garden club websites where answers may or may not work. When sitting in on the Info Line, always use extension-based articles first. Whether you search for printed copies or are looking for hard-to-find articles on the internet, *NC State or Clemson recommendations should always be given first, if there are any available.*

We are required to give NC State recommendations for pesticides even if you do not personally use them in your own home or garden. If you are not comfortable giving these types of recommendations, refer them to one of the Horticulture staff in the office.

Using the Computer for Research

When using the internet as a tool for research, always include the word “extension” at the end of whatever you are researching. For example, a client wants to know about pruning fruit trees. If we do not have printed publications or you are e-mailing them a copy your internet search words would be:

“pruning fruit trees ncsu extension”

This search term will bring up all the publications NCSU has for pruning fruit trees. If it is something tropical such as a palm tree or citrus, you can substitute NCSU for Clemson. If you cannot find anything and have explored all other possibilities, refer the question to Horticulture staff and tell the client they can expect response from one of us.

THE INFO LINE COMPUTER

Computer protocols

- The Info Line computer is dedicated for Info Line use ONLY. Personal searches for non-horticultural information is strongly discouraged
- There is a lag time of about 12-24 hours from the time an e-mail is sent to the time a client may actually receive it. Please make sure to tell clients this information in advance.
- The printer in the Master Gardener office is the default printer. When possible, please use this printer. If you need to make a copy in the supply room, please contact Gina Britton for assistance.
- Avoid adding “favorites” or bookmarks to pages
- The shortcut links on the computer’s desktop should never be removed, nor should new ones be added
- Leave the computer turned on at all times

Signing up for the Info Line and the Botanical Garden

In 2014, EMGV’s will have the opportunity to sign up for the Info Line in one of two locations, one at the Extension office in Bolivia, and the other at Hickman’s Crossroads Library. Because space is limited and other Master Gardeners need to obtain their hours, you should always show up for the time in which you have volunteered.

NOTE: Our busiest times are from March—June and then again in late September—October. Participation is critical then because of the increased number of walk-ins and phone inquiries.

When you come to volunteer in the Botanical Garden, you will need to speak with Michelle Spencer or a Master Gardener liaison about particular tasks that need to be completed. Staff and volunteers will be available Monday—Friday during the morning times. Once you have completed your work for that day, report the number of hours volunteered and the task(s) that were completed to the Master Gardener Coordinator or to the Horticulture Agent.

You will be able to sign up for a time to volunteer on Info Line on the NCSU Garden site under the “Phone” category on the left-hand side of the homepage. The workdays will be posted on the events calendar and you will be able to sign up there.

CANCELLATION: In the case of emergency, changed plans, or unexpected houseguests, cancellations may be made in phone or in person. The following are the procedures for cancelling your time to volunteer on the Info Line:

1. Cancellation made 7 days or more in advance of a scheduled session. Make sure that your name is removed from phone schedule.
2. In the case of a cancellation, please call the extension office to let staff and/or other Master Gardeners know that you will not be able to make it to your session.
3. If possible, find a replacement to fill in for you either by phoning a friend or using the directory on the NCSU Garden site to e-mail a potential replacement.
4. In case of an emergency, contact the Extension office as soon as possible to inform Horticulture staff and/or other volunteers know.

WHERE DO I COUNT MY VOLUNTEER SERVICE HOURS?

The total of all hours given to the BCEMGV Program are known as service hours. Service hours are divided into the following categories and meet your minimum 40 hour volunteer agreement:

Information Line (Info line)—Info line time is counted as any time spent at the Extension Office in Bolivia or at the Hickman’s Crossroads Satellite Campus. To receive credit under this category, you must be physically present in either of these offices. Certified EMGVs will spend a minimum of 10 hours helping on the info line; new EMGV trainees will spend a minimum of 15 hours on the info line.

Public Outreach—This includes (but is not limited to): plant sales, farmers markets, restitution, Junior Master Gardeners, and other youth programs, giving talks for garden clubs, running informational booths at gardening events.

Demonstration (Botanical Garden)—a minimum of 10 hours are required in the botanical garden. This is open and available for ALL volunteers. If you have

physical limitations or person concerns, please speak with the Horticulture Agent or Botanical Garden Curator.

Community Garden—hours volunteered toward BCMG Program projects and approved volunteer activities (see below).

Other Hours (not counted toward initial 30- or 40-hour commitment)

Education Hours—hours spent in initial BCMG Training and any advanced training attended. This includes educational lectures given during BCMG Association meetings.

Travel Hours—hours spent traveling to training events, volunteer activities, and BCMGA or BCMG committee meetings

Travel and Educational hours do not count toward your initial 30 hour or continuing 40 hour volunteer commitment, but do count toward your total volunteer service record, which is used to calculate volunteer recognition awards.

What is the minimum number of work hours required to maintain active Master Gardener Volunteer status?

Once certified (after the first year), Brunswick County Master Gardener Volunteers must complete at least 40 hours of volunteer service. This commitment must be completed within one calendar year to maintain their active Master Gardener status and be eligible to continue participation in the Brunswick County Master Gardener Volunteer Program the next year.

What Counts as Education Hours?

Only activities approved by the horticulture agent can be recorded as education hours for the Brunswick County Extension Master Gardener Volunteer Program. These include:

- Initial Master Gardener Volunteer Training
- Advanced Master Gardener Volunteer Training
- Attending the annual NC Master Gardener Volunteer Association Conference
- Brunswick County MGA meetings
- Educational portion of monthly MGA meetings

- Attending any local, regional, or statewide training offered by Cooperative Extension
- Educational field trips arranged by the horticulture agent or BCMGA

What counts as work hours for the Master Gardener Volunteer Program?

Only activities approved by the Extension Horticulture Agent can count as volunteer work hours. Both Master Gardener Program and Master Gardener Association related activities may count. The primary criteria used to determine what counts are:

- It is an Extension educational activity or is in support of an Extension educational activity
- It is within the scope of the mission of Cooperative Extension
- It is in support of the operation of the MGV Program
- Volunteers are participating as representatives of the MGV Program

What does not count as work hours for the MGV Program?

- Travel time to and from volunteer activities, unless the volunteer activity is to deliver or pick up items (ex. Pick up plants for plant sale, deliver flyers to local businesses)
- Time spent in training – these count as educational hours
- Answering questions for your neighbor/friend/family
- Working at your church/school/community organization, unless you have received prior approval from the horticulture agent and are doing so in an educational capacity as a recognized representative of Brunswick County Cooperative Extension and the MGV Program

The following are approved activities for volunteer hours:

- Working in the Botanical Garden at the Extension Office, including time spent getting supplies for workdays (*Demo Garden*)
- Activities related to the Spring/Fall Plant Sale, including setting up, working during the sale, and cleaning up after the sale (*Plant Sale*)
- Participating in the ‘Ask a Master Gardener’ clinics at the Farmer’s Market, Library, garden clubs or other locations as arranged by the horticulture agent or BCMGV as long as the agent is informed (*Public Events*)

- Participating in the School Outreach Program, and 4-H, including time spent in the classroom, time spent preparing materials for lessons, and committee meetings (*Youth Programs*)
- Activities related to participation in Educational Speaker's, including preparation of presentations and committee meetings (*Social*)
- Time spent as a member of the MGV Management Team (*Management Team*)
- Time spent maintaining and updating the MG Websites (*Technology*)
- Time spent working on individual or group projects commissioned by the horticulture agent (ex. Working on a FAQ database or monthly garden to-do list)
- Time working with the Restitution Program
- Time spent mentoring a new or existing MG.
- Time spent writing articles for the MGA Newsletter. Time spent by the newsletter editor preparing and distributing the newsletter
- For the MGA Board: time spent in board meetings, planning monthly meetings, and leading monthly meetings

What counts as Information Line Time?

- Information line; this must be at the Extension Office in Bolivia or at the satellite campus at Hickman's Crossroads Library in Calabash

What does not count as Information Line Time?

- Working in the Greenhouse, Botanical Gardens, or Hardscapes = Community Gardens
- Attending the Monthly Business Meeting = Management Team
- Attending Board or Committee Meeting = Management Team
- Working at the Plant Sales = Plant Sales
- Plant Clinics, Seminars, TILS, or anytime you are face to face with the public = Public Event
- Life On The Farm, Ecosystems Expo, 4-H Projects = Youth Programs
- Restitution Volunteers = Restitution

What volunteer time counts under Educational Training?

Time Spent listening to speakers = Extension Training

Time spent on Field Trips = Extension Training

Time spent at Regional, State, or National Meeting = Extension

What other records may you keep track of?

On the MG Intranet, MG's have the option of entering records for travel hours, mileage, out of pocket expenses, registration fees, and value of goods or services received. These records are not required but can be used to generate a report for income tax deductions.

Also, travel hours will count toward your total volunteer service record used to calculate volunteer recognition awards. They are also used for BCMGVA reports to Brunswick County.

What are the guidelines for recording hours?

Please record all of the hours you spent as a Master Gardener. If you are working for the program you will record your time under the Volunteer Category. If you are receiving training at a meeting or seminar, you will record your time under either option.