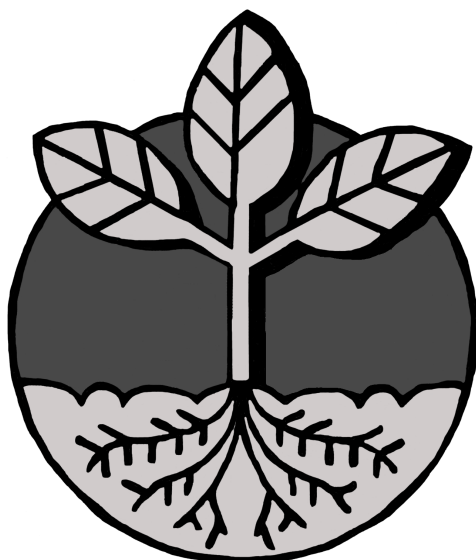


Agricultural Services and Diagnostic
Laboratories
of the
University of Georgia
Cooperative Extension Service

... providing valuable services to Georgia farmers,
homeowners and commercial groups
through county extension offices



Soil ♦ Plants ♦ Water ♦ Feeds
Environment ♦ Pesticides

Service and Support

Extension personnel who staff this network of laboratories strive to supply unbiased current and valuable information to the agricultural and consuming public. Contact your local county extension office for prices and how to submit samples.

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Soil Testing

Nutritional

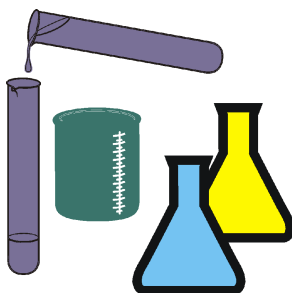
A routine soil test is necessary for making accurate fertilizer and lime recommendations. Test results provide a scientific basis for maintaining optimum soil fertility levels, proper soil pH values and for preventing excessive fertilizer applications that can be expensive and hazardous to the environment. A routine test analyzes pH, phosphorus, potassium, calcium, magnesium, zinc and manganese. Fee schedules for routine and special analyses are available at your county extension office.

Sampling Procedures

The results of a soil test are only as good as the sampling techniques used. A representative sample is essential if proper recommendations are obtained. You'll find instructions on how to take a sample on the back of the soil sample bags provided by your county extension office.

Recommendations

Our laboratories forward results of your sample to your county extension office, where results are reviewed. A copy is then mailed to you. You can contact your county extension agent if you have questions and need more information.



Plant Tissue

Nutritional

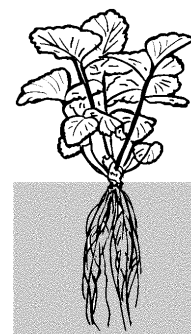
The diagnostic procedure involved in a nutritional plant analysis can confirm a suspected mineral deficiency or toxicity before taking corrective action. Comparing soil and tissue analyses taken from normal areas with those taken from affected areas is invaluable when trouble-shooting or monitoring plant nutrient status.

Sampling Procedures

Plant kits and fee schedules are available from your county extension office. The kits include a plant history report, proper sampling techniques and an envelope for submitting samples to the laboratory. To obtain the best possible recommendation, collect a representative sample.

Recommendations

Our laboratories forward the results of your sample to your county extension office, where the results are reviewed. A copy is then mailed to you. You can contact your county extension agent if you have questions or need more information.



Water Testing

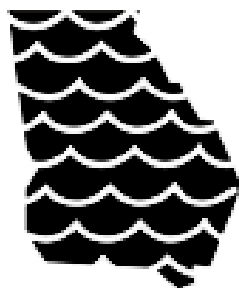
How and in what ways water is used often depends upon its quality. Agriculture is the number one water user, but many municipalities and industries are also heavy users. In addition to human needs, all plants and animals require fresh, safe water to survive. For these reasons, regular testing of water is important. Testing can also help you identify and solve any problems you might have with your water.

Sampling Procedures

Contact your county extension office for water bottles, mailing tubes, proper sampling techniques and fee information. Which sampling technique is used depends upon the source, end use and other factors.

Recommendations

Your results will be evaluated by the appropriate extension specialist and made available to you through your county extension office.



Feeds/Silages/Hay

The Feed Nutrition Laboratory provides data on the nutritive value of feed ingredients, silages and hays to help you purchase and formulate animal rations. This lab can also screen for fungal and nitrate levels that can be toxic to livestock.

Sampling Procedures

For mixed feeds, concentrates, vitamin/ mineral blends, grains and by-products, submit samples in 18-ounce size zip-loc bags. Pull multiple core samples or grab samples – combine and subsample. Check with your local extension office for more information.

Recommendations

You will receive a copy of the results. Also, an extension specialist and your county extension agent will receive copies in case you need further information.



Cotton Petioles

Cotton petiole analysis is a valuable tool in the overall production program for cotton. Petiole nitrate-nitrogen and phosphorus levels indicate the relative amounts of unused nitrogen and phosphorus in the plant. The relationship between the two elements provides useful clues as to how effectively the plant is using nitrogen, how it is responding to growth conditions, and if corrective treatments are needed.

Sampling Procedures

Petiole kits are available at your county extension office. The kits contain information cards, sampling instructions and pre-addressed mailing envelopes for 10 weekly samplings. It is essential that the information cards be properly and completely filled in so the most accurate recommendations can be obtained.

Recommendations

A copy of the results and recommendations is sent directly to the grower, while two copies are mailed to the county extension office. Because timing is very critical, a one-day service for the analyses is provided.



Artificial Greenhouse/ Nursery Mixes

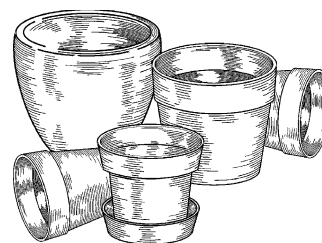
This test is strictly for artificial potting soil and growth media (peat moss, vermiculite, pine bark, etc). The analysis consists of phosphorus, magnesium, pH, nitrate, ammonia nitrate and salts.

Sampling Procedures

The procedure chosen depends on the particular plants and their locations (homes, businesses and commercial greenhouse operations). It is best to contact your county extension agent or a horticulture specialist to obtain specific sampling and submission instructions pertinent to your individual situation.

Recommendations

Completed results are returned to your county extension office with a copy to an appropriate specialist for any additional interpretation that may be required.



Agricultural Waste and By-Products

Using waste materials or by-products as fertilizers and soil and/or feed amendments is economical and environmentally friendly. Our laboratories will analyze samples of sludges, manures, lagoons, litter and waste water for various uses based on their end use.

Sampling Procedures

In most cases, a quart size zip-loc bag or gallon jug is sufficient for submitting various types of samples. Check with your county extension agent for fees and sample submission instructions.

Recommendations

Results are forwarded to the appropriate extension specialist along with a copy to your county extension agent, who provide interpretations.

Pesticide Residue and Hazardous Waste

The Pesticide Residue Laboratory determines pesticide levels in a variety of materials for environmental and diagnostic purposes, such as fish and bird kills, feed contamination and herbicide damage. This lab can also provide analyses for –

1. Primary and secondary drinking water parameters
2. Volatile organic chemicals (solvents)
3. Pesticides
4. Petroleum products

Sampling Procedures

Correct sampling containers and sampling techniques are critical for these types of analyses; therefore, it is best to obtain specific instructions for the sample you wish to submit. Plastic containers are not acceptable. Your local extension office can assist with sampling information.

Results and/or Recommendations

Data collected is sent to you through the county agent's office. If a recommendation or interpretation is needed, you will be referred to an appropriate source.



Plant Disease Diagnostics

To promote the sustainability of Georgia agriculture, county extension offices use the resources of the Commercial Plant Disease Diagnostic and the Homeowner Insect and Disease IPM Clinics in Athens and Tifton. Maintained by the extension plant pathology unit, these labs provide diagnostic information to educate growers concerning environmentally sound and economically viable plant production programs.

Sampling Procedures

Samples should be processed through the county extension office to ensure submission to the correct laboratory. Priority is given to those samples that are submitted with proper documentation.

Recommendations

Recommendations are prepared by the faculty specialist responsible for the crop submitted and are intended to be educational. All materials will be sent to the county extension office to be used for the education of the grower.

Nematode Analysis

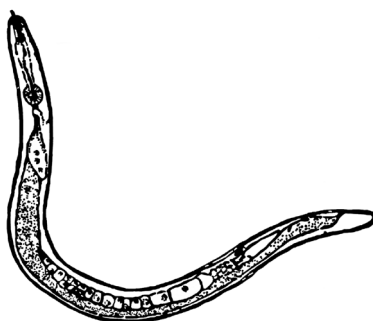
All plants are susceptible to nematodes. The extension plant pathology unit maintains the Nematode Analysis Laboratory for soil and plant materials. Non-biased research-based analysis is conducted to provide a data base for on-going educational programs.

Sampling Procedure

There are certain guidelines in sampling and sample handling that county extension personnel follow. Your county extension office can help with sampling instructions to maximize results. Nematode samples submitted through the county extension office have priority and are analyzed on a first-come, first-served basis. There are appropriate times for sampling each crop.

Recommendations

Results are sent to county extension personnel to develop educational recommendations for the grower.



Corn Aflatoxin Analysis

Corn produced by Georgia growers fed to livestock is analyzed for aflatoxin by a laboratory maintained by the extension plant pathology unit.

Sampling Procedures

Submit dry, shelled corn. Contact your county extension office for procedures on how to adequately random sample and submit samples.

Recommendations

Analysis results are sent to the grower through the county extension office. Educational recommendations are prepared by the corn plant pathologist and the appropriate animal science extension specialist.



Insect Identification

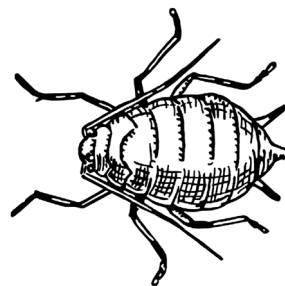
Services identifying insects and closely related arthropods are also available through your county extension office. Maintained by the extension entomology unit, these laboratories provide identification of insects found in all commercial plant and animal production systems as well as in stored products and structures and those closely associated with humans and companion animals.

Sampling Procedures

Samples should be processed through your county extension office. All county extension offices have small vials containing preservative, insect identification forms and mailing tubes. In addition, the county extension agent can provide valuable information about how to properly collect and preserve various specimens to ensure that identification of the arthropod is possible.

Recommendations

Identification and control recommendations prepared by the appropriate faculty specialist are sent to the county extension agent, who will assist you with the information.



The University of Georgia and Ft. Valley State University, the U.S. Department of Agriculture and counties of the state cooperating. The Cooperative Extension Service, the University of Georgia College of Agricultural and Environmental Sciences offers educational programs, assistance and materials to all people without regard to race, color, national origin, age, sex or disability.

**An Equal Opportunity Employer/Affirmative Action Organization
Committed to a Diverse Work Force**

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Gale A. Buchanan, Dean and Director