The University of Georgia
Cooperative Extension Service
College of Agricultural and Environmental Sciences / Athens, Georgia 30602-4356

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BROILER TIP...

LITTER AND SOIL SAMPLING FOR NUTRIENT MANAGEMENT PLANS

All agricultural operations are facing increased environmental regulation, especially animal agriculture. Poultry, pork, and dairy producers throughout the United States are being required by federal and state laws to provide environmental protection. Broiler growers in Georgia are being asked to phase in Nutrient Management Plans within two years. An initial, and very important part of these plans is sampling both the chicken litter and the soil from croplands before applying the litter. Collecting the proper number of samples from the correct areas is critical to determining appropriate land application rates, promoting maximum plant growth and protecting the environment.

Litter Sampling

To sample litter, take 10-12 pint-size samples from throughout the house, with proportionate samples from all areas (include feeder and waterer areas). Do not dig deep enough to pick up soil. If sampling a stockpile, get 10-12 samples from approximately 18 inches below the surface. Again, do not contaminate with soil from the bottom of the pile. A shovel, spade, large diameter soil corer, or other device can be used. Once collected, mix well all the samples in a bucket or clean container. Put approximately one quart in a plastic bag or other container (a gallon-sized zip-lock bag works well) and label with a permanent marker. Send the sample as soon after collection as possible; refrigerate if holding overnight. Collect samples as short a time as possible prior to application, with regard to time needed to process samples at the lab and then send back sample results. Request total N, P, K, NH4+ (ammonium), and any other test considered important in your situation. Testing can be handled through the University of Georgia Agricultural Services Lab in Athens or by private labs (contact your County Extension Agent).

Soil Sampling

To sample soil, estimate the size of the field (hay, row crops, pine trees, etc.) in acres. One soil sample per acre is sufficient provided that at least 10 total samples are collected (a fifteen acre field would equal 15 samples, but a seven acre field should still have 10 samples). Samples should be

of the area; stay from fence s, large trees, roadsides, concentrated animal sites, etc. samples should
6 Do not any vegetative organic matter the surface. with all
dirt all deep will provide results. Shovels, soil corers, other devices
be used. Once collected, put all samples in a clean bucket or container and mix very well. Discard
rocks and of surface material. Put into an tural Services Lab
(Extension Service) paper bag from your Extension Agent label with
appropriate Your County Agent will hen mail samples to the UGA Soil Testing Laboratory and then send results to you after the analysis is completed.

Figure B. Sample collection:
Step 1 - dig 6" deep hole

Step 3 **n**

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Consult with your poultry company representative before making management changes.

"Your local County Extension Agent is a source of more information on this subject"