RICE

PROCEDURES FOR SOIL AND PLANT TISSUE SAMPLING

Soil and plant tissue analyses can help determine the fertilization needs of your crops and assist in identifying problem conditions if they exist. This guide will help you collect representative and meaningful samples which will help assure relevant laboratory analysis data.

Plant tissue analysis is most useful in evaluating the nutrient status or toxic levels of a growing crop especially when results can be compared with interpretive guides.

Preplant or postplant soil analyses provide useful information for measurement of fertility or toxicity levels and to substantiate amendment requirements. Data from soil analyses is most meaning when used in conjunction with plant tissue analysis results.

SOIL SAMPLING - RICE

When to Sample - Soils

Preplant soil analysis data is used to determine the most appropriate plant variety and helps determine the need for preplant fertilizers or soil amendments.

Soil samples may be collected throughout the year to monitor soil conditions or to determine the causes for poor growth in specific locations.

How to Sample - Soils

Soil samples should be representative of the area to be treated. If possible, areas should be uniform with respect to soil texture. Areas sampled should not be larger than 20-40 acres. Problem areas should be sampled separately and compared with samples taken from adjacent non problem areas. The location of the sample areas should be noted and marked on a parcel or planting map for future reference.

Soil samples should contain at least 10-20 cores for each sample area. Samples should be collected from the irrigated area at or near the drip line of the plants. Retrieve an equal amount of soil from the surface to a depth of 12 inches (0-12"). Soil core samples should be placed in a clean bucket and thoroughly mixed. Approximately a quart volume of this soil will be required for analysis purposes.

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PLANT TISSUE SAMPLING - RICE

When to Sample

Plant tissue samples may be collected at any time: However, the growth stage at which a sample is collected is important to know when interpreting the analysis results. The typical times for sampling are: 1.) Mid-tillers 2.) Maximum-tillers 3.) Panicle Initiation 4.) Flag Leaf . Be sure to indicate the growth stage with each sample.

How to Sample

Plant tissue samples should be representative of the area to be fertilized. The sampler should traverse an area of at least 5 acres when collecting a sample. Sampling areas should be uniform with respect to soil texture and variety and should not be larger than 20-40 acres. Problem areas should be sampled separately.

Volume and Type of Plant Tissue to Collect

Collect 60-80 leaf blades from each area.

Labeling, Packaging, and Shipping

All plant tissue and soil samples should be labeled with your property name and address, sample identification, crop, variety, age, stage of growth, previous problems (if any) and the required analyses. Plant tissue should be placed in paper bags and soil samples in plastic bags. Plant tissue samples should be delivered to the laboratory as soon as possible to ensure freshness. If held for more than one day, plant tissue samples should be stored in paper bags at room temperature until delivered or shipped. Analytical nutrient values are not affected if samples are allowed to air dry naturally. This becomes a problem if moisture is present and mold develops.

As an alternative to delivering directly to our laboratory, plant tissue and soil samples can be shipped via overnight UPS, or other private couriers.

When in doubt .....

If you have any questions or require assistance relating to the above, please visit www.fglinc.com or call Fruit Growers Laboratory's Agronomic Services.