

Crop Information

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Start Tissue Testing Programs Early Before Problems Occur

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The Increasing Need

Modern agriculture demands top yields and quality yields. Additionally, you demand profitable yields. In satisfying these demands, plant tissue analysis has become a valuable crop production tool.

Top quality and profitable yields, unfortunately, don't just happen. Many factors need to be considered like adequate moisture and fertility, proper plant population, adapted variety, disease and insect resistance and control...the list goes on.

One of the more important factors affecting crop yields is the nutrient status of the plant or the flow of nutrients to plant tissues during the growing season. Nutrient status is an "unseen" factor in plant growth, except when deficiencies become so acute that visual deficiency symptoms appear on the plant.

Plant populations can be counted, and variety names or numbers can be read on the label. Rainfall can be measured with gauges. However, the determination of nutrient status of plants requires precision laboratory analysis of a plant tissue sample during the growing season.

How Can a Tissue Analysis Help?

A plant tissue analysis will show the nutrient status of the plants during the growing season and detect unseen hidden hunger. Plant tissue analysis can also supply information to confirm visual deficiency symptoms.

Though usually used as a diagnostic tool for future correction of nutrient problems, a plant tissue analysis from young plants will allow for a corrective fertilizer application the same season. Combined with data from a soil analysis, a tissue analysis is an important tool in determining proper fertilizer applications to balance the nutrient requirements of the crop.

A complete plant tissue analysis from A & L Agriculture Laboratories will identify the nutrient status of the following elements:

Elements

- * Nitrogen
- * Sulfur
- * Phosphorus
- * Iron
- * Aluminum
- * Manganese
- * Potassium

- * Boron
- * Magnesium
- * Copper
- * Calcium
- * Zinc
- * Sodium

Collection and Preparation of the Sample

When gathering the tissue sample in the field, be sure to use a clean container. A plastic pail or a paper bag work best. Never use a metal container to gather the sample as the metal may contaminate the sample.

To insure proper sample amount on young plants, collect approximately one pint of lightly

packed material.

If the plant samples have soil, fertilizer, dust or spray residues on them, they will need to be cleaned. A dry brush works well. For stubborn residues, wipe the samples with a damp cloth or wash the samples with distilled and deionized water. However, do not prolong the washing, Air-dry the samples. Clean paper bags or envelopes work best and avoid contamination when mailing the samples to the laboratory.

Never place fresh samples in a plastic bag!

Do not include roots with samples submitted for nutrient analysis.

Disease analysis requires a separate sample. Please phone for instructions before submitting samples for disease diagnosis.

Tissue Sample Mailing Kits are Available

A & L Agricultural Laboratories will provide sample bags suitable for plant tissue samples and plant tissue information sheets. These sheets should be filled out accurately and completely. If complete information is submitted with the sample, the interpretation of the plant tissue analysis will be more meaningful.