



Plant Tissue Sampling

For Peace Of Mind...And Profit

CAN GROWING PLANTS BE SAMPLED AND ANALYZED?

YES, the best way to determine what is happening in a plant is to pull a plant sample and have it analyzed. If any of the essential elements or nutrients are deficient, it can be detected by analyzing the plant or plant parts.

IS PLANT SAMPLING IMPORTANT?

YES, it has been estimated that 20-30% of your crops potential yield is lost due to fertilizer deficiencies. A good plant sampling program could detect these deficiencies early enough to correct the problem and alleviate the yield loss.

WHEN DO YOU NEED TO PULL PLANT SAMPLES?

Plants can be sampled and analyzed any time during the growing season. However, it is recommended that sampling occur early in the growth cycle. Ideally, plants should be sampled at the early or vegetative stage and at the mid-point or early fruiting stage. If any nutritional deficiencies occur at these stages corrections can be made without any great loss of yield.

HOW DO YOU PULL PLANT SAMPLES?

The parts of a plant to be pulled can be classified as the latest maturing leaf or leaves on the plant - not the oldest not the youngest - but rather the most fully developed leaf from the top. With most crops that we grow it is usually the fourth leaf from the top or is normally in top 1/3 of the plant. Usually 20 to 30 leaves are a sufficient quantity to send. As a rule of thumb the lab needs a double handful of plant material. Visit our website at www.watersag.com to see a complete listing of how to pull a plant sample.

SHOULD YOU SAMPLE ONLY PLANTS THAT VISUALLY DISPLAY A DEFICIENCY?

You should sample all fields, good and bad, but separately, to ensure that nutrient levels are adequate. Plants that display a deficiency should be sampled to correct the deficiency that is present. As stated earlier 20-30% of the potential yield is lost annually to nutrient deficiencies and most often to "hidden hunger". Hidden hunger is a nutrient deficiency that is severe enough to cause yield reduction but not severe enough to be visual. In other words - it's there but you can't see it. It is helpful when submitting a plant sample to also send a soil sample from the same area.

HOW DO YOU HANDLE PLANT SAMPLE MATERIAL AFTER IT IS PULLED?

Plant material should be placed in a paper bag, the bag or bags should be placed in a box and sent to the lab. Do not put plants in plastic bags, as plant material will deteriorate more rapidly in plastic. We furnish bags & shipping boxes which plants can be used to ship to the lab. Be sure to list the address of the sender, the crop and stage of growth (vegetative, early bloom, podfill, tassel, early ear, etc.) We furnish information sheets and also instructions on which parts of the plant are to be sampled.



HOW DO YOU SHIP PLANT SAMPLES?

We furnish bags & shipping boxes in which plant samples can be sent to us. If you have more than one sample we suggest putting them in shipping boxes. Shipping bags or boxes can be sent through the US Mail, UPS or FedEx. We normally receive samples within two days from shipment. Usually overnight service is offered by all three shipping companies, but this only saves approximately one day and is much more expensive.

HOW LONG DOES IT TAKE TO ANALYZE PLANT SAMPLES?

Normally, within 24 hours after we receive plant samples we have them analyzed. In other words, samples we receive today will be dried overnight, ground and analyzed tomorrow. Once the analysis is complete, your results can then be emailed, faxed, mailed, or if you have Lab-Talk 2000, provided via FTP service over the internet. This **FastBack**® service is essential for plant analysis in that it gets the information back to you to make necessary applications to correct any deficiencies as early as possible.

IS IT ECONOMICALLY FEASIBLE TO ATTEMPT TO CORRECT PLANT DEFICIENCIES?

YES, you could be losing production and profits by not correcting these deficiencies. Your fertilizer dealers have materials that will correct any nutritional deficiency that we detect and they can be applied very easily after the plants are up and growing.



WHAT DOES A PLANT SAMPLE INCLUDE?

A plant analysis includes Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Boron, Zinc, Manganese, Iron, and Copper. If you submit a corresponding soil sample, your report will include all of the above in addition to a complete soil test.

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