

The accuracy and representativeness of any analytical data is directly tied to and dependent upon the quality of sample taken. This is true with plant tissue sampling regardless of intended analysis. The following procedure outlines general best practices to ensure quality plant tissue samples are collected for analytical services.

Sample Locations

It is important to consider the source and location of the collected sample so that it represents the end goals of the resulting analytical data. For example, if looking to identify root borne pathogens that only manifest in mature plants, it may not be appropriate to take leaf or flower samples or root samples of very young plants. While this may seem obvious, careful consideration should be used to ensure the target sample meets the end goals of analysis. In troubleshooting or diagnostic practice, it is often appropriate to take multiple samples of both “affected” and what is considered “normal” plant tissue samples. The comparison of these data sets can prove useful in characterizing variances within a crop, for example. If questions arise, contact us for recommendations.

Sample Collection

- Wear appropriate PPE including, but not limited to nitrile gloves, eye protection, etc.
- Always use clean (sterile) sample containers for plant tissue samples – particularly when they are intended for microbial analysis. These containers can be bottles, tubes or zip-lock or whirl-Pak type bags.
- Sterilize sampling tools such as shears and tweezers with isopropanol or a dilute bleach solution prior to taking trimmings. Ensure tools are dry prior to use.
- For microbial ID, such as PCR/sequencing, roughly a half dollar coin-sized tissue sample is sufficient. This can be of any target tissue (roots, stem, leaf, etc.). *Refer to the sample location section.*
- For tissue mineral analysis a larger sample is required, roughly 1 full cup of lightly packed plant material.
- Ensure the samples are free of any debris or foreign plant material that may interfere with the analysis.

Sample Shipping

- Do not freeze samples prior or during to shipment.
- Shipping should be no longer than 2 days with overnight shipping preferred to ensure sample freshness.

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