

CDFA & USDA Permitted Lab Accredited by National Seed Health System (NSHS) For Seed Health Testing

Detection of Bacteria, Fungi, Phyto-plasma viral diseases of vegetables, fruit trees and seeds.

Using conventional and specialized molecular tools for disease diagnosis.

ELISA, PCR, Real-Time PCR and RT-PCR for accurate and faster detection.

Species-level identification using PCR and Sequencing.

Detection of Grapevine leafrollassociated viruses using ELISA and RT-PCR.

Identification of Nematodes.

Microbial Activity of soil using Average Color Development Analysis.

We specialize in complete nutritional programs to enhance maximum production. Ask us how.









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SOIL & TISSUE SAMPLING INSTRUCTIONS

Guidelines For Submitting <u>Plant</u> Samples For Disease Diagnosis

- Sample should represent an overall plant population in the field.
- Dead plants or senescent tissues should not be sampled.
- Do not collect leaf / plant samples heavily covered with soil or dust.
- Do not collect samples from plants that are damaged by insects or mechanically injured.
- Sampling is not recommended when plants are under moisture or temperature stress.
- A single plant sample may not be enough; several plant samples showing a range of symptoms and present at various stages of disease development will be needed for accurate diagnosis.
- Stem / branch specimens should be at least 8-12 inches long and should include the diseased area and part of the healthy area.
- For plants showing wilting, yellowing, stunting or general decline, collect the entire plant including the root stem.
- Plants should be carefully dug from the ground (not pulled out), so that the root system will remain relatively intact.
- Shake away excess soil from the root system.
- Be sure that root samples are from the affected plants and not from adjacent weeds.

Do Not Wash Soil From The Root System

- Enclose the root system in a plastic bag. Rest of the plant sample should be placed in another plastic bag.
- For leaf / fruit diseases, submit leaves / fruits showing various stages of infection.
- For lawn and turf diseases, submit 3 to 4 inch diameter plug containing both diseased and healthy turf tissue.

Do Not Add Additional Moisture

Sampling Check List

COLLECT SAMPLE

LABEL SAMPLE BAGS

FILL OUT SUBMITTAL SHEET

ENCLOSE PERMITS

ATTACH CDFA SHIPPING LABEL

OVERNIGHT THE SAMPLES





Guidelines For Submitting <u>Soil</u> Samples For Disease Diagnosis

- Using a hand shovel, scrape away surface litter and remove the top 3 to 5 inches of soil.
- Avoid taking samples from areas such as lime piles, fertilizers spills / bands, livestock congregation areas, poorly drained areas, dead furrows and areas closer to road / pathways.
- Do not take too dry or too wet soil.
- Take soil closer to the rhizosphere (root) zone.
- If collecting soil from multiple sites as a composite, mix in clean plastic bucket and send around 500 g of soil.

Sample Submittal Sheet can be downloaded from our website. **www.sunburstabs.com**

Be sure to include:

- 1) Name of plant / crop
- 2) Age of plant / crop
- 3) Description of the problem

For additional information regarding collecting and submitting plant / soil samples for disease diagnosis, please contact us.

