

Sample Preparation and Submission to the Plant Pest Diagnostics Branch Plant Pathology Laboratory – Seed Health



PPDB Meadowview Facility

There are five laboratories at the Plant Pest Diagnostics Center (PPDC).

To avoid delays in identification, please be sure to submit samples to the appropriate lab.

Samples submitted to an incorrect lab will be subject to delays to determine the appropriate lab for sample analysis.



Botany



Entomology



Nematology



Plant Pathology



Seed Science

Types of Phytosanitary Certification Testing For Seed Moving In Foreign Commerce

- For Seed Health Testing (post harvest) of seed lots for seed borne pathogens please contact the PPDC Plant Pathology Lab.
- For seed lot samples that require the following tests, please contact the Seed Science Laboratory:
 - Foreign Noxious Weed Seed Examination
 - Bulk Examination for Soil Contamination
 - Bulk Examination for Sclerotia Contamination (*Claviceps*, *Sclerotinia*, etc.)
 - Bulk Examinations for *Cuscuta* and *Orobanche* Contamination
- For seed lots that require testing for nematode contamination please contact the PPDC Nematology Lab.
- For preharvest seed field inspection sample testing please contact the PPDC Plant Pathology Lab.

What is Seed Health Testing?

- In seed health testing we are trying to determine whether or not certain seed borne pathogens are present in the seed lot under test.
- The types of tests conducted may include: seed wash and microscopic examination, agar plating, blotter testing, enzyme linked immuno sorbent assay (ELISA), polymerase chain reaction (PCR), DNA sequencing, or greenhouse grow-out.

Sampling Seed Lots for Seed Health and Phytosanitary Certification Testing

- For phytosanitary certification service testing, samples must be collected and submitted by county or state inspectors or NSHS accredited seed samplers.
- It is strongly recommended seed lot sampling be done following the Association of American Seed Control Officials (AASCO) or the International Seed Testing Association (ISTA) seed sampling protocols.
- For minimum sample sizes for specific host/pathogen testing combinations, please refer to the Seed Health Testing fee schedule.

Sample Collection Basics

The CDFA PPDC Plant Pathology Seed Health Testing Laboratory is not responsible for sampling seed lots.

However, the following sampling information should be stated on the sample container:

- County or State Inspector Identification or Accredited Seed Sampler Identification
- Sampling Date



Sample Collection Basics

For information on seed lot sampling, please contact:

Carl Pfeiffer

CDFA Seed Services Program

1220 N Street

Sacramento, CA

(916) 403-6715 office

(530) 949-6934 cell phone

Carl.pfeiffer@cdfa.ca.gov

What Form to Use for Sample Submission

- The following PDR example form will walk you through the relevant fields that should be included when completing a PDR form for a sample submission to the Plant Pathology Lab for Seed Health Testing.
- Properly completed PDR forms are essential to providing you with the accurate and timely service you need.
- If available, please provide a copy of the import permit requirements. Otherwise testing will be based on the information provided on the USDA-APHIS PCIT database.
- Please be sure to provide us with the appropriate contact information for where to send the invoice for services rendered.

Sample Submission to PPDC – PDR Basics

- Enter PDR information electronically into all relevant fields as indicated on the next slide. In particular, please fill out all fields marked in red and green.
- Attach a PDR bar code sticker to the sample container and submit a PDR hard copy with each seed sample.
- Provide any additional information in the submitter's remarks section. This should include the country of destination.
- If you are unsure of the tests that need to be performed, please contact Dr. YunPing Zhang (916-262-1134) prior to submitting the sample.
- For Service Samples, **ALWAYS** indicate "Service Sample (99)" for the Activity Code.
- For Service Samples, **ALWAYS** fill in the Billing Address in the fields for "Quarantine shipper/broker"



Sending Your Seed Samples to the Plant Pathology Lab



- Seeds are fragile living organisms, so please take care to ensure their safe delivery to the Plant Pathology Laboratory. Exposure to temperature extremes and rough handling will affect test results.
- Ensure the sample containers are properly sealed to avoid leakage of seeds from the sample container during shipment.
- Use plenty of shipping peanuts or bubble wrap around the samples to adequately buffer the samples. We recommend using at least 1 to 2 inches of packing material around all sides of a sample container.
- Seal shipping box securely with packing tape to ensure the parcel remains completely closed in transit.
- Send samples early in the week. Samples sent later in the week may sit at post office over a weekend. We suggest you hold late samples and send them on Monday.

Where to Send Seed Health Testing Samples

Since there are five laboratories at the PPDC, please include the laboratory name in the address so that your package is directed to the correct laboratory.

CDFA Plant Pest Diagnostics Center

 **c/o Plant Pathology Laboratory – Seed Health**

3294 Meadowview Rd.

Sacramento, CA 95832-1448

PPDB Designated Lab Contact List

Plant Pathology Laboratory for Seed Health Testing

Dr. YunPing Zhang (916-738-6721)

Note: For noxious weed seed, soil, ergot, and sclerotia testing of seed samples contact the Seed Science Lab and for seed borne nematode testing contact the Nematology Lab

Environmental Program Manager II (Branch Chief)

Dr. Umesh Kodira (916-738-6664)

Environmental Program Manager I (Botany & Entomology)

Dr. Stephen Gaimari (916-738-6671)

Environmental Program Manager I (Nematology, Plant Pathology & Seed Science)

Dr. Cheryl Blomquist (916-738-6707)

