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NATIONAL AGRICULTURAL GENOTYPING CENTER

National Agricultural Genotyping Center

Plants (Disease Testing) Sample Collection Instructions

SAMPLE COLLECTION AND SUBMISSION INSTRUCTIONS – PLANT (DISEASE TESTING)

Please read all directions carefully to ensure samples are submitted correctly. Molecular assays conducted on plant samples rely heavily on quality sampling procedures in order to produce quality results. We cannot test samples that are submitted incorrectly.

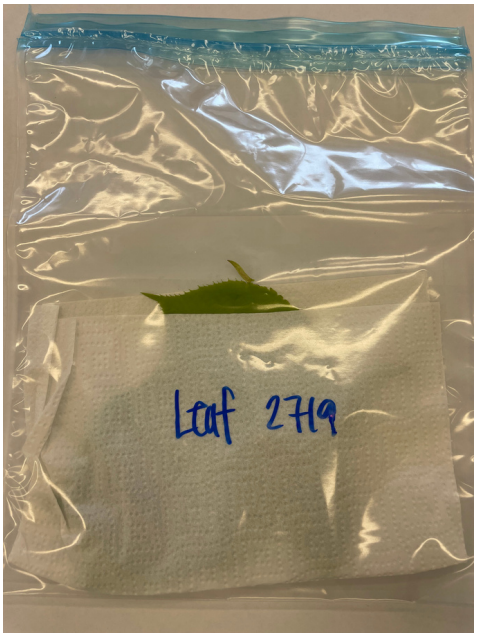
Plant Disease Testing

01 Carefully examine all plant parts and determine those parts which are thought to be diseased.

a. **Note:** Diseased roots can cause symptoms such as wilted leaves.

02 Send the diseased portion of a single plant in a single plastic container or bag.

- Place fresh leaves in a zipper-seal plastic bag wrapped with a dry paper towel.
- Wrap cut stems/stalks in a dry paper towel and place in a zipper-seal plastic bag or in a plastic container as shown below.
- Shake roots free of soil and place them in a zipper-seal plastic bag.
- Include multiple healthy and suspected diseased leaves.
- For reference, please see the images below for proper specimen packaging:



03 Once plant materials are packaged, clearly label each container with a permanent marker for identification.

a. **Note**: The identification (ID) label on the sample containers need to match the Specimen ID # listed on the Submission Form.

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Plant Disease Testing

04 Complete and print off the Submission Form on the NAGC website.

a. Note: All shipments must be accompanied by a Submission Form.
b. Send samples and completed Submission Form to the lab as soon as possible.
Testing of samples will not begin without a completed Submission Form.
c. Please DO NOT place the Submission Form inside a container that contains the plant material. Instead, place the Submission Form inside the shipping box, but outside of the sample container.

05 If the sample can not be sent on the same day, it should be kept refrigerated.

a. Samples should be **stored for no more than 1 to 2 days and PREFERABLY SHIPPED OVERNIGHT** to ensure samples arrive in good condition. Degraded samples cannot be tested.

What NOT To Send

- **DO NOT** send samples with excessive moisture or without a paper towel.
- **DO NOT** send with other unnecessary specimens/friends/travelers – like insects, as seen below:

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Plant Disease Testing

- DO **NOT** send samples in containers that can easily open in transit and leak out liquids, potentially ruining outside packaging, as seen below:

If there are any questions regarding sampling and shipping procedures, please contact the National Agricultural Genotyping Center Laboratory at 701-239-1451 or research@genotypingcenter.com

Ship Samples To:
National Agricultural Genotyping Center
1616 Albrecht Blvd N
Fargo, ND 58102

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Seed (Disease Testing) Sample Collection Instructions

SAMPLE COLLECTION AND SUBMISSION INSTRUCTIONS – SEED (DISEASE TESTING)

Please read all directions carefully to ensure samples are submitted correctly. Molecular assays conducted on seed samples rely heavily on quality sampling procedures in order to produce quality results. We cannot test samples that are submitted incorrectly.

Seed Disease Testing

01 Send 1-2 pounds of seed obtained from a representative sampling of each field or seed lot.

a. This can be done in a number of ways by either probing bags or bins, or by periodically drawing samples as the seed is going into or out of the bin.

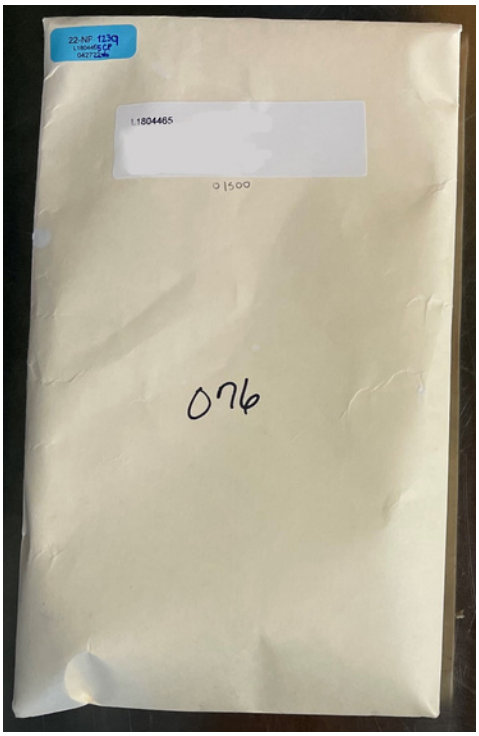
b. Please consult with the state seed department or local crop consultant for detailed sampling instructions.

02 Package seed samples in a leak-proof container.

a. If zipper-seal plastic bags are used, fill only half of the bag with seeds as the seal may break if overfilled. For zipper-seal bags, remove excess air and fold the bag over, securing it with tape.

b. A sealed coin or mail envelope are appropriate containers for smaller-sized seeds, which could easily escape from sealed containers. Secure envelopes with tape to ensure small seeds do not leak and seals do not break during transport.

c. For reference, please see the images below for proper specimen packaging:



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Seed Disease Testing

03 Clearly label bags or envelopes with a permanent marker for identification.

a. **Note:** The ID on each container must match the Specimen ID # listed on the Submission Form

04 Seed packages should be packed tightly in the shipping box using packing material like newspaper or Styrofoam peanuts to prevent shifting during shipping.

a. Bags that shift during shipment can easily be damaged resulting in seeds that are mixed and cannot be tested.

05 Complete and print off the Submission Form on the NAGC website.

a. Note: All shipments must be accompanied by a Submission Form.
b. Send samples and Submission Form to the lab as soon as possible. Testing of samples will not begin without a completed Submission Form.
c. Please do not place the submission form inside the sample container, rather place the Submission Form inside the shipping box, but outside of the sample container.

06 Store all seed samples in a cool, dark place until shipped to the lab.

What NOT To Send

- DO **NOT** send samples in containers that can easily open in transit and leak out liquids, potentially ruining outside packaging, as seen below:

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Seed Disease Testing

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