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NATIONAL AGRICULTURAL GENOTYPING CENTER

National Agricultural Genotyping Center

Residue Sample Shipping Instructions

SAMPLE STORAGE/PACKAGING/SHIPPING PROCEDURES FOR RESIDUE

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

Residue Testing

01 Collect residue samples from fields using a trowel or spade.

a. Each sample should be a composite of 5 to 15 sub-samples (depending on size of affected area) collected throughout the chosen/affected area and combined in a clean, plastic container.

b. **Do not send wet** samples. Wet samples should be air-dried by spreading the soil out on paper towels or drying trays prior to packaging and sending to the laboratory.

02 Mix the composite samples together thoroughly, removing any large plant debris and rocks, and break up any clumps or clods.

a. **Note:** Mix thoroughly to ensure a homogenized sample.

03 Grind samples before sending to the lab.

a. Do not grind wet samples. Wet samples should be air-dried by spreading the sample out on paper towels or drying racks prior to grinding.

04 Send ground, well-mixed residue samples to laboratory in a 50mL conical tube (see image below).

a. Seal the container and clearly label the bag with a permanent marker for identification. This ID should match the Specimen ID # listed on the Submission Form.

b. For reference, please see the image below for proper specimen packaging:

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Residue Testing

05 Repeat the above procedure for each separate sample submitted for testing.

a. Be sure to clean or remove as much debris from the sampling device as possible before proceeding to collect another composite sample from a different location/affected area to prevent cross-contamination.

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

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

a. Note: All shipments must be accompanied by a completed Submission Form (and the **USDA SOIL PERMIT** if a shipment is not originating from North Dakota).

b. Testing of samples will not begin without a completed Submission Form.

c. Please do not place the submission form inside the soil sample container, rather place the Submission Form inside the shipping box, but outside of the sample container. The USDA Soil Permit can be found on the website or by clicking the link above.

08 All shipments originating from outside the United States of America require contact with the laboratory prior to shipment to ensure all federal regulations are satisfied.

What Not To Send

- DO **NOT** send samples in tied-off grocery bags, as they can easily open in transit and effect residue sampling results, as seen below:

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Residue Testing

- DO **NOT** send samples in tissue paper that can easily disintegrate, and don't send samples that have not been dried completely prior to submission, as seen below:

- DO **NOT** send samples of residue that have not been ground up, as seen below:

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Residue Testing

- DO **NOT** send samples of residue in paper bags that have been stapled shut, 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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Soil Sample Collection Instructions

SAMPLE COLLECTION AND SUBMISSION INSTRUCTIONS – SOIL SAMPLES

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.

Soil Sample Testing

01 Collect soil samples from the top 6 inches (15cm) using a soil probe, trowel, or spade.

- **a.** Collecting individual soil samples is preferred over shipping composite samples because mixing multiple soil samples from a field can lead to false negatives and risks substantially diluting pathogen signals during testing.
- **b.** Try to dig straight down, rather than at an angle, so that equal amounts of soil are collected at each depth increment.

02 Dry the soil if it was wet at time of collection

- **a.** **Note:** Wet soil should be air-dried by spreading it out on paper towels or drying trays prior to packaging and sending it to the laboratory.

03 Place soil in a clean plastic container or a zipper-seal plastic bag.

- **a.** Seal the container and clearly label the bag with a permanent marker for identification.
- **b.** Note: The ID should match the Specimen ID # listed on the Submission Form.
- **c.** For reference, please see the image below for proper specimen packaging:

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Soil Sample Testing

04 Wash soil sampling instruments with 70% ethanol between collections to avoid cross-contamination.

a. Be sure to clean or remove as much soil from the spade as possible before proceeding to collect another composite soil sample from a different location/affected area. Cleaning the sampling device with 70% alcohol between sampling locations is not required, but strongly recommended.

05 Repeat the above procedure for each separate sample to be submitted for testing.

a. If sampling multiple areas, make sure to collect the same amount of soil during each sampling event.

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

07 Complete and print off the Submission Form found on the NAGC website

a. Note: All shipments must be accompanied by a completed Submission Form (and the **USDA SOIL PERMIT** if the shipment is not originating from North Dakota).

b. Testing of samples will not begin without a completed Submission Form.

c. Please do not place the submission form inside the soil sample container. Instead, place the Submission Form inside the shipping box, but outside of the sample container. The USDA Soil Permit can be found on the website or by clicking the link above.

08 All shipments originating from outside the United States of America require contact with the laboratory prior to shipment to ensure all federal regulations are satisfied.

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Soil Sample Testing

What Not To Send

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

- 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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Soil Sample Testing

- DO **NOT** send samples in packaging that is easily degraded (e.g. wax/tissue paper) or super absorbent as to cause mold growth, 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

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Fargo, ND 58102

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