University of Wyoming Extension

Soil Samples for Hayfields and Pastures

Step 1: Collecting a sample

With a soil probe:

1. Push the soil probe into the soil 6 to 8 inches in depth, then remove the probe from soil.
2. Remove soil core from probe (make sure to discard the surface litter, Figure 1) and place in bucket.
3. Repeat steps 1 and 2 from 10 to 15 locations within the desired area.

Figure 1. Soil sample core, discard portion to the right of the black line.

With a shovel:

1. Dig a small hole that is 6 to 8 inches in depth.
2. Use the shovel to shave off an inch thick portion from the length of the sidewall of the hole (make sure to discard the surface litter, Figure 2) and take the middle 1-inch wide section from the sample to place in the bucket.
3. Repeat steps 1 and 2 from 10 to 15 locations within the desired area.

Figure 2. Soil sample with a shovel or trowel. The sample is the middle inch of soil, discard top inch and side portions of soil.

Step 2: Preparing soil sample

4. Mix all the soil together in the bucket, breaking cores apart and removing debris.
5. With a permanent marker, label a plastic bag with the sample identification name (i.e. north field, alfalfa field, etc.)
6. Collect two cups of soil from the bucket and place in a plastic bag, Figure 3.
7. Package soil samples and filled out forms in a sturdy box or envelope, and mail to soil lab.

Figure 3. Soil sample ready for shipping.

When in doubt on how to sample – check the lab's directions for sampling and submission, they usually provide them online.

General Information

- Contact the soil lab before collecting samples for instructions on which soil analysis you need, the form required and how to fill it out, and shipping requirements.
- The most reliable soil test results come from soil samples that represent the overall field or pasture. If there is a large difference in the area, such as topography, management, crop, or soil difference, then samples from these areas should be collected separately.
- A representative sample for the area of interest is collected by a systematic (samples taken at equal distances apart) or a random sampling pattern that collects 10 to 15 samples, refer to Figure 4.

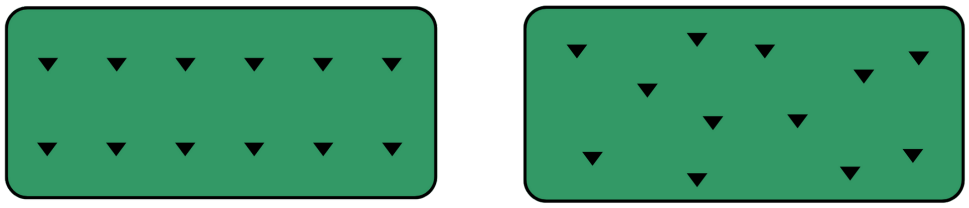

Figure 4. Examples of systematic (left) and random (right) soil sampling in a field. Notice the difference between the two images, the even spacing of the sample locations on the left vs. the uneven spacing on the right.

- Samples are collected to a depth of 6 to 8 inches from the soil surface.
- Make sure to remove surface litter and non-organic debris (crop residue, grass, wood chips, roots, gravel, etc.) from the soil samples.

Materials Needed

- Shovel or soil probe
- Clean bucket
- Plastic bag and permanent marker

Soil Laboratories

Colorado State University Soil, Water, and Plant Laboratory

1120 Campus Delivery
Fort Collin, CO 80523
(970) 491-5061

https://agsci.colostate.edu/soiltestinglab/

Ward Laboratories

PO Box 788
Kearney, NE 68848
(308) 234-2418

https://www.wardlab.com

Utah State University Analytical Laboratory

1541 N 800 E
Logan, Utah 84341
(435) 797-2217

https://usual.usu.edu/

Stukenholtz Laboratory

PO Box 353
Twin Falls, ID 83303
(208) 734-3050

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