Martin-Gatton College of Agriculture, Food and Environment | Division of Regulatory Services

Princeton Soil Lab
UKREC
348 University Drive
Princeton KY 42445
Phone: (859) 562-1351
www.rs.uky.edu

Presidedress Nitrogen Sampling Instructions

This test will be offered when the laboratory in Princeton is rebuilt.

How To Take A Sample

Soil should be sampled when the corn is about 6 inches high with between 2 and 4 leaf collars showing (V2-V4). Samples should not be taken later since time is required for the sample to be tested by the lab for sidedressing to occur no later than the V6 stage. Samples may be taken somewhat earlier when corn has 1 leaf collar (V1) if early sidedressing is anticipated.

Take soil cores to a 12-inch depth. This is deeper than "routine" soil samples, which are taken from 4 to 6 inches deep. The deeper depth is required because nitrate is a soluble nutrient that moves deeper into the soil profile. If the soil probe tip is not long enough to collect a 12-inch core, you will have to probe the soil twice at each point in order to collect the 12-inch sample. Randomly walk through the field collecting about 20 soil cores. Minimize the field area being sampled to about 10 to 20 acres. Because of the variability of soil N availability and the economic importance of N nutrition to corn, it is not wise to collect a sample representing a large area.

It is **critical** to dry the sample before sending it to a laboratory. The soil needs to be dried because N can undergo biological transformations in a moist sample, causing a laboratory result that is not indicative of field soil conditions. The soil test laboratory may not perform a PSNT on samples received moist because of the uncertainty in the results. Thoroughly mix each 20-core composite sample from the 10 to 20 acre field. Keep about a pint of the soil and completely air-dry the soil immediately after sampling. To dry the sample quickly, place the soil on a paper plate in front of a gently blowing fan. Do not place the sample in a plastic bag.

The PSNT can be used on fields where manure or fertilizers were broadcast applied before planting. The PSNT is not recommended in fields with banded/injected N applications because it is difficult to properly sample such fields and adequately predict N availability.

Send the sample to a laboratory that will perform the PSNT test. The University of Kentucky soil test laboratory at Princeton can perform this test. Submit the sample to a local county extension office and they will send the sample to the laboratory for testing.

Martin-Gatton College of Agriculture, Food and Environment | Division of Regulatory Services

Princeton Soil Lab
UKREC
348 University Drive
Princeton KY 42445
Phone: (859) 562-1351
www.rs.uky.edu

Presidedress Nitrogen Submittal Form

This test will be offered when the laboratory in Princeton is rebuilt.

Name _____Email _____

Address _____

_____

City _____ State _____ Zip Code _____ Phone: _____

Date Sampled:_____

Owner Sample ID: _____ Acres: _____

Fertilizer Information (check the applicable condition in each category)

Pre-plant N applied

- ☐ None
- ☐ Less than 50 lbs./acre
- ☐ 50 – 100 lbs./acre
- ☐ 100 – 150 lbs./acre
- ☐ Greater than 150 lbs./acre

Primary pre-plant N source

- ☐ Manure
- ☐ Ammonium Nitrate
- ☐ Urea
- ☐ Anhydrous Ammonia
- ☐ DAP
- ☐ Other: _____

N Inhibitor

- ☐ None used
- ☐ Nitrification inhibitor
- ☐ Urease inhibitor

Growing Conditions (check the applicable condition in each category)

Soil Drainage

- ☐ Well
- ☐ Moderately well
- ☐ Somewhat poorly
- ☐ Poorly
- ☐ Poorly, but tiled

Soil Management

- ☐ Conventional tillage
- ☐ No tillage

Extension office use: (Charges will be added to your soil invoice.)

County Code: _____ Sample ID: _____ Paid: _____

UK Lab use: v2025

UK Lab # :

Billing code:

Date Received: