

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.

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 tilled

Soil Management

- Conventional tillage
 No tillage

Extension office use:

UK Lab use:

County Code: _____ Sample ID: _____ Paid: _____

UK Lab # :

Billing code:

Date Received: