

PHOSPHORUS OPTIONS

Optimize CROP PERFORMANCE

Strategic management of this nutrient can pay large dividends

Phosphorus (P) is one of the three macronutrients essential for plant growth. It's required for photosynthesis, strong root development, and early seedling growth.

Phosphorus availability is especially important to consistent, fast seedling development and plant emergence, particularly in cold, damp soils – typical in no-till row crop production. Research often shows an early-season growth response to application of starter fertilizer containing phosphorus.

Not only does phosphorus help get the crop off to a good start, availability throughout the entire growing season greatly impacts seed production (grain yield) as well as uniformity and early crop maturity, which can make up to a week's difference in harvest timing for row crops.

Phosphorus also is important in forage production, enhancing seedling response to stressful growing conditions, promoting healthy stand establishment and boosting season-long yields.

Corn removes 1/2 lb. and soybean grain removes 1 lb. of P205 per bushel harvested; regular applications are necessary. Alfalfa and grass hays typically remove at least 15 lbs. of P205 per ton of hay.

STRATEGIC P MANAGEMENT BEGINS WITH SOIL TESTING

Soil testing to determine pH and phosphorus level is critical. Soil pH should be in the range of 6.0 to 7.0, enabling microbial activity within the soil, which leads to soluble phosphorus that is available for plant use. In addition, phosphorus should be in the correct ratio with other nutrients such as zinc to prevent problems such as phosphorus-induced zinc deficiency. Plant tissue sampling needs to be used with soil testing during the growing season to fine tune and customize the crop management system.

Next, the individual cropping system, management practices, soil type, overall soil nutrient profile and yield goals must be taken into

consideration. No-till systems, large acreages, limited available labor and a desire to push crop genetics and production capacity to optimum levels have brought about new products and application methods to fit these needs.

Farmers have many options for phosphorus delivery:

- Dry or liquid
- Pop-up or starter, or both
- Band or broadcast
- Some combination of the above

Getting nutrients placed efficiently, so they are readily available – right in the root zone – is the focus.

PRODUCTS, PLACEMENT AND TIMING?

The answer to this question is as individual as each field. And there are new options to consider.

Nu-Trax P+ is a new “pop-up” fertilizer that offers a phosphorus coating on nitrogen and potassium granules. It provides early delivery of phosphorus and micronutrients like zinc, so young roots can more easily access and absorb the nutrients.

AVAIL® Phosphorus Fertilizer Enhancer's patented polymer technology reduces the fixation of applied phosphorus in the soil and keeps more of it available for plant uptake. More available P can lead to rapid, early growth, healthier crops and stronger yield potential, which means a greater return on phosphorus fertilizer investments.

Southern States Cooperative's agronomy experts will work with you to fine tune the right program for your fields, management practices, equipment and resources. They will use production history, soil maps, precision soil and tissue test results, in-season imagery, plus your experience and their knowledge of the latest products to meet your production goals.