

### U.S. Farmers Taking Proactive Steps To Reduce Nutrient Runoff Into Waterways

(NAPSA)—Runoff of agricultural fertilizers into streams, rivers and watersheds is a major environmental concern, but U.S. farmers are aggressively adopting more environmentally sound crop production methods and technologies that address this problem.

One major concern—the agricultural use of phosphorus (P) fertilizers—is getting increased attention from farmers who are taking steps to minimize runoff of this vital plant nutrient. “Farmers take the hit for the phosphorus that runs off into watershed areas, but agriculture is not the only culprit,” says Dale Bartholomew, a certified crop adviser with a key agricultural retailer in Caledonia, N.Y. “Homeowners who overapply lawn fertilizers also contribute to the problem.”

New York State is second only to California in the development and enforcement of stringent regulations designed to keep P and other nutrients from flowing into major water bodies such as the Chesapeake Bay and the Great Lakes. According to Bartholomew, farmers in the region are being increasingly proactive in their efforts to not only meet those regulations but also to exceed them in the interest of being good environmental stewards.

“Increasingly, our farmers are using fertilizer enhancers and stabilizers that ensure more uptake of phosphorus and other nutrients by crops, versus leaving those nutrients in the soil,” he says. “Other proactive steps include use of precision application techniques and less reliance on plows and tillage to minimize soil erosion.”

Indeed, soil erosion is a big part of the challenge, as nutrients attach themselves to soil particles and are then vulnerable to runoff into waterways. Dr. Gary Tuxhorn, an agronomist for United Suppliers, a major provider of inputs for agricultural retailers headquartered in Ames, Iowa, notes that P tends to become tied up in the soil and remain unavailable for plant uptake. It can remain fixed for long periods of time following application if a product such as AVAIL® Phosphorus Fertilizer Enhancer is not used.



**American farmers have found some ingenious ways to protect streams, rivers and watersheds from agricultural fertilizer runoff.**

“In the Midwest, AVAIL is often used with phosphorus fertilizers in no-till production systems that reduce or eliminate plowing,” Tuxhorn says. “This tandem approach helps reduce the amount of phosphorus that gets tied up in the soil, makes more of the nutrient available for plant uptake and minimizes the off-site movement of soil through erosion. In this scenario, the phosphorus will stay where you put it.”

Dr. Barney Gordon, professor emeritus at Kansas State University and an expert in soil fertility and fertilizer efficiency, notes that a lot of farmers favor fall applications of P following harvest. “Applying phosphorus with AVAIL in the fall allows the nutrient to be worked into the soil by natural moisture over the winter,” Gordon says. “As a rule, fall weather is conducive to fertilizer applications due to good conditions and the fact that farmers have the time to make the applications, versus applying fertilizer in the spring when they should be focused primarily on getting their crops planted. The weather in the spring tends to be more unpredictable and can prevent the farmer from making timely phosphorus applications.”

A good case in point is the heavy spring rains across much of the Midwest and Northeast in 2013 that delayed planting and wreaked havoc with spring fertilizer applications. “Improved plant uptake of phosphorus is key to healthy crops and better yields, and it also translates into less phosphorus left in the soil, which can be lost through erosion,” Gordon emphasizes.