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**For Immediate Release**

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## **Review Soil Test Results for Deficiencies Now to Plan This Spring's Potato Nutrient Management Program**

Raising quality, high-yielding potatoes depends on many management factors, not the least of which is ensuring that plants receive a sufficient supply of nutrients. When soil nutrient levels are not adequate enough to meet plant growth demands, fertilizer applications are essential for optimizing tuber yield and quality and minimizing undesirable environmental impacts.

Joan Davenport, assistant soil scientist and assistant professor at Washington State University, suggests potato growers sample soils no later than early March for nutrient deficiencies. If soils were already sampled and tested this past fall, growers should review information before planning their spring crop nutrient programs.

"For an annual crop like potatoes, growers should sample soils every year," she says. "In 80 to 120 acre fields with many topographic differences or soil types, take samples from various areas to adjust for variability within the field."

Davenport also recommends that growers refer to their own state's published guidelines to decide which fertilizers and rates to apply based on soil test results.

She says nutrients are basic components of high-quality potatoes and there is no way to produce optimum yields with sub-optimum nutrient supplies.

"Insufficient or an overabundant supply of nutrients can reduce yield with potential, unintended consequences of loss due to leaching," Davenport says. "Potatoes need an adequate supply of nitrogen, phosphorus, potassium, secondary and micronutrients based on individual soil types and climatic conditions."

For example, most efficient nitrogen use depends on an adequate, as well as, a balanced supply of potassium and phosphorus. Davenport suggests potato growers pay special attention to their soil's potassium level.

"Potassium remains a key element in terms of quantity," she says. "An inadequate amount will reduce yield and a large dosage can reduce quality - particularly specific gravity."

When in proper balance with nitrogen, phosphorus, sulfur and magnesium, potassium helps ensure high-yielding quality potatoes.

As part of the fertilizer mix, producers can provide potatoes with several necessary crop nutrients in the form of potassium magnesium sulfate (K-Mag®), according to Ray Hoyum, vice president of market development and communications at IMC Global.

"Growers need to team individual nutrients, like potash, sulfur and magnesium, with nitrogen and phosphorus for a balanced fertility program - a prerequisite for a healthy, profitable crop," he says. "K-Mag provides the proper balance of these nutrients needed to produce a desired crop."

Mined by IMC Global, K-Mag is a 3-in-1 combination that consists of 21-22 percent sulfur, 20-22 percent potassium and 10-11 percent magnesium.

"Since K-Mag contains sulfur, potassium and magnesium, growers may be able to reduce the amount of these nutrients from other sources in the overall mix," Hoyum says. "A low salt index, low chloride content and the fact that K-Mag is 100% water-soluble are additional product features that are attractive to potato growers."



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