

# Timing Is Key For Nitrogen Application On Winter Wheat

**COLUMBIA, MO.**

**W**ith winter wheat coming closer to green-up, producers need to consider fertilizer management options. A University of Missouri Extension nutrient management specialist says proper timing of fertilizer application is important.

“Producers need to be thinking about how to deliver nitrogen to that crop in April and early May when it is taking up nitrogen like gang-busters,” said Peter Scharf. “The key issue is the earlier you apply it, the more risk that it won't be there in April and May.”

February is when a lot of producers top dress, but that might not be the ideal time. “In our research, March is a considerably better time,” said Scharf, who is also a professor of plant science in MU's College of Agriculture, Food and Natural Resources.

In 17 tests comparing nitrogen application in February versus March, the March application averaged seven more bushels of wheat yield per acre. March beats January by 20 bushels, so even though it helps logistics to apply earlier, Scharf says it probably hurts in terms of deliv-

ering that fertilizer to the wheat crop.

However, if there is a very thin stand coming out of the winter, Scharf recommends that producers get out soon and apply fertilizer to stimulate new tillers.

“Each plant should have the main stem that was the first leaf coming up, but it should also have at least two good tillers on it,” he said. “Those are side shoots that come off to the side of the plant, and they will form heads that will have grain on them. They are a very important part of the total grain production. If there are not enough of them, grain production will be substantially limited by that.”

Tiller formation has ended by the middle of March. Nitrogen applied between mid-February and March 1 will stimulate the formation of new tillers.

While nitrogen supports rapid shoot growth and grain fill as well as new tillers in the spring, applying phosphorus in the spring has little effect on yield, Scharf said. Although wheat is the most phosphorus-demanding grain, phosphorus is needed in fall application. Δ