

The Ups And Downs Of Nitrogen

Farmers Can Improve Nitrogen Consumption By Wheat

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“**N**itrogen recommendations may have been under nourishing wheat,” said Dr. Steve Ebelhar, agronomist and extension specialist at the University of Illinois, “even with nitrogen prices approaching 50 cents a pound and wheat over seven dollars a bushel.”

According to Ebelhar, the data suggests that spring nitrogen rates should increase up to 130-150 pounds per acre this spring for fields. In his presentation at the Illinois Wheat Forum, Ebelhar discussed how to better manage nitrogen in your wheat crop.

“Our (southern Illinois) nitrogen gets applied a little bit too early, so we lose some of the nitrogen before the wheat actually absorbs it,” said Ebelhar, “so we wouldn’t have to push our nitrogen rates up too high if we could delay application by two to three weeks and, put nitrogen on in a more timely fashion.”

“Our data suggests that if you put nitrogen on just before joining, you are going to get the maximum use of the nitrogen and get by with about 20 pounds less nitrogen per acre,” said Ebelhar.

“One suggestion from our data, is that we are now pushing the upper envelope on nitrogen application this spring and if nitrogen is not uniformly applied, lodging could become a problem. We could even go up to 150 pounds if the farmer can uniformly apply the nitrogen across the field and not cause problems with lodging,” said Ebelhar.

“Wheat varieties seem to be more adapted to using high rates of nitrogen to produce yield without causing any lodging problems,” stated Ebelhar.

“The problem with a lot of farmers is that they have a large number of acres to do and the weather may not cooperate for them to put their nitrogen on at the perfect time, so they are wanting to put nitrogen on earlier and earlier to make sure it gets done,” said Ebelhar.

“When applying Nitrogen early, our recommendation is that farmers should look at ESN or inhibitors that help keep nitrogen in place for longer periods of time,” said Ebelhar.

“Our research is still focusing on several of these new nitrogen sources,” said Ebelhar, “ESN has polymer coatings that slows the release of Nitrogen thus reducing losses when applied early. There are also various inhibitors

that have recently come on the market. They might also help keep nitrogen around especially with these early applications.”

“Our other aspect of research is looking at using sensors,” said Ebelhar, “These active light sensors look at nitrogen at the time it is applied to get some idea of how much nitrogen the wheat has already been exposed to and what it



Dr. Steve Ebelhar, Agronomist and Extension Specialist at the University of Illinois discussed how to better manage nitrogen in your wheat crop. Photo by John LaRose, Jr.

has already taken up from the soil. Then you would adjust the rates based on how much nitrogen the wheat has already seen.”

“This would hopefully save on the amount of nitrogen the farmer needs to apply,” stated Ebelhar.

“We are becoming lot better managers in wheat than we have in the past. I think especially now, as wheat is approaching the seven to ten dollar range, farmers take it more seriously,” said Ebelhar.

“Farmers want to get their yields up and manage it the best they can,” said Ebelhar, “I think this is a pretty good indication that wheat is becoming more of a favorable crop with farmers today.” △