

ADVANCES IN NITROGEN MANAGEMENT

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NVision Ag uses the color of your crop, measured from above (Fig. 1), to determine the level of N stress and how much N to apply. We supply this information in the form of a rate control file (Fig. 2). Just plug it in and drive, knowing that sound research backs the rates that you are putting out.



Fig. 1. 2017 corn field with 50 lb N/acre pre-plant.

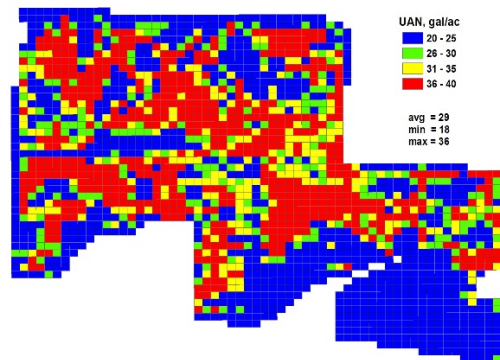


Fig. 1. Visual of UAN rate control file based on image in Figure 1. Customer set minimum rate at 20 gal/acre and maximum rate at 40 gal/acre.

This can work for you whether you are making a planned in-season N application, or have applied all your N pre-plant but are concerned whether it is still there.

In the case of potential N loss, we give you a map of estimated yield loss, along with total yield loss and dollar loss for the field, due to N deficiency. You have real numbers to decide whether it makes sense to invest in rescue N.

Every year is different. Every field is different. Some years, most of your pre-plant N is lost, along with N that was in the soil before you fertilized. Other years, the soil contributes a great deal of N and you could get by with less. Some fields do well despite excessive rain, but others suffer severe N deficiency.

Advances in nitrogen management must address this dynamic nature of nitrogen in soils. What should you do this year that you didn't do last year? Or what should you NOT do this year that you did last year?

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Nearly every answer to this question is driven by how the weather is different this year than last year. Advances in nitrogen management rely on correct responses to what the weather is doing this year.

You don't know what the weather is doing until the season unfolds in front of you. If your N program is done before you plant, the only potential adjustment is to apply more (rescue N) in years when your pre-plant was lost.

Planning an in-season N application opens doors. Adjustments both up and down in rate become possible. And easy.

Likely you will pay more for fertilizer in-season than pre-plant. And if you feel that you must have pre-plant N, this may mean an extra trip across the field. These extra expenses have to be made up by either increasing yield or cutting back on tons. Or both. In wet years, my research at the University of Missouri has often shown higher yield with less N when applied sidedress or topdress.