

Matching Seed To Soil

Study Shows Adjusting Seeding Rates According To Soil Pays

BETTY VALLE GEGG-NAEGER
MidAmerica Farmer Grower

RECTOR, ARK.

A study of seeding rates according to soil types was discussed recently by Dr. Tom Barber, University of Arkansas Assistant Professor/Cotton Agronomist.

"If we have the soil type information we can vary our seeding rates as we go across the field," he said. "We have the planters capable of doing that and we've been doing some research on that for the last two years."

Barber explained his group takes data from various machine or soil survey type information to get the zones for the different soil types in a given field.

"We've been looking at rates as low as 25,000 and as high as 75,000 seeds per acre," he said. "We've been planting solid replicated strips of these across the field, and with the use of a yield monitor and some of our new data analysis techniques that Terry Griffin with the University of Arkansas is helping with, we're determining the most profitable seeding rate for each of those soil zones. It's a just a different special type analysis that optimizes seeding rates for each individual soil zone."

"Last year we took that data and correlated a soil type to seeding rate prescription map; so if, for example, we know we have a sandy area of the field we've been planting less seed in that area and more in the heavier clay type soils of the field."

"We've seen a little savings in an overall seeding rate of about on average 8,000 seeds per acre which is about \$20 an acre, so that's pretty good savings on the farm level; and we're putting more seed where we think it will help us get a better stand."

Although it's difficult to get a statistical analysis of yield in these big fields, Barber said he already has yield information.

"We've been comparing a five-year average of the yields where we're using these variable seeding rates and it's very comparable," he said. "The yield is not necessarily going up or down, but we're saving money on the front end on the seeding costs."

Barber finds the input costs on the front end is well worth the \$20 investment.

"To my knowledge the planter with the variable rate drive is not a whole lot more expensive than a regular planter," he said. "Setting the tractor and the equipment up and training your employees, that would be a little time consuming and may cost a little more money, but in the end it looks like it's going to be worth it, because



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Photo by John LaRose, Jr.

once you set your field up you're set forever."

Barber also discussed variety selection from the state's official variety trials and some of his own farm variety trials to help growers select the right variety for Clay County.

He also touched on the LibertyLink and Widestrike technologies and how Ignite can cause some injury when sprayed over the top of Widestrike cotton.

Irrigation was another topic he discussed, stressing how important it is to initiate irrigation prior to bloom. Δ

BETTY VALLE GEGG-NAEGER: Senior Staff Writer, MidAmerica Farmer Grower



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