# Research *Goes To* **Farm**

*From Plots To Fields, Precision Ag Trials Prove Their Worth*

Dennis Burns, county agent from Tensas Parish, discusses his work as a geo-spatial extension agent for the LSU AgCenter and his work with anybody that has precision agriculture equipment and wants to learn more about how to use it.

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While Dennis Burns, county agent from Tensas Parish, has plenty to keep him busy, he's also very excited about his work as a geo-spatial extension agent for the LSU AgCenter. While wearing that cap, he does precision agriculture work for growers in the northeast region.

"We work with producers, dealers, anybody that has precision agriculture equipment and wants to learn more about how to use it," he said. "In the northeast region we are working on a lot of different projects on the farm. We work with scientists to take their work from the research station and move it out to on-farm demonstrations where we're able to work with the farmers using their equipment and their knowledge of their fields. They take the treatments, practices, varieties and whatever the scientists are working on and incorporate it into their production practice."

This project has double value for Burns and R.L. Frazier, Madison Parish County Agent and another geo-spatial extension agent. By working with the scientists to get their work out to the farms, both the farmers and the scientists can see how it works on-farm in larger settings using a producer's equipment; at the same time, it allows agents the opportunity to educate producers on how to use their equipment, how to get the most out of it.

"Then it's just not something they're looking at in their cab as they ride across the field, it becomes a helpful tool," he added.

He explained the use of a hi-clearance sprayer with light sensors on it that read an NDVI, normalized difference vegetation index, image off the crop.

"We're using that to apply fertilizer to corn and cotton as a mid-season application to try to control our nitrogen rates so we're not wasting it," Burns said. "That way, we're not putting out excess nitrogen, we're not having any leaching losses, and we're working to maximize nitrogen usage. We're also looking at using it for plant growth regulators in cotton, perhaps cotton defoliation."

Researchers are always looking for new ways to use the equipment and that is the focus of that effort. They started last year and are moving forward more with it this year. This is something they take on the farm and work with it there. That's pretty much the scope Burns' work with precision agriculture in northeast Louisiana.

"We're trying to go on farm because producers learn so much better on their own farm using their own data. So we try to do a lot of one-on-one with them; once they begin doing it, they want to do more," he said.

In a fertilizer demonstration underway at the station that is repeated on farm, they have split the fertilizer rate in half and spread it in two applications.

"We found we actually used less fertilizer, less nitrogen, we dribbled it on using the sensors and the hi-clearance sprayer, and we cut our rates," Burns said. "On cotton, I think we saved about 20 units, 20 pounds less nitrogen, and on the corn I think it was almost 30."

While no information is available yet on yield, the plan is to use less inputs with the right timing while maintaining yields.

"That's really our goal, we want to make sure that we're making the same yields with less fertilizer and better timing," he summed.                    Δ

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