



# ALABAMA CHAMPION OF soil health

**Ricky and Russell Wiggins**  
Covington County  
2,650 acres  
Crops: cotton and peanuts  
Cover: rye



## *Using "big" cover crops to build and maintain soil health*

The Wiggins family, Ricky and his son, Russell, farm 2,650 dryland acres in Covington County. They plant cotton and peanuts in rotation; two years of cotton and one year of peanuts. They plant a rye cover crop on all of their land to increase the soil organic matter. It has greatly helped to improve soil health on their operation.

After studying the benefits of conservation tillage, the Wiggins were convinced that producing more biomass and returning it to the soil would improve the health of their soil and result in better crop yields. Ricky said they transitioned to the practice in 1994 and have noticed some dramatic changes in their land. The water flowing out of the terrace rows is clear, an indication of less soil erosion.

"I like using conservation tillage. In the spring we can keep the tractors in the shed, except for putting out litter, and rolling and spraying crops," Russell said. "In the past, we had to fix terraces and clean out waterways constantly. Regular terrace maintenance is not required much anymore."

Steve Yelverton, Natural Resources Conservation Service District Conservationist in the county said, "I never dreamed we would ever see a change in the color of the coastal plains soils in south Alabama. It is amazing how the Wiggins' soil has changed to a dark rich color indicating increased soil organic matter which is a sign of good soil health." The soil organic matter was tested in their fields to be approaching three percent. If it was conventionally tilled, the soil organic matter would be around three-quarters of a percent.

They are also seeing earthworms, which is unusual in this part of the state." Earthworms and increased organic matter results in more rain moving through the soil and not running off the fields. This has caused better moisture penetration during rain



A cotton plant grows through the heavy rye cover that protects soil quality and allows for retention of soil moisture, which is important in south Alabama.

events, and they are retaining soil moisture for a longer period. This is very important in south Alabama where in most years crop yields are affected by drought.

Even though a lot of farmers now use some form of conservation tillage, the Wiggins were the first in their area to do so. They are also the first to use high residue. They were told they could not maintain high

*When we made the decision to use conservation tillage, we committed to it. We do not regret the decision.*

*- Ricky Wiggins*

yields with such heavy cover, but they have proved it can be done. They have seen a positive change in their soil and have reaped the benefits with increased yields.

To get the high biomass they wanted, Ricky and Russell use rye as a cover crop. They want enough



The Wiggins roll down the heavy rye cover and spray to kill it at the same time.

cover to last throughout the season and want to see the residue on the ground through the next year. They broadcast rye seed and use a turbotill to ensure good emergence. The turbotill doesn't disturb the soil enough to cause erosion problems, and it smooths the ground for the next planting season.

They also do something a lot of farmers do not; they fertilize their cover crop, usually with chicken litter. They let it get about chest high after the seed head emerges and the biomass is very thick. They both agree that it is a challenge to work in such a heavy cover, but they think it is worth it.

When the rye cover crop matures, they roll down and spray it, timing it close to 30 days prior to crop planting to conserve soil moisture. They modified a rolling basket by mounting a sprayer on top of it so they can roll and spray the cover crop at the same time.

"Year before last every farmer in the county had stopped planting because of dry weather," Yelverton said. "The Wiggins still had moisture, because of all that cover. With that much mass on top of the ground, it is about 10 degrees cooler under the cover. Because



The Wiggins' say though it is challenge to plant into heavy rye cover, is worth it to get all of the benefits it offers.

they retained the moisture, they never had to slow down planting.”

When the Wiggins' first started in conservation tillage, they planted into a tilled strip from 10 inches to 14 inches wide. A specialist kept telling them that they needed to reduce it to a narrow strip. They thought that it wouldn't work in their area. After they tried it, it worked for them. You can hardly see the crop rows in the cover crop residue because the strips are so narrow.

“I think that eventually people are going to grasp that what we are doing is going to be the way to go. I am glad to do conservation tillage,” Ricky said. “We think it saves us a lot of time and a lot of fuel!”

The Wiggins' know that investing in soil health helps their farming operation. They said they can tell just by looking at the soil that it is healthier than it had been in the past. They say you can feel the difference just walking across it. It is springy underfoot. Ricky said that when they plow up the peanuts to invert them, they get better equipment penetration in the ground in dry weather than they

ever did with conventional till; the earth is not as hard. This has also resulted in a savings in plow points and fuel. Because of the more pliable soil, they do not have to replace the points as much and they save fuel because the machinery pulls through the soil easier.

“It is hard to imagine how much conservation tillage has saved us and how much we have increased our soil health using big cover. It is really amazing,” Ricky said. “We are committed to this practice and are glad of the resulting good soil health. When we made the decision to use conservation tillage, we committed to it. We do not regret the decision.”

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