



Plain View

Management of Russian wheat aphid and greenbugs

Conserving the future

By Diane Varner, Update Editor, and Scott Price, Grant County Cooperative Extension

At left: Rodney and Pat Hern take a break from planting soybeans in May. Rodney and Pat Hern farm about 10,000 acres outside of Wakita, OK. The operation is no-till, and it produces wheat, soybeans, and milo. They also run cattle and grow some canola.

Rodney Hern runs a cow/calf and wheat operation outside of Wakita, OK and he collaborates in the USDA-ARS Areawide Pest Management for Wheat Project. He and his wife, Pat, farm about 10,000 acres in Oklahoma and Kansas.

Rodney began as an ag educator after he graduated from Oklahoma State University. He received his degree in agricultural education in 1973 and taught in Texoma in the Oklahoma, Panhandle region. Although his sons, Dan and Shawn, have helped with the operation, one is working full time in Oklahoma City, and the other is pursuing his master's degree at Oklahoma State.

Without their help, he said it gets hectic, especially in the fall when they are planting, harvesting and weaning calves. He said he's thought of hiring a part-time hand, perhaps full time, but right now, Rodney and Pat have everything under control. Learning from Cooperative Extension helps make his operation more efficient.

He has worked closely with both Oklahoma and Kansas Extension educators. He said he also has a good working relationship with Scott Price, Grant County extension agent. Both taught agriculture about the same time. He also attends field days, such as the field days for canola.

Rodney is a major advocate for no-till practices. The main ingredients of his operation are wheat, soybeans, and milo. He has also planted some canola. He runs a cow-calf operation with 200 head. He's been no-till for about 12 years. He was first introduced to no-till when he taught school in Texoma.

"I saw what it could do out there," he said. "We started a farm program that enabled us to do some diverse things." Probably the biggest challenge to no-till is the mindset.

"If you've grown up clean till or conventional farming that's one of the biggest obstacles is to redo your thinking," he said.

To run his operation, it's an ongoing management. He describes wheat as the backbone of his no-till system. In this system, building organic matter in the soil is important. Good residue cover on the ground helps prevent most of the water erosion and all of the wind erosion. Another reason for running no-till is to conserve the moisture.

In addition to managing moisture, he must also control weeds. He said about the only way to get rid of the rye is rotation. He has learned what crops to rotate to take care of weed problems. He uses different herbicides with his crops.

His biggest headache right now is Johnson and Crab grass. After running no-till for a few years, kochia begins to disappear

and pigweed isn't a problem.

Another reason for going to no-till was equipment and labor. Before switching to no-till, he had acquired more land. He said he couldn't justify buying another set of equipment to farm the acreage. He chose to sell his conventional farm equipment and equip his operation for no-till – buying one tractor and one spray rig. He said this makes his operation more efficient.

No-till is efficient as far as timing, and it's economical because he can buy bulk chemicals, either from a co-op or somebody else, where he gets the best price. He also added a facility to store fertilizer. Again, he can buy bulk and save money per ton.

To reduce insect pressure, he plants Gaucho-treated seed, which protects it for 35 to 40 days. One or two bugs on a smaller plant can do as much damage as many bugs on more mature plants.

"It's all a systematic treatment they put on the seed before you plant it," he said.

A big issue with conventional farming is the sediment. When sediment moves, it finds its way to rivers and lakes and causes pollution problems. No-till is the direction to take in order to be good stewards of the soil.

For Rodney, the best way to handle sediment is 100 percent no-till in watersheds. He participates in the CSP, or conservation security program. The program offers incentives to growers to engage in no-till practices to keep the sediment and nutrients where they are.

He currently serves as the Chairman of the Rural Water District. He is also on the Conservation Board. He and Pat help with the local school whenever help is needed. He once sat on the school board and the co-op board. And of course, there are family events and other activities.

One of the things that he likes most about his operation is the diversity. In his operation, he has a combination of calves, summer crops, and wheat.

"It's what works and what fits," he said. "Seeing the benefit of feeding the soil."

To read more about the Hern operation, please visit our Web site.



After learning what no-till could do in the Oklahoma Panhandle, Rodney said, "we started a farm program that enabled us to do some diverse things."



Wheat, Peanut and Other Field Crops Research Unit
Stillwater, Oklahoma

Check out our Press Release from September 30, 2005.

“Developments to Wheat Scouting System Account for Natural Enemy”

The Cereal Aphid Expert System and Glance `n Go sampling system for wheat has been recently improved to account for activity of the beneficial wasp, *Lysiphlebus testaceipes*. Other improvements to the pest sampling system include reusable Glance `n Go forms.

The system includes an Internet-based decision support system, a simple presence/absence field scouting procedure, and easy to use sampling forms. Glance `n Go helps growers save time and money by allowing them to accurately and rapidly sample their wheat crops.

To find the full version of this release as well as more information about this month’s grower visit our website at:<http://www.ars.usda.gov/Business/docs.htm?docid=6555>



We're on the Web!

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For comments about this update or our program, please contact Dr. Norm Elliott at 405-624-4141, ext 227, or Norman.Elliott@ars.usda.gov

Areawide Pest Management for Wheat

Management of Russian wheat aphids and greenbugs



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