

Research in Review

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Research across borders saves cents

VERNON—Borders don't exist when the wind blows. So a wheat disease in Texas is only a few wind gusts away from bordering states.

Researchers in Texas, Oklahoma and Kansas know this. That's why they formed the Southwestern Wheat Research and Education Consortium. The group recently met in Vernon to discuss the latest work in the area of wheat for grazing and grain.

The organization operates across geographical and political boundaries, said **Dr. Don Robinson**, research director at The Texas A&M University System Agricultural Research and Extension Center at Vernon.

The idea is to minimize unnecessary duplication and foster coordination and cooperation between scientists, building off one another's strengths and successes, Robinson said.

"This allows them to use their limited resources as effectively as possible," he said.

By working collectively, researchers also can increase the dollars coming into the region for research and education, Robinson said. Grant requests concerning regional problems, rather than local, are more competitive for federal funds, he said.

Organization members include the agricultural experiment stations and extension services in each of the three states.

A prime example of the need for cooperative work is the current problem with leaf rust and stripe rust, said **Rodney Mosier**, Texas Wheat Producers Board executive vice president.

If the wheat varieties in Texas are susceptible, more spores will blow north and "our neighbors stand to lose," Mosier said.

"Our problem now could be theirs next," said **Dr. Jackie Rudd**, Experiment Station wheat breeder in Amarillo.

By working together, researchers can leverage a lot of information with a limited amount of resources and minimize duplication, Mosier said.

One-half of the yield gains since the 1960s are related to improved genetics, Rudd said. The annual return for research dollars on plant breeding exceeds 30 percent on wheat.

But improving genetics is a long process, often taking 12-15 years.

By sharing information and genetic resources, researchers don't always have to start at square one. They can make changes for their particular growing situation, but still have the overall genetics needed to combat certain problems.

Dr. Bill Pinchak, animal nutritionist at the Vernon-Chillicothe Experiment Station, said the geographical location of the Southwestern Great Plains creates an environment unique to hard winter wheat.

"The most efficient way for us to deal with that is to look at issues that don't have geographical boundaries," Pinchak said. "Leaf rust, bloat—these issues are greater than any research station or region or state or stakeholder organization. In order for us to come up with timely, effective solutions to the problems and production constraints, we have to work together," he said.

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At the latest meeting, the group focused on research concerning dual purpose wheat production. The ability to graze wheat during the winter and then pull off the cattle and harvest the grain crop is unique to the Southern Great Plains.

Researchers are looking at varietal differences under grazing at different stocking rates and pull-off dates. Others are concerned about physiological characteristics of the wheat, the effects of phosphorous and nitrogen fertilizer and what differences they make in forage and grain production, and milling and baking abilities.

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