WHEAT SCIENTISTS PUT THEIR HEADS TOGETHER

THE TEAM SPIRIT of the College’s Wheat Science Group has led to a leap in the state’s wheat yields and has helped make Kentucky’s wheat farmers among the most knowledgeable in the nation.

This group, which spans six departments, formally organized and hired a coordinator in 1997. That year, the average state yield was 54 bushels.

In 2006, Kentucky had a record wheat yield of 71 bushels per acre, among the top five yields in the country.

“Certainly see them as an asset to production agriculture with their wealth of experience and warehouse of information,” said Firmon Cook ’69, Caldwell County farmer.

Not everybody always thought so.

When the wheat group was first established, its reputation was mixed. In the late 1990s, private consultants were beginning to work with farmers on more intensive wheat management strategies, and UK was considered by some to be behind the times, partly because of the time it took to produce sound research data.

It was clear to UK’s wheat specialists that they needed to make some changes in their research and extension programs.

“We started in earnest when (Owensboro agricultural leader) Billy Joe Miles came in and started a consulting organization,” said Lloyd Murdock, a soil scientist who helped form the group.

“We decided we ought to step up our side too,” Murdock said.

“The biggest overall success is that the cooperative effort that transpired within our group and later with the private consultants transformed Kentucky wheat production into something that never would have happened without it.

“I think the combination of extension education plus the professional consultants is something most wheat farmers in other states don’t have,” Murdock said.

Miles said that at first there was some hesitancy when he brought in consultants from England to show Kentucky farmers that, by using European methods, they could substantially boost yields. Miles admitted that the first meeting, led by a British consultant, ruffled some feathers at the University, but the results—a more focused approach to improve Kentucky’s wheat production—was worth it.

“That was the consultant’s goal,” Miles said. “If intensive wheat management practices had remained only in private enterprise, it would have impacted a few counties. But, the University’s involvement made it a statewide effort. Today, we work together very well.”

Plant scientist Jim Herbek said the group wanted to ensure that boosting yields would not only be possible, it would be economical.

“We honed our recommendations some and reaffirmed them,” Herbek said. “We piecemealed our efforts before the group was formed. With the group, we’ve been able to concentrate our efforts and have a common focus and message. That’s good, because the wheat farmer’s needs aren’t one-dimensional.”

Herbek said the farmer needs information on agronomy, entomology, and plant pathology. With the wheat science group, the farmer can obtain knowledge from all those areas.

The Kentucky Small Grain Growers Association has funded research and educational projects for the group.

David Van Sanford, UK wheat breeder, said that a number of years ago UK and the association set the goal of having a certain percentage of the state’s wheat acreage in no-till by 2005.

“That really gave us something very firm to tie a lot of our work to, even though it may not have had anything to do with tillage per se,” Van Sanford said.

“Maybe we were talking about varieties that were adaptable or disease problems that were either greater or lesser in no-till than conventional. Those kinds of things gave us the commonality and the point at which we could interact,” he said.

Today, Kentucky is a national leader in no-till wheat production.

Curtis Hancock and his son Sam Hancock ’97, ’00 have worked with the wheat science group on their farms in Hickman and Fulton counties and have been no-tilling wheat for many years.

“I think it’s one of the best examples of cooperation that I’ve ever seen in agriculture from the farmer, industry, and University perspective,” said Curtis Hancock, who is a member of the promotion council for the Kentucky Small Grain Growers Association.

“As a matter of fact, I don’t know any that would be a better example. We’ve learned more about raising wheat through this program than any other production practice since I’ve been farming. Our knowl-

In 2006, Kentucky had a record wheat yield of 71 bushels per acre, among the top five yields in the country.
The farmer-specialist relationship is a mutual, symbiotic one, said Milton Cook ‘98—Firmen’s son, who also farms in Caldwell County. The Cooks try to help UK with research projects while the UK specialists help them with management decisions.

“I think the group concept is a wonderful way to do it,” Milton Cook said. “That way you have a general consensus on dealing with the problem and have more confidence in the decision with that many knowledgeable people dealing with it.”

When asked to pinpoint some of their successes, wheat group members list farmer knowledge, no-till production, fertility management, and improved yields. They are quick to add that work is ongoing on improving varieties through breeding and trials and on management of insects, weeds, diseases, and production.

The Caldwell County farm of Trevor Gilkey became a laboratory this spring for some wheat science research. The study involved sensors that measure the light reflectance from the uppermost part of the crop, the canopy. The goal is to see if the sensors, which are mounted on a high-clearance sprayer, can improve nitrogen efficiency of wheat by enabling it to be applied site specifically rather than by typical whole-field uniform application. From left to right are Gilkey; Jason Walton, a senior lab technician; Greg Schwaab, a Wheat Science Group member; and Ole Wendroth, a member of the Wheat Science Group who is leading the work.

The wheat science group, he said, “had a news bulletin out prior to the freeze to alert farm-ers about what they might expect and another bulletin following the freeze that outlined a logical way for producers to determine where they were. You sit there, and it’s one thing to have the problem, it is another to have a logical way of dealing with it.”

Van Sanford noted that the group is able to react quickly and get timely information to growers because of coordinator Dottie Call’s established communications network. The group has a newsletter and a Web site, holds an annual wheat meeting and a field day for growers, and conducts training for extension agents. Often, industry officials and private consultants are presenters at these events. In addition, the group produces an annual research report and annual results of the small grains variety trials.

“We never have really paid attention to whether a person was a researcher or in extension,” Van Sanford said. “That’s allowed us to question each other and to put each other on the spot, always with the intention of making each other better.”

“There’s not any second guessing; we just know what needs doing and do it,” he said. “We don’t worry about who gets credit. We do this for the wheat industry—growers, processors, and agribusiness.”

New research is always part of the group’s focus, with varieties now being evaluated for their straw, forage, and fuel potential.

“There are a lot of research and educational opportunities, because you never know what may be coming around the corner,” Herbek said. “Sometimes something comes up quickly, such as the freeze, and you have to really focus on what to do, referring to this year’s late spring freeze, which caused extensive damage to the state’s wheat crop. Many acres went unharvested, resulting in a drop in yields.

“The freeze was a time when I thought the wheat group really stepped up,” said Don Halcomb, Logan County farmer and promotion council chairman for the Kentucky Small Grain Growers Association.

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