Experimenting with new crop varieties adds to the many risks farmers already face, but Utah State University research farms throughout the state provide outdoor “laboratories” where researchers work with farmers to minimize risks and to create a more efficient food system.

USU researchers recently invited farmers, agribusiness and government agency representatives and agricultural lenders to the Utah Agricultural Experiment Station Blue Creek Research Farm for a field day to demonstrate work aimed at helping dryland farmers prosper. Located just 15 miles west of Tremonton, the research farm is surrounded by rolling hills of wheat and other crops.

“My specialty is safflower,” said Mike Pace, an Extension Professor in Box Elder County. “We do a lot with safflower and looking at variety trials, nutrient and fertilizer trials, working with dormant seeding.”

Pace said his research along with others is important to local farmers because it leads to developing crops that are more resistant to pests, and threats from weather and disease and cultivation methods that can increase a grower’s profits.

“It’s vital because when you look at the work that’s being done, we’re able to develop things that are going to make sense to growers before they do it,” Pace said. “We can experiment here, make sure it works here before we recommend it. Some of these trials are 3, 5, or 10 years long before we have enough confidence to be able to make recommendations to the growers.”

The research is so important to local farmers, a group of them near Blue Creek donated money in 1966 to buy 40 acres of land for the original research farm. Since then 50 acres have been added and donated to the Utah Agricultural Experiment Station.
“About the time I started working here, farmers got what is called smut in their wheat,” said Ray Cartee, a researcher who started managing the farm in 1972. “It’s a disease that replaces the kernels in the head with black kernels. It stinks like dead fish and it creates dust that looks like black smoke when they harvest it. It’s completely not marketable. The only thing that they can sell it as is livestock feed, and they really don’t like that. It was to the stage where some crops were 50-60 percent smut.”

Researchers were able to develop a wheat variety called “Bridger” that was resistant to smut, according to Cartee. It only lasted a few years before the microorganisms adapted to the new variety, again resulting in diseased wheat. After carefully managed trials, wheat breeding successes and errors, another wheat variety called ‘Manning’ was developed and is still grown to this day.

“That saved the wheat industry in northern Utah and parts of southern Idaho,” Cartee said.

Cartee said farmers face new challenges every year, but working together, farmers and researchers can stay one step ahead in an ever-changing agriculture system.

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