

# Western Triangle Agricultural Research Center's annual Field Day offers area producers immersive experience

By KRISTI CALVERY For the Valierian | Posted: Wednesday, June 29, 2016 6:00 am

On Thursday, June 23, Dr. Gadi V.P. Reddy, Superintendent of the Western Triangle Agricultural Research Center (WTARC), and Dr. Charles Boyer, Vice President of Agricultural at Montana State University, welcomed over 200 agro-interested participants to the 2016 WTARC Field Day.

This annual event impressively surpassed PowerPoint presentations, statistics and pie charts, and instead allowed participants an immersive experience viewing cutting edge research in the areas of agricultural practices, new grain varieties, and pest management problem solving.

The sunny day started with breakfast sponsored by several agricultural retailers and consultants from Cut Bank, Valier, Brady, Conrad, and Ledger.

Dr. Reddy gave a brief introduction, where he explained that the agricultural research centers are satellites of Montana State University, charged with providing assistance for farmers and ranchers in the Western Triangle including: Glacier, Pondera, Teton, Toole, and western portions of Liberty, Chouteau, and Cascade counties.

Dr. Boyer said the WTARC was the seventh of the seven research centers strategically placed in diverse regions of the state, each with its unique features like temperature, moisture levels, and soil composition. Boyer also announced in 2015 the Montana Legislature approved \$2.5 million to improve facilities of the seven Montana Agricultural Experiment Station Research Centers because of the importance of the research to the state. Attendees were able to see the new Pesticide Handling and Storage facility that was made possible by this appropriation.

After breakfast, field-day explorers climbed on hay bale trailers to tour the 75 acres of experimental farmland.



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Dr. Darrin L. Boss, Superintendent of the MSU-Northern Agricultural Research Center, explains to producers how to develop other economic streams while implementing cover crops. Also pictured is Dr. Gadi V.P. Reddy, Superintendent of the Western Triangle Agricultural Center.

The tour trailers stopped at 12 different land plots, where various researchers showcased and explained their projects. Research projects focused on solving problems like herbicide resistance, orange blossom wheat midge, pea weevil and wheat stem sawfly and several other pests, and the research focused on development of new varieties of wheat and barley that have potential for increased profit and quality in the region. Research projects also focused on farming practices like using pulse crops for crop rotation, cover crops verses fallow, and new developments in technology.

Dan Picard, WTARC Special Projects Manager, showed an orange blossom wheat midge trap at one stop, and explained how detrimental midge larva can be to crops. Tiny orange midge can cause significant yield loss for farmers, and Picard warned, Flathead farmers didn't know they had a problem until it was too late. "These little guys are like thieves. You don't know they are there until harvest," Picard said. Although midge hasn't been a large problem in the region so far, there are some in Pondera County and a small number in Teton County.

At another field destination, Roger Ondoua, WTARC Assistant Professor of Agronomy and Nutrient Management, showed and explained a research project with pulse crop rotations. Pulse crops like peas, lentils, and garbanzo beans have become so popular that the United Nations declared 2016 the International Year of Pulses.

Ron de Young, who works as the Director for the Montana Department of Agriculture, said one benefit is that "pulse crop rotations are helping the microbiology of the soil." De Young said that pulse crops have become popular in the region especially in the last three years because of their economic and environmental benefits. Pulse crops, which are leguminous crops that are harvested solely for the dry seed, have shallow roots and leave moisture in the ground for next year's crop rotation.

Field day attendee, Mark Suta from Cut Bank, agreed that pulse crops are primarily beneficial by adding nitrogen to the soil. However, he said he has not planted any pulse crops because in the 1990s he planted a pea crop that didn't make it past July. The year he planted peas, they were wearing winter coats while shooting off fireworks, so the pea crop did not survive.

The WTARC tries to find long-term sustainable solutions for farmers like Suta. Dr. Reddy said that the research focus is "based on the problems of the growers." Dr. Reddy spends much of his time writing grants and finding money for projects that are important to farmers in the area.

Shelby's John Miller, a research associate at the WTARC, has worked at the facility since 1998. He said having the research center in the region is important to farmers in the area because the region has distinctive qualities. If the research was done elsewhere, the results would differ. "The area covered by the WTARC has a pretty unique climate with a tendency toward cool nights, warm days and, of course, the wind. We also have deep soils for water retention," Miller said.

Besides the benefit the WTARC has to Montana farmers, the research sites also offer employment and summer internships to several local youth. Dr. Reddy said the WTARC currently has 15 regular employees, and nine student summer research interns.

One intern, Kendall Franks, will be a senior at Montana State University, where she is focusing her studies on Sustainable Foods and Agro-Ecology. Franks is working on one of Dr. Reddy's newest projects researching Pea Leaf Weevil. A Weevil is a tiny beetle that can destroy crops such as peas, and she said the research is important to crops in the area. "We drive 200 miles a day checking fields sometimes," Frank said.

According to Dr. Barry Jacobsen, Associate Director and Montana Agricultural Experiment Station Head, Frank's paid internship, along with eight other MSU students, was sponsored by an anonymous donor. "We want to get young people to see what happens as the research center because it is important work," Dr. Boyer said.

Mikayla Connelly graduated in May from Valier High School, and this is her first year interning at the WTARC. She grew up on a farm and ranch, Connelly Angus, north of Valier, and she conveniently entered the internship with some experience. Her favorite part of her job is simply being outside. "It's hard work, but I enjoy it a lot," she added.

Connelly spends most of her day on weed management and irrigation. Because they don't like to use many herbicides and pesticides, she and other interns use hoes to get rid of the weeds. "I'm learning a lot about the large variety of crops," said Connelly.

Connelly and Franks along with other interns helped facilitate the field day. When the hay bale trailers returned to the main building, the day's activities concluded with a lunch sponsored by Stockman Bank and Dr. Jacobsen speaking about the future of the agricultural research center.

Over the next few years, future plans include increasing the current research abilities by adding a green house and laboratory building. Dr. Jacobsen said the research facility is worth the taxpayer's support not only for the environmental benefit, but also for the economic advantage. "Economic research studies show that Montana's economy directly gets back \$6-8 for every dollar of state taxpayer support. Research at WTARC is a major contributor to this economic return," he explained.

Dr. Reddy thanked everyone for attending and adjourned the field day.