Research Profile – John Rickertsen

Name: John Rickertsen
Research Agronomist
Location: Hettinger Research Extension Center - Hettinger, ND

Brief background about yourself:
I grew up on a central Nebraska farm that raised irrigated corn and had a finishing cattle operation. I attended the University of Nebraska-Lincoln, receiving an agronomy degree in 1985 and a degree in plant breeding and genetics in 1989. From 1989 to 1993 I worked in corn breeding research in Illinois, Iowa and Wisconsin.

In 1994, I began working for South Dakota State University as a research associate/agronomist for the West River Crops and Soils project at the SDSU West River Ag Center in Rapid City. This project was responsible for the variety testing program in western South Dakota for several crops including wheat, oats, barley, sunflower, safflower, dry peas and sorghum. Other projects included alternative crop testing, herbicide trials and crop production research mainly related to winter wheat production, and a long term rotation study at Wall, SD with several diverse rotations utilizing no-till practices. In January 2013 I started as a research agronomist at the Hettinger Research Extension Center. I am married to Jennifer Rickertsen and we have three wonderful children; Cassandra, Vanessa and Zachary.

What is the primary focus of your current research?
The focus of my research at Hettinger is on crop production issues facing farmers in southwest North Dakota. The more specific areas of my research are crop variety testing, cultivar development, alternative crops, herbicide trials, fertilization studies, cover crops, crop rotations and no-till production practices.

What do you want to accomplish in the short-term, and then, in the long term?
My short term objective is to find the current best crop varieties and production practices for the sometimes harsh and variable climate of southwest North Dakota. The long term goal is to improve the sustainability and economic viability of crop production in the region.
How do you feel it will impact the region, nationally, globally?
As the world population heads to nine billion people by 2050, there is going to be tremendous pressure on agriculture to have the production needed to feed the world. We need to find ways to continue to increase our production but do it in a way that preserves and protects our natural resources. As we have seen with the adoption of no-till practices and diverse rotations, there are ways we can increase productivity while improving soil quality and reducing fertilizer and chemical inputs.

One of the most important decisions a wheat grower makes is the selection of a variety well-adapted to their specific growing region. Information from NDSU variety trials allows producers to use unbiased information to select the best variety for their operation. The adoption of improved varieties with higher yields and better disease resistance increases producers net returns and can have a significant local economic impact.

When finished, what will your work mean? What will it mean to the state of ND?
It is hard to think of my work being finished and more as a continuum of research performed before me and work that will be done after I retire. I hope that my research can be used by producers to improve their operations and help agriculture continue to be the number one economic force in North Dakota. Hopefully it will also contribute to information that can be used by future generations of agronomists.

What excites you the most about your project?
It is exciting that the research I do can often be directly applied by farmers – such as what wheat varieties are resistant to the current races of leaf rust or what is the best plant population to use for peas. As with anyone who grows a crop, it is amazing to plant seeds in the ground and watch as you nurture the crop to maturity and then enjoy as you run a combine through the field harvesting the grain. I enjoy debating new research ideas with my colleagues and having those “What if we do this...” moments.

What is the greatest reward after the completion of a project?
One of the greatest rewards is when you have conducted research that can be applied to producers’ operations. I worked on a no-till winter wheat planting date study where the resulting data suggested that the cut off crop insurance planting date could be later for no-till systems. Our work with no-till rotations showed that three or more crops in a system were superior to a two crop rotation. As any scientist will probably tell you, when we finish a study we have discovered some answers, but also generate many new questions.
What is your advice for students who want to go into your field of study?
There is a great demand for agronomists and it is an exciting field to be in with all the changes in equipment and technology. I would encourage students to work on a research project or do an internship with a company to help them decide what type of work they would like to do. My experience in working a couple summers in a corn breeding program is what sparked my interest in pursuing a career in agronomy research.

What are some of your hobbies/activities you like to do when you are not spending time on your research project?
I enjoy spending time and doing projects with my family. I have a passion for things with two wheels, both motorcycles and bicycles. Jennifer and I can often be found in our sizable vegetable garden in the summer and fall and enjoy canning the produce it provides.

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