

AgCam system created by farmers makes farm, ranch jobs easier

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The ability of a farmer or rancher to build or fix things is an admired trait.

Dave Rubey of Cayuga, N.D., displayed that ability when he built a heavy-duty camera system for agricultural use.

He and his wife and partner, Charissa Rubey, moved from southern California back to the Rubey farm in southeast North Dakota in 1994.

After five years of farming, Dave developed a herniated disk in his neck, and had to have a cervical fusion.

Relegated to wearing a full neck brace for eight weeks, he went in search of a camera system to use in the combine during wheat harvest.

"He couldn't see behind in the combine," Charissa said. "We looked for cameras and bought a couple different ones. They just weren't working."

Consumer-grade camera systems proved too flimsy for combine work. Involved in engineering in California, Dave began using his skills to make his own industrial-strength camera system.

His first AgCam involved a small black and white camera and a 5-inch black and white television.

The system worked, but he couldn't get a very clear picture when the camera was pointed to the sun or in dusty conditions. It didn't work after dark without an additional light source.

"Dave started modifying them and making them better," she said.

He tried various camera boards, lenses, camera bodies and several styles of small flat screen televisions. Eventually, he devised a portable unit with the durability and picture clarity he needed.

"The unit really worked well," Charissa said. "We decided if we wanted this, other people probably wanted it, too."

The couple incorporated under the name Dakota Micro, Inc. in 2002. Their first distributor was Milnor Implement of Milnor, N.D., about 27 miles northeast of Cayuga.

Seven years later, Dakota Micro, Inc. is a rapidly growing, family-owned rural-based electronic manufacturing company.

Dakota Micro remains dedicated to providing the highest quality, most durable video equipment suitable for endurance in the harshest environments.

The company works with agriculture, as well as military, police and rescue/emergency surveillance.

"Almost all of the camera components are built in the United States, although we have to import Sony camera components," Charissa said, who serves as vice president of sales and marketing for Dakota Micro. "The camera bodies are milled out of solid aluminum bar stock in Hankinson (N.D.), just 50 miles from the factory."

There are 850 AgCam dealers in the United States and Canada.

There are 25 distributors in the United States, Canada, Australia, the Netherlands, Iceland and the United Kingdom.

The company has four main product lines. These include the AgCam monitor, cameras, a quad processor that allows the viewers to see four locations at once, and a wireless unit with antenna.

"The cameras are what we really pride ourselves on," she said. "They are very durable, and there is a 3-year warranty on the cameras."

Since March, all AGCO tractors and combines are built AgCam ready. Farmers and ranchers are using the portable AgCam units throughout their operations.

The cameras are mounted on combines to see in the grain tank, get a view of the end of the combine auger or monitor crops coming into the combine.

They are used to monitor grain dryer systems and grain elevators. AgCams are also used for monitoring tillage,

planting and baling.

The AgCam is waterproof and can be used to view the inside of fertilizer or chemical tanks.

The AgCam is also used for seeing behind a skid loader, filling grain carts and loading and unloading bins.

Livestock producers put them in their calving sheds. They run wireless antennas and can watch 3 a.m. calving progress from their homes.

For farmers and ranchers that are considering a camera system, Charissa encourages them to select a system that offers simplicity and durability.

"Some systems are complicated to hook up, so once you install it, it stays on that piece of equipment," she said. "The AgCam simply needs to be plugged into a cigarette lighter."

Dakota Micro just released a new AgCam camera system, with an upgraded motherboard and greater screen resolution.

They also added magnetized switches to the bottom of the camera that allow the user to turn infrared capability on and off.

"The switch doesn't go through the camera body, so it doesn't ruin the waterproof integrity," Charissa said.

The company is also in the process of upgrading their camera brackets. Customers have asked for an extra screw hole in the bracket to make it easier to attach the camera in some locations.

"Since we manufacture the AgCam, we can make changes to our units when there is enough demand," she said.

The Rubey's encourage their customers to use their imagination to find new uses for AgCams in their operations.

Dakota Micro is always interested in hearing how farmers and ranchers are using their products in innovative ways to make their operations more successful.

For more information, visit www.agcam.com.