Future of farming helps eliminate false judgements

IRF from page 1

ment rules a few years ago, requiring all high-capacity wells in Colorado's Republican River Basin to be equipped with meters, and for the well owners to report their usage each year.

Hundreds of wells — a significant number, but a low percentage of all the wells in the basin — were found to have gone over their permitted amount the first year. The state allowed those owners to make amends for the overuse prior to beginning to implement more stringent penalties.

Suddenly there was much more interest in finding ways to grow irrigated crops with less water. Corey said visits to the IRF's website surged significantly.

"It was a sweet moment for the research farm," Corey said.

The facility has seen more than 50-percent growth in the past few years. Nock with Agrimeasures noted the IRF is the only facility of its kind in the whole United States, making it a hot commodity.

Corey said the IRF leaders realized the focus needed to change more toward technological advances, such as lateral move systems and variable rate irrigation. The IRF teamed up with Center Pivot Irrigation, the local Reinke dealer, to install variable rate sprinklers.

It allows for sections of the sprinkler to be turned off and on, to apply more water in one part of the field, and less water elsewhere.

Joining Reinke is Agrimeasures, a company based out of Maryland, with its underground soil moisture probes, and Yuma-based Agri-Inject with its variable-rate fertigation system.

Corey said the IRF is the hub to bring it all together. Now the challenge is to take all the information being culled from these advances and presenting it in a format producers can understand and put to beneficial use.

"We're helping answer questions and create new ones," Corey said.

Agrimeasures' probes have been around for years, but Nock explained that technological advances now allow for users to get real-time data out of the ground and make adjustments on the fly.

Agri-Inject was founded more than 30 years ago on the premise an irrigation system can do more than apply water. Its mission has evolved through the years, and now includes a Reflex panel that allows for the variable-rate injection of nutrients. "The more precise irrigation becomes, the more valuable of a tool an irrigation system becomes," Tribelhorn said. It allows for applying nutrients when needed and in the



Pioneer Photo/Tony Rayl

Agrimeasures' probe is encased in the white cover seen at the bottom left corner and the antenna relaying information to cell phone towers is seen at right in the high-tech, precisionfarming field just north of Yuma.

right amounts, which can vary from one part of a field to another

The IRF has smaller pivots than regular fields in the area, so the expansion to an irrigated field east of the facility allows for testing with a regularsize pivot. Agrimeasures has probes all over the irrigated field, and Agri-Inject has a Reflex panel set up at the motor for the center pivot, along with a blender for applying a cocktail of what the plant needs besides water. The Reflex panel is the control panel to apply what needs to be injected. The system also incorporates a variable motor that helps reduce electrical usage.

Nock said the concept of precision agriculture can be applied for any plant because water and nutrient management is always the key.

The sleeve of Agrimeasures' probes is 37 inches long, with the water sleeve 12 inches in to the ground. There are five sensors under the surface collecting data at different depths, which is transmitted in real time to cell phone towers thanks to an antenna near the probe."Trust me, it is pretty high tech inside that plastic tube," Nock said. Producers can keep up on that data on a cell phone, tablet, laptop or even computer at home. Sprinklers or a section of a sprinkler, can be turned off or on depending upon the need, as well as applying nu-

trients, without having to be at the site. Data is gathered every 15 minutes. Nock said the goal is to change a field's "prescription" every 15 minutes if needed.

"It takes false judgements out of it completely," he said.

For example, a farmer might think a weak-looking area needs more water, when in fact it might be something else. Nock could sit at his computer in Maryland and turn off a sprinkler here if the data from the probes show the field has sufficient water.

The end concept is that water application and nutrient injection can be monitored at all times, and adjusted by the system on a continual basis, making for an extremely beneficial use of all inputs, while also maintaining strong yields. It can help conserve water resources, protect soil from overapplication of fertilizer and pesticides, and produce the food needed to meet a growing demand into the future.

And the testing that is intended to provide the proof to

Child abuse isn't always easy to spot.

But now it's easier to stop.

help convince farmers this is the wave of the future, is being done right here at the IRF. In fact, the facility's annual Farm Show is coming up next month, August 12-13, where one can learn much more.

"It's taken a lot of cooperation to get to this point," Corey said.

There is still a lot of work left to be done.

Girl reunited with family

Kidnapping from page 1

custody until she was reunited with her legal family.

not disclosed due to the pending investigation. The driver agreed to go to the Yuma Police Department, where he was interviewed, and the YPD forwarded the information to the CSPD and the Washington County Sheriff's Office.

It was reported McMillian now was driving a silver 1999 GMC pickup.

Lynch said it was more than likely McMillian and the young girls were in the Yuma area, so officers continued to look for her throughout the evening.

Then, shortly after midnight on Thursday, July 2, the Yuma County Sheriff's Office received a tip that McMillian was leaving a residence east of Yuma. Law enforcement set up on Highway 34, while Sgt. Gallagher of the YCSO covered the County Road 39/Beatty Ave. route into town.

Gallagher located the vehicle as it entered town, identified it by its license plate, then pulled over the vehicle on W. Beatty Ave. near Kamala St. at the northwest edge of Yuma, with YPD officers responding to assist.

McMillian was arrested without incident on the outstanding kidnapping warrant, and was transported to the Yuma County Jail in Wray.

The 5-year-old was recovered unharmed and kept in POOL PARTY

Join us for fun, food and fellowship! Sunday, July 26 • 5:30 -7:30 p.m. at the Yuma Swimming Pool. Swimming, food, and fellowship. Hamburgers and hotdogs served, but feel free to bring your favorite dishes to share. Donations for pool and food costs will be greatly appreciated.

Email Ken Scott - kdscott110@hotmial.com for more information.



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(**f**)



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