



By Carolyn Lee
The Imperial Republican

During the annual Nebraska Association of Resource Districts convention in Kearney Monday night, Deb and Steve Leibbrandt and Tim Leibbrandt were honored as 2012 Omaha World Herald Master Conservationists for their technical approach to saving water while farming.

They were nominated by the Upper Republican NRD which said, "The hallmark of the family's conservation practices is early and persistent adoption of new, water-saving technologies."

The nomination states "The Leibbrandt family of rural Chase County has a diversified farming operation that has been at the forefront of water and soil conservation...for more than 40 years. Their efforts to conserve water have been driven by a desire to aide future generations of farmers in the area, and the need to operate within water-use limitations and regulations that have been in place in the Upper Republican NRD for about 32 years."

The URNRD was the first in the state, and may have been the first in the U.S., to restrict and measure groundwater use for agricultural purposes.

According to the Omaha World Herald, "This summer was brutal," Steve Leibbrandt said.

"We're in an area where there is nothing more important than water," he continued. He said he aims for reasonable yields, not bumper crops.

"We have to learn how to get the most out of every acre with the water that's available," he was quoted.

Soon after converting flood-irrigated land to center pivot systems in the 1980s, the Leibbrandts adapted changes to the pivot systems.

High pressure nozzles were replaced with more efficient drip and low-pressure nozzles.

Motors were upgraded, with energy efficient electric motors replacing diesel ones.

Low pressure, more efficient pumps replaced the original ones.

The conversions were made to facilitate more technological advances planned by the Leibbrandts, such as computerized, programmable system panels that allowed for more scheduling and control of irrigation systems and helped limit unnecessary irrigation.

Most recently, radio-controlled computer monitoring systems have been installed that allow total control of irrigation systems through the use of computers and smart phones.

Besides the changes to the irrigation systems, the Leibbrandts have utilized soil-moisture probes and blocks that monitor the impact of precipitation on soil moisture.

They use rain shutoffs that stop irrigation systems when it is raining. Wind speed indicators have been installed for the same purpose.

Leibbrandt says, "Pivots are never started and just let run, regardless of weather conditions," according to the NRD nomination.

Pivot end guns have been eliminated to conserve water. Soil mapping and testing are used.

Rotation of soybeans, edible beans, wheat and potatoes have helped the Leibbrandts avoid over-pumping of groundwater, as well as breaking up the cycles of insects and weeds.

The Leibbrandts use minimum tillage, and, in many cases depending on soil types, no-till. More

recently, strip tillage has begun to be used on a majority of the acres.

The family uses GPS guidance equipment to precisely plant crops and apply fertilizer, with little or no disturbing of the residue that holds the soil.

Eco and chemical fallow practices on non-irrigated cropland have been used for 15 years to reduce soil erosion from rain and wind.

Leibbrandt says that good stewardship of land and water resources is the most important part of his operation. "I am in this business for the long term and hopefully there will be generations to follow. Leaving the land in better shape than it was for me is the only option."

He describes himself as a "guinea pig" for new technology. The NRD says, "Others in the region have used Steve as a source of information about new technology, and he has willingly explained the benefits of its use."

"This has helped spread the use of new technology in the region," the NRD added.