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Natural Resources Conservation Service

CONSERVATION *Showcase*

Rotating Cattle, Accessible Water Critical for Overcoming Drought on Pastures

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Following a dry Iowa summer where – at its height – more than 20 western Iowa counties fell into an “Extreme Drought,” the U.S. Dept. of Agriculture’s Natural Resources Conservation Service (USDA-NRCS) is encouraging Iowa’s livestock producers to consider adopting weather resilient, long-term drinking water sources, and alternative forage and grazing solutions for their pastures.

Currently, about 40 western Iowa counties are in a “Severe Drought” according to the most recent U.S. Drought Monitor. Adequate water and forages continue to diminish for grazing animals, causing producers additional expenses and labor to weather the drought.

Although southeast Iowa livestock producers are enduring dry conditions this year, it’s nothing compared to the extended drought they experienced from 2016 to 2018. Because of that long-term drought, many producers in the area worked with NRCS to implement practices such as livestock pipeline, watering facilities, prescribed grazing and water wells to help overcome drought conditions.

Through the NRCS-administered Environmental Quality Incentives Program (EQIP), Iowa farmers contracted a record \$9.2 million in 2018 for conservation practices that reduce erosion, improve water quality, and boost forage conditions on grass-based grazing operations.



“Many southeast Iowa producers reached out to us in 2017 and 2018 expressing a need for assistance on grazing lands,” said Jon Hubbert, State Conservationist for NRCS in Iowa. “We felt a need to help producers protect their grass resources and improve the long-term sustainability of their pastures.”

Davis County livestock producer Ed Good, a 2019 Iowa Farm Environmental Leader Award winner, spearheaded an effort to help local farmers. Davis County was at the heart of the drought and Good helped bring it to the attention of local, state and federal government leaders.

When the dust settled, NRCS provided special assistance through EQIP to local producers for drought-resistant grazing practices. “I think I was the first one to sign up for water in the county,” said a smiling Good.

In 2018, Davis County producers led Iowa with 192 EQIP contracts – most of them for grass-based livestock conservation practices. For perspective, the average number of EQIP contracts per county in Iowa that year was 14.

With the help of Good, local NRCS staff, and their conservation partners, word spread about the availability of financial and planning assistance. “The response was pretty incredible,” said Good. “If we get another drought, I don’t know anyone in the area who is not in pretty good shape for (livestock) water.”

The Payne Family, who operate Hillview Angus Inc. near Pulaski in Davis County, installed 18 livestock



Adam Smith installed four new watering systems that hook to rural water on his pasture in Davis County, Iowa. Smith's diverse forages also help provide weather resilience during drought conditions.

waterers and 14,000 feet of water line in and around their 500 pasture acres in 2018. They also intensified their rotational grazing system.

Kyle Payne says their livestock are healthier because they no longer need to drink from often-unsafe pond water. The water lines are hooked to the rural water system. "We now have good, accessible drinking water in every paddock," he says. "We can wean heavier calves, our conception rate is improving, and we see fewer lame cows."

Payne says the paddock grazing system helped this year as the weather turned hot and dry in July and August. "Having accessible water in every paddock allowed us rest, recovery and regrowth in our rotationally grazed paddocks," he said.

Payne is also using cover crops on his rolling hills as an additional feed source. "We chopped silage and earlage this year and seeded oats out there right away," he said. "Some of that we will graze and some of it will be chopped and wrapped in bales."

The Paynes also grow turnips with the oats to help break soil compaction. "The cows really enjoy the

turnips," said Payne.

Chad and Nora Knapp in Bloomfield tell a similar story. With their ponds low on water, Nora said they spent hours daily hauling water to their pastures in 2017 and 2018 and they were forced to move cattle more often.

The Knapps installed three new watering systems with assistance through EQIP in 2018 and started planting cover crops on about 30 cropland acres for fall grazing. "I think the cows do better on our rural water, than our ponds," said Chad Knapp. "We lost seven or eight cows in the past after they got sick from coyote poop in the ponds."

Adam Smith purchased about 370 pasture acres in Davis County five years ago and rents another 500 acres. Smith says he is learning how to get the most production out of his pastures by maximizing plant and animal diversity. He grazes different types of cattle on his pastures, matching forage quality to the needs of the grazing animals.

Portions of Smith's pastures include summer annuals to help him get through the summer slump of forage



production, which also helps with dry times. He says his rotational grazing system allowed his pastures to remain productive during the prolonged drought. "Rotational grazing is not 'one size fits all,'" said Smith. "Just a little rotating goes a long way."

NRCS Grazing Specialist Stacy Prassas says resting pastures during rotational grazing allows plant roots to grow deeper and improve soil health. "Adam allows his pastures proper recovery time and that's where he's excelling and able to make it through drought conditions," she said.

Smith admits he needed NRCS assistance for water. He implemented four new waterers using EQIP assistance in 2018. "That saved me because several of my ponds were new and held no water," he said. "When it gets dry, the water gets scarce. We were moving our cattle to get rural water. Our ponds were just done."

Smith feels water distribution throughout pastures is important for weather resilience. "Water locations are important. Put water everywhere you can on your farm," he said. "If you get the watering system in place, then you have a plan for drought."

Smith says NRCS planning assistance and conservation programs are a major reason why his pastures are in good condition. "I feel I have utilized the programs the way they are intended," he said. "My system is usable and efficient, and I have NRCS to thank for that."

Farmers can sign up for NRCS conservation programs on a continuous basis. Most NRCS offices are open by appointment only due to COVID-19, so please call ahead before visiting your local USDA Service Center. For more information about sustainable grazing practices, visit: www.nrcs.usda.gov/wps/portal/nrcs/ia/technical/landuse/pasture/.

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Top Photo: Kyle and Abby Payne operate Hillview Angus Inc. with Kyle's parents near Pulaski in Davis County, Iowa.

Above: Davis County farmer Ed Good checks the rain gauge on his deck. Good was instrumental in getting federal funding for watering systems on area pastures following the 2018 drought.