

# Drought Taking Its Toll On Livestock Producers

BY RITA BRHEL  
P&D Correspondent

Summers in South Dakota and Nebraska are normally hot and dry. Producers here are used to lush, fast-growing spring pastures giving way to slow-but-steady warm-season grasses. Despite the hit-and-miss rains of late June, July, and August, cattle pastures can usually be counted on through much of the fall and sometimes even to the edge of winter.

But so far, this summer - far beyond the Yankton area - has been much hotter and drier than a typical year, and following a mild winter and early spring, a drought has spread to more than two-thirds of the nation and deepened to ubiquitous moderate and severe conditions in most areas, with more than a couple areas with the highest drought rating - "exceptional."

"Unrelenting heat and lack of rain continued the downward spiral of drought conditions," said Richard Heim, climatologist with the National Climatic Data Center in Asheville, N.C., of the past week's weather impact on the Midwest. "Extreme drought was introduced in Nebraska, Missouri, and Wisconsin, and the moderate drought expanded in Arkansas, Oklahoma, Kansas, and Indiana. Indianapolis implemented mandatory water restrictions for the first time ever, with many trees dropping their leaves and going dormant months early. Exceptional drought expanded in Arkansas and was introduced in western Kansas."

Heim noted that Phillip, S.D., hit 109 degrees last week and that 100-degree days were a common experience through all of South Dakota and Nebraska. Heim works with the U.S. Drought Monitor, a program of the National Drought Mitigation Center in Lincoln, Neb., which issued an announcement three weeks ago that this is the worst drought the nation has ever experienced in the program's 12-year history.

And there's no end in sight. According to the National Integrated Drought Information System's U.S. Drought Portal, the drought in all of South Dakota and Nebraska and most states stretching from the tip of South Texas to the Minnesota-Canadian border and from the West Coast of California to portions of New York State is expected to persist at least and likely strengthen through Oct. 31. The Four Corners in the Southwest and portions of the Southeast, including Georgia, are forecasted to see some improvement to dry conditions, but then again, these are some of the areas that are experiencing the worst drought conditions possible. Here in the Yankton area, there is very little to no rain in the foreseeable forecast and temperatures are expected to remain in the upper 90s.

"We continue to see drought spreading and intensifying," said Brian Fuchs, climatologist with the U.S. Drought Monitor. "The dryness and heat wave pattern are still locked in. The latest forecast says this isn't changing. This could easily go on into September."

## NATIONWIDE DROUGHT

Drought has a plethora of adverse impacts, from tourism to fire danger to city water supply to natural resource, and most notably agricultural. The headlines have been telling a dire story: In Colorado, hay prices are soaring; in Ohio, the Farm Bureau is surveying the economic toll on



PHOTO: RITA BRHEL

**This summer's drought has hit pastures throughout the area hard, resulting in tougher times for livestock producers. Experts are warning producers not to stretch stressed pastures too far with too high of a stocking rate for the quality of forage, which could affect cattle fertility.**

farms; in Indiana, people who toss lit cigarettes from car windows can expect a fire danger fine of up to \$10,000; in Iowa, massive fish kills are occurring in dwindling streams and some communities don't have enough water supplies for fire hydrants; in Kansas, crops are suffering and producers are offloading livestock herds at sale barns because of lack of pasture; from Kentucky down the Mississippi River, barges must carry less cargo to avoid hitting the river bottom; and in Missouri, producers are being warned that drought-stressed forages can be lethal to cattle. That's just the past week.

Here in Southeast South Dakota and Northeast Nebraska, Conservation Reserve Program (CRP) acres have been released for emergency grazing and haying, a senator has contacted the U.S. Ag Secretary about increasing assistance to producers, the South Dakota Drought Task Force is now activated, the communities of Bloomfield, Laurel, Newcastle, Osmond, and Plainview all have water restrictions, and the Nebraska governor declared a state of emergency and advanced the start date for roadside haying.

"Last year, all eyes were on Texas, where drought conditions were intensifying into what became that state's worst single-year drought on record, causing nearly \$8 billion in economic losses," said Andrew Freedman, senior science writer with Climate Central in Princeton, N.J.

What level of losses can producers expect this year?

## WHAT LOCAL LIVESTOCK PRODUCERS NEED TO KNOW

The Yankton-area's moderate to severe drought, according to the National Weather Service, means that crop and pasture losses are likely to occur. The Omaha, Neb., office, which covers Northeast Nebraska, reported that 53 percent of Nebraska's topsoil is in the very short range for soil moisture and 50 percent of the subsoil is in the very short range, resulting

**"We continue to see drought spreading and intensifying. The dryness and heat wave pattern are still locked in. The latest forecast says this isn't changing. This could easily go on into September."**

BRIAN FUCHS

in significant stress in dryland crops and pasture.

The Sioux Falls office added that surface waters, such as stock dams, are also being impacted: Stream flows are consistently running below normal. Pasture conditions are 33 percent poor to very poor, 34 percent fair, and 30 percent good; however, this report could look desirable in a few weeks with the forecasted continuation of above-normal temperatures and below-normal precipitation.

Producers are most concerned about having enough pasture to adequately feed their cattle through the summer and fall, and saving their winter hay stores. Rick Funston, Assistant Professor of Animal Science at the West Central Research and Extension Center in North Platte, Neb., warns producers to be careful about stretching stressed pastures too far with too high of a stocking rate for the quality of forage, so as cattle fertility won't be affected.

"This year could be particularly challenging to achieve high reproductive rates, as forage quality and quantity are much below normal. Special attention needs to be given to young, growing animals and perhaps the entire herd," Funston said. "During a normal year, I would recommend supplementing the high-risk animals, but this year, the entire herd may need supplementation."

Rick Rasby, Professor of Animal Sci-

ence with the University of Nebraska in Lincoln, Neb., said producers can either supplement their cattle in the pasture or move their cows to a dry lot and simulate a winter-feeding scenario. The challenge is that the supplemented forages, whether alfalfa or prairie hay, will be expensive as their production is just as affected by the drought.

Although there isn't an "official" hay shortage in South Dakota or Nebraska yet, producers in other states like Missouri are already feeding winter hay in light of 92 percent of pastures rated at poor to very poor. Justin Sexton, University of Missouri Extension beef nutrition specialist in Columbia, Mo., says that the state was in a hay shortage to begin with because last year's surplus went to the drought-stricken Southwest. In Tennessee, producers are already paying twice as much as they normally would be paying for hay, if they can find it, said Charles Hord, executive vice president of the Tennessee Cattlemen's Association in Murfreesboro, Tenn. Normally, he said, producers would be storing up hay for the winter; this year, they're using the winter hay now.

"It could be a long winter," Hord added.

Without hay, producers will have no other alternative but to sell cattle. Right now, they're making due in Missouri by early-weaning calves first before culling from the breeding herd, Sexton said. Even then, producers can't recoup their losses.

"Cattle prices have been high, but because of the drought, so many are entering the market and now prices are coming down," Hord said. "It's a tough situation for anyone in the livestock industry."

Another forage source might be failed crops, but Watertown-based South Dakota State University Extension Cow-Calf Field Specialist Warren Rusche cautions producers to remember nitrate toxicity, which is prevalent in stressed crops. Not all nitrate levels are considered toxic, so drought-stressed crops need to be tested. In general, Rusche said these guidelines will help producers decide when and how to feed

forage with higher nitrate levels: Gestating cattle are most sensitive to nitrates, increasing feeding frequency as well as including grain in the ration are both ways of reducing nitrate toxicity, animals can adjust to higher nitrate levels if the percentage in the daily ration is steadily graduated, and chopping silage reduces nitrate concentrations. Bruce Anderson, University of Nebraska Extension forage specialist in Lincoln, Neb., said nitrate poisoning can happen with corn, small grains, and broadleaf weeds like pigweed, kochia, and lambsquarter.

Deteriorating pasture conditions and hay shortages are not the only concerns this summer. Often, producers will either be dealing with drought or a heat, but not both - until this summer.

Heat stress hazards will endure in the danger to emergency range, according to forecasts by the U.S. Department of Agriculture. Dee Griffin, UN Extension veterinarian in Lincoln, Neb., says that improving air flow and water access are the keys to minimizing cattle losses, recommending that producers move animals out of pens with air flow obstructions and add water tubs to pens. Cattle need 20 gallons of water per head per day, half of which must be available in the middle of the afternoon. Dark-colored cattle are at greatest risk, and naturally fed cattle are at higher risk than conventionally finished cattle.

Not only are surface waters dwindling but water quality is also suffering. Adele Harty, SDSU Extension Cow-Calf Field Specialist in Rapid City, advises producers to be testing livestock water sources for sulfate salts. Stock dams are most likely to be affected, but wells can be also. Water high in sulfates has a bitter taste and cattle will tend to avoid it, Harty said, but they will consume the water on hot days if no other water source is available. Like nitrates in plants, too high of a sulfate level in water is deadly to animals. Harty said that some animals are able to tolerate higher levels than other individuals, and many cows will reduce their water intake to lessen the effects of sulfates, which results in feed intake, which in turn lowers performance. Operations with toxic water can either connect with a local rural water district or try to drill a new well; a more expensive option is hauling water from off-site.

Finally, feed grains are rising in cost. The U.S. Drought Monitor indicates that 88 percent of U.S. corn and 87 percent of U.S. soybeans in the field are within a drought area. Furthermore, nationwide, one-third of corn and soybean fields are rated poor to very poor, one-third as fair, and one third as good to excellent - the best one-third being irrigated crops, according to Kay McDonald, agricultural researcher with Big Picture Agriculture in Boulder, Co.

## FUTURE FEARS

Speculators are abuzz, nationally, about whether the current drought is a harbinger of another Dust Bowl or, worse, a permanent climate change. Agricultural producers, known as a group for their realistic look at situations, have a real fear that this summer's drought might go on to become a multi-year drought.

"Cattle herds are and will be culled in very large numbers," McDonald said. "It's time to ponder 'what if' for next year. Weather patterns run in cycles."

## Extension Offers Tips For Drought Stressed Corn

BROOKINGS — Water shortages are critical at any time of plant development but especially at the reproductive stage. They will lead to poorer crop performance and less yield potential, says Mark Rosenberg, SDSU Extension Weeds Field Specialist.

Rosenberg explains that each crop has a different period of growth where adequate moisture will be necessary to reproduce. Corn to a degree can be fairly drought tolerant. However the critical time for moisture to be present is during the period 2 weeks before and after tasseling.

"The first sign of moisture stress in corn is when leaf tissue wilts and rolls during the warmer parts of the day. Normally the plant will return to its normal vigor once the day cools off. As dry weather persists and intensifies the corn will not be able to draw sufficient water and will remain stressed both night and day. If the conditions persist for extended periods of time the leaf tissue will begin to die," Rosenberg said. "The first signs of death begin at the leaf tips and margins. This will progress to cover more leaf surface as available moisture decreases. The point at which the plant will not recover is called the permanent wilting point."

Research has shown that four consecutive days of visible wilting can reduce yields by 5 to 10 percent. Also the rows of kernels (V6

to V8) and the length of the ear (V10 to V12) are determined prior to tasseling.

"If stress occurs in those periods of time the ear will not increase even if rain is received," he said.

Rosenberg adds that drought at the early stages of reproduction (silking and tasseling) can cause severe yield reductions. Some estimates suggest possible losses approaching 50 percent when the plant is short of moisture. Poor pollination will result in poor kernel development and unfilled ears, usually at the tip.

To gain a better idea of how successful the pollination period was this season, Rosenberg explains an in-field test growers can conduct.

"Once pollination has stopped,

there is a three day window to walk the field and check random spots. Carefully detach the ear and remove the husk. Then give the exposed ear a shake and observe the silks. If they properly pollinated the ovules (immature kernels) they will drop from the ear. The higher number of silks shedding indicates successful pollination," Rosenberg said.

Rosenberg shares another observation growers can make when deciding grain potential.

"Look for ovule development about ten to 14 days after pollination. Look for small water-filled blisters emerging on the cob. These will develop into kernel as the season progresses and moisture is available," he said. "The yield potential shortly after pollination has completed will corre-

spond closely to the success of pollination. If pollination success was low, rainfall after the pollination window will not increase yield potential. If yield potential is highly limited, salvaging the crop as forage should be considered."

For more information on this and other agronomic topics, visit iGrow.org.

10% OFF Your Project

**Blackburn Basement Systems**  
Waterproofing & Repair

**Basement & Foundation Specialists™**

Wet Basement? Basement Wall Bowed? Foundation Settling?

• FREE Estimates • Financing Available

**Toll Free 1-800-392-3389**

**www.blackburnbasementrepair.com**

(Cannot be comined with any other offers)




**Cool Off**  
with a refreshing  
**Milk Shake!**  
chocolate or vanilla  
only **\$1.00**  
Friday & Saturday 12pm-6pm

**HyVee**  
EMPLOYEE OWNED

2100 Broadway  
Yankton, SD  
665-3412

THE REGION'S MOST COMPREHENSIVE ORTHOPEDIC CARE




**Our Commitment Is To Keep You Active.**

Specialists will be at Orthopedic Institute in Yankton on these dates.

<b>Yankton</b>	<b>Dr. Mitchell Johnson</b>	<b>Aug 14, 28</b>
	<b>Dr. Suga</b>	<b>Aug 3</b>
	<b>Dr. Watson</b>	<b>Aug 21</b>
	<b>Dr. Dan Johnson</b>	<b>Every Monday, Wednesday and Thursday</b>

Please call to schedule an appointment.



**ORTHOPEDIC INSTITUTE**

The One To Trust

**SPECIALISTS IN:**  
General Orthopedics  
Spine Surgery  
Sports Medicine  
Hand & Upper Extremity

Joint Replacement  
Arthroscopic Surgery  
Foot & Ankle  
Pediatric Orthopedics  
Microsurgery

Morgen Square, 1101 Broadway, Suite 106  
665-0077 or Toll-Free 888-331-5890  
**www.orthopedicinstitutesf.com**  
No physician referral is needed unless required by your insurance.

witcc.edu

800.352.4649

Classes begin Aug. 22

**Register**

**Now!**



**Western Iowa Tech Community College**

