



FIELD&FEEDLOT a monthly agriculture publication for Northwest Iowa

JANUARY 2022

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Online References

Ag Decision Maker

www.extension.iastate.edu/agdm/

Iowa Beef Center

www.iowabeefcenter.org

Manure Management Action Group

www.agronext.iastate.edu

Iowa Pork Industry Center

www.ipic.iastate.edu/

ISU Extension Dairy Team

www.extension.iastate.edu/dairyteam

Locate a County Office

<https://www.extension.iastate.edu/countyservices/>

Numbers to Know

AnswerLine 800-262-3804

Beginning Farmer Center 877-BFC-1999

Iowa 2-1-1 211

Iowa Concern 800-447-1985

Iowa Healthy Families 800-369-2229

Teen Line 800-443-8336

Tips for Saving on the Propane Bill

Kris Kohl, Ag Engineering Specialist | 712-732-5056 or kkohl1@iastate.edu

Propane is twice as expensive now compared to last year. We must burn it wisely, especially when the price is so high. Here are 4 tips to make sure we are only consuming as little as possible on these cold winter nights.

1. **Ventilation System.** Eighty percent of the heat lost on a properly ventilated livestock building is out the fans during the winter. The air exiting the building should be 65 to 70 percent saturated with moisture and provides oxygen to the animals. When we size the furnace, we often choose the next largest size to be sure that we can keep the temperature up even when the temperature drops to below 25 degrees below zero. Larger furnaces tend to overshoot the set point when the outside temperature is not that cold. If the second stage fan is running after the furnace turns off, it is because it has overshoot the set point. The solution is to increase the differential on the second stage fan to prevent it from running shortly after the heater turns off. Watch the livestock resting pattern. The warmest part of the room will be under the inlets, while the coldest will be 16 to 20 feet from the inlet where the cold air drops. If the livestock are choosing to rest in cold areas, the set point is too warm.

2. **Air Leaks and Holes.** Unplanned air leaks into our buildings through leaks in curtains or rodent holes will cause cold spots and energy loss on a large scale. Curtain material shrinks a lot with temperature changes. The change from summer highs to winter lows on a 5-foot curtain are often over ½-inch. Curtains should have at least a 3-inch overlap at the top to prevent unintended gaps when they are in the up position. If the curtain is allowing 1/8-inch gap on a finisher building, that is the entire minimum ventilation need. Rodent holes in the curtain cause the same problem with allowing unintended inlets to chill the livestock and cause problem with the controllers.

3. **Insulation Loss.** Recent high winds from the south can move the insulation away from soffits, causing the ceilings to drip or even build up frost inside the room. Insulation stops in the attic at the eave have been cardboard that is stapled to the trusses. Very high winds can dislodge them, blowing the insulation away causing cold spots on the ceilings near the outside edges of livestock buildings. Any condensation on the ceiling deserves a close look to see why the heat loss is high. Air leaks through the vapor barrier into cellulose or fiberglass insulation will destroy it with the condensation causing the ceiling to drip in those spots. Check the attic space to make sure everything is in order with the insulation.

4. **Tools.** Infrared cameras and directional thermometers are great tools to isolate heat robbing parts of our buildings. They say a picture is worth a thousand words and an infrared camera will do just that. When taken from the outside, an infrared camera will show any hot spots, indicating heat loss. Insulation will reduce the speed of loss and the image will show you where the problems are for you to focus on for your repairs. On the inside, look for the cold areas. The infrared cameras can be add-ons to cell phones for less than \$200 or \$500 for a higher-end camera. Infrared thermometers are only \$25 and can confirm cold spots in the room for more intense investigation.

Our work to reduce these four propane-losing areas of our buildings will pay dividends throughout the new year.

Looking Back... Looking Ahead!

Beth Doran, Beef Specialist | 712-737-4230 or doranb@iastate.edu

Highlights from 2021

- Twelve Beef Quality Assurance workshops certified 324 producers and agribusiness professionals – enabling them to maintain market access and enhance their cattle management.
- Four cattle operations cooperated in the collection of 177 samples of high moisture corn and earlage. The goal is to characterize the nutrition of these feedstuffs and identify how to enhance their quality.
- A small team of Iowa Beef Center specialists summarized closeout data from more than 171,000 head of yearling cattle enrolled in the Iowa Feedlot Monitoring program for the years of 2017-2020. These results are reported in a new publication, “Benchmarking the Performance of Iowa Feedlot Cattle” (<https://iowabeefcenter.org/news/BenchmarkingPub2021.html>).

Feedlot Forum 2022 Returns January 18 in Sioux Center!

New trends – proper implanting, traceability, third-party feedyard audits and volatile cattle markets – are altering the cattle feeding industry. Each trend will be featured January 18 at Feedlot Forum 2022 in Sioux Center. Plan to attend and register before January 10 via mail or online at <https://www.extension.iastate.edu/sioux/feedlot-forum>.

Marvin Hammond, Elanco technical specialist, will lead a hands-on activity demonstrating proper placement of implants in cattle ears & discussing common problems that are easily corrected. Dan Thomson, animal science faculty member and popular presenter on Doc Talk, will visit about the evolution of traceability and its growing importance. Chase DeCoite, director of animal health with the National Cattlemen’s Beef Association, will discuss the newly adopted U.S Cattle Industry Feedyard Audit involving third-party verification. And, Lee Schulz, ISU livestock economist, will share market predictions for feeds and cattle in 2022.

Plus...Iowa Beef Industry Council, Iowa Beef Center and the Iowa Cattlemen’s Association leaders will provide updates, and the trade show will feature 24 agri-businesses with new technology for cattle feeding. Don’t miss Feedlot Forum 2022 - discover how to stay competitive!

Cow-Calf Meetings to Feature Drought Recovery

Lingering drought in the O’Brien, Clay, Dickinson, Palo Alto, Emmet, and Kossuth county area during 2021 has cow-calf producers wondering how they can recover both environmentally and economically in 2022. To help answer these questions, three in-person meetings will be offered at the following locations:

- January 20 – 1-3 p.m., Iowa Lakes Community College Farm near Emmetsburg. RSVP by Jan. 14 to 712-852-2865.
- January 24 – 1-3 p.m., VFW Building, Estherville. RSVP by Jan. 21 to 712-362-3434.
- January 25 – 1-3 p.m., Community Building, Royal. RSVP by Jan. 21 to 712-262-2264.

Three key topics will be presented:

- Repairing Pastures and Establishing Cover Crops – Gentry Sorenson, ISU Crops Specialist
- Financial Assistance for Cow-Calf Producers – Lisa Forburger, Mike Yegge, and Angie Christian, Farm Service Agency Directors
- Cow-Calf Outlook and Benchmarking – Beth Doran, ISU Beef Specialist

Each meeting is identical and free, but preregistration is required.

Stress on the Farm is Real

Donna Mills, Farm/Ranch Wellness Educator | 712-737-4230 or donnam@iastate.edu

The holidays mean extra time with family and friends for some people. For others, it is lonely and may be depressing. As we enter 2022, remember that stress on the farm is real. Spend a little extra time looking after your own mental health, and check in on family members, neighbors, and friends.

Left untreated, stressors may lead to mental health and substance use issues, including death by suicide. Learn to recognize stress in yourself, family members, friends, neighbors, and others. Know when and how to get help and offer support, whether for yourself or others. You are not alone. There is help available.

For more information and free and confidential resources, please visit <https://www.extension.iastate.edu/iowaconcern/>. Iowa Concern provides free and confidential 24/7 phone support - just call 1-800-447-1985. You can also live chat from the website or email an expert in the areas of finance, legal issues, stress, or crisis/disaster.

Northwest Iowa Subsoil Moistures Improved with Fall Rainfall

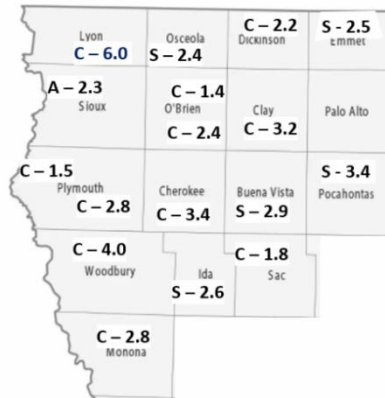
Gentry Sorenson and Joel DeJong, Field Agronomists
 515-295-2469 or gentrys@iastate.edu; 712-546-7835 or jidejong@iastate.edu

The Northwest Iowa fall survey of subsoil moisture completed by Iowa State University in November shows improved subsoil moisture at nearly all locations when compared to the fall of 2020. Subsoil moisture levels are checked in the fall in many Northwest Iowa counties through this survey. The survey provides a historical perspective on subsoil moisture levels.

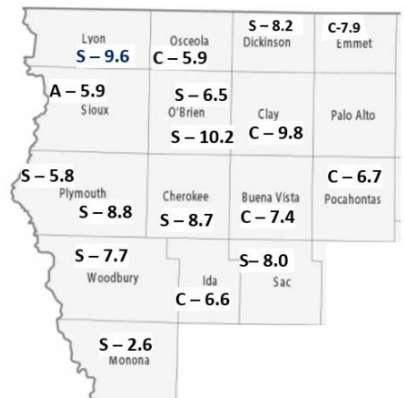
Subsoil Moisture, Fall 2020

Subsoil Moisture, Fall 2021

C=Corn was crop in 2020
 S=Soybeans was crop in 2020
 A=Alfalfa was crop in 2020
 Number = Inches moisture in 5 feet of soil
 NOTE: A "full" moisture profile will contain about 11 inches of plant available water.



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This summer much of Northwest Iowa was in a drought classification with the drought intensifying by Aug. 3, leading to parts of Dickinson County and Clay County elevated into D3 extreme drought intensity. Rainfall resumed and subsoil moisture began to replenish in August through November.

Rainfall was above average (positive departure) for most NW Iowa locations from August 11th to November 24th which led to the replenishment of subsoil moisture levels. Except for the Monona County site, all others are at or above the long-term averages for November 1 sampling dates.

This table is valid for a period from 11 Aug 2021 to 24 Nov 2021 (inclusive). "Climo" is the climatology value, which is computed over the period of 1951-2015. From IEM Climodat Station Monitor, <https://mesonet.agron.iastate.edu/climodat/>.

Iowa soils have the potential to hold from 10.0 to 11.0 inches of moisture in the top five feet of soil. Soil moisture readings from sites where Iowa State University personnel analyzed soil moisture in Northwest Iowa had 2.6 to 10.2 inches of plant available moisture.

Rainfall when the ground thaws in the spring through the months of March and April will contribute to subsoil moisture. Typical rainfall for those months is three to five inches. About 80 percent of that rainfall will contribute to subsoil reserves. Corn and soybean crops require about 20 inches of moisture from rainfall and subsoil moisture to produce a crop. That number may increase to 25 inches per season when high temperatures and windy conditions are prevalent during the summer.

ID	Name	Precipitation [inch]		
		Total	Climo	Departure
<input type="checkbox"/> IA0512	BATTLE CREEK 3NE	9.88	9.95	-0.07
<input type="checkbox"/> IA1442	CHEROKEE	11.60	8.86	2.74
<input type="checkbox"/> IA2724	Estherville 4E	15.04	8.83	6.21
<input type="checkbox"/> IA4735	LEMARS	9.02	8.48	0.54
<input type="checkbox"/> IA5123	MAPLETON NO. 2	8.31	8.65	-0.34
<input type="checkbox"/> IA6719	POCAHONTAS	12.01	9.27	2.74
<input type="checkbox"/> IA6800	PRIMGHAR	11.12	8.90	2.22
<input type="checkbox"/> IA7147	ROCK-RAPIDS	11.06	8.34	2.72
<input type="checkbox"/> IA7312	SAC-CITY	11.01	9.36	1.65
<input type="checkbox"/> IA7664	SIBLEY-5-NNE	11.57	9.03	2.54
<input type="checkbox"/> IA7708	SIoux-CITY-WSO-AP	8.81	7.93	0.88
<input type="checkbox"/> IA7859	SPIRIT LAKE	14.23	8.86	5.37
<input type="checkbox"/> IA7979	STORM-LAKE-2-E	12.19	9.51	2.68
<input type="checkbox"/> IATSPW	Spencer Area	13.05	8.54	4.51