Subsoil moisture levels are checked in the fall in many northwest Iowa counties. This survey information gives us an outlook for crop prospects for 2015.

Soil moisture is not a large concern this year, since many parts of northwest Iowa received record rainfall in June and above normal rainfall in August. However, there are areas that were dry in the late summer/early fall of 2014.

The following is an update on soil moisture from Paul Kassel and Joel DeJong.

Due to rainfall events, soil moisture was not sampled at the sites near Spencer, Storm Lake, Pocahontas and Schaller. Rainfall at these sites ranged from 11 to 15 inches since August 1. Those levels of late season rainfall will more than likely provide adequate amounts of reserve soil moisture for the 2015 crop season.

However, rainfall near Spirit Lake and Estherville was about 6 to 7 inches since August 1. These rainfall amounts are about 1-2 inches below normal. Subsoil moisture levels were sampled at these locations on November 6. Plant available moisture at Spirit Lake and Estherville was 5.6 and 4.7 inches respectively. The results from both locations are below normal, but not at level that is considered serious (table 1).

Soil moisture concerns can change quickly, as evidenced by the rainfall that occurred in June 2014. Rainfall during November, March and April will contribute to subsoil moisture. Typical rainfall for those months is 5.0 to 6.0 inches. About 80% of those rainfalls contribute to subsoil moisture reserves.

Areas Sampled by Crop Specialist Joel DeJong:
Soil moisture results for the far northwest corner of Iowa show levels of stored soil moisture well above normal at almost all sites. The only county showing lower than long-term averages for soil moisture was Osceola County, the county adjacent to the sites where Paul Kassel found lower soil moisture levels. Under normal conditions, that Osceola County should also be in pretty good soil moisture shape by the time the crop needs moisture contribution from the soil next year.

Other sites in northwest Iowa showed good moisture levels for this time of year, and sites south of those listed were not sampled, mostly because rainfall in those neighborhoods was even higher than the ones that were sampled. These stored moisture amounts offer one good early positive for the potential crop in 2015.

<table>
<thead>
<tr>
<th>Subsoil Moisture Samples by Area</th>
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<tbody>
<tr>
<td>County</td>
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</tr>
<tr>
<td>Dickinson</td>
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<td>Emmet</td>
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<td>Cherokee</td>
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<td>Lyon</td>
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<td>Plymouth</td>
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<td>Sioux</td>
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<td>Woodbury</td>
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Swine Updated and Upcoming Events
Matt Swantek, Swine Program Specialist

Porcine Epidemic Diarrhea Virus Update (PEDV)
The number of positive cases for PEDV this fall has followed the summer trend line of less than 20 per week. These last few weeks have been very dry and even with the snowfall the cold has kept things relatively dry which we believe has been keeping the spread of the virus at bay. Presenters at the Swine Disease Conference held in Ames (November 13 and 14) discussed the research and experiences since the virus devastated the swine industry. Part of the program was a veterinarian panel Q&A for the session. Each answered questions on the time of infection, severity, duration and changes in management practices. The majority broke with the virus late November and December 2013 with others in January and February 2014. At the initial break, total loss of liters was the experience; but some units experienced chronic problems up to 20 weeks later. Of these, it seemed to be related to breakdowns in biosecurity protocols and cleaning/washing/disinfecting efforts. Take home lesson: continue to be vigilant in biosecurity even after a break -- and this is the time of year (cool and wet) that the virus exploded across the country. As the snowfall begins, these cold temperatures and wet conditions are favorable to the virus’ survival.

2015 Iowa Pork Congress set
Mark your calendars for the Iowa Pork Congress on January 28-29 at the Des Moines Event Center. Not only is this a good time to visit with vendors on industry technologies, but there are the production seminars and free PQA and TQA sessions January 28 sponsored by the Iowa Pork Producers Association.

Sow Ear Tags beginning January 1, 2015
Producers must apply the premise identification number (PIN) tag to each “individual” marketed from the breeding herd. PIN tags are not required for feeder pigs, growers or market hogs. This is part of the national Swine ID Plan to be used as a means for rapid and accurate traceability in case disease outbreaks that may affect internal commerce and export trade. Although PED isn’t a health issue for human health or food safety, it does illustrate the need for this program. It is still unknown how the virus entered the United States or how it spread across the country so quickly after the initial breaks. Consider this as a proactive approach to protect oneself if an outbreak occurs in order to establish that your production site isn’t the source of a potential problem.

New book
A new book has just been released that has many food experts in an uproar. Titled “The Big Fat Surprise: Why Butter, Meat, and Cheese Belong in a Healthy Diet” by Nina Teicholz. The author presents a timeline of decisions and why they were made for the American Food Pyramid. Take a chance and look at the reviews and comments for yourself. I am purchasing it for a Christmas present for myself this year.

Safe Travel and Happy Holidays from the Swantek Family

2014 Water: A Blessing and a Curse
Kris Kohl, Ag Engineer

The 2014 crop year started off dry allowing much of Northwest Iowa to get crops planted in a timely manner. Many people talked about how much rain we would need to get back to normal in April and May. In June the rains came and came and came. July, August, and September were the same.

On average we receive about 8 to 10 inches more rain than we need to raise a corn or soybean crop. When that water runs off the surface it scars the land with erosion and gullies taking our productive land down to the Gulf of Mexico. The other way to remove the excess rainfall is through drainage tile systems. While this is the primary way we lose nitrogen from fields it is far less destructive than erosion. Properly installed tile can reduce side hill seeps and carry clean water from terraces and drown out spots to the creeks and rivers reducing the destruction of the fertile land.

While 2014 is nearly in the books, let us resolve to improve our farms with the proper use of conservation and management skills to keep the soil and nutrients on our land and not in the water.

Places to start to look at how we can protect our land are: Identify the problems by using satellite images from Iowa State University – www.ortho.gis.iastate.edu or Bing Maps – www.bing.com/maps

Apply the manure and fertilizers at the appropriate rates and methods that insure that they stay on the land and not in the water or air.

Explore how tile and conservation measures can protect the land and water.

Seek help from your Northwest Iowa ISU Extension and Outreach specialists.

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Paul Kassel, Crop Specialist
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Beth Doran, Beef Program Specialist
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Dave Stender, Swine Field Specialist
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When we are able to manage our water, it will be viewed as a blessing and not a curse.
This issue features research, programs and tools that Iowa State University (ISU) and the Iowa Beef Center (IBC) are providing to Iowa beef producers.

**Research:**

Several research projects are underway in northwest Iowa. Lee Schulz, ISU Extension and Outreach livestock economist, and I are analyzing six years of data from Iowa pre-conditioned and regular feeder calf auction sales to determine which factors affect feeder cattle prices and the magnitude of their impact. This study incorporates changes in feeder cattle market fundamentals during the data collection period. Our preliminary analysis indicates market premiums for pre-conditioned sales versus regular sales, feedlot capacity utilization, and seller reputation significantly affect feeder cattle prices on any given day.

A second research project involves a cooperative effort between the IBC, ISU Department of Animal Science and the Iowa Grain Quality Initiative at ISU. The goal is to calibrate a low(er) cost NIR machine that could potentially be used on-farm, at the plant or at a broker site for instant determination of dry matter (DM) in wet and modified wet distillers grains. With the aid of producers and ethanol companies, we were able to submit ~20 samples from northwest Iowa to add to samples submitted from other parts of Iowa. Ultimately, a quick DM test would be useful in ration formulation and help reduce variability in cattle feed intake.

University of Nebraska researchers continually report a 20-25 percentage point improvement in the energy feeding value of wet distillers grain compared to dry distillers grain in cattle rations. But, there has been no clear explanation for this improvement. Hence, Garland Dahlke, IBC specialist, and I will sample wet and modified wet distillers grain from three northwest Iowa ethanol plants over the winter months to quantify what nutrients are in the “wet” fraction and determine their relative importance to the energy value of the feedstuffs.

**IBC research projects being conducted elsewhere in the state include:**

- Elucidation of factors that determine price of replacement heifers in an auction market
- Improving animal handling skills for beef producers in northeast Iowa through five hands-on animal handling workshops
- Measuring forage and soil quality in Southern Iowa pastures
- Genetic approaches to improving lameness in cattle

**Upcoming Beef Programs:**

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<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>Jan. 5-6</td>
<td>Northern States Beef Cattle Conference—Morton, Minn.</td>
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<tr>
<td>Jan. 22</td>
<td>Feedlot Forum 2015—Sioux Center</td>
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<tr>
<td>Jan. 24</td>
<td>Beef Bonanza (for youth) Emmetsburg</td>
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<tr>
<td>Feb. 4</td>
<td>Beginning Young Livestock Producer Network Workshop Le Mars</td>
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<tr>
<td>Feb. 24 &amp; 25</td>
<td>Northwest Iowa Dairy Days (session on dairy beef) Rock Rapids and Orange City</td>
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<tr>
<td>Mar. 3 &amp; 4</td>
<td>Managing Risk with Expanding/New Feedlot Facilities Emmetsburg and Cherokee</td>
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**Tools for Beef Producers:**


**Weak Calf Syndrome in Beef Cattle Herds (PMR 1018)** at [https://store.extension.iastate.edu/Product/Weak-Calf-Syndrome-in-Beef-Cattle-Herds](https://store.extension.iastate.edu/Product/Weak-Calf-Syndrome-in-Beef-Cattle-Herds)

**Estrous Synchronization Planner** – This computer program will aid the herd manager in selecting the correct synchronization protocol for the breeding females and managing the daily tasks involved. This is a free download from [www.iowabeefcenter.org/estrus_synch.html](http://www.iowabeefcenter.org/estrus_synch.html)

**Feedlot Monitoring Program** – This computer program would be a nice Christmas gift! New features include individual animal monitoring and projections, tracking of drug inventories/treatment protocols, and incorporation of environmental records to help the user meet current reporting requirements. Cost is $600 for a new user or $200 for an upgrade. For more info or to order, call Garland Dahlke at 515-294-9910 or e-mail garland@iastate.edu.

**Happy Holidays** from ISU Extension and Outreach
Hotlines Available For All
Iowa Concern (800-447-1985)
Farm On (877-BFC-1999)
Teen Line (800-443-8336)
BETS OFF (800-BETS-OFF) (800-238-7633)

Hotlines Available to Iowa Residents Only
Families Answer Line (800-262-3804)
Hortline (515) 294-3108
Iowa Healthy Families (800-369-2229)
PORKLine (800-808-7675)

Farm Bill 2014—ARC-PLC Decision Making Meetings
Dec. 8 9 a.m. Expo Center, Pocahontas 712-335-3103 Pocahontas County
Dec. 16 1 p.m. First Presbyterian Church, Sibley 712-754-3648 Osceola County

Mark Your Calendars:
Dec. 9 Lamb Feedlot Meeting • Sheldon
Dec. 10 Private Pesticide Applicator Training • Paulina
Dec. 11 Smart Choice Health Insurance • Rock Rapids
Dec. 11 Private Pesticide Applicator Training • Rock Rapids
Dec. 11 Private Pesticide Applicator Training • Sibley
Dec. 11 Boots on the Farm Heifer Growers Tour • I-29 Dairy Outreach Consortium, Brookings, SD and Marshall, MN
Dec. 15 Private Pesticide Applicator Training • Orange City
Dec. 23 Transport Quality Assurance ® (TQA) Session • Cherokee
Dec. 29 Multi-County 4-H Swim/Skate Event • Sioux Center All Seasons Center
Jan. 5-6 Northern States Beef Cattle Conference•Morton, Minn.
Jan. 7 Raising Your Best Calf Ever • Orange City
Jan. 36 Crop Advantage • Sheldon
Jan. 6 Commercial Manure Applicator Workshop • Orange City
Jan. 22 Feedlot Forum • Sioux Center
Jan. 24 Beef Bonanza (youth) • Emmetsburg
Jan. 28-29 Iowa Pork Congress

Call your county offices for specific dates and times:
Monthly Manure Handling Certification Re-shows
Pesticide Applicator Continuing Instructions Courses
Commercial Applicator Continuing Instruction Courses

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