Soil Moisture Revisited
By Joel DeJong, ISU Extension & Outreach Field Agronomist

In the last issue of Field and Feedlot, Paul Kassel wrote about moisture availability for crops in the eastern part of NW Iowa. In this issue I am going to discuss the current situation as we move into the growing season of 2013.

Like Paul, I also sampled several sites around the first of November last fall to measure how much plant-available water was being stored in the normal rooting zone of our crop – about 5 feet deep. When the soil is at maximum water-holding capacity, it can store about 11” of water for the crop to use during the growing season. This fall the sites I sampled had anywhere from about 2” or less for Plymouth, Woodbury and Monona counties, to a 5–6” average for O’Brien and Cherokee Counties. At the time of this writing I have not pulled these samples to analyze what has been added over the winter, but plan to do that soon. A year ago we added about 4 to 5” of moisture to the soil over the winter months. Rainfall in NW Iowa during the first 20 days of April has been about 4” or more. Much of that looks to have infiltrated the soil and will be available for the crop during the season.

How much does a crop need during the season? Corn and soybeans both use about the same amount of water during the season – just at different times. Most data I have seen would indicate that a corn crop needs about 21” of water during the season. It can come from rainfall, or from what is stored in the soil. I will be keeping a running tally in my head during this season to try and identify areas that might be marginal in available water. Right now the areas of most concern to me are those areas with the lower soil moisture levels last fall. After I sample those sites and calculate the available soil moisture, I will be posting those results on the Plymouth County Extension web page, or in my e-mail “Crop Update Newsletter.”

The national Weather Service recently updated what “normal” rainfall is for Sioux City. This data showed that the amount of rain that is considered normal from May 1 through the end of August is about 14.2 inches. A rule of thumb often used is that only 80% of rain infiltrates and becomes available for the crop. That would mean we could normally expect a contribution of about 12” for our crop during that time period our crop needs it. Taking the crop need (21”), minus “normal” rainfall available (12”) means we would need about 9” of additional water. Some sites, I expect, will have that 9” stored in the soil by May 1. As I get near the western edge of the state I expect us to be short of that number. That means we still have some yield risk even if conditions are “normal” during the summer. However, this normal is made up of years with less than, and other years with more than – that average. As an optimist, I like to believe that perhaps rainfall will be above that average for this summer, giving a chance to grow great crops in almost all NW Iowa areas once again.

Here are two references I use to monitor soil moistures and rainfalls over a large area, both are available on the internet. The first is a site where the National Weather Service cooperates with rainfall in NW Iowa during the first 20 days of April has been about 4” or more. Much of that looks to have infiltrated the soil and will be available for the crop during the season.

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Here are two references I use to monitor soil moistures and rainfalls over a large area, both are available on the internet. The first is a site where the National Weather Service cooperates with rainfall data is for about 100 locations across Iowa. You can sort by month, and it reports daily rainfall amounts. Find it here: http://mesonet.agron.iastate.edu/ COOP/month.php. The other one I use to watch what rainfall neighborhoods receive is a weekly radar-generated rainfall totals map from Intellicast.com. You can find this data and lots more here: http://www.intellicast.com/National/ Precipitation/Default.aspx. I try to look and print it off every Monday morning through the growing season.
Prepare for Summer Heat Stress
By Kevin Lager, ISU Extension & Outreach Dairy Field Specialist

While the temperatures have been below normal this spring it can be assured that this will not continue, especially as summer approaches and will very likely reach conditions similar to what would be considered normal. Now is an opportune time to prepare for summer heat stress by ensuring that the key components of your heat abatement system for your cows are in place and in good working condition.

Fans – Dirty fans can reduce fan efficiency by 40-50%. Changing out damaged fan blades, fan belts, and ensuring proper lubrication are more cost effective than replacing the entire fan. Alignment of the fans to properly direct airflow should be monitored as well.

Sprinkler systems – Give the sprinkler system a full inspection and clean, repair or replace what is necessary since the system has been sitting idle for multiple months and has been exposed to freezing winter temperatures. It is important that since the investment was made in the system to ensure that the system is functioning properly when it is needed. This includes ensuring that the droplets are large enough and the sprinkler nozzles are positioned properly to sufficiently wet the cow’s back and not end up soaking the feed in feed line systems. Getting the most out of the water used for cooling is especially important not only because of the additional management required due to increased water in the waste management system, but also for when water may be short due to drought conditions. Additionally, if the drought continues are there plans in place for your operation should water restrictions be implemented or if your well runs short of water?

Two groups of cow that should not be forgotten are the dry and transition cows. Research has shown that cooling dry cows can result in increased milk production on a fat corrected basis. Heat stress has also been shown to result in shorter dry periods and reduced calf birth weight. The immune function of cows can be negatively impacted as well, which is an additional stress that should be avoided in a transition cow with an already suppressed or dys-functional immune system.

Heat stress may begin before summer arrives since the temperature humidity index (THI) when dairy cattle begin to experience heat stress has been found to be 72. This level has been the norm until more recently when researchers found and began recommending adjusting THI to 68. As an example, this level of THI would be reached when the air temperature is 72 degrees Fahrenheit and the relative humidity is 45%. The best way to combat heat stress is to begin cooling before the stressful period of the day begins. For more information on heat stress and heat abatement, visit the Iowa State University Extension and Outreach Dairy Team website https://www.extension.iastate.edu/dairyteam/publications.

Funeral and Burial Plans: Iowa Law Provides Who Gets To Decide
By Melissa O’Rourke, ISU Extension & Outreach Farm & Agribusiness Management Specialist

Iowa State University Extension and Outreach provides educational programming related to estate planning – and the subject of substitute decision-making and end-of-life planning frequently arises. For this reason, a recent decision of the Iowa Supreme Court is worth review.

In 2008, the Iowa Legislature passed into law the Iowa Final Disposition Act which can be found in Chapter 144C of the Iowa Code. The legislature’s enactment of this law followed some earlier court cases where survivors were fighting about where and how their deceased relative would be buried. The Iowa Final Disposition Act is a comprehensive set of rules that outlines who can make these decisions. This is the law that the Iowa Supreme Court applied in the recent case of the Estate of Mary Florence (“Flo”) Whalen.

FACTS:
Flo and her husband Michael Whalen were native Iowans, but they moved to Billings, Montana in 1953 where they raised ten children. In 1996, Michael moved back to Anamosa, Iowa and Flo remained in Billings until 2004 when she moved to New Mexico to live near an adult daughter. Flo and Michael never legally separated or divorced. In December 2011, Flo traveled to Iowa for a visit, and became so ill that she could not travel. Flo moved in with Michael and stayed there until her death on June 9, 2012.

Flo had devoted significant thought and planning related to the end of her life and where she wished to be buried. While living in New Mexico, Flo executed a 2009 will that included a specific provision directing her burial in a cemetery in Billings where she had purchased a lot. Two months before her death, Flo wrote a detailed letter that was sent to all ten of her children, her sister, and to her husband Michael, again specifically outlining Flo’s desires for a funeral and burial in Montana.

In her will, Flo named her sister Mary Ann as her executor (personal representative). Prior to Flo’s death, and at Flo’s direction, Mary Ann consulted with a local funeral director in Anamosa regarding Flo’s wishes to be buried in Montana. The funeral director told Mary Ann that Flo’s surviving spouse Michael would have the final authority regarding the final disposition of Flo’s remains, and that there was nothing that Flo could do about it. The funeral director later told Flo the same (wrong) information.

When Flo died, the fight over what to do with Flo’s remains followed. Mary Ann wanted to have Flo’s remains sent to Montana in accordance with Flo’s wishes. Flo’s surviving husband Michael wanted Flo buried in Anamosa, Iowa. The
funeral home agreed to keep Flo’s remains stored at the funeral home pending a court order. The decision of the Iowa Supreme Court was issued on February 22, 2013.

The district probate court in Iowa County ruled against Michael and ordered that Flo’s remains should be transported to Montana. However, Michael appealed to the Iowa Supreme Court and was ultimately successful. The Iowa Supreme Court agreed that the Iowa Final Disposition Act gives the surviving spouse authority to make final disposition decisions – unless the surviving spouse has followed the correct procedures to give that authority to someone else.

**IOWA FINAL DISPOSITION ACT:**
The Iowa Supreme Court carefully applied the specific provisions of the Iowa Final Disposition Act – Chapter 144C of the Iowa Code. What does this Act provide?

Contrary to what the local funeral director told Flo, there was something more that Flo could have done to assure that her wishes were carried out. The Final Disposition Act specifically provides that any competent person can execute a declaration that designates or appoints a person as “my designee” to have “sole responsibility for making decisions concerning the final disposition of my remains” as well as funeral plans, if any. A specific form is included in the Act at Section 144C.6(1). The Act then goes on to say that this form must be “contained in or attached to a durable power of attorney for health care under chapter 144B” and describes the specific procedure that must be followed for the declaration to be effective.

If a person does not execute a durable power of attorney for health care which either contains or has attached to it the final disposition directive as outlined above, the Act then provides a list of which survivors are granted authority under the law to make those final disposition decisions and plans. Without going through the entire list, suffice it to say that the first person on the list is a surviving spouse; followed by surviving child(ren), parent(s), grandchild (ren), and then other more distant relatives.

In Flo Whalen’s case, she died as a resident of Iowa in 2012. Therefore, Iowa law determined the outcome of the case. Because Flo did not execute a directive pursuant to Iowa Code chapter 144C, her surviving spouse had the authority to decide where and how she would be buried. It did not matter what Flo said in her will, or how many letters she wrote to her children or others – if she did not follow the law as found in the Iowa Code, her wishes would not be carried out.

**CONCLUSIONS:**
What can be learned from the case of Flo Whalen?

First, seek legal advice from a lawyer. The funeral director is not a lawyer and did not know the law. Prior to her death, Flo and her family members could have consulted with an Iowa attorney regarding their concerns. Instead, they talked to a funeral director who wrongly informed Flo and her family that there was nothing Flo could do to give the authority to make final disposition decisions to anyone other than her surviving spouse. People with questions about the law should make an appointment to see an attorney and ask for complete legal information regarding such concerns.

Second, any person over the age of 18 should have powers of attorney in place. Powers of attorney are substitute-decision-making tools – these documents appoint another person to make decisions about personal business or health care in the event of incompetency. Without these tools in place, expensive court procedures are necessary to appoint guardians or conservators. Any Iowa attorney can assist in executing powers of attorney – it is a simple and inexpensive process.

Finally, if you do not have a complete estate plan in place – no matter the size of your estate or assets – seek out legal advice and complete that process. To find an attorney, consider the guidelines found in this publication: *Estate Planning Attorneys: Finding One Who Can Work For You* on the Ag Decision Maker website at this link: [www.extension.iastate.edu/agdm/wholefarm/html/c4-61.html](http://www.extension.iastate.edu/agdm/wholefarm/html/c4-61.html)

Consider attending an estate planning workshop offered by your local ISU Extension office – call to find out when one may be offered in your area, or go to Ag Decision Maker for more information: [www.extension.iastate.edu/agdm/info/meetings.html](http://www.extension.iastate.edu/agdm/info/meetings.html)

As always, each reader should contact their own attorney to obtain legal advice based on their own situation.

**Note:** Iowa State University Extension & Outreach does not provide legal advice. Any information provided is intended to be educational and is not intended to substitute for legal advice from a competent professional retained by an individual or organization for that purpose.

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**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)
Finally, the ground has thawed, my tulips have surfaced and I was able to get my cool-season vegetables in the garden. I planted leafy greens, carrots and beets and something new – garden peas. I am a novice pea grower. Growing up my mom always grew peas. I remember shelling them for dinner and used to get scolded for eating more peas then I put in the bowl.

The peas I planted are an early maturing variety but I fear we might have a short growing season for peas this spring. Peas like it cool and plants stop producing when the weather turns hot. Peas can be planted as soon as the soil is able to be worked but this season many gardens are running late (and I thought ‘Punxsutawney Phil’ predicted an early spring).

Peas are a staple in many home gardens and have been widely cultivated for centuries. There are three main types of peas: garden pea, snow pea and snap pea. The garden or English pea is the traditional plant most commonly found in gardens. Pods are harvested when they are plump and the seeds are tender and sweet. The pod of garden peas is very fibrous and not edible. Snow peas, on the other hand, have edible pods and are usually harvested when the pods are long and flat with the seeds just starting to develop. These tender pods are often used in stir-fries and salads. Snow peas are sometimes referred to as sugar peas. Snap peas also have edible pods but are best picked when the seeds are nearly full size. Snap peas are ready to harvest when the pod will “snap” in two like a freshly-picked green bean. Mature pods can develop strings that should be removed before cooking.

You may have heard about inoculating peas with nitrogen-fixing bacteria just before planting. Peas belong to the legume family. They are able to “fix” atmospheric nitrogen into a usable form for the plant with the help of the soil-dwelling bacterium, *Rhizobium*. Your garden soil may already have adequate amounts of the bacteria. However, to increase the number of these beneficial bacteria, especially in newly planted ground, some gardeners will inoculate their peas. Pea inoculants can be purchased at garden centers and from some seed catalogs.

Pea plants are vining and benefit from some type of support that their tendrils can grip. Good garden companions for peas include carrots, turnips and radishes. Mint grown next to peas is believed to improve their health and taste. But avoid planting peas next to garlic or onion. These plants can stunt the growth of peas. If you find that your pea crop did poorly this spring or you just want more fresh peas, you can plant a fall crop in early August. One tip to growing cool-season crops in the summer is to shade them to keep them cooler.

Vegetables offer us many good nutrients. In the case of peas, they supply us with several vitamins including A, C and a few B’s. Plus they are one of the best vegetables to eat for dietary fiber. They also have a decent supply of protein, iron, zinc and potassium. Peas can be eaten cooked or raw. They are best when eaten the same day they are harvested but can be stored in a plastic bag in the refrigerator for two to three days. Peas also freeze well.

Here’s a tasty coleslaw recipe to try that uses fresh peas. Ingredients include: 2 cups peas, 1 pound bag pre-shredded cabbage or 1 small cabbage head shredded, 6 tablespoons reduced fat buttermilk, 1/4 cup low-fat sour cream, 2 teaspoons dill, 1 garlic glove minced, 1 teaspoon salt, 1/4 teaspoon pepper, and 1/2 tablespoon white vinegar.

In a large bowl, place cabbage and peas. Toss. In another bowl, combine buttermilk, sour cream, dill, garlic, salt, pepper and vinegar. Stir until all ingredients are blended. Pour dressing mixture over pea/cabbage mixture. Mix until thoroughly coated. Cover with plastic or place in an airtight container and refrigerate until well chilled, approximately 2 hours. (Recipe from the State University Cooperative Extension article, Peas, 2011)

If you have any questions, please feel free to email me at mmurphy@iastate.edu, or phone (712) 472-2576 or contact your local County Extension office.
Events at ISU Extension-Lyon County

UPCOMING PROGRAMS - Call 712-472-2576 to confirm dates and times. Thanks!

Commercial Pesticide Applicators Training - 2013
- Oct 16 - 9:00 am - Roadside, Forest & Aquatic Pest Mgmt
- Oct 24 - 9:00 am - Mosquito & Public Health Pest Mgmt
- Nov 6 - 1:30 pm - Ornamental & Turfgrass
- Nov 13 - 9:00 am - Commercial Pesticide Applicator
- Dec 4 - 9:00 am - Pest Control Operators
- TBA - Aerial Applicators

Private Pesticide Applicator Training - 2012-2013

Pesticide Applicator Testing - 2013
- 10:00 am - 2:00 pm - Pesticide Bureau - (515) 281-8591
  - http://www.iowaagriculture.gov/Pesticide/pesticidetesting.asp
- June 3 - O'Brien County Extension, Primghar - 712-957-5045
- June 10 - Woodbury County Extension, Sioux City - 712-276-2157
- July 1 - O'Brien County Extension, Primghar
- July 8 - Woodbury County Extension, Sioux City

Commercial Manure Applicator Training - 2013 - RESHOW
- May 9 - 9:00 am - Extension Office, Rock Rapids
- June 13 - 9:00 am - Extension Office, Rock Rapids

Confinement Site Manure Applicator Training - 2013
- May 9 - 1:30 pm - Extension Office, Rock Rapids
- June 13 - 1:30 pm - Extension Office, Rock Rapids

Manure Applicator Testing
- DNR Field Office #3, Spencer - (712) 262-4711
  - http://www.iowadnr.gov/

PUBLICATIONS

Cash Rental Rate Survey - 2012

Custom Rate Survey - 2013
- http://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf

Farmer's Tax Guides - 2012

4-H/Youth Important Dates:
- May 15, 2013 - Livestock ID's Due
- June 1, 2013 - Rabbit ID's Due
- June 10-14, 2013 - Robotics Camp (4-8 grades), Rock Rapids
- June 11, 2013 - Safety Day (4-7 year olds)
- June 17-18, 2013 - Plant Science Camp (4-8 grades), Rock Rapids
- June 19, 2013 - Vet Science Camp (4-8 grades), Rock Rapids
- June 20-21, 2013 - Advanced Vet Science Camp (4-8 grades), Rock Rapids
- June 25, 2013 - Livestock Fair Entries Due
- July 22-25, 2013 - Lyon County Fair
- July 24, 2013 - STEM Camp (4-8 grades), Orange City
- July 25, 2013 - STEM Camp (4-8 grades), Sioux Center
- July 26, 2013 - STEM Camp (4-8 grades), Rock Valley
- Aug 8-18, 2013 - Iowa State Fair
- Sept 7-15, 2013 - Clay County Fair

Childcare Trainings
- May 14 - Every Child Counts: Building Community (Better Kid Care Series) - Extension Office, Rock Rapids
- May 20 - Learning with Nature (Nature Explore) - Forster Community Center, Rock Rapids
- June 3 - The Importance of Virtual Spatial Learning (Nature Explore) - Forster Community Center, Rock Rapids
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