ISU Extension and Outreach Offers
Weeds Week Aug. 3-7
Week of events focuses on herbicide effectiveness

AMES, Iowa – Weeds, herbicides and the effectiveness of herbicides to control weeds are topics of agronomic and economic importance to farmers and agribusinesses. It is so important that Iowa State University Extension and Outreach field agronomists are hosting Weeds Week, a weeklong series of informational meetings. The half-day sessions will be held Aug. 3-7 at five Iowa State University research farms.

“Farmers are challenged with producing crops and implementing effective weed management programs in a profitable manner,” said Virgil Schmitt, field agronomist with ISU Extension and Outreach in southeast Iowa. “Our goal is to help farmers develop effective weed management plans.” Schmitt said the meetings are intended to help farmers and ag retailers support each other in this process.

Each session will include presentations, hands-on weed management planning, small group discussion and plot tours presented by extension field agronomists. In the farmer-oriented session, farmers will learn how to select herbicides from the herbicide effectiveness table, identify which herbicides to apply and develop their own four-year weed management plan. Agribusiness representatives will receive similar information, but it will be presented with a focus on how to support farmers and their operations.

The schedule has been developed so that the morning sessions will conclude with lunch and the afternoon sessions will begin with lunch, which is included in the registration. Registration is $25 for each session and includes refreshments, lunch and materials. To assist with facility and meal planning there is a registration deadline two days prior to each meeting. There is an additional cost of $5 for late registrations. Register online with a credit card at www.aep.iastate.edu/weeds/. For more information, call 515-294-6429 or anr@isstate.edu.

August 3 - Southeast Research and Demonstration Farm in Washington County
3115 Louisa-Washington Road, Crawfordsville, Iowa
9:30 a.m. Farmer Session 1 p.m. Agribusiness Session

August 7 — Field Extension Education Lab. 1928 240th Street, Boone, Iowa
9:30 a.m. Farmer Session 1 p.m. Agribusiness Session

For additional locations please go to: http://www.aep.iastate.edu/weeds/
Farmland Leasing Meetings Will Increase Understanding of Rental Agreements

AMES, Iowa – Iowa State University Extension and Outreach is hosting multiple farmland leasing meetings during July and August at various times and locations throughout Iowa. The annual meeting is offered to address questions that land owners, tenants or other interested individuals have about leasing farmland.

“More than half of Iowa’s farmland is rented, and strong landlord/tenant relationships are important for the long-term viability of Iowa’s valuable farmland,” said Ann Johanns, program specialist with ISU Extension and Outreach. “Iowa farmland cash rental rates decreased by $14 an acre from 2014 to 2015; every district in Iowa showed a decline in reported rental values. The decreases ranged from $24 in Central Iowa to $4 in northeast Iowa. Northeast Iowa reported the highest average in 2015 at $273, and the lowest district value was $187 in south central Iowa.”

The three-hour workshop is designed to assist landowners, farm tenants and other agri-business professionals with current issues related to farmland ownership, management and leasing arrangements. Attendees will gain understanding of current cash rental rate surveys and factors driving next year’s rents such as market trends and input costs. Additional information on the 2014 Iowa State Land Value Survey, 2014 Farm Bill, flexible leases, Corn Suitability Rating Index (CSR2) and Iowa’s Nutrient Reduction Strategy will be presented.

Each registrant will receive a 100-page workbook with resources regarding land leasing agreements such as surveys, sample written lease agreements and termination forms and many other publications.

The leasing meetings being held across Iowa are facilitated by farm management specialists with ISU Extension and Outreach. A listing of county extension offices hosting the meetings will be available on the ISU Extension and Outreach online calendar for July and August, and at Ag Decision Maker.

For registration information, contact the local ISU Extension and Outreach county office. Preregistration is encouraged, as an additional $5 fee will be added if registering fewer than two calendar days before the meeting date.

The Ag Decision Maker leasing section also provides useful materials for negotiating leases, information on various types of leases, lease forms and newly updated Decision Tools.

**Wapello - (319) 523-2371**
Wednesday, August 5 - 6:00 pm
Louisa County Extension Office
317 Van Buren

**Donnellson—(319) 835-5116**
Thursday, August 6, 9:00 am
Lee County Extension Office
414 North Main Street

**Mt. Pleasant—(319) 385-8126**
Thursday, August 6, 6:30 pm
Henry County Extension Office
127 N. Main

**Fairfield - (641) 472-4166**
Friday, August 7 - 9:00 am
Jefferson County Extension Office
2606 West Burlington Avenue

**Chariton - (641) 774-2016**
Tuesday, Aug. 25, 9:00 am
Pin Oak Conservation Center
Hwy 14 S

**Corydon - (641)872-1755**
Tuesday, Aug. 25, 2:00 pm
Wayne County Extension Office
100 N Lafayette St.

**Burlington - (641) 673-5841**
Wednesday, Aug. 26, 9:00 a.m.
Southeastern Comm. College
1500 W. Agency Road
W. Burlington
600 Building, Room 607

**Keosauqua - (319) 293-3039**
Wednesday, August 26, 6:30 pm
Roberts Memorial Center
20497 Hwy 1 North

**Eddyville - (641) 673-5841**
Thursday, August 27, 6:30 pm
IHCC Biotraining Center
Monroe-Wapello Rd. (Hwy T61)
Across from Cargill

**Bloomfield - (641) 664-2730**
Thursday, August 27, 6:30 pm
Southern Iowa Electric
22458 Hwy 2
Yard and Garden: Successfully Maintaining Summer Fruit and Vegetable Plants

AMES, Iowa – The summer months are the perfect time to enjoy homegrown fruits and vegetables. With varying weather and temperature, maintaining healthy fruit and vegetable plants can sometimes be a struggle. Here are some tips from Iowa State University Extension and Outreach horticulturists on how to properly maintain fruit plants in the summer months to ensure high fruit production. To have additional questions answered, contact the ISU Hortline at 515-294-3108 or at hortline@iastate.edu.

My cucumber plants are blooming heavily, but aren’t producing many fruit. Why?
Cucumbers and other vine crops are monoecious. Monoecious plants have separate male and female flowers on the same plant. Male and female flowers are similar in appearance. However, the female flowers have small, immature fruits at their base. Pollen is transferred from the male to the female flowers by bees and other pollinators.

When properly pollinated and fertilized, the female flowers develop into fruit. The first flowers to appear on cucumbers and other vine crops are predominately male. As a result, fruit production is poor when the vines first begin to flower. The cucumber vines should start producing a good crop within a few weeks as the number of female flowers increases.

Poor weather and the use of insecticides can also affect fruit set on cucumbers. Cool, rainy weather during bloom reduces bee activity. Fewer bees visiting the garden can result in poor pollination and a poor fruit set. Apply insecticides in the garden only when necessary to avoid harming bees and other pollinators.

My tomato plants are flowering, but aren’t setting fruit. Why?
Unfavorable weather conditions are the primary reason for blossom drop in tomatoes. High daytime temperatures, above 85 degrees Fahrenheit, and low nighttime temperatures, below 55 degrees Fahrenheit, interfere with pollination, causing blossom drop.

Optimal growing conditions for tomatoes are daytime temperatures of 70 to 85 degrees Fahrenheit. Cherry tomatoes set fruit over a wider temperature range than most large fruited tomato cultivars. Strong winds and dry soil conditions may also contribute to blossom drop. Strong winds desiccate flowers, while dry soil conditions stress tomato plants.

Nothing can be done about the weather. Deeply water tomato plants once a week during dry weather. Fruit set should increase when temperatures moderate.

My hot peppers are setting fruit, but not my bell peppers. Why?
In regards to fruit set, bell peppers are more sensitive to temperatures than tomatoes. The optimum temperature range for flowering and fruit set on bell peppers is between 70 and 80 degrees Fahrenheit. Hot peppers tolerate high temperatures much better than bell peppers and often produce fruit in hot weather.

Perennials for Sun
Perennials are beautiful plants that live three or more years, die in the ground each fall and return in the spring. Horticulturists with Iowa State University Extension and Outreach identify different types of perennials and planting sites where perennials can grow successfully.

Horticulturists with Iowa State University Extension and Outreach identify different types of perennials and planting sites where perennials can grow successfully. To have additional questions answered, contact ISU Hortline at 515-294-3108 or at hortline@iastate.edu.

Perennials for Sun is available through the ISU Extension and Outreach store. It can be purchased for $5.00 at:
https://store.extension.iastate.edu/Product/Perennials-for-Sun
Rain Damaged Hay can be Costly for Farmers
Recent weather wreaks havoc with wet, hot hay

AMES, Iowa – Rain is a needed ingredient for growing crops. However, the frequent rains in Iowa this summer have become a challenge for hay producers planning to mow, bale and store hay. Denise Schwab, beef specialist with Iowa State University Extension and Outreach, said it’s important to recognize the impact that rain can have on hay.

When moisture content of hay increases, so does the microbial activity and decay, which generates heat. When the heat levels increase, there is the potential of spontaneous combustion.

“This isn’t common, but it can happen when hay is stored in a wet condition,” Schwab said. “In most hay fires, farmers lose not only their hay, but also the barn it is stored in. In fact, because of a fire a couple years ago my friend lost most of the surrounding land which was covered by a Conservation Reserve Program contract.”

Hay should be baled with a moisture content of less than 20 percent; however, bale size also plays a part in determining moisture levels. Small square bales have more surface area per unit that allows the bale to breathe and dissipate moisture easier. The small bales can be baled at the 18-20 percent moisture range, but large round or square bales should be baled when cuttings are in the 16-18 percent moisture range.

All hay will heat up due to the natural respiration of the plant, and temperatures below 125 degrees Fahrenheit are considered normal. Temperatures above 125 degrees Fahrenheit need to be monitored. When hay is between 125 and 150 degrees Fahrenheit, a process called the Maillard reaction causes “caramelization” of the hay and reduces forage quality.

**Take steps to cool hay**
Schwab advised that when hay reaches 150 degrees Fahrenheit, farmers should check it daily and consider spreading out the hay to provide air movement and possible cooling.

“When temperatures exceed 175 degrees, check the temperature every two hours and alert your local fire department,” Schwab said. “Hay this hot will be nearly black in color, have reduced feed value and can be dangerous to move. Avoid adding oxygen to hay in this temperature range, which may cause combustion. If the hay being moved exceeds 190 degrees Fahrenheit, have the fire department on hand in case of spontaneous ignition.”

While most hay never reaches the point of combustion, it can be damaged in terms of feed value.

The most dramatic effect of high moisture on feed value is the reduction in digestibility. Heat damaged proteins have been the primary focus of nutritionists, but researchers from the U.S. Dairy Forage Research Center in Marshfield, Wis., suggest that reduced energy values of heat damage are an important impact.

“Data shows a decrease of 11 percent in total digestible nutrients from heat damage hay,” Schwab said. “This comes from oxidation and the loss of digestible sugars and cell solubles during the heating process. The concentration of undigestible fiber is increased, and the TDN levels are reduced. Forage testing of heat-damaged hay is critical to evaluate the true value of that feed.”

**When mold develops**
Another component of feed value is the growth of molds and mycotoxins. Wet, tightly baled hay provides a moist, dark environment for mold growth. Usually, molds affect palatability and subsequent intake of hay by livestock. Mycotoxins are the secondary products that some molds produce and can be toxic to animals if fed at high enough levels.

Schwab said producers should consider feeding moldy hay only to less sensitive animals and be sure it’s mixed with non-moldy hay.

“Monitor those animals closely for any signs of toxicity and allow them to sort through the poor hay for the better hay,” Schwab said. “There is one exception: horses are more susceptible to mycotoxins and should not be fed moldy hay.”

In the past, some farmers have applied salt to the surface of hay that was baled wet, but research has shown little benefit from this practice. While the theory is good, the amount of salt needed would be very large and expensive, and would likely reduce the palatability of the hay.

**Tips to manage potential moisture damage**
Mow hay into wide windrows or use a rake or tedder to spread out hay and speed drying.
Consider using a preservative to reduce spoilage if hay is too damp for storage.
Consider making wet baleage if the window of time for haying is too short.
Test forages to determine feed value prior to the winter feeding season.

For more information on managing damaged hay with high moisture content, contact your local ISU Extension and Outreach beef specialist or the Iowa Beef Center at [www.iowabeefcenter.org](http://www.iowabeefcenter.org).
Iowa Drainage School

August 25-27, 2015 is the date set for the Iowa Drainage School offered at the Borlaug Learning Center, Nashua, Iowa.

Purpose

To train stakeholders in sub-surface drainage concepts, planning and laying out drainage systems including surveying a profile, laying out the system, calculating tile line sizes and spacing using actual field data, making connections, and setting up drainage control structures, NRCS program requirements, and fixing common drainage system issues.

Format

This is a three-day school with each day including a combination of hands-on training, lecture and discussion, and problem solving using examples. By attending this school, participants will be able to plan and layout subsurface drainage systems and workout estimated project costs.

Who should attend
- drainage contractors
- professional engineers and consultants
- NRCS professionals
- county administrators
- landowners
- IDDA officials
- anyone interested in subsurface drainage design and maintenance

For more information and to register for this school, please go to:
http://www.aep.iastate.edu/ids/

Fruit Cracking

Joe Hannan, Commercial Horticulture Field Specialist

There has been a few instances of apple and potato cracking. We are used to seeing this with tomatoes but it does occur on other fruits and vegetables. While it is not always possible to manage water from rainfall outside, many of the newer cultivars tend be less prone to cracking than new ones. At this point, there is not much that can be done.
Weather Impacts
By Rebecca Ahlers, Field Agronomist
We’ve had a wet spring indeed here in Southeast/South Central Iowa making it challenging to get all the field work done. It feels like it stops raining just long enough for fields to start drying out and then starts raining again. It’s been a challenging year to get hay cut, fields sprayed, and many are still trying to finish planting soybeans yet.

Below is a map displaying the unofficial and IEM computed climate district precipitation total ranks for June (Image 1). A value of one means that this June is the wettest June on record in the last 123 years (1893-2015). Most of this area is ranked as 4, meaning we’ve had the fourth wettest June on record. We’ve also experienced wind, hail, and tornado damage in this part of the state.

![Image of corn field showing signs of stress from saturated soils in Appanoose County. Photo taken 6/30/2015.](Image)

Although all the rain has made for pastures to be very productive, the rain is taking its toll on the crops. Saturated fields make it difficult for plants to take up needed oxygen and nutrients. Although things look tough right now, corn and soybeans are pretty resilient crops. If we can get some oxygen back in the soil, the plants will bounce back and be productive. If the weather we’ve had continues to persist, we are looking at a different story. Mother Nature holds the key, and hopefully we can dry out here and give a chance for the crops to recover from the weather events we’ve had lately.

Scouting Tips - Northern Corn Leaf Blight
By Alison Robertson, Department of Plant Pathology and Microbiology
Northern corn leaf blight (NCLB) (Figure 1) has been reported from several fields in southern Iowa. You will remember that this disease was widespread in Iowa in 2014, and severe on susceptible hybrids. Since the fungus survives the winter in corn residue, we likely have above normal inoculum present. Cool weather with frequent precipitation favors infection of corn by the fungus and disease development. New lesions may develop every 4 days (Muiro et al., 2010) when conditions are favorable (susceptible hybrid, cool and wet weather). Warm dry conditions will slow or halt disease development until favorable conditions return.

It will be very important this growing season to scout fields that are planted to NCLB-susceptible hybrids. If the disease is present on 50% or more of the plants in the field, the hybrid is scored susceptible and cool, wet weather is forecast, a foliar fungicide application may be required. In 2014, applications at V5-V6 reduced NCLB, but applications made at R1 were more effective at protecting the canopy through dent. In 2014 however, July was dry and NCLB development slowed or stopped before starting up again in August through September. If 2015 remains cool and wet, NCLB will win the “Disease of the Year” award for a second consecutive year.
**Family Living Expenses**

By Joyce Lash, Human Sciences Specialist, Family Finance, [lash@iastate.edu](mailto:lash@iastate.edu)

Family living expenses are one of the largest competitors for cash flow on a farming operation. It’s more likely this area of a farming operation will receive closer evaluation as the health of agriculture economics becomes less robust. Knowing how your lender defines family living costs and the standards they compare you to, is important to understand.

A measure of how to evaluate your family spending is to look at averages that are reported by those who track farm family spending. In a report from the [University of Illinois](https://www.urbanag.uic.edu/) using data from the Illinois Farm Business Farm Management Association, the average dollar amount of family living expenses moved from just under $53,000 in 2004 to just under $81,000 in 2013. The non-farm expenses include family capital expenses, family living expendables, charitable contributions, healthcare related expenses, life insurance premiums, and taxes (federal, state, and social security). Family living expendables are the largest component and include groceries, meals away from home, clothing, entertainment, education expenses, personal transportation, non-farm interest, non-farm utilities, etc.

Spending for family living expenses is often stated as a per acre expense. In 2004, the Illinois report, showed an average cost per acre for family living of $84. The amount increased to $121 per acre in 2013. Lender’s at an American Bankers Association National Agriculture Bankers Conference recently heard data that reported grain producers with low-maintenance families averaged $80 per acre family living costs while high maintenance on average withdrew $240 an acre equivalent.

Farm families often reduce the demand that family living expenses place on net farm income by generating nonfarm income. Unfortunately lenders don’t always view this as separate from the total income available to repay debt. If you haven’t been giving some attention to this part of your farming operation, starting now would prepare you for difficult questions if cash-flows become tight.

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**Beef Producer Tour Planned**

Joe Sellers and beef producers in southcentral Iowa have planned a ranch and feedlot bus tour to north central Nebraska set for August 26-29. The bus will leave Chariton at 8:00 am August 26 and return by 7:00 pm on the 29th.

Tentative stops include Kennedy Cattle Company, the ISU Armstrong Research Center, Jindra Angus, Wulf Cattle Company, Rolling Stone Feedyard, ranch stops planned by the Sandhills Cattle Association, and other ranches and feed yards in Western Iowa and Nebraska. A full itinerary is under development. Overnight stays will be at O’Neill, Valentine, and Kearney, Nebraska. Sponsors include Midwest Heritage Bank, Zoetis Animal Health, and the Iowa Beef Center at Iowa State University.

Participants are responsible for their own room reservations, a registration fee of $150 fee payable to Lucas County Extension, and some meals during the trip. Room reservations and preregistration for the bus must be made by July 26 to assure access to lodging and a seat on the bus!

A block of rooms are held under “Iowa Beef Tour/Iowa State University” at these motels – Holiday Inn Express, O’Neill ($120 room rate) – 402-336-4500; Econo Lodge Inn, Valentine ($89.99 room rate) – 402-376-3131; and Fairfield inn, Kearney ($114.95 room rate) – 308-236-4200. (Rates listed are for 2 Queen or 1 King standard rooms, plus tax.) The room blocks will be released on July 26.

To register for the bus send a check for $150 per person to Lucas County Extension, 48293 Hy Vee Rd, Chariton, Iowa 50049. For more details contact Joe Sellers at 641-203-1270, or email [sellers@iastate.edu](mailto:sellers@iastate.edu).
Opportunities for Custom Feeding
From the Iowa Beef Center blog

Based on an Iowa Beef Center survey last spring, we estimate that only 11% of the cattle on feed in Iowa are custom fed. While the number of cattle in Iowa feedlots is higher than it's been historically, the traditional concept of the farm feedlot marketing crops through their its cattle remains important. As corn prices remain at or below breakeven prices for many crop producers, and as young cattle feeders look for innovative business arrangements to grow or ease the challenge of generational transfer, custom feeding may have significant growth opportunities in Iowa.

The same IBC survey shows nearly 50% of the custom-fed cattle were owned by other cattle feeders. This arrangement works well for young producers with the skill to manage, feed and provide daily care of the animals. This arrangement also allows feedlots to add capacity without the increased risk of ownership or capital requirements to purchase the additional cattle. For the cattle owners, placing cattle in custom lots spreads production risk, allows them to feed more cattle without the long term fixed costs of the facility, and allows economies of scale for risk management, cattle purchase and marketing arrangements.

Crop producers owned 24% of the custom fed cattle in this survey. In the current economic environment, this represents perhaps the greatest immediate growth opportunity for custom feeding in Iowa. Local corn growers may deliver corn to the feedlot as dry or high moisture corn. High moisture corn eliminates drying costs, allows an earlier start to harvest, and provides increased energy value in the feedlot. Arrangements also may be made to return the manure nutrients to the land. With current fertilizer values, this has significant value. The concept of using livestock through contract feeding to provide alternative markets for corn and provide a source of organic nutrients for crop production has supported the growth of swine finishing in Iowa for several years. Custom cattle feeding provides another opportunity to do the same.

Cow-calf operators owned less than 9% of the cattle in custom feedlots. With current high calf prices most cow-calf producers opt to sell their calves at weaning or after a short backgrounding period. In the longer term though, retained ownership has been a profitable venture. For the producer who has invested in genetics for growth, efficiency and carcass value, retaining ownership is the only way to capture the value of that investment. Many professional custom feedlots offer services that will provide individual performance and carcass data to be used in further herd improvement decisions. For smaller producers, services like the Tri-County Steer Futurity can facilitate custom feeding and data services. As the beef industry expands, programs that add value to the calf crop will also grow. Retaining ownership can provide the producer an opportunity to capture that value.

For cattle feeders looking to increase capacity for custom cattle feeding, IBC has new resources. The Beef Feedlot Systems Manual was recently revised with updated information. Also, a new decision tool to evaluate facility decisions has been developed. For more information check out this link: http://www.iowabeefcenter.org/news/FeedlotManualCalculator.html.

Local County Fairs

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<td>July 28 - Aug. 3, 2015</td>
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Our new Agronomist, Rebecca Ahlers, offers a weekly Crop Connection Newsletter. The link for this newsletter is located on the Jefferson County Extension website, or you can sign yourself up for weekly updates at: rka8@iastate.edu. Rebecca would be very happy to add you to her weekly update list!

Subjects in her last update included Weeds Week, Crop Scouting Tips on NCLB, Alfalfa Weevils, Iowa Drainage School in Nashua and more!

Dealing with Stress from Unexpected Changes Takes Time

AMES, Iowa -- Unexpected changes such as job loss or financial uncertainty can turn life upside down. Dealing with the stress and adjusting to a “new normal” can be slow and painful, but is possible, says a human sciences specialist with Iowa State University Extension and Outreach.

“Stress affects our health and relationships. Even if we don’t talk about it, those around us -- our family, friends and co-workers -- still pick up on our body language,” said Kimberly Greder, an associate professor in human development and family studies, and family life extension specialist.

Avian influenza has increased the stress that many Iowa families are facing. ISU Extension and Outreach is cooperating with University of Minnesota Extension and SDSU Extension to provide resources for families struggling with the human challenges brought on by avian influenza. Extension staff from the three land-grant universities are providing families with research-based information and resources. To learn more, follow #AvianFluImpact on social media and visit tiny.cc/find-answers-now.

Manage Change, Reduce Stress

Greder offers these tips for managing change and reducing stress:

* Identify one thing you can do to address part of the issue. For example, if you already have or are expecting to have less income, what expenses can you reduce now?
* If you exercise regularly, keep doing it. If you don’t exercise regularly, start now. It will help you manage the stress you feel as part of change, as well as help your long-term health.
* Talk about the change with your family, because it affects everyone. Together you may be able to identify ways to reduce expenses.
* Do something you enjoy each day. It could be as simple as taking 10 minutes a day to read, find a quiet space to close your eyes and rest, or listen to music.
* Eat and drink healthy. What you put in your body effects how you feel physically and mentally.
* Be around people you enjoy and care about.
* Let your values drive decisions you make.

Remember the Children

Children experience and process stress differently than adults. Children’s thinking and emotional skills are still developing, and they have limited experiences to draw upon, Greder said. Chronic stress in children affects their development, how they feel about themselves and the world around them, their health and how they interact with others.

“When parents are stressed, children become stressed. When adults are patient, calm and understanding with children, stress that children may experience can be minimized,” Greder said.

Even minor changes in children’s environment can cause stress, because children continually are trying to find order and patterns as they go through the day.

“It is important for children to have consistent adults in their life who they can trust and rely on, and to have daily routines such as meal times and bed times,” Greder said.

Regular, healthy food choices and opportunities for fun, physical activity help children manage big and little stresses in their lives.

“Activities that promote big movements in children such as dancing, hiking, bike riding, playing soccer, shooting hoops, swinging or climbing on playground equipment are simple, low-cost activities that help children reduce and manage stress,” Greder said. “When low levels of physical activity are needed, such as before bedtime, reading a book, drawing or listening to music can help a child relax.”
Avoid Heat Stress in Cattle by Planning Ahead

AMES, Iowa — With continuing weather forecasts of temperatures in the mid- to upper 90s and heat index topping 100 degrees in Iowa, Iowa State University Extension and Outreach beef veterinarian Grant Dewell reminds beef cattle producers that properly preparing for these weather conditions is vital to maintaining herd health.

Five steps to avoiding heat stress in beef cattle

Plan ahead. After cattle get hot, it’s too late to prevent problems.

Don’t work cattle when it is hot. Finish working cattle early (before 9 to 10 a.m.) in summer, and remember that during a heat wave it’s best to not work cattle at all.

Provide plenty of fresh clean water. When it’s hot and humid, consuming water is the only way cattle can cool down.

Make sure the water flow is sufficient to keep tanks full, and ensure there’s enough space at water tanks (3 inches linear space per head.) Introduce new water tanks before a heat event occurs so cattle know where they are.

Feed 70 percent of ration in the afternoon. Heat from fermentation in the rumen is primary source of heat for cattle.

When cattle are fed in the morning, peak rumen temperature production occurs during the heat of day when they can’t get rid of it. By feeding 70 percent of the ration in late afternoon, rumen heat production occurs when it is cooler.

Provide ventilation, shade and/or sprinklers. Environmental temperatures compound the heat load for cattle during a heat wave. Remove objects that are obstructing natural air movement. Indoor cattle will benefit from shade provided by the building as long as ventilation is good. Outdoor cattle will benefit from sprinklers to cool them off. Make sure cattle are used to sprinklers before employing them during a heat wave.