

ISU Extension in Johnson County

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Crop Management Clinic to Offer New Technologies and Latest Research

By: Warren Pierson, ISU Field Extension Education Laboratory & Brent Pringnitz, ISU Agriculture & Natural Resources Extension



AMES, Iowa — The 2021 Crop Management Clinic from Iowa State University Extension and Outreach will provide training on multiple crop production and protection topics. New university research will be shared during this one-day event for agribusiness professionals, to be held July 22 from 9 a.m. to 4:30 p.m.

Each year, specialists with ISU Extension and Outreach present at the Crop Management Clinic on crop and pest management, soil fertility and nutrient management. The purpose is to educate agronomists, crop advisors and growers about current issues and recent research using demonstration plots. Crop managers desiring more hands-on and in-depth working knowledge of the latest agricultural practices will receive useful reminders and updates during attendance.

Unique programming this year includes sprayer technology developments with Ryan Bergman, program coordinator with ISU Extension and Outreach, and current weather condition impacts with Iowa's State Climatologist Justin Glisan.

"Our extension specialists are excited to meet in person this year," said Warren Pierson, industry extension specialist for the host site, the Field Education and Extension Lab. "We have interesting topics to cover and some important weather concerns at this point in the season. Attendees have the opportunity to discuss and learn more about these developments with our subject matter experts."

Although this is normally held in a two-day period, this year's Crop Management Clinic will be a one-day program.

The event will be held at Iowa State's Field Education and Extension Lab, located at 1928 240th St., outside of Boone. Attendees should arrive between 8:30-8:50 a.m. for check-in before the session start time. Registration is open and required. Cost is \$150.

Included in the cost are refreshments, lunch and course materials. Additional information, including an outline of all topics and online registration is available at <http://www.aep.iastate.edu/feel/>.

This clinic qualifies for 6.5 continuing education credits for Iowa Certified Crop Advisers, subject to board approval, in the following topics: 1.0 nutrient management, 2.5 pest management, and 3.0 crop management.

IOWA STATE UNIVERSITY

Extension and Outreach



Agronomy Workshop and CCA Training

Updated Date: July 13, 2021 | 8 AM to NOON

Southeast Research and Demonstration Farm

3115 Louisa-Washington Rd., Crawfordsville, IA 52621

Join ISU Extension and Outreach and the Southeast Iowa Agricultural Research Association for this Agronomy Workshop and CCA Training featuring carbon markets and herbicide and weed management strategies as session topics.

Schedule:

8 AM | Registration

8:20 AM | Welcome

8:30-NOON | Sessions (~50 min. each)

Carbon Markets: The Wild West (1 C.M.)

Chad Hart, Extension Economist

The Science of Carbon Markets (1 S.W.M.)

Marshall McDaniel, Professor Agronomy Department, ISU

Integrated Weed Management in Soybeans

(1.0 P.M.) Virgil Schmitt, Extension Field Agronomist

Soybean Herbicide Demo

(1.0 PM.) Rebecca Vittetoe, Extension Field Agronomist

NOON | Lunch

Questions? Contact Rebecca Vittetoe at 712-540-3319 or rka8@iastate.edu.



Southeast Iowa
Agricultural Research Association
Crawfordsville, Iowa

Registration Details:

- \$50 Registration Fee (includes lunch)
- No walk-ins accepted & attendance limited to 60.
- Register by **July 9** by going to <http://www.aep.iastate.edu/serf-cca> or by contacting Rebecca Vittetoe at 712-540-3319 or rka8@iastate.edu.
- May pre-pay by check or pay at door (cash or check).
- Make checks out to Washington County Extension (*Please write Agron. Workshop in memo line*).
- Checks can be mailed to:
Washington Co. Extension
2223 250th St., Washington, IA 52353.

Directions to the farm:

Go 1 ¼ miles south of Crawfordsville on Hwy 218, then 2 miles east on G-62, then ¾ mile north.
Watch for signs.

Fall Field Day on September 9, 2021

Preparations are underway for the Southeast Research and Demonstration Farm Fall Field Day on September 9, 2021. The event is planned to be live. Save the date. When details are known, they will be posted at <https://www.extension.iastate.edu/Pages/eccrops/meetserc.html>.

New Date: Agronomy Workshop and Certified Crop Advisor Training to be Offered July 13

By: Rebecca Vittetoe & Virgil Schmitt, ISU Extension Field Agronomist

CRAWFORDSVILLE, Iowa – Carbon markets and weed management strategies in soybeans will be the featured topics at an upcoming Agronomy Workshop and Crop Advisor Training to be offered from 8:30 a.m. to noon on July 13.

The training is targeted toward farmers, certified crop advisors, agribusiness professionals and independent crop consultants. It will feature the following four sessions that participants will rotate through: carbon markets, the science of carbon markets, integrated weed management strategies in soybeans and soybean herbicide programs.

“We are excited to be offering this workshop face-to-face this year,” said Rebecca Vittetoe, field agronomist with Iowa State University Extension and Outreach. “We’ve got some in-field demonstrations that participants will be able to check out and also have a chance to visit with different experts including Chad Hart, professor in economics and extension grain markets specialist at Iowa State, and Marshall McDaniel, assistant professor in agronomy at Iowa State.”

There will be one hour of soil and water management continuing education units, one hour of crop management CEUs and two hours of pest management CEUs for certified crop advisor.

There is a \$50 registration fee, which includes lunch. Pre-registration is required by July 9 and can be completed at <http://www.aep.iastate.edu/serf-cca> or by calling the ISU Extension and Outreach Washington County office at 319-653-4811. No walk-ins will be accepted. Class size is limited to 60 participants.

The Southeast Research and Demonstration Farm is located at 3115 Louisa-Washington Road, Crawfordsville, Iowa. To reach the farm, follow U.S. Highway 218 one and three-quarters of a mile south of Crawfordsville, then two miles east on County Road G-62, then three-quarters of a mile north. Signs will be posted near the farm.

This training is being held by ISU Extension and Outreach and the Southeast Iowa Agricultural Research Association.

Beef Feedlot Short Course Returns in August

By: Erika Lundy-Woolfolk, ISU Extension Beef Specialist

AMES, Iowa – The fifth annual [Beef Feedlot Short Course](#), organized and hosted by the Iowa Beef Center at Iowa State University, is set for Aug. 3-5 at the Hansen Agriculture Student Learning Center in Ames.

Erika Lundy-Woolfolk, beef specialist with Iowa State University Extension and Outreach, said the goal of the event is to optimize participant learning through exposure to new technology, research and best management practices.

"From our initial planning for the first event in 2017, we've focused on providing content in a small group setting with a mix of hands-on and classroom instruction," she said. "The short course is designed for feedlot managers, employees and consultants, and past attendees have appreciated that focus."



Content-specific portions of the short course will be held at the Iowa State Beef Nutrition Farm near Ames and Couser Cattle Company in Nevada, Iowa.

The program runs from 12:30 p.m. on Tuesday, Aug. 3 through noon on Thursday, Aug. 5. For questions on the content, contact Lundy-Woolfolk at ellundy@iastate.edu or Iowa Beef Center Director Dan Loy at dloy@iastate.edu.

Topics include:

- Bunk management and the basics of starting cattle on feed.
- Feed mixing demonstration and evaluation.
- Feedlot nutrition.
- Managing and identifying cattle health issues in the feedlot.
- Facility design and cattle handling.
- Data management.

Presenters include:

- Bill Couser, Couser Cattle Company, Nevada, Iowa.
- Garland Dahlke, associate scientist, Iowa Beef Center, Iowa State University.
- Grant Dewell, beef veterinarian, ISU Extension and Outreach.
- Terry Engelken, associate professor, Veterinary Diagnostic and Production Animal Medicine, Iowa State University.
- Shane Jurgensen, Couser Cattle Company, Nevada, Iowa.
- Dan Loy, director of the Iowa Beef Center and extension beef specialist, Iowa State University
- Erika Lundy-Woolfolk, beef specialist with ISU Extension and Outreach.
- Robbi Pritchard, feedlot consultant, Aurora, South Dakota.
- Lee Schulz, extension livestock economist and associate professor, economics, Iowa State University.
- Dan Thomson, professor and animal science department chair, Iowa State University.

The \$350 per person registration fee includes program materials and meals listed on the agenda. The registration deadline is midnight, July 27, or when the course limit of 30 is reached. All registrations must be made online.

See the short course website for registration information, requirements and links at <http://www.aep.iastate.edu/feedlot>.

Participants are responsible for making their own lodging arrangements, if needed. A block of rooms is available at Comfort Inn & Suites ISU, 603 S 16th St., Ames. Book by phone at 515-663-9555 or [book online](#).

2021

FARMLAND LEASING ARRANGEMENTS



Ryan Drollette
drollett@iastate.edu
319-853-8624

Preregister at least two days before the meeting you plan to attend.

Register by calling the County Extension Office hosting the meeting at the phone number listed for that location.

Registration Fee
\$25 per individual. Walk-ins or late registrations may have an additional fee.

*More locations available across the state.

Visit the Ag Decision Maker webpage for details.
www.extension.iastate.edu/agdm/

Topics include:

- Discussing results of recent Iowa cash rent and land value surveys
- Improving tenant and landowner communications
- Understanding flexible cash farm lease arrangements
- Properly writing and terminating a farm lease
- Determining a fair cash rent with crop economic uncertainty
- ISU Extension web-based and other resources



**8 Meetings in
East Central Iowa***

Meetings are 2 1/2 hours in length with a 100-page *Farmland Leasing Arrangements* book provided, one per registrant.

JULY - AUGUST 2021

TUESDAY, JULY 27 - 6:00 pm
Cedar Rapids - Linn County
Call 319-377-9839
ISU Extension, 383 Collins Rd NE

WEDNESDAY, AUGUST 4 - 1:00 pm
Monticello - Jones County
Call 319-465-3224
ISU Extension, 800 N Maple St

THURSDAY, JULY 29 - 1:00 pm
DeWitt - Clinton/Jackson County
Call 563-659-5125/563-652-4923
ISU Extension, 400 East 11th Street

THURSDAY, AUGUST 5 - 1:00 pm
Iowa City - Johnson County
Call 319-337-2145
ISU Extension, 3109 Old Highway 218 S

FRIDAY, JULY 30 - 6:00 pm
Bettendorf - Scott County
Call 563-359-7577
ISU Extension, 875 Tanglefoot Lane

TUESDAY, AUGUST 10 - 6:00 pm
Washington - Washington County
Call 319-653-4811
ISU Extension, 2223 250th Street

MONDAY, AUGUST 2 - 1:00 pm
Muscatine - Muscatine County
Call 563-263-5701
ISU Extension, 1601 Plaza Place

AUGUST 24-26 - 12:00 pm
Statewide webinar
For out-of-state landowners or those who were not able to attend in-person sessions. \$15 fee, with virtual access to Farmland Leasing Arrangements book. See Ag Decision Maker website to register.

TUESDAY, AUGUST 3 - 6:00 pm
Tipton - Cedar County
Call 563-886-6157
ISU Extension, 107 Cedar Street

The fees for service will be used to off-set direct expenses and to support the Agriculture and Natural Resources County Extension Program.

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IOWA STATE UNIVERSITY
Extension and Outreach

Pig Survivability Conference Planned for October

By: Jason Ross, Iowa Pork Industry Center



AMES, Iowa – The International Conference on Pig Survivability is planned for Oct. 27-28, in Omaha, Nebraska, at the Hilton Omaha. The conference objective is to facilitate the discussion and dissemination of the most current information relative to sow, litter, weaned pig and grow-finish mortality.

“By featuring presentations and panel discussions from industry leaders and scientific experts, we

want to bring the industry together to motivate change,” said Joel DeRouchey, K-State swine extension specialist. “We want attendees to walk away with a sense of urgency toward the issue of mortality and some practical ideas of what to do about it.”

“The conference will feature speakers from an array of swine-related businesses and organizations that will discuss relevant, take-home messages to impact swine survivability,” said Jason Ross, director of the Iowa Pork Industry Center and professor of animal science at Iowa State University.

Confirmed speakers and topics to be addressed include:

- Lee Schulz, associate professor in economics and livestock economist at Iowa State; economics of swine mortality.
- Ron Ketchem, Swine Management Services LLC, a MetaFarms Company; Trends of U.S. swine survivability.
- Bill Christianson, Genus PIC; Trends of international swine survivability.
- Cassie Edgar, McKee, Voorhees, and Sease, PLC; Advancing technology — regulatory, advocating, and future.
- Gustavo Pizarro, Pipestone Veterinary Services; Industry successes and failures in pre-weaning survivability.
- Chris Rademacher, clinical veterinary professor and extension swine veterinarian at Iowa State; Industry successes and failures in post-weaning survivability.
- Karine Talbot, HyLife; Wean to finish biosecurity – a need for change.
- Valerie Duttlinger, Summit Smart Farms; The right people for the right job.
- Sara Probst Miller, Ag Create Solutions; Effective training: what works and what does not.
- Noel Williams, Iowa Select Farms, and Mike Tokach, Kansas State University; Conference impressions: now, what should we do to capture value in academics and industry.
- Numerous industry panels for interactive discussions.

For a full list of speakers and to learn more, [visit the conference website](#). Registration for the conference is now open. To receive other updates from the Improving Pig Survivability project, visit and subscribe to project updates at www.piglivability.org.

The International Conference on Pig Survivability is part of the Improving Pig Survivability project. This five-year, interdisciplinary, multi-university project is funded by the National Pork Board and FARR, aimed at reducing mortality in the U.S. swine industry by 1% or more per year of the project. The project is being organized as a collaborative effort by Iowa State University, Kansas State University and Purdue University.

DeLong to Lead Iowa State's Water Quality Program

By: Catherine DeLong, Water Quality Program Manager



AMES, Iowa – The newest manager of the [Water Quality Program](#) with Iowa State University Extension and Outreach knows the issues and concerns that are on Iowans' minds.

Catherine DeLong, who began her new position June 14, had previously worked as a water quality specialist with the Conservation Districts of Iowa and as a special projects and policy director for the Soil and Water Conservation Society.

DeLong will now lead the initiatives of the Water Quality Program, which continues to educate Iowans about the science of water quality and how individual and collective actions can help to build resilient water sources in Iowa.

“My goal is to help Iowans have a stronger connection to water quality and feel like it is something they all have the power to do something about,” said DeLong, who earned her master’s degree in soil and environmental science from Iowa State in 2014.

According to DeLong, water is a resource that all Iowans depend on, whether for drinking, recreation, agriculture or industry.

She looks forward to connecting researchers to practitioners and to the general public, as they work together to translate the work of the university into concepts that are accessible and interesting to the general public.

“Having a stronger connection to water quality is one of the things that we can all work on,” she said.

Iowa has many water quality concerns including bacteria, which can be sourced from improperly constructed septic systems, manure spills and stormwater runoff. Another concern, given that most of Iowa’s land is agricultural, is runoff and leaching from farm fields.

“We are delighted to have Catherine join the team as water quality program manager,” said Jamie Benning, assistant director for Agriculture and Natural Resources with ISU Extension and Outreach. “She brings great experience in partnership building, developing innovative approaches for reaching agriculture and conservation stakeholders, and we look forward to continued growth and impact of the program under her leadership.”

Benning is the past manager of Iowa State’s Water Quality Program and has worked directly with DeLong on conservation projects when Benning held the position.

DeLong said she’s especially excited about getting more Iowans to see water quality as the result of a systems-based approach – the idea of using multiple approaches and practices together, for multiple benefits. This approach can lead to improved water quality, as well as improved wildlife habitat, carbon sequestration and improved economic value of property.

DeLong is working on a number of grant-based projects to improve water quality in Iowa, and said she is looking forward to working with other specialists within Agriculture and Natural Resources.

“I’m really excited to have Catherine join the Agriculture and Natural Resources team,” said Adam Janke, assistant professor in natural resources ecology and management and extension wildlife specialist at Iowa State. “Her unique training and experiences are really going to advance our efforts toward helping Iowans improve our water quality and enjoy all the socioeconomic benefits clean water provides.”

For more information, visit the ISU Extension and Outreach [Water Quality web page](#). DeLong can be reached at 515-294-5963 or crdelong@iastate.edu.

Farm Employee Management: Protect Farm Workers from Heat-Related Stress and Illness

By: Melissa O'Rourke, ISU Extension Farm & Agribusiness Management Specialist

Each summer, farm producers and their employees work through days of extreme heat and humidity - starting as early as June and continuing into September. While we certainly need to protect our livestock during these hot days, it is an important time to be conscious of how to protect ourselves and our farm workers during these stressful weather conditions.

Heat can cause illness and sometimes even death. Several years ago, the Occupational Safety and Health Administration (OSHA) established a "Heat Illness Prevention Campaign" to raise awareness and provide education and resources for farm employers and employees. Links to these web-based resources are provided at the end of this fact sheet.

In regard to dairy farm operations, many employees work in conditions where shade, ventilation and perhaps even air conditioning are regularly provided. Nevertheless, during hot and humid weather, dairy workers move in and out of conditions that can cause heat illness if the conditions are not monitored. Activities such as feeding calves, moving cows, participating in hay and silage-chopping operations can all require physical labor where risks of heat illness exist in the right conditions.

It's also worth noting that many of today's farm employees may lack previous farm or other outdoor employment experience, so dealing with weather-related conditions may be new to them, not to mention the difference among individuals who may or may not be acclimatized to high heat conditions. Particular employees - such as older workers, those who are overweight or have heart-related medical conditions - may have an even lower-than-average sensitivity to heat and require additional monitoring.

In general, farm workers can become overheated in one of two ways - either the heat from the environmental conditions in

which they work; or by an individual generating internal heat by physical labor.

Less serious forms of heat-related illness include heat exhaustion, fainting, heat cramps and heat rash. These conditions should be taken seriously as they can quickly progress to heat stroke.

Heat stroke can cause death or permanent disability. Heat stroke occurs when the body becomes unable to control its internal temperature, the body temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down - the body temperature can quickly rise to 106 degrees or higher. Heat stroke symptoms include hot, dry skin or profuse sweating, hallucinations, chills, throbbing headache, high body temperature, confusion or dizziness and slurred speech. First aid should include the following steps:

- Call 911.
- Move the employee to a cool shaded area and fan the body.
- Cool the worker by soaking, spraying, sponging or showering them with water.

Farm owners and supervisors should manage employee work conditions where heat stress may occur. Possible considerations include:

- Acclimatize newer farm employees to hot work and weather conditions by exposing them for progressively longer periods.
- When possible, schedule hot jobs for the cooler part of the day - and where preventative maintenance and repair jobs may occur in hot areas, schedule these tasks for cooler months.
- Tasks that require physical exertion during hot conditions should either be scheduled during the cooler part of the day - or provide more frequent-than-usual rest and cool-off periods. Assigning extra employees to reduce the work-load may also help.

- Provide workers with rest periods in cool or shaded areas, and provide cool water or liquids to employees.
- Where enclosed areas are not air-conditioned, provide adequate fans and ventilation to assure air movement.
- Encourage employees to consume sufficient liquids so that they do not become thirsty or dehydrated. NOTE: Although this article focuses on heat-related conditions, it is important to remember that dehydration can occur in any weather conditions, including very cold weather. Always consume adequate fluids year-round.
- Encourage employees to wear light, loose-fitting breathable clothing.
- Where protective clothing or personal protective equipment is necessary, additional monitoring is required as this can increase the risk of heat stress.
- Monitor workers who may have additional heat stress risk factors.

Overall, it is important to plan and provide training and awareness to farm supervisors and workers. Topics should include heat stress risks, heat illness prevention, and employee and self-monitoring in hot weather conditions. Such training should be part of regular farm safety education. Even a five-minute stand-up talk (where workers are gathered for reminders of how to prevent and monitor the possibility of heat stress) can save lives.

Posters can be another way to remind workers of how to prevent heat-related illness. These [posters](#) can be easily printed and displayed in multiple locations. Similarly, each worker can be provided a [heat stress card](#) that summarizes this important information. Publications are available in English, Spanish, and other languages, as well as low-literacy resources.

OSHA has a free mobile phone heat app that allows workers and supervisors to calculate the work site heat index. Workers can receive reminders about protective measures that should be taken to protect workers from heat-

related illness – such as drinking enough fluids, scheduling rest breaks, planning for and knowing what to do in an emergency, adjusting work operations, gradually building up the workload for new workers, training on heat illness signs and symptoms, and monitoring each other for signs and symptoms of heat-related illness. See the links below for this and other resources.

Occupational Safety and Health Administration, heat illness prevention campaign: [Water. Rest. Shade](#)

OSHA Publications: [Heat Illness Prevention](#)

Centers for Disease Control (CDC) - National Institute for Occupational Safety and Health (NIOSH): [Heat Stress resources](#)

Ohio State University Extension: [Farm worker heat stress prevention video](#)

University of Wisconsin Extension: [Avoiding dairy worker heat stress video](#)

Association of Farmworker Opportunity Programs: [Heat stress prevention resources, including videos](#)

ISU Extension and Outreach [Dairy News Podcast](#)

The complete Farm Employee Management Series can be found on the [Ag Decision Maker website](#).

Melissa O'Rourke, extension farm and agribusiness management specialist, 563-382-2949, morourke@iastate.edu

Suicide Prevention Program Still Available Virtually to Producers and Agribusiness

By: David Brown & Demi Johnson, ISU Human Sciences Extension and Outreach



AMES, Iowa – Iowa’s rural communities and families may have moved on from stress produced by the COVID-19 pandemic. Unfortunately, weather related concerns may now be a larger factor contributing to farmers’ anxiety. In response, Iowa State University Extension and Outreach is offering weekly, online “[Question. Persuade. Refer.](#)” programs now through August, said Demi Johnson, behavioral health program specialist with

ISU Extension and Outreach. QPR is a suicide prevention program that teaches participants three steps to help save a life from suicide.

“Just as people trained in CPR and the Heimlich maneuver help save thousands of lives each year, people trained in QPR learn how to recognize the warning signs of a suicide crisis and how to question, persuade and refer someone to help,” Johnson explained.

ISU Extension and Outreach will offer QPR on the following Tuesdays: July 6, July 20, Aug. 3 and Aug. 17 at 12 p.m. Each program will last for one hour.

Agribusiness professionals, agriculture lenders and bankers, veterinarians, vet techs, commodity group members, producers, social service professionals and other concerned individuals can register at no cost for any of these programs. To register, go to <https://www.extension.iastate.edu/humansciences/QPR>. Participants will receive a unique URL prior to the program to access the Zoom hosted program. For more information, or to schedule a private group class, contact Demi Johnson at demij@iastate.

Other resources

[Iowa Concern](#), offered by ISU Extension and Outreach, provides confidential access to stress counselors and an attorney for legal education, as well as information and referral services for a wide variety of topics. With a toll-free phone number, live chat capabilities and a website, Iowa Concern services are available 24 hours a day, seven days per week at no charge. To reach Iowa Concern, call 800-447-1985; language interpretation services are available. Or, visit the website, <https://www.extension.iastate.edu/iowaconcern/>, to live chat with a stress counselor one-on-one in a secure environment. Or, email an expert regarding legal, finance, stress, or crisis and disaster issues.

[COVID Recovery Iowa](#) offers a variety of services to anyone affected by the COVID-19 pandemic. Virtual counselors and consultants provide counseling, family finance consultation, farm financial consultation, referral information and help finding resources for any Iowan seeking personal support. Iowans of all ages may join groups online for activities and learn creative strategies for coping with the effects of the pandemic. COVID Recovery Iowa will announce upcoming programs on the website and via all social media to help Iowans build coping skills, resilience and emotional support. To request support, go to <https://www.COVIDrecoveryiowa.org>.

211 is a free, comprehensive information and referral line linking Iowa residents to health and human service programs, community services, disaster services and governmental programs. This service is collaborating with the Iowa Department of Public Health to provide confidential assistance, stress counseling, education and referral services related to COVID-19 concerns.

Yard and Garden: Controlling Weeds in the Home Lawn and Garden

By: Ajay Nair, ISU Extension Commercial Horticulture Specialist, Adam Thorns, Assistant Professor and Extension Turfgrass Specialist & Gail Nonnecke, ISU Horticulture Professor

AMES, Iowa -- Controlling weeds in home gardens and lawns can be a busy job for people, and Iowa State University Extension and Outreach horticulture specialists are here to answer your frequently asked questions about weed control.

How do I control weeds in my asparagus planting?

Weeds compete with asparagus for light, water, and nutrients and will reduce asparagus yield and quality if not controlled. Cultivation and hand pulling are the best ways to control weeds in an asparagus planting. Hoe or till the planting periodically in spring and early summer. Cultivate lightly to avoid damage to emerging spears. Under severe infestation or to manage larger areas, Gramoxone or Roundup can be used for weed burn-down before spears emerge. After the final harvest, Roundup could be applied directly to the weeds, strictly limiting any herbicide exposure to cut asparagus stalks.

How do I control dandelions and other broadleaf weeds in my lawn?

In small areas, some weeds can be controlled by pulling and digging. This method is best accomplished after a soaking rain or deep watering. Unfortunately, pulling and digging is often ineffective on deep-rooted weeds.

In many situations, herbicides are the only practical method of weed control. Effective broadleaf herbicides include 2,4-D, MCPP, MCPA, dicamba, triclopyr and others. The most effective broadleaf herbicide products contain a mixture of two or three herbicides as no single compound will control all broadleaf weeds. Fall (mid-September to early November) is the best time to apply broadleaf herbicides in Iowa. Broadleaf herbicides can be applied as liquids or granules and often in combination with fertilizer. Note that a preemergence herbicide for crabgrass will not control broadleaf weeds.

How do I control weeds in my strawberry patch?

Weed control is essential to ensure optimal plant growth and fruit production. Weeds compete with the strawberry plants for water, nutrients and sunlight. Weeds also reduce air circulation, which results in fruit and foliage staying wet for longer periods. Disease problems are more serious when plant tissue remains wet for long periods of time.

Cultivation, hand pulling and mulching are the most practical weed control measures for home gardeners. Cultivate often, but shallow, to control weeds. Destroy the weeds before they have a chance to flower and produce seeds. Clean, weed-free straw and other organic materials can be applied as a mulch between plant rows in a new or established planting. Herbicides are not a viable option as few, if any, herbicides can be used on home strawberry plantings. If an older strawberry planting becomes too overgrown with perennial weeds, and cultivation or hand pulling does not provide sufficient control, a new weed-free location should be selected for establishing a new planting. Replanting of strawberries is common every five to seven years in home gardens.

During and after renovation of a Junebearing strawberry planting is an excellent time to control weeds by cultivating or mulching between the rows and cultivating within the rows until daughter plants begin to form roots. As daughter plants establish, hand-pulling is best so that the new plants are not disturbed as they grow and fill the row area. In day-neutral strawberry plantings, using straw

continued from pg. 11.... or a colored (not clear) polyethylene mulch within the row helps control weeds. Hand pulling of any weeds may be necessary near the original strawberry plant that is maintained without daughter plants. Weed control in between rows of day-neutral strawberries is achieved by cultivating or applying an organic mulch, such as weed-free straw.

How do I control weeds in my garden?

Cultivation, hand pulling, and mulches are the primary means to control weeds in the home garden.

Cultivation and hand pulling effectively control most annual weeds. Perennial weeds are often more difficult to control. Repeated cultivation or the use of herbicides may be necessary to destroy some perennial weeds. When cultivating the garden, avoid deep tillage. The roots of many vegetables, fruits and flowers grow near the soil surface. Deep cultivation will cut off some of these roots. Also, deep cultivation will bring deeply buried weed seeds to the soil surface where they can germinate. Hoe or till around plants or between rows and pull weeds close to plants. To effectively control weeds, cultivation and hand pulling must be done periodically through the growing season. Small weeds are much easier to control than large weeds. It's also important to destroy the weeds before they have a chance to go to seed.



Mulches control weeds by preventing the germination of weed seeds. Established weeds should be destroyed prior to the application of the mulch. In addition to weed control, mulches help conserve soil moisture, reduce soil erosion, prevent crusting of the soil surface, keep fruits and vegetables clean, and may reduce disease problems.

Grass clippings (do not use grass clippings from the first three mowings after a herbicide application), shredded leaves, and weed-free straw are excellent mulches for vegetable gardens and annual flower beds. Apply several inches of these materials in early June after the soil has warmed sufficiently. Plant growth may be slowed if these materials are applied when soil temperatures are still cool in early spring. Grass clippings, shredded leaves, and similar materials break down relatively quickly and can be tilled into the soil in the fall.

Wood chips and shredded bark are excellent mulches for perennial beds and areas around trees and shrubs. Apply two to four inches of material around landscape plantings. These materials decay slowly and should last several years. However, it will be necessary to apply additional material periodically to retain the desired depth.

Herbicides can be used to supplement cultivation, hand pulling and mulches.

Can I place weeds and diseased plant debris from the vegetable garden in the compost pile?

It would be best to place weeds that are producing seeds and diseased plant debris in biodegradable bags and have the material picked up and composted by a municipal or commercial composting facility. The temperatures in home compost piles seldom get high enough to kill weed seeds and disease pathogens. However, the weed seeds and disease pathogens will be destroyed by the higher temperatures at municipal and commercial composting facilities. The compost produced at composting facilities can often be purchased by home gardeners and commercial landscape companies.

Preparing for Drought

By: Patrick Wall, ISU Extension Beef Specialist

As superstitions go, if you compose an article about drought, it will surely rain right before it goes to press. I sure hope so for those that need it. While much of Iowa has been spared from the deep red colors on the infamous U.S. Drought Monitor, we need rain. This article focuses on what beef cattle producers can do BEFORE your zip code shows up as an undesirable color on the drought monitor.

To some, preparing for a drought that never happens seems like an oxymoron. Farmers and ranchers are inherently programmed to respond to weather events, not prepare for them. However, having a semi-structured drought plan can certainly lower the stress level when the 10-day forecast looks unfavorable.

#1 Make Hay Acres “Grazeable” – If any of your hay fields sit next to pasture acres, this is fairly straight-forward. Just fence it in. If the weather turns dry, mechanical harvest of hay gets less cost-effective the shorter the forage is. However, a cow is really effective at utilizing short forages. Plus, she puts her fertilizer right back where she picked it up. When creeks and ponds have dried up in recent years, producers were frantically installing water systems to give cows access to rural water and deep wells. NRCS cost-share contracts were beneficial to some, but standing in line to wait your turn won't water the herd. Submit your water system proposal before you need it; mistakes are far less likely when ample time is given to planning and construction. You might also consider investing in exterior fence for CRP acres. When the acres are released, you'll be ready. When the CRP contract ends, you'll have an immediate use for the acres should re-enrollment not be an option.

#2 Develop A Cull List – Most of us like to brag about the cows that 'do their job every year,' and cuss the ones that don't. Some may find this exercise oddly satisfying, as it asks you to rank your cows in reverse order. You can even title it: “The First To Go.” Obvious candidates for this list include cows with poor attitudes, poor performance, poor udders, etc. Tagging or freeze-branding your cows with an indicator of birth year can be a useful tool during the culling process if age is the deciding factor on whether she stays or goes. Making these decisions earlier than all your neighbors can pay dividends at the auction barn, especially mid-summer. If cull cows flood the market due to widespread drought, prices will surely suffer.

#3 Early Pregnancy Diagnosis – This could actually be included as part of #2, but important enough to stand alone. Using ultrasound technology to diagnose pregnancy as early as 40 days gestation can be an extremely useful tool in a drought situation. It can also be a standard annual management practice used to enhance profitability. We've done several articles on the extra dollars gathered from calves born early in the calving season and the long-term fertility benefits from retaining heifers born early as well. Keeping the cows you know are bred up early is an easy way to help you develop your cull list. If you traditionally turn your bulls in June 1st, this can be done as early as mid-July if necessary. Use the trip through the chute as an opportunity to vaccinate calves, address fly control, etc.

#4 Consider a Summer Annual Crop – This practice has been picking up steam as the use of cover crops has expanded. Summer annuals are a great drought buffer that also offer flexibility to a grazing plan. The acres can be harvested for hay or haylage, then double-cropped. Should conditions turn dry, these acres can also be grazed to allow pastures to rest. Oats, millet, sorghum, or sudangrass are all obvious options; some offer multiple cuttings or even winter grazing options.

#5 Be in the Hay Market 365 days/Year – There are certainly seasonal trends in the hay market; producers largely purchase hay when they need it. During prolonged drought conditions though, hay can get REALLY expensive. Conversely, there are periods when hay will sell even below the cost of production. In some cases, the seller is just trying to 'clean out the barn' for the next year's crop. Whatever the reason, hay prices can get really reasonable if you're paying attention. There may be some cash flow implications from purchasing hay at an odd time of year, but the cost savings can be substantial. Purchasing hay also brings soil fertility nutrients to your farm and can reduce the need for commercial fertilizers. Knowing your true cost of production from hay you raise can be an incredibly useful number when purchasing surplus hay. In the last 3 years in Iowa, average quality hay at auction has ranged from \$40/big round bale to in excess of \$125/bale.

Staying active in the hay market year-round is time well spent when drought conditions persist.

Finally, develop an implementation date. When do these practices take effect if it doesn't rain? This date can be somewhat fluid depending on the weather conditions in the spring. As an example, if we use June 1, we usually have a good idea of our 1st cutting hay yield. We can visually see the height/potential yield of the summer annual. We need to make a decision before the June insurance deadline if we want to double-crop the summer annual acres. Your latitude and individual farm schedule may alter this date some, but circling a date on the calendar can be helpful. Setting these practices in motion will be much less stressful for those involved in the day-to-day operations. Just envision the list versus the alternative.

- #1 Open the gate to the CRP field and watch the cows go by.
- #2 Load the trailer with the cows you despise.
- #3 Sort the late-breds and tighten up your calving window.
- #4 Make the prettiest millet hay you've ever seen.
- #5 Dig into that surplus hay stack you bought for WAY under the money.

Surely that all sounds better than loading up the herd you spent years building or bidding against all your neighbors for hay. Only one thing is guaranteed. It will rain someday. It always has.

Brown Moths Around? They Might Be Hackberry Emperor Butterflies

By: Laura Jesse Iles, ISU Plant and Insect Diagnostic Clinic



For the past few weeks there has been an invasion of brown "moths" in Iowa! Roadways and yards have been covered; they are also landing on people. Everyone is asking, what is going on?!

Well, those brown moths are actually butterflies. We tend to associate the color brown with moths and indeed many moths are brown, but there are also many brown butterflies. These butterflies are called the hackberry emperor butterfly. Like many other species of butterflies, they engage in a behavior called puddling. Puddling is when butterflies swarm around puddles, mud, or dirt and drink water and seek minerals and salts that are not present in flower nectar. This is also why they land on us—our sweat contains salts.

Hackberry emperor butterflies start out as eggs, then their caterpillars feed on hackberry foliage, when ready to form a chrysalis the caterpillars crawl to the ground to find a suitable location. They can cause significant defoliation of hackberry trees, but no long-term harm is expected as trees will put on more leaves.

Why are there so many this year? We do not know. This is a question that entomologists get asked whenever there is an insect outbreak. There is research into the population cycles of some insect pests, but for most insect species the answer is simply that abiotic and biotic factors aligned in such a way that there was increased survival of eggs, larvae, pupae, and/or the adults. Abiotic factors are the non-living things that effect insect survival such as rainfall and temperature. Biotic factors are the living things that influence survival such as: competition, food availability, and the parasites, predators and disease that kill insects. When we see an insect outbreak, what we are observing is something closer to the population size the species is capable of if it were not for the high levels of mortality.

For now, enjoy the hackberry emperor butterflies as it is not likely we will see so many again next year.



Gregory Courtney

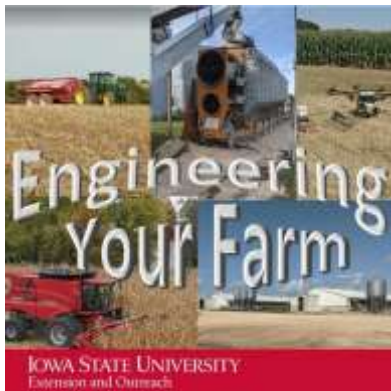
Podcasts/Videos Of Interest



Spokesman Speaks

“New first-in-the-nation service offers Iowa farm families free, ongoing counseling from experts”

In this episode, we introduce the Iowa Farm Family Wellness Alliance, a new first-in-the-nation service (created by Farm Foundation and Iowa State Extension) that provides Iowa’s farm families with free, ongoing wellness coaching and counseling, from experts. Shari Rogge-Fidler (President and CEO of Farm Foundation) joins us to discuss the alliance and how it is designed to serve the unique needs of farm families.



Small Farm Sustainability Podcasts

“The Past, Present, and Future of Robotic Weed Control”

In this episode of Engineering Your Farm, host Shawn Shouse discusses the history, development, applications, and future direction of mechanical and chemical robotic weed control technologies with Dr. Brian Steward and Dr. Lie Tang from the Department of Agricultural and Biosystems Engineering at Iowa State University.



The Moos Room—University of Minnesota Extension

“Fly control with Roger Moon”

Roger Moon, entomologist and friend of The Moos Room joins the OG3 to discuss fly control and to give Dr. Bradley J Heins a hard time.



LIVE with the Horticulturists: **“Herbs and Kitchen Gardening”**

Today we're joined by guest, Horticulture Educator Gemini Bhalsod, talking all about herbs and kitchen gardens. And as always, answering any gardening questions you might have.



Iowa Beef Center **“Considerations for Creep Feeding”**

Creep feeding, does it pay and what's the return on my investment if I do decide to creep feed?

Part of the Controlling Cow Costs series created by the Iowa Beef Center, Iowa State Extension Beef Specialist Erika Lundy discusses tips and considerations for economically and efficiently creep feeding calves to add pounds at weaning.



Dairy Science Digest **“Reproductive Success for Late Calving Grazers”**

In this edition of Dairy Science digest Dr. Matt Lucy, Editor in chief of the Journal of Dairy Science Communication and Reproduction physiologist from the University of Missouri, discusses work he and team published this month about successfully synchronizing late calvers in a seasonal calving system.

Grazers represent a large portion of Missouri's dairy industry. Ensuring a tight calving window helps match cows with ideal forage growth pattern.

Tune in to learn how to effectively "reset" those late calving cows.

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Biosecurity Resources for Small-scale Livestock Producers Available

By: Kendra Meyer, Agribusiness & Glenda Dvorak, Lead Public Health Veterinarian

AMES, Iowa – Livestock farmers know that reducing the spread of disease and pests among their animals maximizes profitability. Biosecurity includes understanding routes of transmission and taking steps to manage risk at the whole-farm level.

Producers who want to develop or improve a biosecurity plan now can access videos, tip sheets, checklists and other resources [at a web page developed](#) by the Center for Food Security and Public Health at Iowa State University's College of Veterinary Medicine (www.cfsph.iastate.edu/biosecurity).

The Farm, Food and Enterprise Development program of Iowa State University Extension and Outreach helped coordinate an outreach plan to help small-scale producers access these resources.

"We are excited to have the opportunity to work with the team at Iowa State University College of Veterinary Medicine to get these biosecurity resources into the hands of small-scale livestock producers," said Kendra Meyer, program assistant with the Farm, Food and Enterprise Development program with ISU Extension and Outreach.

"These resources have helped me realize biosecurity practices that I am doing correctly and areas that I can improve in," said Jessica Cochran, a Nevada goat producer and advisory group member. "I think these resources are great tools for FFA and 4-H advisers to teach their members about livestock biosecurity practices."

Topics for producers include agritourism, animal health and disease monitoring, carcass disposal, cleaning and disinfection practices, wildlife and rodent control, and many more.

Development of this material was made possible through a grant provided to the Center for Food Security and Public Health at Iowa State University, College of Veterinary Medicine from the National Institute of Food and Agriculture, United States Department of Agriculture, under award number AWD-021794-00001 through the North Central Region SARE program under project number ENC19-176.

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