



FIELD&FEEDLOT a monthly agriculture publication for Northwest Iowa

August 2020

In this Issue:

Online References	1
Numbers to Know	1
Swine Producers Still Facing Oversupply of Hogs	1
Corn Rootworm Update	2
Revenue Lost from Iowa Milk Sales from March to May	3
Gardening Without Insecticides	3
Upcoming Events.....	4

Online References

Ag Decision Maker

www.extension.iastate.edu/agdm/

Iowa Beef Center

www.iowabeefcenter.org

Manure Management Action Group

www.agronext.iastate.edu

Iowa Pork Industry Center

www.ipic.iastate.edu/

ISU Extension Dairy Team

www.extension.iastate.edu/dairyteam

Locate a County Office

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

Numbers to Know

AnswerLine 800-262-3804

Beginning Farmer Center 877-BFC-1999

Hortline 515-294-3108

Iowa 2-1-1 211

Iowa Concern 800-447-1985

Iowa Healthy Families 800-369-2229

Teen Line 800-443-8336

Swine Producers Still Facing Oversupply of Hogs

Dave Stender, Swine Program Specialist
712-225-6196 or dstender@iastate.edu

One problem is declining, but swine producers are still facing an unprecedented disaster. The packing plant slowdown was a huge hurdle for swine producers to overcome. As harvest capacity was lowered due to plant shutdowns for cleaning, producers faced a major problem with market access - there were no openings to sell pigs. Iowa State University Animal Science researchers immediately tested new feed rations to help producers slow down the growth of market heavy pigs. The good news is that it worked and helped most producers avoid the crisis of being forced to decide what to do when there was no market for their pigs.

Now the problem is understanding the impact of pigs that are still backed up on the farm. The recent USDA hog and pigs report showed that something less than a million pigs have not been marketed on a normal schedule and are still on farms, probably some still on a reduced growth feed diet. The packing industry recovered from the plant shutdowns more rapidly than most of the analysts predicted; however, it is still unknown if the industry can reach 100 percent capacity. Extra space requirements for Covid-19 worker protection may slow the process down a little. Currently, we are at about 95 percent.

The fall harvest hog numbers from the USDA hog and pigs report forecast numbers that may exceed the capacity of the packers. The problem with that is the low prices producers are currently suffering through and the potential for continued low prices, because there are more hogs available than space in the harvest plant. Prolonged low prices is not an easy problem to manage.

Financial management for farm families is unique. Farm income can be irregular and unpredictable. Bills must be paid, livestock fed, and crops tended to. Taking care of a family's needs can bring added stress.

Iowa State University Extension and Outreach offers Farm Financial Planning, a program providing one-on-one financial support and advice to farmers. The program includes a computerized analysis of the farm business using FINPACK software from the Center for Farm Financial Management. Farm Financial Planning can help evaluate ways to correct negative cash flow and profitability problems. To set up an appointment, contact Mark Olsen, Farm Financial Associate for Northwest Iowa, at 712-660-1597. Or for more information, contact Gary Wright, Farm Management Specialist with ISU Extension and Outreach, at 712-223-1574.

As serious economic, personal and other stresses continue to impact and affect those in our agricultural community, please remember there is help. The Iowa Concern Hotline is always available by phone at 800-447-1985, by email at iowaconcern@iastate.edu or at <https://www.extension.iastate.edu/iowaconcern/>.

Corn Rootworm Management Update

Joel DeJong, Field Agronomist
712-546-7835 or jldejong@iastate.edu

I have recently received several calls about corn plants lodging, and considerable rootworm injury, after some storms with significant winds passed through the region. Almost all discussions have revolved around corn on corn acres, and most seem to have more than one corn rootworm Bt trait in them. ISU rootworm researcher Aaron Gassman has shown that we do have fields in Iowa with resistance to each of the rootworm Bt traits. You cannot assess them all, but it appears that western corn rootworms that have developed resistance are present in several Northwest Iowa fields. Most reports seem to indicate the pest in question is the Western Corn Rootworm Beetle.

This is the time of year to assess roots in your cornfields – in particular, corn on corn acres. Corn rootworm larvae feed on corn roots and can potentially cause severe economic loss. For every node of roots pruned by larvae, expect a 15 percent yield loss on average (Tinsley et al. 2013). When conditions are dry, yield loss is typically higher. Evaluate root injury in every cornfield to better understand the efficacy of your management strategy. Get into fields, dig several roots from different locations (not in end rows), haul them to a water source, wash them out and evaluate for feeding injury. Monitoring over several years will help establish a historical record of how larvae respond to management tactics (e.g., crop rotation, Bt corn, soil-applied insecticides, etc.). The Iowa State node-injury scale ranges from 0-3 and is directly related to yield loss. Learn more about the scale at <https://www.ent.iastate.edu/pest/rootworm/nodeinjury/nodeinjury.html>. Root injury that exceeds 0.25 can experience economic loss.

Corn rootworm variants. The typical life cycle for northern corn rootworm and western corn rootworm consists of one generation per year, with females laying eggs in cornfields to overwinter and hatch the following year. However, these highly adaptable pests have developed population variants to overcome crop rotation. To confirm variants of either species, check for larval root injury in first-year corn and whether adult western corn rootworm or northern corn rootworm are present in the field.

The northern corn rootworm has resistance to crop rotation through extended diapause. Instead of overwintering eggs hatching the following spring, it may be two or three years before larvae hatch. Female northern corn rootworms only lay eggs in corn, regardless if it is from a variant or normal population. Extended diapause is more common in western Iowa, but it is possible to find variants in central and eastern Iowa. Larval injury is possible to first-year corn if a significant extended diapause population of this northern corn rootworm is in the field. Although northern corn rootworm often leave cornfields to feed on pollen and leaf tissue of weeds and soybeans, this species does not lay eggs outside of cornfields.

By contrast, western corn rootworms have not shown the extended diapause trait – they hatch the next year in fields, but will starve too as larvae, if no suitable roots are available to eat. However, when we see resistance to Bt rootworm traits in Iowa, it has always been the Western corn rootworms with this adaptation. We have not documented that trait resistance with northern corn rootworms, so at this time I expect all Bt traits to work on the northern corn rootworms.

An effective way to manage fields with Bt trait resistance from western corn rootworms is to rotate fields out of corn production to break up the life cycle of this pest. This remains an extremely effective way to manage corn rootworm in Iowa. However, resistance to crop rotation by northern corn rootworm does occur in Iowa with that extended diapause capability. In cornfields where large populations of northern corn rootworm are observed, and where the presence of rotation resistance is suspected, farmers should protect first-year corn against northern corn rootworm larvae. That is why it is important to not only monitor root injury in fields, but also monitor which type of adult rootworm beetles are present in your fields.

Do not forget, soil-applied insecticides may be used at planting to protect from larval corn rootworm injury. ISU's corn rootworm evaluations of various Bt traits and soil-applied insecticides for management of corn rootworm larvae can be found in their annual reports at this website: <https://www.ent.iastate.edu/dept/faculty/gassmann/rootworm>.

To successfully manage corn rootworm, develop a long-term strategy that rotates among a variety of management approaches over multiple seasons. This is the best way to guard against the build-up of large populations and the development of resistance.



Western (left) and Northern (right) Corn Rootworm Adults.

Revenue Lost from Iowa Milk Sales from March to May

Fred Hall, Dairy Program Specialist
712-737-4230 or fredhall@iastate.edu

	January	February	March	April	May
IA Milk Production	452M lbs.	422M lbs.	460M lbs.	449M lbs.	451M lbs.
IA Cow Numbers	215,000	215,000	218,000	219,000	217,000
IA All-Milk Price/cwt.	20.50	19.90	19.00	14.00	14.80
2019 IA All-Milk Price/cwt.	16.30	16.80	17.80	18.20	18.60

I evaluated March, and while it was a transition month, not all change was COVID-19 related and there still was a price decline of \$0.90/cwt. Using the NASS data and assuming the April through May reductions where COVID-19 related, I calculated the total income for milk was \$129,608,000. I then calculated the total income for January and February to be \$176,638,000.

The difference is \$47,030,00 plus the \$0.90/cwt loss on 460,000,000 pounds of milk produced in March for a total reduction of \$51,170,000. This assumes a traditional "spring flush" effect and price fluctuation. It is interesting to note the reduced milk production from the trendline that can be attributed to the logistic and processing issues that compelled milk buyers to impose base programs on dairy producers.

The data supports the statement that Iowa milk producers lost over 51 million dollars in revenue from milk sales from late-March through May 2020. However, I must point out that USDA aid programs for producers contributed to the overall farm income.

Information compiled from NASS data.

Gardening Without Insecticides

Alex McDougall, Horticulture Intern
712-754-3648 or alexmcd@iastate.edu

This summer, I have gotten the most bug bites I have ever gotten, while working in the gardens. However, the bugs are not only biting me, they are also eating the plants. I do not want to apply insecticides because then I am unable to donate the produce. Another downside to applying insecticides, is that they also kill off beneficial insects, such as ladybugs and praying mantises. These bugs prey on bugs, such as aphids and squash bugs.

- One of the first plants that you can plant to prevent pests is lavender. While we enjoy the smell and use it to scent our homes, some insects, rabbits, and other animals will not go near the plant because of the fragrance. The smell will attract beneficial bugs and deter moths, mosquitos, and fleas. Some argue that the oil in the plant leaves inhibit a mosquito's sense of smell.
- Another flower that can be planted to repel mosquitos and rabbits is marigolds. They also emit a smell that deters bugs, so make sure that scented marigolds are planted. Marigolds are commonly used as a barrier around a garden to deter common insects, such as aphids, squash bugs, and thrips, from destroying the crop. While repelling unwanted insects, marigolds attract spider mites and snails that will feast on unwanted insects.

Many herbs can also be planted to encourage unwanted pests to stay away.

- One herb that we have in multiple gardens this year is basil. Basil is known to deter mosquitos, flies, and thrips.
- Rosemary keeps cabbage moths, mosquitos, and carrot flies away from your garden.
- Sage can be grown and thrown into a fire as the smell will repel bugs, or it can be dried and made into a homemade bug spray.
- Mint will emit a lovely smell while keeping mosquitos, flies, and ants at bay. The more pungent the smell, the less bugs there will be. Mint leaves can also be dried and made into a natural pest control for inside your home as spiders and mice are also not fond of the mint fragrance.
- Catnip can be planted to deter flea beetles, aphids, Japanese beetles, squash bugs, ants and mosquitos. Catnip is a member of the mint family and the oil that attracts cats, is the same oil that deters pests. A study completed by ISU found that catnip is more affective at repelling insects than DEET, which is the chemical most commonly used in insect repellents.
- Citronella grass is another commonly used natural ingredient in mosquito repellents that can be grown in large planters, but the grass must be brought indoors in the winter. Citronella grass has a lemon scent.

These are just some of the plants that can be planted to help deter pests from your home and garden. To get the most pest control out of your plants, try companion planting. This is a technique of planting a crop that is disliked by a pest next to a plant that is loved by that pest. For example, in our Sanborn garden, we have dill intercropped with collard greens and kale to discourage rabbits because they do not like dill.

Adapted from <https://www.gardendesign.com/plants/mosquito-repellent.html> and <http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardener/blog/articleid/183/pest-repelling-plants.aspx>.

Upcoming Events

August 3 • **Private Pesticide Applicator Recertification Training** at 1:30 p.m. • Forster Community Center, Rock Rapids
August 4 • **Silage Feeding and Management for Beef Cattle in the Current Environment** at 12:30-1:30 p.m. • Online
(Call Beth at 712-737-4230 for details.)

August 4 • **Beef Quality Assurance (BQA) Training** at 1:00-3:00 p.m. • Orange City

August 5 • **Land Leasing & Value Meeting** at 9:00-11:30 a.m. • Sheldon City Office Basement "Dinner Date Room, Sheldon

August 5 • **Beef Quality Assurance (BQA) Training** at 10:00-Noon • Orange City

August 5 • **Land Leasing & Value Meeting** at 2:00-4:30 p.m. • Forster Community Center, Rock Rapids

August 11 • **Beef Quality Assurance (BQA) Training** at 10:00-Noon • Rock Rapids

August 18 • **Land Leasing & Value Meeting** at 9:00-11:30 a.m. • Orange City

August 19 • **Protecting Your Swine Building Investment: Session 1** at 1:00-2:00 p.m. • Online

August 20 • **Food Preservation 101** at 10:00-11:00 a.m. • Online

August 20 • **Food Preservation 101** at 8:00-9:00 p.m. • Online

August 21 • **Protecting Your Swine Building Investment: Session 2** at 1:00-2:00 p.m. • Online

August 24 • **Protecting Your Swine Building Investment: Session 3** at 1:00-2:00 p.m. • Online

August 26 • **Beef Quality Assurance (BQA) Training** at 10:00-Noon • Le Mars

August 26 • **Protecting Your Swine Building Investment: Session 4** at 1:00-2:00 p.m. • Online

August 28 • **Protecting Your Swine Building Investment: Session 5** at 1:00-2:00 p.m. • Online

Field & Feedlot is published monthly by Iowa State University Extension and Outreach Agriculture and Natural Resources Field Specialists.
Inquiries about the publication and/or how you can receive it in your inbox each month can be sent to Kiley Biedenfeld at kkaufman@iastate.edu or 712-957-5045.
