



## KEWAUNEE COUNTY EXTENSION CONNECTION

Connecting people with the University of Wisconsin

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## February is Heart Healthy Month



When I think about February, many celebrations come to mind. Whether it is birthdays, the Super Bowl, or Valentine's Day, we have something to celebrate. Not only do I think about the heart when someone references Valentine's Day, but February is Heart Healthy Month. According to the Centers for Disease Control and Prevention, the most common type of heart disease in the United States is coronary artery disease (CHD), which affects the blood flow to the heart. Decreased blood flow can cause a heart attack.

Below are a few ways to reduce your risk of developing CHD:

- Eat a healthy, balanced diet. Limit salt intake with no more than 6g a day. Use a low-fat, high fiber diet.
- Be more physically active. Now, researchers recommend getting at least 30 minutes of physical activity a day. Remember, regular exercise makes your heart and blood circulatory system more efficient.
- Watch your weight. Work with your doctor on a plan to monitor your weight. Be creative in getting more steps in. Many people take the steps, park further away in a parking lot from the door, bike to work, etc.
- Give up smoking. Smoking is a significant risk factor in developing atherosclerosis (furring of the arteries). Talk to your doctor about getting a patch or using gum to help give up smoking.
- Reduce alcohol consumption. A person isn't supposed to drink more than 14 units a week. One unit is equivalent to A single measure of spirits (ABV 37.5%); half a pint of average-strength (4%) lager; two-thirds of a 125ml glass of average-strength (12%) wine; half a 175ml glass of average-strength (12%) wine; a third of a 250ml glass of average-strength (12%) wine. Also, remember not to binge drink (consumption of an excessive amount of alcohol in a short time).
- Manage diabetes. Your target blood pressure level should be below 130/80mm, Hg. Drink 6-8 ounces of water. Plain tea, fruit tea, and coffee without added sugar can also be healthy.

So make February a month to celebrate and take action to have a healthy heart.

### Receive the Extension Connection in your inbox!

Want to have the Extension Connection at your fingertips? Sign up today to receive the Extension Connection directly to your inbox! Be the first to know all the exciting events and opportunities available.

Visit <https://kewaunee.extension.wisc.edu/extensionconnection/> to sign up today!



### EXTENSION CONNECTION ADDRESS CHANGES

Please let us know if your mailing address changes. Since the Extension Connection is mailed 3rd class, it is not forwarded, and UW-Extension must pay for incorrect addresses. Call 388-7141 for address changes or you will be removed.

**American  
Heart  
Association®**

### The Extension Connection

University of Wisconsin-Extension  
A monthly publication for  
Kewaunee County residents.  
These programs are supported by  
your tax dollars. We look forward to  
receiving your comments.  
Please call us at the phone  
numbers provided in the individual  
headers.

**UW-Madison Division of Extension \* Laura Apfelbeck, FoodWIse Coordinator**  
**920-683-4170 \* laura.apfelbeck@wisc.edu**

## Sweet Potatoes are the Harvest of the Month!



- Select** – Choose sweet potatoes that are firm and smooth.
- Store** – Store in a cool, dark place for 3-5 weeks.
- Prepare** – Rinse under cool, running water and scrub to remove dirt.



### Sweet Potatoes are the Harvest of the Month!

#### Add sweet potatoes to your favorite family meals:

- Slice, toss with oil and seasonings, and bake to make sweet potato fries.
- Mash with butter and cinnamon for a sweet side dish.
- Bake whole and top with black beans & salsa or maple syrup & toasted pecans.

Make meals and memories together. It's a lesson kids will use for life.

#### Did you know?

Sometimes people call sweet potatoes yams, but yams and sweet potatoes are different vegetables! Sweet potatoes are root vegetables that came from the tropical regions of Central and South America. Yams are large, starchy roots from Africa and Asia.



Nutritious, Delicious, Wisconsin!  
#WIharvestoftheMonth

This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP. The University of Wisconsin-Madison Division of Extension is an EEO/AE institution committed to diversity among its employees and in its programs.

### Key nutrients in Sweet Potatoes:

**Vitamin A** - Keeps skin and bones healthy, resists and fights infection, and maintains good eyesight.

**Vitamin C** - Helps wounds heal, is important for the immune system, and is an antioxidant, which protects cells from damage.

**Vitamin B6** - Important for immune system & brain function. Helps you get energy from your food.

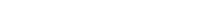
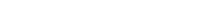
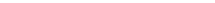
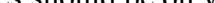
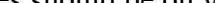
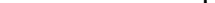
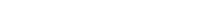
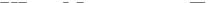
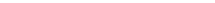
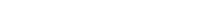
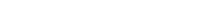
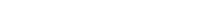
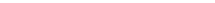
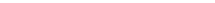
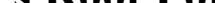
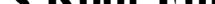
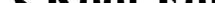
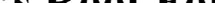
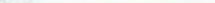
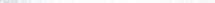
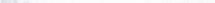
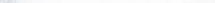
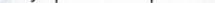
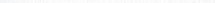
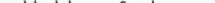
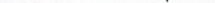
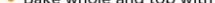
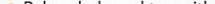
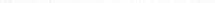
#### READ



- Little Sweet Potato by Amy Beth Bloom
- Gigantic Sweet Potato by Dianne De Las Casas
- Tops & Bottoms by Janet Stevens



Sweet Potato Pancakes  
Photo: USDA.gov





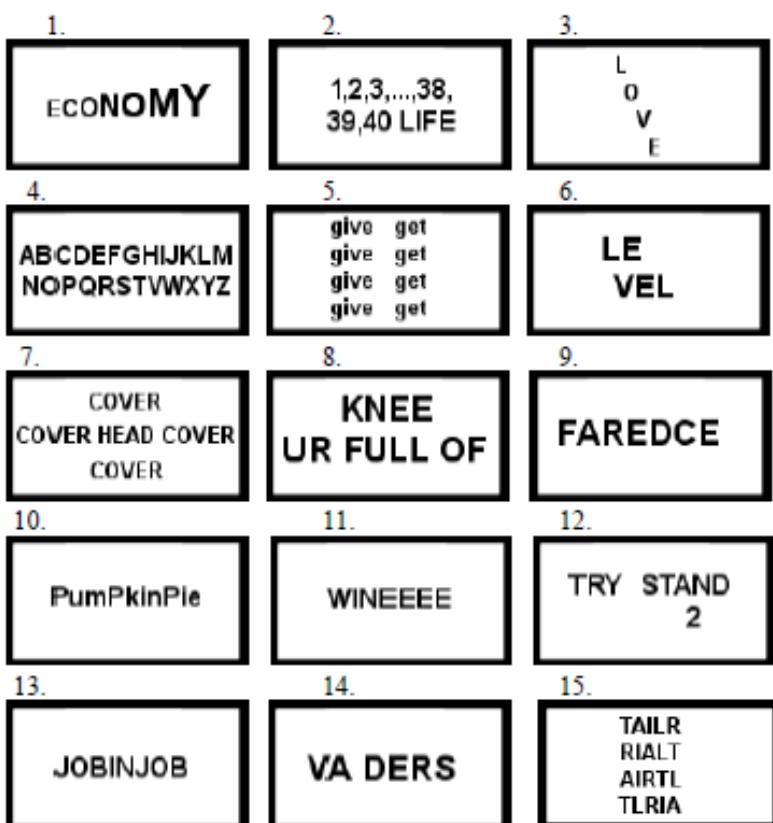
**UW-Madison Division of Extension \* Renee Koenig, Associate Professor, Human Development and Relationships Educator**  
**920-388-7137 \* [renee.koenig@wisc.edu](mailto:renee.koenig@wisc.edu)**

## Family Fun!

A **REBUS** is a picture representation of a name, word, or phrase. Each "rebus" puzzle box below portrays a common word or phrase. Can you guess what it is?

**HEAD  
HEELS**

**Answer:** Since the word **HEAD** is over the word **HEELS**, the answer to the puzzle would be **HEAD OVER HEELS!** Get it? That's great! Now wake up your brain by having some more fun with the teasers below! Answers are at the bottom of this page.



**Answers:** 1. Growing Economy. 2. Life begins at 40! 3. Falling in love. 4. Missing U. 5. Forgive and Forget. 6. Split level. 7. Head for cover. 8. You are full of bologna (baloney). 9. Red in the face. 10. Piece (P's) of pumpkin pie. 11. Win with ease. 12. Try to understand. 13. In between jobs. 14. Space invaders. 15. Trail mix.

For more games, brainteasers, puzzles and riddles, visit the National Institute of Environmental Health Sciences Kids Pages at <https://kids.niehs.nih.gov/games/brainteasers/rebus-puzzles/index.htm>

### Upcoming Workshops to Reduce Family Stress:

- Positive Parenting
- Powerful Tools for Caregivers
- Mental Health First Aid
- Money Matters
- Aging Mastery

Call 920-388-7137 or email [renee.koenig@wisc.edu](mailto:renee.koenig@wisc.edu) for a workshop schedule.



The Division of Extension currently has numerous job vacancies. Please help spread the word to those who may be interested in joining Extension. These positions are posted on the UW-Madison jobs site: <https://jobs.hr.wisc.edu/en-us/listing/>

## Co-Parenting Classes

The goals of the program are to:

- Eliminate parental conflict in front of children.
- Keep the children out of parents' issues.
- Provide children with access to both parents.
- Put the best interests of the children first.

For more information, contact Renee Koenig, at [renee.koenig@wisc.edu](mailto:renee.koenig@wisc.edu).

## Family Relationships

Children are constantly learning new skills and information. Much of what children learn is taught to them through relationships. For instance, when a parent responds positively to a child's smile or question, the child learns that they are valued and loved.

### Parent-Child Relationships

Parenting is a big, challenging job, especially with a child who is learning to be more and more independent, but still needs you very much. Children who feel safe and cared for in their relationships with their parents are also better able to form relationships with other adults and children.

### Play Together

Children need you to play with them. Physical activity is good for both of you. Active play time together builds important skills for children and strengthens the bond between you.

- Play is important for learning, healthy development and relationships.
- Pick a time of day when you will both be less rushed, hungry, thirsty, or tired. Take an active play break for 20 minutes or more.
- Set aside your to-do list and distractions. Ignore messes to clean or piles of paperwork for now. Leave your phone in another room and skip screen time.
- Let children lead. Allow them to pick the game or make up the rules. This builds skills and confidence.
- Go outside for playtime whenever possible.
- Give encouragement. Children need to hear your positive reinforcement.
- Get physical and make contact. Activities like dancing and light "rough and tumble" play build confidence and help children learn about safe touch.
- Model positive play to demonstrate fairness, self-control, healthy competition, and empathy. Children learn a lot from watching you.
- Laugh and have fun together.

### Seven Benefits of Playing Together

1. **A natural brain booster:** Research shows that physical play stimulates brain development and boosts school test scores.
2. **Stronger family relationships and friendships:** Spending a few minutes playing together is an investment in your relationship. You can use playtime to teach cooperation and how to channel competitive energy.
3. **Problem solving skills:** Children learn self-control when they practice taking turns and following the rules of the game. ("Oh, I see dad didn't get mad when his turn was over.").
4. **Healthy habits:** More time spent together playing means less time sitting and watching TV or playing alone on devices
5. **Emotional intelligence:** Children gain empathy and learn fairness in winning and losing when you show them your emotions. Children gain confidence when they learn to recognize the emotions of others as well as manage their own emotions during play. ("Mom won't like it if I push too hard; then we will have to stop playing tag.")
6. **Health and fitness:** Physical activity strengthens the body and improves heart health, coordination and flexibility. You will both sleep better, too!
7. **Joy and laughter:** Playing together reduces stress. Happiness is a great gift you give each other through play.

For more parenting tips on relationships, visit <https://fyi.extension.wisc.edu/parentingthepreschooler/relationships/>

## Wise & Well Wednesdays

### You're Invited to Wise & Well Wednesdays!

Have some fun and connect with others to socialize, learn tools to cope with aging, and increase joy in your daily life.

Join us for one session or the entire series.

**Dates:** February 2, 9, 16, 23, March 2, and 9  
**Time:** 9:00-10:00 a.m.

**Location:** Kewaunee County UW-Extension, 810 Lincoln Street, Kewaunee

**Facilitator:** Renee Koenig, UW Extension Kewaunee County Guest speakers from UW-Madison Extension

To register, please call or email Renee Koenig at 920-388-7137 or [renee.koenig@wisc.edu](mailto:renee.koenig@wisc.edu).

February 2022

## 4-H Youth Development



UW-Madison Division of Extension Kewaunee County

### Join Us! TIME & TALENT RAFFLE Kewaunee County 4-H Leaders Association



Sunday, April 3, 2022  
Kewaunee County Fairgrounds Exhibit Building  
625 3<sup>rd</sup> Street, Luxemburg

Doors open at 10:00am to see all of the Raffle items!  
Silent Auction Ends: 1:00pm  
Raffle Drawing: 1:30pm

Paddle Stick Raffle Drawings: Throughout the Event

Serving Lunch 10:00am - 2:00pm  
Booyah, Hamburgers, BBQ Pork,  
& Homemade Desserts - Carry Outs Available

\*Need not be present to win\*

Prize Booklets available from 4-H club leaders, members, and  
the Kewaunee County UW-Extension Office  
For more information, call Renee at (920) 639-8307



### Wisconsin 4-H Foundation Scholarships

The Wisconsin 4-H Foundation will award more than \$15,000 in scholarships to outstanding Wisconsin 4-H members and alumni pursuing higher education in 2022. To be considered for financial support, applications must be received by the Wisconsin 4-H Foundation via email by **Tuesday, March 15, 2022, 5:00 pm.**

Wisconsin 4-H Foundation scholarships are awarded to students based on demonstrated personal growth through 4-H, development and leadership in 4-H, academic performance, and future educational goals.

To be eligible for Wisconsin 4-H Foundation scholarships students must have been a Wisconsin 4-H member for at least three years; should have a grade point average of at least 2.5 on a 4.0 scale and be enrolled or planning to enroll at a university, college, or technical school during the 2022-2023 academic school year. Scholarship winners from previous years are not eligible to receive a second 4-H Foundation scholarship.

Application information is available at <https://wis4hfoundation.org/scholarships/>

### Volunteers in Preparation Training

#### **\*IF YOU SIGNED UP AS AN ADULT VOLUNTEER PLEASE MAKE SURE YOU TAKE THIS TRAINING**

Caring adults make a world of difference in our 4-H programs! All new 4-H volunteers must attend a training to discuss program policies, insurance & risk management procedures, and learn some tools and techniques for working with youth. Trainings are being held online using Zoom and pre-registration is required!

February 16, 6:00-8:00 p.m.

Sign up for one of these dates at this link: <https://forms.gle/jSrqXvEQkmjN49qN7>

### Boredom Busters

## 4-H PROJECT WORD SEARCH

You can discover new skills through 4-H projects!  
Look for the 4-H projects listed below.

A	F	E	R	D	J	G	D	G
R	R	Z	R	T	N	A	A	P
K	V	T	D	I	L	R	N	I
C	Z	Z	H	E	D	Z	C	H
U	L	S	G	E	Q	S	E	S
Y	I	O	N	N	T	W	P	R
F	S	I	T	N	L	I	T	E
H	N	D	E	H	S	N	B	D
G	S	G	O	D	I	E	H	A
I	C	A	M	P	I	N	G	E
A	R	C	H	E	R	Y	G	L

Archery

Clothing

Fishing

Art

Dance

Swine

Lego

Dogs

Leadership

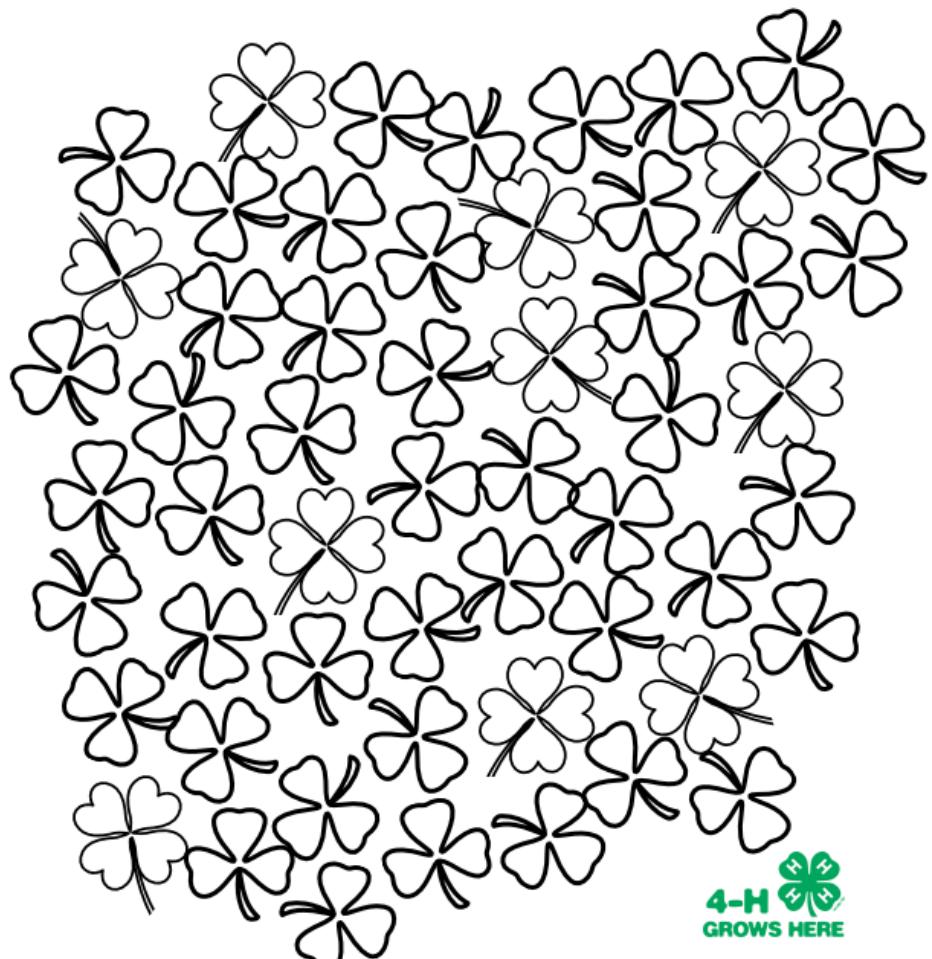
Camping

Gardening



## FOUR LEAF CLOVER HUNT

Can you find all 10- four-leaf clovers? Color all the 3-leaf clovers one shade of green, and use another shade of green for the 4-leaf clovers!





## UW-Madison Division of Extension Kewaunee County



### Club News

#### Kewaunee Hilltoppers



At a recent meeting, members of Kewaunee Hilltoppers made Valentine's day cards for a program called Project Angel Hugs. This organization is based in Plymouth, WI, and they send monthly packages to children with cancer all over the United States.

*Photo submitted by Michelle Kinstetter*

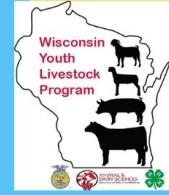
**MARK YOUR CALENDARS  
BOTH CONTESTS AT UW MADISON**

**4-H LIVESTOCK QUIZ BOWL & SKILLATHON CONTEST  
APRIL 9, 2022**

**4-H MEATS JUDGING CONTEST  
APRIL 30, 2022**

  
UW-MADISON EXTENSION

  
Meat Science &  
Animal Biologics Discovery  
UNIVERSITY OF WISCONSIN-MADISON

  
Wisconsin Youth  
Livestock Program

#### Reminder: Attend your four club meetings by May 31st

As a reminder, to be a member in good standing in Kewaunee County 4-H and show as a member at the Kewaunee County Fair, you need attend four club meetings by May 31, 2022 and maintain your member expectations that you signed when you enrolled in 4-H. Club meetings and project meetings are separate. Project meetings do not count toward your club meeting total. Members that are not in good standing will not be able to participate as a Kewaunee County 4-H member in the Kewaunee County Fair, WI State Fair, 4-H Leadership Trips, and other similar experiences.

Most clubs have nine to twelve meeting a year. Therefore, even if you have to miss a few meetings due to other activities (work, practice, sports,

etc.) there should still be an ample amount of meetings for your family to attend and meet this requirement.

The exception to this requirement is for youth in grade 13 (college) because it is understood that those members may not be able to make it back to the county on a regular basis to attend monthly club meetings. However, they should remain as involved as possible during that time. In addition, grade 13 members are still expected to meet all of their project area requirements if they would like to show that project at the Kewaunee County Fair.

If you are wondering how many meetings that you have attended this year, please contact your club leader.



KEWAUNEE COUNTY

### What's happening in your club or project?

We would love to see pictures and hear about what is happening in your clubs and projects to share with our 4-H community. We have seen some awesome virtual activities, speakers, and projects. Send your pictures and short descriptions to Erin at [dahle.erin@kewauneco.org](mailto:dahle.erin@kewauneco.org) and they will be shared in our monthly Extension Connection Newsletter.

### 4-H Calendar

The printed calendar is back! Each 4-H family will receive a printed copy of the calendar at a club meeting in January or February.

Just as a reminder to families, that the 4-H calendar of events is available online in two places. A month by month, PDF version of the calendar is available on the 4-H portion of the Kewaunee County 4-H website: <https://fyi.extension.wisc.edu/kewaunee4h/>

Additionally, 4-H events and meetings are listed on the UW-Extension calendar found on the front page of the website at: <https://kewaunee.extension.wisc.edu/>

While we try to follow the days set forth in the calendar, please remember that things like bad weather can sometimes change these meeting dates. **Contact your club and/or project leader with any questions regarding dates and times.**



**UW-MADISON EXTENSION**

### Come to UW-Madison Science Expeditions Open House April 8-10

Where can you experience science as exploring the unknown? Discover UW-Madison's "Science Expeditions" open house April 8-10, 2022. Come to campus. Connect with the people, places and programs in STEM at your public land-grant university. Chat with scientists, try your hand at Exploration Stations, and tour labs. Learn about agriculture, engineering, liberal arts & sciences, design technologies and health sciences.

It's free for everybody. Mark your calendars today. Watch for more information and schedules at [www.science.wisc.edu/science-expeditions](https://www.science.wisc.edu/science-expeditions).

#### "Doing DNA, The Code of Life" Field Trips with UW-Madison's Biotech Center — In Person or By Zoom

Come experiment with DNA, the code of life, with Liz Jesse and Tom Zinnen, Wisconsin 4-H state specialists at the BioTrek Outreach Program of the Biotechnology Center of UW-Madison.

- Explore how DNA is like an alphabet that cells use as the Recipe Card of Life.
- Puzzle over the Parable of the DNA Tube and analyze a sample of highly-purified DNA.
- Extract DNA glop from wheat seeds and build a model of single-stranded DNA.

You'll take home three DNA souvenirs to help you share your insights & know-how with your family and friends.

Call Liz or Tom at 608 265 4457, or send them an email at [biotrek@biotech.wisc.edu](mailto:biotrek@biotech.wisc.edu), to set up a date and time. Weekdays, weekday evenings, and Saturdays are available. You can choose to come to campus in person, or we will Zoom to you at your place. Field trips are free. For Zooms, for a small fee we will ship to your club leaders the science kits you'll use for the DNA experiments.

#### Wisconsin-flavored Science at "Wednesday Nite @ The Lab" by Zoom

4-H youth & adult volunteers: tune in to the "Wednesday Nite @ The Lab" Zoom at 7pm to learn from UW-Madison researchers.

- January 5 – Jenyne Loarca from Horticulture shares her experiences in using genomics in breeding carrots.
- January 12 – John Berry from Chemistry shows us how to "Harness Energy from Ammonia"

See <https://science.wisc.edu/wednesday-nite-at-the-lab/>. Zoom at [go.wisc.edu/240r59](https://go.wisc.edu/240r59).



February 2022

**UW-Madison Division of Extension \* Aerica Bjurstrom, Agriculture Agent**  
**920-388-7138 \* aerica.bjurstrom@wisc.edu**

## Pesticide Applicator Training

\*PLEASE NOTE: There will be no more in-person trainings this year.

### Online:

In efforts to serve applicators in need of certification for 2022, the UW PAT program is offering Zoom training. The training is free of charge for those that have purchased the PAT manual from either the UW PAT store or from the Extension Kewaunee County office.

(Please note: this is for online training only, it does not include the exam. Please contact the Extension office to schedule an exam time.)

### Zoom training dates:

Feb 15, 2022

March 15, 2022

April 5, 2022

Visit <https://patstore.wisc.edu/secure/default.asp> or order a manual online or call 920-388-7141 to reserve your copy for pickup at Extension Kewaunee County, 810 Lincoln St., Kewaunee.

### In-Person Test-Out Dates:

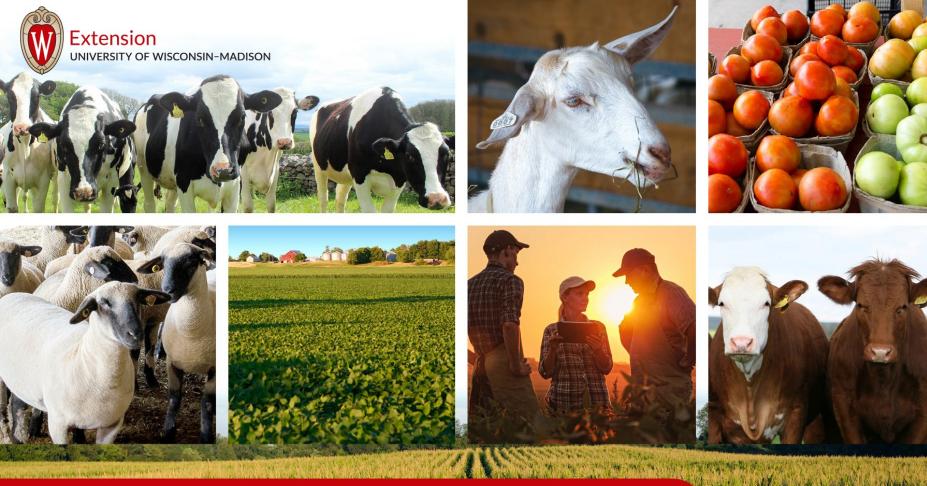
Register today by calling 920-388-7141 or email [erin.dahle@wisc.edu](mailto:erin.dahle@wisc.edu).

**February 3** 10:00 AM, Kewaunee County Fairgrounds

**March 3** 10:00 AM, Extension Kewaunee County office, Kewaunee

**March 31** 10:00 AM, Kewaunee County Fairgrounds

**MUST BRING ID, CALCULATOR, SOCIAL SECURITY NUMBER TO TEST**



## FARM READY RESEARCH

See the full list of topics at [go.wisc.edu/FarmReadyResearch](https://go.wisc.edu/FarmReadyResearch)



## Farm Ready Research Sessions Continue in 2022

Learn the most up-to-date information on topics from dairy and livestock production to forage and farm management resources from Extension experts. See the full list of topics at [go.wisc.edu/frr2021](https://go.wisc.edu/frr2021). Choose the sessions that are applicable to your farm:

**Badger Dairy Insight:** Bi-weekly, Tuesdays, 1:00 pm

**Farm Management Fridays:** Bi-weekly, 11:00 am

**Focus on Forage:** Wednesdays, 12:30 pm

**Small Ruminants:** Monthly, Second Tuesday, 7:30 pm



## Wisconsin Dairy and Beef Well-Being Conference

**February 22, 2022**  
**Farm Wisconsin Discovery Center**  
**7001 Gass Lake Rd., Manitowoc, WI 54220**

### Topics and Speakers:

- Key Learnings Thus Far in FARM Animal Care Version 4** with Emily Yeiser Stepp; National FARM
- Fitness for Transport** with Dr. Joel Franks, Zoetis
- Disbudding 2019 Survey** with Dr. Jennifer Van Os, PhD Assistant Professor and Extension Specialist in Animal Welfare; Department of Animal & Dairy Sciences, University of Wisconsin Madison
- Disbudding Research** with Dr. Sarah Adcock, MSc, PhD Assistant Professor of Animal Welfare; Department of Animal & Dairy Sciences, University of Wisconsin Madison
- Dry Cows and Heat Stress** with Jimena LaPorta, MSc, PhD Assistant Professor of Lactation Physiology; Department of Animal & Dairy Sciences, University of Wisconsin Madison
- Ventilation and Heat Stress** with Dr. Jennifer Van Os
- Genetic Selection—Breeding a Healthier Cow** with Kevin Ziomba, ST Genetics
- Calving Pen Management: Insights from the cow's perspective** with Kate Creutzinger, MSc, PhD Assistant Professor Dairy Cattle behavior and Welfare; Department of Animal and Food Science University of Wisconsin – River Falls

### Registration

Conference registration—\$51.50  
Farm Wisconsin Discovery Center Ticket—\$5.15  
3.5 Vet CEUs—\$25/75  
1 Beef Quality Assurance CEU—\$0

Link: <https://uwmadison.eventair.com/wianimalwellbeing22/reg/Site/Register>

### Full Conference Details

Visit <https://dairy.extension.wisc.edu/events/wisconsin-dairy-and-beef-well-being-conference/> for more details.

## annual CAFO update series

hosted by UW-Madison Division of Extension in collaboration with WI Department of Natural Resources



**2.15.22 | 9:30-11:30 am**

nutrient management

**2.15.22 | 1:30-3:30 pm**

engineering

**2.16.22 | 9:30-11:30 am**

regulatory updates

**2.16.22 | 1:30-3:30 pm**

groundwater

**4 sessions offered virtually February 15-16 | 9:30 and 1:30 pm**

Register today at <https://go.wisc.edu/x88dg2>

\$15 for one session or \$25 for series if registered on or before February 10. Additional \$20 late fee beginning February 11.  
For more information: Kevin Erb | [kevin.erb@wisc.edu](mailto:kevin.erb@wisc.edu) | 920.391.4652. CCA CEUs pending & PDH Certificates available for Professional Engineers.





**UW-Madison Division of Extension \* Aerica Bjurstrom, Agriculture Agent  
920-388-7138 \* aerica.bjurstrom@wisc.edu**

## Respiratory Exposure to Mycotoxins and Farming



**Image credit:** Adriana Murillo-Williams,  
Penn State Extension

Airborne exposures are a significant risk to farmers. In some cases, the resulting effects can be immediate and severe. Recently, almost everyone has experienced a heightened awareness of respiratory exposures with an increased emphasis on protective measures. It is an opportune time to review and reassess potential exposures in the farm environment. Potential hazards on the farm including dust, fungi, pathogens, animal dander, chemicals such as cleaners and fumigants, and gases from exhaust, decay of plant matter, mycotoxins, and manure storage. Potential exposure can vary by season and the type of task being performed. The severity of body's response may be related to the toxin and the length or frequency of exposure.

In a study published several years ago, farmers and their spouses were reported to have a lower risk of respiratory diseases when compared to the general population; however, the authors noted that farmers had different exposures and a higher prevalence of self-reported symptoms due to irritations (Hoppin et al., 2014). In another article, the collective results of many studies were reviewed with the authors reporting an elevated risk of exposure to aflatoxin for those working in agriculture including managing contaminated grains along with processing and handling animal feed (Nabwire Wangia et al., 2019).

Aflatoxin is part of a larger group of toxins referred to as mycotoxins, commonly found in cereal crops. For farmers, exposure to aflatoxin can occur through various routes including ingestion which is most common, topically through skin and mucosa, and through inhalation. As harvest approaches, the risk of inhalational exposures increases, while long-term exposure due to the nature of agricultural work also is of concern. Aflatoxin is a hazard because it is linked to organ damage with the liver as a target and is carcinogenic (FDA, 2012). Farmers may encounter or be familiar with many mycotoxins as they monitor the quality of their grains and animal feed.

The most economically important mycotoxins in crops include aflatoxins, ochratoxin A, deoxynivalenol (DON), T-2 and HT-2 toxin, zearalenone (ZEA), and fumonisins (FBs). Agricultural products commonly contaminated with mycotoxins include corn, wheat, barley, oats, rye, peanut, and cottonseed. Each type of mycotoxin can be produced by different fungal species, and different fungal species can produce a wide range of mycotoxins. In addition, many fungal species may occur simultaneously in the crop either as pathogens or saprophytes which feed on decaying matter. Therefore, multiple mycotoxin contamination of food crops occurs more frequently than contamination with a single mycotoxin.

Aflatoxins are produced mainly by the fungus *Aspergillus flavus* (*A. flavus*), which is the cause of *Aspergillus* ear rot of corn. Infection of *A. flavus* in corn will occur in the field, along with the potential for aflatoxin contamination. Once mycotoxin contamination occurs, the drying process will not degrade the mycotoxins in grain. In addition, if corn is stored at a high moisture content, field fungi will resume growth and may further contaminate corn with mycotoxins. Under these circumstances, the growth of additional fungal species present in the storage facility or grain bin also will be promoted and will contribute to aerial contamination with spores and mycotoxins.

In humans, *A. flavus* can cause infections including sinusitis, cutaneous infections, otitis, keratitis, and pulmonary infections (Hedayati et al., 2007). *Aspergillus flavus* and aflatoxins have been detected in dust samples from grain processing facilities (Ghosh et al., 1997), however, current research shows that incidence of *A. flavus* and aflatoxins can be quite variable. For example, toxicogenic *A. flavus* was the most frequently recovered fungus from the environment in Croatian grain mills (Jakšić et al., 2019). The fungus was also found in suspended dust and air at animal feed factories in Egypt, however, other microorganisms were predominant in suspended dust and feed materials (Hameed et al., 2003). In a more recent study, Szulc and collaborators (2020) analyzed dust and air samples in cattle barns in Poland. They indicated that samples were mainly contaminated with bacteria, and no aflatoxins were detected.

The effect of mycotoxins on the respiratory system has been studied in

## It's time to cull "cull cows" from our vocabulary

Cattle that leave the dairy for beef purposes are still an asset and should be treated as such.

by Aerica Bjurstrom

**D**EIDING when and how a dairy cow departs the farm is different on every operation. Making the decision to remove a cow from the herd is not always an easy one, but determining when the cow leaves and how is equally important.

Changing the vocabulary from cull cow to market cow is a way to focus on what kind of animals are leaving the dairy. According to FarmBench, dairy cows sold for slaughter make up about 6.6% of total farm sales per year. To put that into perspective, a 250-cow dairy could see between \$60,000 and \$100,000 a year in market cow sales.

Market cows create opportunity on the farm. Besides income from sales, removing market cows from the herd frees up space for younger, better producing cows with higher genetic value. There are also reduced labor costs, feed savings, and resource savings such as bedding and medication when removing inefficient cows from the herd.

### Market cows are an asset

Dairy cattle are estimated to contribute 20% to 25% of the U.S. beef market. As a dairy producer, you should consider yourself a beef producer from the day that calf hits the ground to the day it leaves your farm. With that in mind, cows leaving the farm for beef should be considered market cows and not culls.

A market cow is an asset with value and opportunity. The definition of cull is to discard or destroy as inferior. As a beef producer, why would you want to send an inferior animal to market? A market cow should be a quality animal in good health, fit for transport to the processing plant.

Cows leave the herd under two conditions. The first is voluntary, which is often based on milk production and/or reproduction. The second is involuntary, which can be for a variety of health issues, but typically it is due to lameness, mastitis, or injury. According to a 1996 Animal and Plant Health Inspection Service (APHIS) survey, reasons why dairy cows leave the farm for slaughter were 27% reproduction, 27% udder/mastitis problems, 22% poor production, 15% lameness/injury, and the remaining 9% for disease, aggressive behavior, and other issues.

### Ready to ride?

Deciding when and if a cow should be sent to market depends on farm protocols and management decisions. One factor that should remain constant throughout all farms is if a cow is fit for transport to the packing plant. According to the Transportation and Fitness-to-Travel Recommendations for Cattle from the American Association of Bovine Practitioners (AABP), farm personnel should be trained to access welfare of cattle on a daily basis and determine if an animal is fit for travel. Both Beef

The author is a University of Wisconsin Division of Extension agriculture agent in Keweenaw County.



**COWS THAT ARE SENT TO SLAUGHTER** at a healthy weight, greater than a body condition score of 2, are more likely to make the trip safely and earn a better market price.

Quality Assurance (BQA) and the FARM Animal Care Program Version 4.0 include fitness for transport standards and guidelines based on AABP guidelines.

Assessing animals before shipping should include physical and health evaluations. Determining if a cow can travel today, if it needs to recover, or if it needs to be euthanized should be done with every animal leaving the herd. A simple set of questions (Table 1) adapted from AABP guidelines by Jennifer Van Os, assistant professor and extension specialist in animal welfare at the University of Wisconsin-Madison, addresses evaluation of cattle for transport.

It may be tempting to put a marginal cow on the trailer because you know there is a processing facility nearby. Don't take for granted your market cows will be processed locally, though. A 2016 National Beef Quality Audit (NBQA) showed cows and bulls

arriving at processing plants nationwide were in transit an average of 6.7 hours, with some riding over 24 hours. That does not include holding time at sale barns and time spent loading or unloading. Long transit times, multiple moves on and off trailers, and attempting to establish dominance with other cattle are all potential situations where even a moderately compromised cow can become injured or sick.

### Make better beef

Holding a cow on the farm to recover from a condition is an important management and well-being decision. In addition, cows that appear healthy and in good condition typically bring better prices at market. Contrary to what many believe, dairy cattle contribute much more to the beef industry than just ground beef. According to the 2012 NBQA audit, 75% of individual dairy cow and/or bull carcasses are sold as whole cuts, specifically rear leg round cuts.

The NBQA audit also highlighted dairy carcass issues that can be addressed on the farm before cows are sent to slaughter. It showed dairy cattle have over twice as many rear leg injection lesions than beef cattle. These lesions appear in the high-value rear leg meat and must be cut away and discarded. Following the BQA standards and injecting cattle in the low-value neck muscle would significantly improve dairy carcass quality.

NBQA also found that 90% of dairy cows are too light muscled. While it is understandable that dairy cows would be lean and light muscled, holding back and feeding very thin cows (body condition score less than 2) will improve the likelihood of withstanding transport. Feeding a cow to a healthy weight will also raise muscle mass, which should pay off at slaughter with a more desirable market cow.

Every farm should establish a set of fitness for transport standards with herd managers and their veterinarian that results in marketing the best cow possible. It is the dairy producer's responsibility to ensure the cow's well-being until harvest. 🐄

Consider these factors to determine fitness for transport		
	Yes	No
1. Are any udders distended?	Do not ship — milk right before shipping.	Okay to ship.
2. Were cows milked right before shipping?	Okay to ship.	Do not ship — milk right before shipping.
3. Do any cows have ambulatory issues?	Do not ship. Allow to recover on farm or euthanize.	Okay to ship.
4. Do any cows have cancer eye or blindness?	Do not ship. Euthanize.	Okay to ship.
5. Do any cows have fever greater than 103°F?	Do not ship. Allow to recover on farm or euthanize.	Okay to ship.
6. Do any cows have potential drug residues (still within drug withdrawal or withhold period)?	Do not ship. Wait until withdrawal or withhold period has passed.	Okay to ship.
7. Do any cows have peritonitis?	Do not ship. Allow to recover on farm or euthanize.	Okay to ship.
8. Do any cows have leg fractures or severe lameness (4 or 5 on 5-point scale)?	Do not ship. Allow to recover on farm or euthanize.	Okay to ship.
9. Do any cows have unreduced prolapses?	Do not ship. Allow to recover on farm or euthanize.	Okay to ship.
10. Are any cows currently calving or have a high likelihood of calving during transport?	Do not ship. Allow to calve on farm first.	Okay to ship.
11. Do any cows have suspected nervous system symptoms?	Do not ship. Allow to recover on farm or euthanize.	Okay to ship.
12. Do any cows have visible open wounds?	Do not ship. Allow to recover on farm or euthanize.	Okay to ship.

Source: Jennifer Van Os (University of Wisconsin-Madison), adapted from the American Association of Bovine Practitioners' guidelines.

HARDY'S DAIRYMAN

December 2021 709

cell cultures under laboratory conditions. Lee and collaborators (2016) demonstrated that aflatoxins can impair ciliary beat frequency, thus, impairing respiratory physical defenses against inhaled pathogens and potentially enhancing *A. flavus* ability to cause disease. More recent studies indicate that aflatoxins in occupational environments could lead to epithelial damage in airways, which would also contribute to respiratory disease severity (Jakšić et al., 2019).

The diverse and dynamic composition of bioaerosols pose a challenge for evaluating the health risk of mycotoxins via inhalation. However, since the toxicity of mycotoxins via ingestion has been well documented, farmers should be proactive and take all precautionary measurements when working in areas or with tasks where exposure to dust is high. Additionally, cleaning equipment, storage areas, and other areas where dust accumulates is critical, since dust could represent a source of mycotoxin contamination, and harbor other potential hazards.

For the full article including references, visit <https://extension.psu.edu/respiratory-exposure-to-mycotoxins-and-farming>

## Eastern Wisconsin DHIA Scholarship

Eastern Wisconsin Dairy Herd Improvement Cooperative is offering a minimum of one scholarship each of \$500.00 and \$1,000.00 for any full-time students enrolling in or already enrolled in an ag-related program.

Applications can be found here: <http://www.ewdhic.org/Scholarship.aspx>



UNIVERSITY OF WISCONSIN-MADISON

## KEWAUNEE COUNTY EXTENSION CONNECTION

Connecting people with the University of Wisconsin

February  
2022



# Rent Smart

Taught by Extension Educators

*Helping to make renting a great experience for you!*

### Upcoming Class Dates & Times:

- January 2022: 2 consecutive Saturdays January 22 & 29 1-4:30 pm (check in Saturday, January 15)
- February 2022: Monday, Wednesday, and Friday 9-10 am February 7, 9, 11, 14, 16, 18 (preprogram check in Monday, January 31)
- March 2022: Tuesdays and Thursdays 7-8 pm March 1, 3, 8, 10, 15, 17 (check in Tuesday, February 22)
- April 2022: Monday and Thursdays 1-2 pm April 4, 7, 11, 14, 18, 21 (check in Monday, March 28)
- May 2022: 2 consecutive Saturdays 9 am - 12:30 May 14 and 21 (check in Saturday, May 7)
- June 2022: Monday, Wednesday, and Friday 9-10 am June 6, 8, 10, 13, 15, 17 (check in Monday, May 30)

**Location:** Live, online instruction via Zoom; Zoom links sent after completing registration.

**Online registration form:** <https://go.wisc.edu/Rentsmartregister>

**Cost:** FREE!

#### What you will learn:

- Planning for and meeting monthly expenses
- Tips for finding and maintaining affordable housing
- How to complete an application and why landlords screen applicants
- Strategies for building positive relationships with landlords and neighbors
- Responsibilities and rights of landlords and tenants
- Participants must complete all 6 modules to earn the Rent Smart certificate**
- For more information, please contact [amanda.kostman@wisc.edu](mailto:amanda.kostman@wisc.edu) or call 262-741-4961**

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### Prevention Program Workshops



#### Stepping On

**Stepping On** is a falls prevention workshop that meets for 2 hours a week for 7 weeks. Trained leaders coach you to recognize your risk of falling and help you build the balance, strength and practical skills you need to avoid a fall.

#### Stepping On:

**Site:** Kewaunee County Public Health/Human Services Building  
810 Lincoln St., Kewaunee

**Wednesdays beginning April 20<sup>th</sup> through June 1<sup>st</sup> from 9:30am - 11:30am**



**Living Well With Chronic Conditions** is a 6-week workshop for adults of all ages who have on one or more on-going health problems. The program focuses on helping you feel better, have more control, and do the things you want to do.

#### Living Well:

**Site:** Lakeside Community Church  
E6295 Co. Rd. K, Algoma

**Wednesdays beginning March 9<sup>th</sup> through April 13<sup>th</sup> from 9am - 11:30am**

#### Powerful Tools

#### Caregivers

**Powerful Tools for Caregivers** is a 6-week workshop that teaches you how to take care of yourself while caring for someone else. By taking care of your own physical, emotional and financial needs, you become a better caregiver.

#### Powerful Tools for Caregivers:

**Site:** St. John Lutheran Church  
700 Heritage Rd., Luxemburg

**Tuesdays beginning March 22<sup>nd</sup> through April 26<sup>th</sup> from 1pm - 3:30pm**



**Call 1-877-416-7083 today to  
reserve your seat in a workshop!**

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