

Local Link *Agriculture Learning Grows with Grants*



Agriculture is cropping up in new ways in local classrooms thanks to three grant programs available to McLean County teachers.

Ag Science Grants from McLean County Farm Bureau Foundation fuel learning about the science of food and farming.

2017-18 Ag Science Grant winners:

- Adria Carter, Towanda Elementary - Renewable Energy
- Kristin Myers, Tri-Valley High School - Horticulture and Landscaping
- Katie Buckley, LeRoy Junior High - Drones in Agriculture

McLean County Extension Foundation also administers two ag-related grants for local teachers.

Maitland Agriculture Awareness Grants are named in honor of retired Illinois State Senator and farmer, John Maitland, Jr. Funds can be used for books, equipment and supplies to incorporate agriculture into the classroom.

2017-18 Maitland Grant Winners:

- Angie Edwards & Angie Swartzendruber, Olympia West Elementary - Breakout Box Puzzle Challenge Kits
- David Weber, Normal West High School - Hydroponics
- Laura Baner, Olympia North Elementary - Agriculture Sounds and Letters
- Kristen Myers, Tri-Valley High School - Floral Design and History
- Katie Buckley, LeRoy Junior High - Drones in Agriculture
- April Schermann, Normal West High School - Drones in Agriculture
- Bryce Hoffman, Olympia High School - Drones in Agriculture

The George E. Holder Grants, established in memory of a lifelong McLean County farmer, provide funding for ag-related field trips.

2017-18 Holder Grant Winners:

- Maureen Svob, Irving Elementary
- Kristin Myers, Tri-Valley High School

GRANT WINNERS

Left: Towanda Elementary fourth graders test renewable energy with equipment purchased through Ag Science Grant funding from McLean County Farm Bureau Foundation.

Maitland Agricultural Awareness Grant winners (center photo) and Holder Grant winners (right) received recognition at the McLean County Chamber of Commerce Ag Breakfast March 22.

McLean County Farm Bureau Foundation

Golf Outing

Monday, June 18, 2018 • 9:30 a.m. start
The Den Golf Course

- \$90 per golfer - golf cart, snacks & ribeye dinner
- Teams of 4, best ball, Silent auction, raffles & prizes

Register at www.mcfb.org/foundation



Sunday, July 29, 2018 • 8 a.m. start
at McLean County Fairgrounds
Registration & details at www.mcleancountyfair.org

All proceeds benefit the educational efforts of the McLean County Farm Bureau Foundation:
Scholarships • Ag in the classroom • McLean County Fair • Food & Farm Fun Zone educational exhibit

special county Farm Bureau section

Local Link *Beefing Up Research on Brewers Grains*



FROM BEER TO BEEF
Left: Beef cattle munch on feed at the Illinois State University Research Farm as part of a study on feeding brewers grain, a by-product from the beer-making process.

Right: A feed wagon with a digital scale is used to mix the right amount of ingredients for a nutritious diet.

At Illinois State University Research Farm, a series of studies are brewing more robust research on feeding by-products from a craft brewery to beef cattle.

In partnership with Destihl Brewery in Normal, Ill., the research examines the nutritional feed value of brewers grain, a wet mash leftover after the brewing process.

“Feeding brewers grain to cattle is a long-standing practice, but we don’t know as much about feeding spent grain from craft breweries,” says Dr. Justin Rickard, assistant professor of animal science at Illinois State.

For livestock farmers, brewers grain can be an economical, protein-rich feedstock.

Large breweries tend to produce just a few types of beer with a consistent recipe.

In contrast, craft breweries often produce a wider variety of beers and experiment with new recipes, changing the composition of the spent grain.

“The nutrient profile will fluctuate based on the beer type and the types of ingredients used to make it,” Rickard says.

The spent grain from Destihl consists primarily of malted barley and wheat with some oats and rye.

For the brewery, the research may add value to what could otherwise be a wasted

resource. With a viable use for the by-product, breweries can avoid the cost of disposal fees.

“His research is very exciting,” says Matt Potts, CEO, founder and brewmaster at Destihl. “We are hoping that this research results in craft brewers spent grains being valued higher and in creating higher demand, which in turn will give craft brewers an easier, more consistent outlet for their spent grains rather than sending them to landfill.”

Recycling the brewers grain as livestock feed can also benefit the farmers.

“Most studies have shown wet brewers grains are economical for farms within 150 miles of the brewery,” Rickard says.

As a product with a high moisture content, brewers grains have a limited shelf life, meaning it needs to be fed relatively quickly to avoid spoilage.

“We’ve done one pilot study looking at ensiling it and we may expand that in the future,” Rickard says.

Ensiling or making the brewers grain into silage means allowing additional fermentation to take place, which extends the shelf life of the by-product.

Most of the research has focused on feeding brewers grains as part of a finishing diet, geared for feeding cattle from about 700

Brewers grain, the wet mash leftover from brewing beer, can be recycled as livestock feed.

pounds up to a market weight of 1,100 to 1,400 pounds.

“We haven’t seen any difference in rate of gain, feed efficiency or meat quality,” Rickard says. “No change is a good result, because that means the brewers grains are a quality alternative to other feed ingredients.”

Growing up on a farm that included beef cattle, Potts understood the potential feed value of brewers grain early on.

“I knew my dad had fed distillers grains in the past,” Potts says. “When we opened the first Destihl brewpub in Normal in 2007, we sent our spent grains to Ropp Farms near Normal for feeding their dairy cows.”

By sending brewers grain to livestock farmers, Destihl has not sent any spent grain to the landfill. The research partnership with ISU developed in 2013 as the brewery expanded and needed additional outlets for its brewers grains.

Dr. Jennifer Earing, who joined the ISU animal science faculty in 2017, is working as a collaborator on the current project to lend her expertise as an animal nutritionist.

Future research may look at the feed value of the yeast leftover from the brewing process.

The projects also provide hands-on learning opportunities for ISU students.

Graduate student, Dani Belon, mixes and distributes feed to the cattle in the current study on a daily basis.

Originally from Warrenville, Ill., a suburb of Chicago, Belon had no farm or livestock



experience before coming to Illinois State.

“It kind of happened by accident,” Belon says. “I came to ISU to study Spanish education, but halfway through my freshman year I started to think I might want to do something with animals.”

After a visit to her academic advisor, she ended up in the Agriculture Department, completed a Bachelor’s degree in Animal Science and is now working on a Master’s degree with an emphasis on meat science.

In addition to the learning at the farm, ISU students also visit the packing plant to evaluate meat quality.

“The craft brewing industry continues to grow and that provides opportunities for more livestock farmers to feed brewers grains,” Rickard says. “We hope our research can provide answers farmers need.”

BREAKFAST IS SERVED

Illinois State University graduate student, Dani Belon, distributes the morning feed to cattle as part of a study on brewers grains at the university’s research farm near Lexington, Ill.

The Right Mix: What do Beef Cattle Eat?

Like people, beef cattle need a mix of nutrients for a balanced diet including protein, fat, carbohydrates, vitamins, minerals and water.

A beef animal typically eats about 2.5 percent of its body weight in dry feed every day.

Cattle are ruminants, which means their stomachs have four chambers,

giving them the ability to digest grasses.

Farmers typically use formulas based on the weight and life stage of the animal to calculate the right mix of feed using four main types of ingredients:

Roughages - coarse, high fiber ingredients like hay, grass or silage (fermented grasses)

Grains - high energy ingredients, most commonly corn, but also sorghum, milo, barley, wheat or oats

Oilseeds - provide protein, energy and some fiber, options include soybean, cotton seed or canola meal

Co-products - leftover ingredients from food or ethanol production like brewers grains or dried distillers grain

McLean County Fair

Aug. 1 - 5, 2018



Admission Prices

Advance & Gate:

5 & under	Free
Child (6-12)	\$4
Adult (13+)	\$7

Season Armbands:

Child (6-12)	\$10
Adult (13+)	\$16

Discounts & Specials:

Thursday - Young at Heart

Seniors (60+) - FREE until noon

Pack the Bus - \$1 admission with qualifying donation

Friday - Merchant's Day

Age 12 & under FREE with coupon from participating local businesses

Sunday - Last Day

Child (6-12) \$1

Adult (13+) \$3

Grandstand Attractions

Wed., Aug. 1	Big Smoker's Tractor Pull & Pickup Truck Pull-Offs
Thurs., Aug. 2	Brushville Concert
Fri., Aug. 3	Nashville Recording Artist: Walker Hayes
Sat., Aug. 4	Demolition Derby

4-H Show Information

From cooking to small engines and photography to livestock, make sure to check out all the 4-H projects at the fair!

Visit <http://web.extension.illinois.edu/lmw/> or contact the Extension Office at (309) 663-8306 for a full schedule of 4-H activities.

Fun at the Fair

FREE activities (with fair admission)

- Extreme Raptor Show
- Face painting & balloon artists
- Rhinestone Roper
- M & A Stables Petting Zoo
- Banana Derby
- Antique Tractors
- Thursday only: Young at Heart Day- activities for seniors (60+)

And much more!

Food & Farm Fun Zone

Animals, Activities & More!



Open 9 a.m. - 9 p.m. Wed. - Sat.

Sun. noon - 5 p.m.

FREE with fair admission

Find us on Main Street at the
McLean County Fair



Visit www.mcleancountyfair.org or follow McLean County Fair on Facebook