



Grant County Roundup

Oklahoma State University Receives \$2.6 Million Grant to Study Regenerative Agriculture

OSU has received more than \$2.6 million to research ways to improve agricultural production while reducing environmental impacts, said Kevin Wagner, director of the Oklahoma Water Resources Center at Oklahoma State University.

It will require a holistic approach, Wagner said. Climate, livestock grazing, crop rotation, hydrology, regional economics and more – the systems in regenerative agriculture are just too large, complex and intertwined for a simple solution.

To that end, OSU researchers will work closely with Texas A&M AgriLife Research at Texas A&M University and other universities in the region on a five-year project funded by the U.S. Department of Agriculture National Institute of Food and Agriculture. OSU will receive more than \$2.6 million of the \$10 million competitive grant.

“Regenerative agriculture is really a hot topic right now across much of the country,” said Wagner, the project’s principal investigator at OSU. “Our goal is to find ways to not only sustain

production but also improve the land and other resources at the same time.”

Most research on regenerative agriculture has typically occurred in regions of the U.S. with 40 to 50 inches of rain annually, a factor that significantly affects research outcomes. Less study has been focused on areas like southwest Oklahoma and the Oklahoma-Texas panhandles, which have more variable, arid conditions and wholly different challenges in managing livestock and crops, cotton in particular.

Although the scope of work under the grant is expansive with several multi-year components, Wagner said some aspects will benefit producers right away. For example, Jason Warren, OSU Extension soil and water conservation specialist, has plans for a soil stewardship education program similar to the structure of the popular Master Irrigator Program for farmers, and a curriculum will be adapted for regional 4-H Youth Development summer programs as well.

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Grant County Extension Office

Address

112 E. Guthrie, Room 301
Medford, OK 73759

Phone

580-395-2134

Email

Kateena Roberts
kateena.roberts@okstate.edu

Eric Terrell

eric.terrell@okstate.edu

Website

<https://extension.okstate.edu/county/grant/>

Social Media

Facebook: grant county osu extension

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OKLAHOMA STATE UNIVERSITY | DIVISION OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES



EXTENSION

WINTER CROPS SCHOOL

December 15 - 16, 2021

Join Extension crop specialists to learn about crop, nutrient, forage, pest and soil management, as well as soil and water conservation. Sessions offer Certified Crop Adviser and Oklahoma Department of Agriculture Food and Forestry continuing education units.

▶ **Wednesday, December 15**

- 7:30 a.m. Registration
- 8:00 a.m. Nutrient Management (2 CEUs NM)
- 10:15 a.m. Forage Management (1.5 CEUs CM, 0.5 CEU NM)
- 12:00 p.m. Lunch
- 1:00 p.m. Soil Fertility, Managing Fertilizer Efficiency (2 CEUs NM)
- 3:00 p.m. Graduate Student Posters
- 4:00 p.m. Integrated Pest Management (2 CEUs IPM)

▶ **Thursday, December 16**

- 8:00 a.m. Crop Management (2 CEUs CM)
- 10:15 a.m. Soil and Water Conservation 1 (2 CEUs SW)
- 12:15 p.m. Lunch
- 1:00 p.m. Soil and Water Conservation 2 (2 CEUs SW)

▶ **CCA CEU Prep Course** - 169 Agriculture Hall

- 12:00 p.m. - 4:40 p.m. - box lunch provided

OSU encourages participants to wear a mask indoors in public settings regardless of vaccination status, which is consistent with the current CDC recommendations. Wearing a mask protects participants, and helps protect others who may be more vulnerable.

REGISTRATION

- ▶ **Register Online**
secure.touchnet.com/C20271_ustores/web/store_cat.jsp?STOREID=15&CATID=59

LOCATION

- ▶ **OSU Student Union Ballroom**
100 S. Hester St.
Stillwater, OK

CONTACT

- ▶ **Ag Conferences**
agconferences@okstate.edu
405-744-6489

COST

- ▶ **In-Person Attendance** | \$150.00 (\$225.00 after November 29)
- ▶ **OSU Extension Educators** | \$90.00
- ▶ **Virtual Attendance** | \$100.00

Visit us at extension.okstate.edu



Scan to register.

Join Virtual OHCE for:

Holiday Entertaining Hacks

December 2, 2021, 7pm via Zoom

Join us for our first virtual OHCE event devoted to Holiday Entertaining Hacks.

- Easy Christmas Morning Cinnamon Rolls, Jessica Riggan
- Holiday Make-Ahead Casserole, Michelle Bonicelli
- Charcuterie Boards, the season's hottest trend, Debbie Sharp
- Party-Perfect Napkin rings, under 50¢, April Green

Please help us reach new OHCE members by sharing our Facebook Event page on your personal pages:

<https://www.facebook.com/events/432741991619156>

or search for *Holiday Entertaining Hacks – Virtual*



OKLAHOMA COOPERATIVE
EXTENSION SERVICE

The 2022 OHCE Leader Lessons have been selected and are listed below:

January – Fire Prevention at Your Home

February – Basic Cake/Cupcake Decorating

March – Quilt as you Go Projects

April – District Lessons: Diet and Inflammation
OR Dealing with Stress

May – Breads: The uniqueness of different
Countries

June – Free Month

July – Healthy Freezer Meals

August – History of the Women's Vote 100
years

September – State Lessons: Developing
OHCE Member Enthusiasm OR How to Make
Your Home Secure

October – Lighting in Your Home-What's New
Out There?

November – Know Your Cheeses

December – Free Month

Meeting times for these lesson offerings will be
on the OSU Calendar page and on the Grant
County Extension Face Book Page.

Established in 1935, Oklahoma Home and Community Education Continues to Have a Big Impact

Whether it is raising funds to provide scholarships for 4-H Youth, planting trees to beautify the community or sewing thousands of cloth face masks during the COVID-19 pandemic, members of the Oklahoma Home and Community Education group are ready to help.

“Oklahoma Home and Community Education continues to go beyond their call to duty in communities across the state. We celebrate them and appreciate all that they do,” said Jorge Atilas, associate dean in Oklahoma State University’s College of Education and Human Sciences, and who also serves as the state adviser to the organization.

“They truly impact lives, and OSU Extension is grateful to have such a great community partner in OHCE,” he said. “They take our research-based information and put it to work along with the local county Extension educators.”

Leslye Owen, OHCE president, said with a membership of nearly 3,400 across the state, the group’s community service makes a significant difference.

“Our members have a hand in so many different community events and activities, including community beautification, tutoring students, supporting veterans, providing educational scholarships and supporting local 4-H’ers and other groups,” Owen said.

Oklahoma Home and Community Education’s ultimate mission is to educate its members to be well-informed and able to handle changes in their homes and communities. Through its close relationship with OSU Extension, members bring that vision into reality by sharing research-based information on a wide variety of topics, including health, family and finances.

“We also play a vital role in communities because, especially in the smaller towns, there may not be very many resources available,” Owen said. “Oklahoma Home and Community Education is able to open up more resources and educational opportunities that can help many of our state’s families. It’s vital that we adapt to the changing world; we must stay relevant for our audience.”

Last year, the group contributed more than \$88,000 in scholarships funds to 4-H’ers and other students across the state. Members also reached more than 18,000 Oklahomans through educational programming, philanthropic projects and other activities. They provided \$21,000 in support to local community organizations and projects.

Jan Maples, Okfuskee County family and consumer sciences Extension educator, serves as the adviser for the OHCE group in her county. “I’m so proud of what OHCE is doing in our state. If you’re looking for a place to meet people with similar interests and have a desire to help others, Oklahoma Home and Community Education might just be what you’re looking for.”

More information about OHCE is available on the organization’s website.



What causes post-meal drowsiness on Thanksgiving day?

By Kirsten Hollansworth

STILLWATER, Okla. — After devouring the traditional foods on Thanksgiving, the feeling of drowsiness can become overpowering. The post-meal nap on turkey day has given rise to the myth that glazed turkey can make a person feel heavy-eyed.

Natural sleep cycles and digestive patterns can cause people to feel sleepy after eating, but foods rich in protein and carbohydrates can make people feel groggy compared to other foods.

Some researchers believe a person feels tired after eating because their body is producing more serotonin, said Darren Scott, food scientist at the Oklahoma State University Robert M. Kerr Food and Agricultural Products Center.

“For years, conversations have placed the blame on the tryptophan in the turkey,” Scott said.

Pets play vital role in mental health

Pets are cute and cuddly, but they serve a bigger purpose beyond companionship. Research has shown pets are good for both mental and physical health.

What do researchers mean when saying pets are good for health? It means they can improve the mental and physical wellbeing of any pet owners, not just those who are facing health challenges such as cancer, depression or some other illness, said Rachel Morse, Oklahoma State University Extension mental health specialist with the Oklahoma 4-H Youth Development program.

“Research has shown that pet owners had

“But there’s not that much more tryptophan in turkey than in other poultry.” Tryptophan is an essential amino acid and is a nutrient people don’t normally produce in their bodies, but instead it typically comes from foods consumed, he said. There is approximately a quarter of a gram of tryptophan per 100 grams of poultry.

“The more likely culprit of drowsiness is basic science,” Scott said. “Thanksgiving menus often contain a copious number of foods high in sugars and carbohydrates.”

The amount of serotonin in a person’s brain becomes metabolized into melatonin as turkey and carbohydrates are digested, Scott said. It’s the melatonin that scientists think makes people feel drowsy.

So, feel free to take a post-Thanksgiving meal nap after the plates are cleared, just don’t blame it on the turkey.

FAPC, a part of OSU’s Division of Agricultural Sciences and Natural Resources, helps to discover, develop and deliver technical and business information that will stimulate and support the growth of value-added food and agricultural products and processing in Oklahoma.

greater self-esteem, were more physically fit, tended to be less lonely, were more conscientious, tended to be less fearful and were more extroverted,” Morse said. “Pets also have been a great source of comfort and company for individuals who have had to transition from a bustling office space to their own quiet living room during the COVID-19 pandemic. Others may have still been able to go into the office for work but have otherwise kept themselves close to home.”

It’s no secret pets help relieve stress their owners are experiencing. Pets are good, non-judgmental listeners, and they’re intuitive. They can sense stress, fear and sadness, as well as happiness and joy. Research has shown therapy animals have proven to decrease stress levels even hours after a short interaction.

Holiday Toy Drive

Medford 4-H Club members are collecting toys for Christmas to assist in benefiting the Medford Ministerial Alliance community Angel Tree project. If you are interested in donating a toy, we ask that the toy is new and delivered to the Grant County OSU Extension office unwrapped. The deadline for delivery is December 19, 2021. Medford 4-H appreciates all donations to this project.



Find Your Future in Agriculture Poster and Photo Contest

The 2022 theme for the Oklahoma Ag in the Classroom contests is “Find Your Future in Agriculture”. There are several Ag in the Classroom lessons and resources that support the theme. The lessons can be downloaded from the AITC website (www.agclassroom.org/ok). The resources can be requested from the website or the State Coordinator who serves your county.

The contest includes several parts:

PreK - 2nd grade students participate in a coloring contest. (The coloring sheet can be downloaded from the link below)

3rd - 12th grade students participate a poster contest

9th - 12th grade students can also participate in photography contest

For full contest information check out the contest page: <https://ok.agclassroom.org/contest/>

Working with a group of younger 4-H members to make posters or complete coloring pages would be an excellent leadership activity for an older 4-H member working in agriculture-related projects. There is an online form that must be completed when the entries are mailed to the address below:

Oklahoma Department of Agriculture

Attn: MKT DEV, Ag in the Classroom

2800 N Lincoln Blvd

Oklahoma City, OK 73105

Entries must be postmarked by January 7, 2022



Festive Food, Fun, 4-H

Festive Food, Fun, 4-H, a one-month holiday program with recipes and activities designed to help spread holiday cheer. During Festive Food, Fun, 4-H we challenge you to think about your own family traditions, create a new one, say thank you, and show gratitude and generosity to those around you.

<https://4h.okstate.edu/projects/nutrition-health-wellness/food-fun-4h/>



4-H Virtual Volunteer Conversations

6:00pm CST/7:00pm EST

01/26 - Volunteer Training & Leadership Opportunities
 04/27 - Program Communication Strategies
 07/27 - Building Partnerships, Local & Beyond
 11/30 - Innovative Ideas for Clubs

share ideas and connect with other
volunteers throughout the country

Register at:

<http://bit.ly/4HVolCall>

*All 4-H volunteers and professionals
are welcome to attend!*



BROUGHT TO YOU BY THE VOLUNTEER
SPECIALISTS OF THE SOUTHERN REGION

4-H Virtual Volunteer Conversations

Open forum to share ideas and connect with other volunteers throughout the country Register at <https://bit.ly/4HVolCall>.

2021 Dates and Topics:

11/30/21 – Innovative Ideas for Clubs

Club Management Updates

We are no longer collecting the 4-H Club Civil Rights Cards. The information is now part of each volunteer's enrollment, not just a club/cloverbud leader.

The following statement is now part of certification process for each adult volunteer.

Civil Rights Assurance Statement: It is the policy of the Oklahoma State University and Oklahoma Cooperative Extension Service (OCES) not to discriminate on the basis of race, color, national origin, age, religion, disability, sex, marital status, sexual orientation, gender identity/expression, or veteran status or any other status that may become protected under the law against discrimination, but not limited to, Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990.

By signing the volunteer agreement, you agree to abide by all federal laws aforementioned prohibiting discrimination. By signing this document, the undersigned understand and agree to comply with all policies of Oklahoma State University, Oklahoma Cooperative Extension Service and the United States Department of Agriculture regarding the aforementioned laws and their implementing regulations. (July 2021)

The statement can be found within each of the following waivers:

Behavioral Agreement

Volunteer Agreement

Club Leader Agreement

The paper version of the Club/Cloverbud Leader Agreement is no longer being used. It has been replaced by the online version. The agreement becomes visible when the volunteer select Club Role as "Club Leader/Cloverbud Leader." Be sure this agreement/waiver has been completed by any adult volunteer serving as a club/cloverbud leader.

OSU Receives \$2.6 Million Grant

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Among his efforts, Wagner will monitor the quantity and quality of runoff water from fields where regenerative practices have been implemented, lead the modeling team and assist with stakeholder engagement and outreach. Many members of the team also will be involved in arranging regional on-farm field days and large, multi-state conferences hosted in Texas and Oklahoma for disseminating research results.

Wagner said carbon sequestration will also be a factor to consider, or how regenerative practices help improve the soil's ability to hold moisture and help Oklahoma reduce its carbon footprint, leading to a more resilient ecosystem. Over time, those changes also may lead to higher levels of agricultural intensification and greater profitability.

"It's one of the aspects that attracted me to this project, because I've long been interested in soil health and how it impacts water resources at a watershed or regional scale. Most prior research has focused on the benefits at the field scale, but we need to take a wider view," he said.

"With better ground cover and soil management, we hope to confirm with this research that there will be less water running off and that the runoff will be cleaner. In particular, we'll be evaluating integrating cover crops and grazing of those cover crops into cotton production systems and determining how that benefits soils, water and production," Wagner said.

The OSU project encompasses short-term, medium-term and long-term goals over the next five years. However, Wagner said the data produced under the NIFA grant will likely yield more research opportunities, as well as additional benefits to Oklahoma and similar areas around the world.

"USDA is tackling urgent challenges facing American agriculture and communities across our nation," Secretary of Agriculture Tom Vilsack said. "Critical issues like food insecurity, drought resilience and response, animal disease prevention and market disruption require investments to help meet these challenges. This is the time for agriculture, forestry and rural communities to act. Together, we can lead the way with investments in science and research and climate-smart solutions that feed and nourish families, improve the profitability and resilience of producers, improve forest health, while creating new income opportunities and building wealth that stays in rural communities."

Masonic Charity Foundation of Oklahoma gifts \$800,000 to Oklahoma 4-H Foundation

The Masonic Charity Foundation of Oklahoma (MCFOK) has gifted the Oklahoma 4-H Foundation \$800,000 to bolster support for Science, Technology, Engineering and Mathematics (STEM) project work within the Oklahoma 4-H Youth Development Program, as well as funding to enhance the annual State 4-H Roundup.

The generous donation follows gifts of \$100,000 in 2020 and \$100,000 earlier this year that established the Masonic Charity Foundation of Oklahoma Endowment Fund within the 4-H Foundation.

Earlier in 2021 the Charity Foundation also donated \$25,000 to enhance the 4-H Innovate Leadership Summit, which introduces 4-H members to STEM-related fields, including computer science, robotics and hydroponics. Their total contribution to the endowment fund is \$1 million.

The Masonic Charity Foundation of Oklahoma has a long history of supporting public education and wants to do things that benefit education and the young people in the state, said John Logan, their executive director.

Fighting food insecurity during the holidays

By Brian Brus

STILLWATER, Okla. – Leaning away from the Thanksgiving dinner table with a sigh and stuffed tummy is a comfort beyond the reach of many Oklahomans this year.

4-H'ers across the state are trying to make it a possibility with food drives for community food banks and pantries. "They understand that fighting food insecurity is about being part of something bigger than themselves," said Karla Knoepfli, Oklahoma State University Extension specialist in 4-H youth development. "By identifying a community need and answering it, they're learning it's possible to make a difference."

Those efforts are partly driven by the COVID-19 pandemic, which has hurt many people with the loss of their health and income. Resulting food market supply chain disruptions and rising prices are projected well into 2022, said Rodney Holcomb, OSU Extension specialist in food economics. He said ripple effects amplify existing food insecurity issues. Since April 2020, the Regional Food Bank of Oklahoma has seen an increase of at least 30% in people who found themselves food insecure for the first time, said Cathy Nestlen, the nonprofit's director of marketing and communications. Even before the pandemic, Oklahoma was the fifth hungriest state in the nation. Nestlen said inroads were being made to improve that status, but COVID-19 wiped out all progress.

It's common for 4-H clubs across the state to donate their services to help fight the problem. For example, Frontier 4-H'ers in Noble County purchase turkeys for their local food pantry each year in addition to holding a competitive food drive, club leader Barbara Pemberton said. In Marshall and Johnston counties, club members had already collected 750 nonperishable food items by Halloween, said Sara Randolph, 4-H educator for

that area. Knoepfli said such activities are spearheaded by the youth with support from adult volunteers. They set out with the simple goal of helping other people and end up learning about resiliency and developing civic engagement and leadership skills.

Janice Hermann, OSU Extension nutrition specialist, shared some advice for people wanting to follow the 4-H lead:

- Before donating, ask about the organization's guidelines and community profile. Some food bank and pantry guests have dietary health concerns; others may not have access to refrigerators or traditional stoves.
- Do not assume that all food bank guests have kitchen implements such as can openers, tongs and spatulas. Even forks, knives and napkins may be needed.
- If someone is food insecure, they also may have problems getting food home once it's available. Consider donating deliveries or rides.
- Economic disruptions will continue into 2022. Make a New Year's resolution to support food services beyond the holidays.

"Local food pantries can always use volunteers and donations," Hermann said. "You need to look at all the factors, working together to overcome barriers to healthy, nutritious food. It's complicated, and it really depends on the community."

To find a food assistance service in your area, Rachel Morse, OSU Extension mental health educator, suggested a three-digit phone number: 2-1-1. Operated by nonprofit organizations Heartline and Tulsa Community Service Council, the 2-1-1 system serves the entire state by linking people in need with a wide range of agencies dealing with issues such as suicide prevention, homelessness, utilities payments and food insecurity.

Extension Professionals' Creed

I believe in people and their hopes, their aspirations, and their faith; in their right to make their own plans and arrive at their own decisions; in their ability and power to enlarge their lives and plan for the happiness of those they love.

I believe that education, of which Extension is an essential part, is basic in stimulating individual initiative, self-determination, and leadership; that these are the keys to democracy and that people when given facts they understand, will act not only in their self-interest, but also in the interest of society.

I believe that education is a lifelong process and the greatest university is the home; that my

success as a teacher is proportional to those qualities of mind and spirit that give me welcome entrance to the homes of the families I serve.

I believe in intellectual freedom to search for and present the truth without bias and with courteous tolerance toward the views of others.

I believe that Extension is a link between the people and the ever-changing discoveries in the laboratories.

I believe in the public institutions of which I am a part.

I believe in my own work and in the opportunity I have to make my life useful to humanity.

Because I believe these things, I am an Extension professional.

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Grant County Extension Office
112 Guthrie, Room 301
Medford, OK 73759