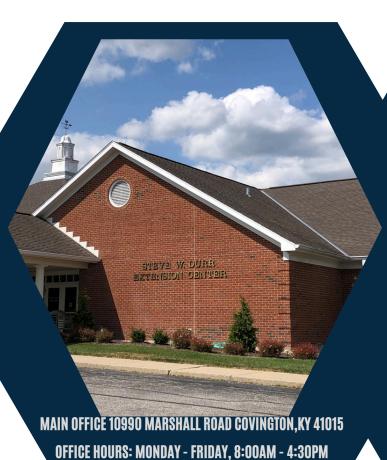


# Kenton County Cooperative Extension

## Annual Report to the People

2024



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# Need Answers? It starts with us.

- Concerned about Health & Wellness?
- Have a question about Parenting?
- Do you want more activities for your child that involves life skills?
- Have pest invading your space?
- Are your plants sick?
- Just moved to a small farm and need guidance?
- Want to learn about the Arts?
- Want to learn the art of sewing?

# What is Cooperative Extension

Partnership that began in 1914 by county, state & federal government to provide all citizens the access to a wealth of knowledge generated by land grant universities.

The mission of the cooperative extension is to make a difference in the lives of Kentucky citizens through research-based education in four major areas.



Agriculture programs provides education, training and technical assistance to individuals and businesses concerned with profitable agriculture.



Family & Consumer Sciences: programs provide information on improving diet, preserving and preparing food, keeping food safe, along with other advice to assist you and your family to be well.



Horticulture programming provides information to help professional and homeowners alike to improve the quality and health of plants and gardens through educational classes, diagnostic services, timely research-based information, as well as supporting Master Gardener volunteers throughout the county.



4-H Youth Development is a community of young people ages 9-18 across America who are learning leadership, citizenship, and life skills.



## SMALL BEEF HERDS REQUIRE BIG DECISIONS

Good genetics and a healthy herd is key to cow-calf farm operators. High feed costs coupled with factors like volatile beef markets and droughts, mean that every decision like heard health is important to Kenton county cattle farmers. Two programs were offered by the Kenton County Extension Service to help with ensuring a healthy herd for breeding. In April, the Bull Soundness Program was offered at the Kenton County Fairgrounds. Working with a local veterinarian and volunteers from Northern Kentucky Cattle Association this was the 20th year of offering this program. There were 40 bulls given health checks to ensure they were sound for breeding. In the event that bulls were not healthy for breeding the farmer had opportunity to make changes needed for this year. In years past this program consistently finds that 10% of the bulls tested are not sound enough to breed, this year the number of unsound dropped to 6%. Another program that was offered in September, was a pregnancy testing program. Working with local veterinarian, palpation, ultrasound, and blood test draws were demonstrated in a field day format on a cow calf herd here in Kenton County. There were 32 participants. Based on follow up to these participants, 17 of the participants determined they were going to implement pregnancy testing as part of their herd management. Six of them now feel confident to do the blood test method and planned to apply as part of their herd health protocols. For three of the participants, they decided to work closer with their veterinarian to ensure healthy cows and increase pregnancy rates in their herd.



## FOOD PRESERVATION

Home food preservation remains an important and popular cultural activity. It is critical that those who practice preserving and processing foods at home have access to the most reliable information available concerning food safety and food quality. The Cooperative Extension System (CES) and USDA have long been recognized as credible sources for science-based recommendations. Statistics from the Centers for Disease Control and Prevention, state that home-canned vegetables are the most common cause of botulism outbreaks in the United States. From 1996 to 2014, there were 210 outbreaks of food borne botulism reported to the CDC. Of the 145 outbreaks that were caused by home-prepared foods, 43 outbreaks, or 30 percent, were from home-canned vegetables. However, developmental work on new or continued recommendations has been sporadic since the 1950s due to availability of resources and probably interested persons. Two national surveys conducted by the National Center for Home Food Preservation 2000 and 2005 both revealed a high percentage of home food processors are using practices that put them at high risk for foodborne illness and/or economic losses due to food spoilage. It is important for individuals to know and practice safe food handling behaviors to reduce risk of getting ill from contaminated food.

In response, the Family and Consumer Sciences Extension Agent in Kenton County conducted a 2 hands on food preservation workshops to teach proper and safe ways to preserve food using the hot water bath and the pressure canner methods, freezing, and dehydrating foods. A total of 14 participants learned how to make strawberry jam using the hot water bath method and used the pressure canner to preserve their own jar of tomatoes. At the end of the program, participants were able to take these products home with them. The agent also conducted learning activities so that participants could practice identifying high and low acid foods and the sequence of steps for canning methods. Proper freezing and drying methods were also discussed.

None of the participants in the class had ever used either method of home canning on their own. One-hundred percent of participants identified research based methods of home food preservation as a result of the program, differentiated between high and low acid foods, accurately prepared food products using the boiling water canning, pressure canning, and freezing method of preservation, and identified signs of spoilage in home canned foods. One participant reported an increase in skill level from beginner to intermediate in the method of freezing for food preservation. All participants either strongly agreed or agreed they had better skills in home food preservation methods as a result of attending the program.



# NEW TO AMERICA AND CONNECTING WITH FOOD

As of July 31, 2023, Kentucky ranked 4th in the nation in the number of refugee arrivals compared to other states. There are 26 million refugees globally, with as many as 80% facing food insecurity irrespective of location. Food insecurity results in malnutrition beginning at an early age and disproportionately affects certain groups such as women.

In resettlement countries, food security remains an issue. Migrants find cultural foods expensive, hard to obtain, and although people often have cooking skills, the unfamiliarity of new foods and how to prepare them poses challenges. (Nutrients. 2022 Feb; 14(3): 522.Published online2022) Refugees identified low income and high food prices as barriers to accessing desired food. Also significant is the fact that refugees experience difficulties when shopping, identifying, and using new foods, such as canned item.( https://doi.org/10.17730/0018-7259.76.1.15).

Kentucky has a large number of refugees coming here each year that are encountering these problems. Together with Kentucky Refugee Ministries in Covington Kentucky we are working to solve this issue. As of September 2023, the program coordinator and I have started a cooking program for KY refugees. This program's goal is to introduce participants to Healthy foods, cooking utensils, basic food label information, and basic cooking skills.

This program meets twice a month with refugees that are going through the relocation process.

The participants are from all over the world, and all have limited English skills.

Since the program has just begun, we are looking forward to measuring the impact in the future. However, the first class was well attended, and the participants said they liked the class and learned something new.



## NATURAL RESOURCE PROGRAM

Kenton County Cooperative Extension surveyed teachers in 3 Kenton County school districts at the end of the 2021-2022 school year requesting input for 4-H natural resource school program lessons. 4-H Council members in November 2021 also spoke at length for the need to engage school program youth in projects and other educational opportunities. As a result of the surveys and discussion with local council members, lessons for the 2022-2023 school year, included hands-on activities/experiments were presented to teach natural resource club 4-H members about solar energy, elementary robotics, sinkholes, and magnetic energy. Additionally, the hands-on activities served as an introductory opportunity for youth to learn about completing a process. The natural resources solar lesson included a solar house activity that could be implemented rain or shine. The magnets lesson included a discussion of magnetic energy and the opportunity to enter an energy poster is available. The connections between 4-H school programs and the many opportunities that exist for 4-H members outside of school time were discussed with youth when 4-H newsletters were presented monthly.

4-H members predominately represented (253 youth) 4th grade urban and suburban youth in multicultural schools. 100% of the students attend schools with 100% free lunch program for the entire school population. Less than 2% live on a farm or have exposure to production agriculture. In the article "Perspectives of Hands-On Science Teaching" Haury and Rillero, note "Students in a hands-on science program will remember the material better, feel a sense of accomplishment when the task is completed, and be able to transfer that experience easier to other learning situations.." The statement preceding demonstrates the value of 4-H natural resources lessons (72 Kelley) shared with local schools and providing an educational opportunity for local youth.

Dr. Cary I. Sneider, a member of the NGSS development team stated... "NGSS is ...the application of science to the development of various products, processes, and systems to meet human needs..." youth members provide written statements on the worksheets developed by the 4-H agent to demonstrate cognitive outcomes, the teachers involved encourage active participation by using the worksheets and vocabulary sheets for grades or classroom participation.

Youth members repeatedly cite the eco-bots lesson which involves logic and reasoning – determining why something is working or failing, forming solutions in a limited time frame and solving the problem. The magnet lesson and the sinkhole lesson are more challenging to describe for 4th grade youth. The energy source is not visible or controllable and the abstract thinking is difficult to describe. The cognitive outcomes expressed in written comments reflect the intent of NGSS and success of the natural resource lessons in achieving the goals of the 4-H program During the 2022 and 2023 school program lessons we are also consistently observing the hesitancy to work with hands-on materials which is directly attributed to the pandemic situation when youth experienced online school and did not have exposure to manipulatives.



### **4-H TEEN CONFERENCE**

The 99th Annual Kentucky 4-H Teen Conference was held at the University of Kentucky June 13-16, 2023. The objectives of Kentucky 4-H Teen Conference are: develop leadership and teamwork skills, improve communication skills, foster civic engagement, expand knowledge and skills related to 4-H core content areas, gain club, county and state 4-H program skills, have fun, create a sense of belonging, expand social skills through networking, develop youth-adult partnerships, and become acquainted with the University of Kentucky to aid in college and career readiness of Kentucky 4-Hers. The leadership event attracted 544 individuals to the University of Kentucky campus: 428 youth and 116 adults from 81 Kentucky counties. The event was sponsored by the University of Kentucky Martin Gatton College of Agriculture, Food and Environment Cooperative Extension Service 4-H Program, the Kentucky 4-H Foundation, Farm Credit Mid-America, the Kentucky Soybean Board Kentucky Farm Bureau, Valvoline, and Tarter. During the educational experience all youth participated in a UK recruitment session with the Office of Enrollment Management. Additionally, they received academic exploration materials from the Martin Gatton College of Agriculture, Food and Environment Center for Student Success. This exposure provided youth the opportunity to see what the University of Kentucky has to offer and begin the conversation about their potential to attend the University of Kentucky as a student. Youth were provided with an evaluation following the conference where they were asked about their plans after high school. Of those that responded, 77% showed an interest in attending the University of Kentucky and 25% were interested in learning more about Agriculture. Ninety percent of youth responded positively about the conference this year. Of those that responded, 64% attended as first year members, 25% as second year members and 11% had attended the conference for 3+ years. To capture the progressive experience youth were also asked about their previous involvement in 4-H and of those that responded 81% attended 4-H Camp, and 38% attended 4-H Summit. 4-H partnered with 27 different units and departments across the University for participants to gain six hours of educational content in a subject (major) of their choice. Youth engaged in hands-on lessons inside and outside of classrooms at the University of Kentucky, showing them what student life might be like if they attended UK. The majors focused on: agriculture, health, natural resources, expressive arts, family consumer sciences, science, engineering and technology, and communication.

In addition, participants engaged in five hours of leadership development and service learning. All youth participated in a mentorship workshop led by a youth-adult facilitation team. 4-H collaborated with over 25 community serving organizations to engage in three hours of service work. The 428-youth logged 1,284 hours of service. This translates into a cost savings of \$9,309 (3 hours x \$7.25/hour) for organizations versus using paid employees. These efforts supported local service organizations and empowered 4-Hers to think about their ability to impact change in their community. Kentucky 4-H is committed to providing educational experiences for all youth. The Kentucky 4-H Foundation awarded \$12,527.20 to 95 Kentucky 4-Hers to attend Kentucky 4-H Teen Conference. The Kentucky 4-H Foundation awarded \$20,500 to 4-Hers in post-secondary education scholarships during Kentucky 4-H Teen Conference. Kenton County sent eight teens to Teen conference including one male, and seven female participants. One Kenton County teen was awarded a post-secondary education scholarship, seven of the participants received scholarships to attend Teen Conference and four of our teens were first time participants.



## **ANIMAL WELFARE**

Animal welfare is a priority in modern agriculture. In an August 2022 study by the Consumer Beef Tracker, the majority of beef consumers had concerns with cattle production, and their largest concern was animal welfare.

In response to this concern, and to promote animal welfare among youth, the Kenton County 4-H Livestock members took part in the Kentucky Beef Quality and Care Assurance Program (Ky-BQCA). The program served as part of the 4-H members required education hours. While the program was based around beef production, many principles taught apply to other livestock species as well. Topics included basic animal husbandry, vaccine storage, injection methods and safety, how to properly move animals, and more.

Students were excited to take the tests that followed each training session. They compared answers afterword, and it turned into friendly competition. After the class, one student even requested blank copies of all the test so she could go home and practice learning the information. All students and one parent became Ky-BQCA certified, and all left with new knowledge or a reminder of how to prioritize animal welfare practices when working with livestock.

This program was a coordinated team effort of the Kenton County Agriculture and Natural Resources Extension Agent, who is a certified trainer for the Ky-BQCA program, as well as the 4-H Youth Development Extension Agent for Kenton County, and the Certified Livestock Volunteers. Consumer Beef Tracker; analyzed by NCBA, on behalf of the Beef Checkoff, Jan. – Dec. 2022



# KENTON COUNTY'S FIRST GARDEN SUSTAINABILITY TOUR

On October 7th, 2023, from 10 am- 4 pm, people from Kenton County were able to visit four unique sites within the county, showcasing gardens that are managed in a more sustainable way. Based on questions I am asked frequently as a horticulture agent; many people have a desire to understand how they can support wildlife while also looking for ways to reduce their environmental impact through their gardening and landscaping efforts. The garden sustainability tour intended to help bring to the people of Kenton County examples of gardens that were in transition and are working towards becoming more sustainable while approaching this at a scale that applies to a general homeowner, which is the target audience, typically someone who has access to and manages land. For the tour, we partnered with the Sanitation District No.1 of Northern Kentucky (SD1) where they offered tours of their display gardens onsite that help to infiltrate stormwater and show how dense vegetation incorporating native plants can help to slow the flow and clean water. We partnered with Mark and Debbie Schmidt who own Monte Cassino Vineyards, a large private property. They showcased their landscape which is maintained in a naturalistic manner while working to control and reduce the impact that invasive plants have on their 20 acres. We also partnered with Gina Este, opening her garden to visitors in Covington, showcasing the potential for removing almost all lawn space in a densely populated neighborhood to provide greater habitat for plants and wildlife while keeping all plant material onsite, including the leaves. Our extension office site was also featured on the tour, with master gardener volunteers onsite to showcase our arboretum and various education gardens, showcasing our commitment to sustainability. All in total between 21 – 40 people attended with information provided by each site and brochures to take home. According to one survey response from an attendant, when asked if they planned on implementing any of the sustainability practices that they heard about or witnessed at any of the tour sites if they were not already doing so, they responded: "definitely yes".

As a first-time event, we were hoping to not only gauge interest in the topic of garden sustainability but to highlight publicly the commitment to this effort by the extension office, specifically the horticulture team. Proudly, we have made great efforts in the past year to create a welcoming space to display examples of sustainable gardens that can be applied to homeowner's gardens to encourage and inspire others to transition their landscapes into ones that are healthier for Kenton County residents. Additionally, to support wildlife, reduce the need for supplemental fertilizers, herbicides, pesticides, etc, and bring attention to the detrimental economic impact that invasive species have on our environment due to loss of habitat and species diversity.

# **Meet Our Staff**



#### **AGRICULTURE & HORTICULTURE**









#### **FAMILY CONSUMER SCIENCE**











#### **4-H YOUTH DEVLOPMENT**













#### **OFFICE STAFF SUPPORT**





#### Cooperative Extension Service

Agriculture and Natural Resources Family and Consumer Sciences 4-H Youth Development Community and Economic Development

#### MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, physical or mental disability or reprisal or retaliation for prior rivil rights activity. Reasonable accommodation of disability may be available with prior notice. Program information may be made available in languages other than English. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating. Lexington, KY 40506



