

EXTENDING KNOWLEDGE

Changing Lives



IN BRECKINRIDGE COUNTY

Extension provides practical education you can trust by helping individuals, families, businesses, and communities solve problems, develop skills, and build a better future.



Grow It, Eat It, Wear It

According to the USDA, Kentucky has the 4th largest number of farms in the United States with 55% of land designated for agriculture. However, as the global population grows, and demands for agricultural products grow, the need for individuals with agricultural knowledge or careers related to agriculture will continue to grow. In Breckinridge County, few classrooms incorporate agriculture into their curriculum each year and many students have very little understanding of how agriculture impacts their daily lives.

The Breckinridge County Extension Council partnered with community leaders and local schools to plan and implement the first annual Breckinridge County Youth Agriculture Expo Day: Grow It, Eat It, Wear It. The goals of this event were 1) to increase agricultural knowledge and develop a greater appreciation for agriculture, 2) increase awareness of environmental education and natural resources management, 3) increase the awareness of one's presence in a global world, and 4) promote careers in the agricultural industry.

The Expo provided 10 hands-on learning stations for 252 local 6th graders to explore the various aspects of agriculture relating to animal sciences, crops, production, land management, soil conservation, and agriculture careers. After participating in the Expo, comments from school staff indicated that the event was very informative and much needed. This was supported by survey results showing that 94% of youth had a better understanding of how food gets from the field to their plate.

Post surveys reported a gain in knowledge relating to honey production (93%), uses of corn (93%), importance of poultry (86%), pork production (82%), and uses of soybeans (84%). These are all agricultural products produced and used in Kentucky

Priority Program Efforts

- A total of 200 people are now involved in addressing significant community issues
- 35 youth made an impact in their community through service projects
- 334 local residents implemented practices that promote sustainable agriculture
- 107 Producers reported an economic impact (i.e., increase in agricultural productivity, increase in higher returns, decrease in expenses) in their agricultural operations
- 41 youth indicated an increase in leadership skills, knowledge or confidence through participation in Extension-related leadership programs
- 378 citizens (youth & adults) acknowledged utilizing the skills learned through Extension programming
- A total of 839 individuals made lifestyle changes (diet, exercise, etc.) for the purpose of improving their health
- A total of 383 youth and adults demonstrated informed and effective decision-making skills
- 340 individuals incorporated new or additional conservation practices.

and Breckinridge County. Looking toward the future, Youth also expressed an interest in agriculture careers and recognized leadership opportunities in agriculture (90%), as well as the



Local six grade students gather close to observe a working bee hive.

importance of future research in agriculture (86%). The Youth Ag Expo has enhanced the knowledge of local youth and left a memorable experience for 6th graders in Breckinridge County.

A Year of Wellness

According to Kentucky Health Facts for Breckinridge County, 42% of adults are obese, 38% report a lack of personal physical activity, and 13% adults have diabetes. Most recently school professionals report an increase in youth diabetes in the county. In an effort to improve community wellness, the Breckinridge County Extension service conducted the Year of Wellness program. The year long program had an average of 8-10 participants that met monthly. Extension staff provided support and educational opportunities to encourage healthier lifestyle choices. Lessons from the Small Steps to Health and Wealth curriculum and other Extension publications were presented in group discussions. Topics covered included food logs, goal setting, fats, sugar substitutes and portion control. Guest speakers from the local hospital shared programs on heart health, colon cancer awareness and physical activity. Each month participants chose an action step to build upon leading to a healthier lifestyle. Also each meeting included a recipe food sampling that encouraged fruit and vegetable consumption. The participants shared challenges, achievements, tips and recipes relating to diet and physical activity. Following a 6-month group survey, the participants reported wanting to continue the meetings and said the program was a motivation to make healthy choices and helped them be more aware of their personal health. With the 12 month survey, participants reported losing a few pounds, being more active and drinking more water. One participant stated, "the program makes me more aware of the choices I am making." "Now I park further away and walk when I can." The Year of Wellness provided the participants a supportive and encouraging reminder that the small simple actions we take today can bring lasting benefits to us in the future.

Volunteers Build Community Assets

Breckinridge County local stakeholders continue to identify leadership development as a significant need to help advance community economic development and employment opportunities. In 2014-15 the Family and Consumer Science Extension program focused efforts to engage leaders in programming to increase community involvement. The Extension Homemakers expressed the need for community workshops and classes with hands-on learning. After identifying the talents and expertise within the Homemakers and Arts Guild members, a line-up of workshops with instructors were scheduled that included bread baking, painting, china painting, basket making, photography, and home safety. With the support and guidance of Extension staff and curriculums, the volunteers shared over 63 hours of preparation, instruction and program presentation which had a minimum



Extension Homemakers teach and demonstrated the basics of bread baking.

value of \$1,278.27 based on the Independent Sector's 2014 rate for Kentucky. The new programs reached 76 participants with 27 participants being new to Extension. With the new programming opportunities, the leaders were able to sharpen leadership skills through planning, implementing and evaluating presentations. Also the volunteers gained a great deal of pride for delivering a quality program that participants reported as meaningful and helpful. The Extension Service provided the safe environment for volunteers to explore their leadership talents while providing the public with positive learning experiences to build community assets in Breckinridge County.

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Increasing Alzheimer's Awareness

According to the national Alzheimer's Association over 5 million Americans are living with Alzheimer's and in Kentucky there are 68,000 people 65 and older with the disease. Alzheimer's is having a major impact on many families and the occurrence is projected to grow significantly as the general population ages. Due to fear and the negative stigma attached to Alzheimer's the general public is reluctant to visit a doctor and it is often months or even years before a correct diagnosis of the disease is estab-

lished. In a deliberate effort to increase awareness and share knowledge regarding Alzheimer's; the Kentucky Alzheimer's association and the Breckinridge County Extension Service joined together to present Know the 10 Signs: Early Detection Matters. The program was presented as the January 2014 Lincoln Trail Area Homemaker Lesson. Forty volunteer leaders from 8 counties received the training to take and present to their Homemaker clubs with 890 members. The program included the 10 most common symptoms to look for, the steps to a correct medical diagnosis, and the benefits to early diagnosis. The leaders received program materials, pre/post surveys and support contact information to share with their club members. Program participants' shared personal situations and experiences with Alzheimer's that reinforced the need for early diagnosis and gave encouragement to others that families should not hide or ignore the difficulties relating to the disease. The program was positively received. The Extension Homemakers are an established organization that reaches deep into local communities. They provided the needed voice to spread the message and increase the awareness of a serious health crisis facing millions.

Insects Spark Interest in Science

As science and technology fields grow in Kentucky, there is a shortage of people to fill these careers. There is a growing need for knowledgeable scientists to identify problems, find solutions, and educate others. In 2014, the Breckinridge County



Middle School students dissect and compare cockroaches and grasshoppers.

Extension Service, in collaboration with the Breckinridge County Middle School, provided a science program for 400 middle school youth titled The Mystery of the Madagascar Hissing Cockroach. The Extension Office established a hissing cockroach colony in each 7th and 8th grade science classroom. Each month, the 4-H agent and science teachers led the youth in hands-on science labs with the cockroaches, reinforcing science content such as the scientific method, insect anatomy, adaptation, populations, genetics, fossil records, nutrient cycling, kinetic and potential energy, parasitism, and the science of sound. Youth also developed their own questions about the hissing cockroaches, designed an experiment, carried out the experiment, collected data, and wrote a report. Youth gained

experience problem solving and communicating their scientific findings. A post-test indicated that 75% of youth felt more comfortable interacting with insects and 77% had a greater understanding of science concepts because of the cockroach labs. After participating in the Cockroach program, 40% of participants are now considering careers in science and intend to take high school classes to prepare them for a career in science. Interacting with a small organism like an insect has made a large impact on youth in Breckinridge County.

Health and Nutrition from the Garden

The need for nutrition education is great in Kentucky, as it is a relatively poor state with a heavy burden of chronic disease related to poor nutrition practices. The Youth Risk Behavior Surveillance Survey reveals that our youth rank 15.6% compared to the nationwide 12.7%. From a dietary standpoint less than 20% of high school students meet the dietary recommendation for fruit and vegetable consumption. In 2014 and 2015, the Breckinridge County Extension Office partnered with the Hardinsburg Public Library to provide a Junior Master Gardener program. The program introduced youth to fresh fruits and vegetables and taught youth how to grow and prepare their own



Jr. Master Gardeners with their raised bed garden.

fruits and veggies at home. During the eight week program each summer, participants planted, maintained, and harvested produce from raised bed gardens. In 2015, youth discussed a new nutrition related topic at each meeting (e.g. fiber, relationship between fruit/vegetable color and nutrients, judging produce, healthy recipe alternatives, etc.) and made a plate-it-up or Jr. Master Gardener recipe. Twenty four youth have participated in the program since 2014 and each youth tried new fruits and vegetables, learned kitchen safety and the importance of hand washing, and felt more comfortable trying new recipes at home. All participants had a better understanding of the importance of fruits and vegetables and have included more at meal times. Several participants remarked how they have started making healthy dishes for their entire family and repeated recipes they learned at Junior Master Gardener meetings.

Making Dollars and Sense

The United States is facing tough financial times and many youth lack money handling skills. To develop family financial skills in local youth, the Breckinridge County Extension Office

provided the *Dollars and Sense* program to 245 fifth graders at five elementary schools. Youth were given a monthly allowance of \$200 and were required to pay their bills at each store (e.g. Bedroom Décor, Candy Store, Pet Store, Veterinarian, Transportation, Entertainment, etc.). After the program, youth discussed budgeting, common expenses, where they could have saved money, and needs vs. wants. Youth learned the importance of financial planning and participants discussed how they would spend their \$200 differently next time. Several 5th graders commented that they had a better understanding of all the bills their parents have to pay and how important it was to pay for their “needs” before spending money on their “wants.” Nearly 60% of youth said they would try to save their money and make a budget in the future.

Farm Calls

Extension specialist and agent made farm visits to work with producers on balancing feed rations. After using a personalized feed ration, producers reported tremendous gains in profitability. One group of calves had gained an average of 3.15 pounds per head per day. The producer had a of \$7,000 return over variable costs for the entire group of 15 calves.

Breckinridge County Extension staff worked with a family farm to establish and open a blueberry operation. After 5 years of providing information on caring for, pruning, and with lots of patience, the operation has been a success.

This year the producer picked and sold over 1,000 pounds off of 200 productive blueberry bushes.

It's been a very successful project by bringing in over \$6,000 for this 1 acre of ground. The Extension Service is continuing to work to promote more of these operations in the county to first increase home and farm income and second to bring more locally grown produce into Breckinridge County homes.

Community Collaboration



The Extension Service worked in conjunction with the Breckinridge County Farm Bureau, Extension Council and Chamber of Commerce in conducting a 'Meet the Candidate' Forum, and an 'Eggs and Ag Issues' breakfast. Participants showed an increase in their ability to make informed decisions.

Local candidate speaking

Developing New Leaders

Breckinridge County Extension worked with the Young Farmer Chairman and the board President and identified 50 young farm families. These farmers were either new in farming or were working with on the family farm or partnership. A monthly meeting schedule was set. The meetings were designed for the entire family with learning for all. The goal is to work with these young farm families in growing long leadership traditions with the Cooperative Extension Service.

KY Forage and Grasslands Council

Breckinridge County was the host to the 2014 KY Forage and Grasslands Council annual field day. With over 125 in attendance the program received an enormous amount of compliments for the field event that showed new and tested practices that will help to increase forage crop productivity.



Field Day Demonstration

Soybean—Population Trial

With access to 10 acres of tillable ground adjacent to the Extension office property, in 2014 a varied rate soybean trial was conducted. A hands on field event was held with a demonstration on power line safety, proper use of a fire extinguisher and a walk through the test plot. Producers experienced hands on activities and were extremely impressed with each one.

The data from the field trial showed an 11 bushel yield increase at 150,000 seeds per acre which calculates into a savings of \$15.40/acre and with the additional yield boost, it will increase profits on a 100 acre farm by \$13,000.

The Extension Office has submitted 1,958 soil test for analysis and there have been 365 plants, diseases and insects identified.

COOPERATIVE
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SERVICE

**The Breckinridge County
Cooperative Extension Service**

UK
UNIVERSITY OF
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College of Agriculture,
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For more information, contact us at:

1377 S Hwy 261
Hardinsburg, KY 40143

270-756-2182

Fax: 270-756-9016

www.ca.uky.edu