

## Welcome to Lewis and Clark County

**T**hank you for your support of Montana State University Extension. MSU Extension is a partnership between Lewis & Clark County, Montana State University and the United States Department of Agriculture. This three-way partnership provides educational programs in the areas of Agriculture, Natural Resources, 4-H Youth Development, Community Development, Family and Consumer Sciences, and Supplemental Nutrition Assistance Program (SNAP) Education Programs. In these pages are some highlights of the 2017 educational opportunities in Lewis & Clark County.

### **Lewis & Clark County Extension welcomes Maureen Theisen as new Administrative Assistant.**

After working 16 years as the Extension Administrative Assistant, Janet Cerovski retired in December 2017. Janet has worked with several Extension Agents, 4-H volunteer leaders, 4-H members and families throughout the years. Her contributions to the Extension office have been significant. She has been an integral part of the office and will be missed. We wish her a happy and relaxing retirement. Maureen Theisen was hired as the new Administrative Assistant for the Extension office in November 2017. We are excited to welcome her to our team.

Left to right, front row -  
Catherine McNeil, Janet Cerovski;  
back row - Maureen Theisen,  
Kim Lloyd, Brent Sarchet



***Community Support Community Impact.** Together impacting the lives of people in Lewis and Clark County.*

# What is going on around Lewis and Clark County?

## Strong Women - Healthy Hearts

The Strong Women - Healthy Hearts series of classes has become an increasingly popular program thanks to a beneficial partnership with St. Peter's Hospital. In 2017, the 12-week series of classes was provided twice at the hospital; once in the Spring and once in the Fall. This program is a cardiovascular disease prevention program that aims to help midlife women reduce their risk of heart disease through fitness and nutrition education. Roughly half of the class participants were referred by their physicians at St. Peter's. Half of each class includes discussion around eating for heart health and hands-on cooking activities. During the other half of the class, participants engage in aerobic activity by walking outside or dancing to music. Community instructors certified in leading exercises such as yoga, Nia, and meditation were also invited to give participants ideas for exercise options outside of class.

Class participants had Body Mass Index (BMI) measurements taken by St. Peter's Wellness Team and completed surveys at the beginning and end of both classes. A total of 36 women enrolled in the course in 2017 and 19 finished the 12-week series. In both SWHH classes combined, there was an average of 2% decrease in participants' BMI. One notable participant lost 20 pounds and six inches off her waist in the 12-week period. A high BMI has been linked to an increased risk for certain diseases such as heart disease, high blood pressure,

type 2 diabetes, breathing problems, and certain cancers. The women also took a 6-minute walk test to see how many yards they could walk in a total of six minutes at the first and last classes. At the last class, there was a 15% total increase in the number of yards participants could walk in six minutes. According to class evaluations, because of taking this class, participants intend to read food labels, exercise more consistently, add more beans and grains to their diet, decrease bad fats, and eat dinner at the table. There is currently a waiting list for the next class, which will start in Spring 2018.

## Reaching Clients Through the Master Gardener Program

The Master Gardener Program has completed its eighth year in Lewis & Clark County. Since the spring of 2010, 349 people have taken the Level I course, 119 people have taken the Level II course, and 20 people have taken the Level III course in Bozeman. The Level I and Level II course are taught in Helena every year. The Level III course is taught in Bozeman in the summer.

Since 2014, the same evaluation form has been used for the Level I Master Gardener course, so we are able to summarize the course evaluations for the last four years. The Master Gardener program has been very effective at introducing Extension to clients in Lewis & Clark County. In the course evaluation we ask, "How familiar were you with MSU Extension prior to taking the Master Gardener



**Strong Women Healthy Hearts participants practice Nia, which is non-impact aerobics that combine dance, yoga, and strength training.**



**Master Gardeners working at an informational booth. Photo by Brent Sarchet**

course?” The four-year average of this question indicates over 60 percent of the people taking the course were familiar with Extension, but have not utilized Extension services or taken courses. Over seven percent had heard of Extension, but didn’t know what Extension did, and over four percent had never heard of Extension.

The evaluations indicate that the Master Gardener program is introducing clients to other Extension programs. In the evaluation we asked, “Do you plan to attend future MSU Extension programs and courses,” and the average indicates that over 90 percent planned on attending other courses.

The course has consistently been well-received; with the average of 66 percent indicating the course exceeded their expectations, followed by 30 percent indicating the course met their expectations. Brent Sarchet, Lewis & Clark County MSU Extension Agent and Toby Day, MSU Extension Horticulture Specialist, the two presenters for the course, have been evaluated with a 4.7 and 4.8 (1 – 5 scale) respectively for the four-year average.

**Cover crop plots at the community garden**



**Rodent management workshop at the community garden**



The course has benefited participants in more than just an increase in knowledge (97 percent); participants have indicated a financial benefit (25 percent), social/networking benefit (35 percent) and a health/well-being benefit (45 percent) to taking the course.

Probably the best indication of the program’s impact is that over the last four years, 99 percent of participants indicated they would recommend the course to others. Word of mouth has been the most effective way of attracting clients to our Extension programs.

## **Applied research and demonstration plots give clients hands-on education opportunities**

**by Brent Sarchet**

Since 2010 I have been surveying class participants to determine their preferred learning styles. Consistently, about 60 - 70 percent of them indicate that their preferred learning style is kinesthetic/hands-on, which means the typical PowerPoint teaching methods aren’t sufficient for the majority of the class. Kinesthetic teaching requires a significant investment from the instructor because not all information can be easily taught with kinesthetic methods. To be an effective teacher, I realized that I had to develop the tools and resources that at the time were not available in order to teach with kinesthetic methods.

Starting in 2011, I began work on a research/demonstration/community garden next to the Lewis & Clark County Extension office, and that same year we started conducting vegetable variety trials, which we found was a need through surveys

## Research and demonstration plots, cont.

of Master Gardeners. The garden site continues to be developed further every year since we conducted vegetable variety trials. The most recent addition is a strawberry variety trial that was planted in the spring of 2017. I have been able to utilize the site for numerous classes, everything from vole and pocket gopher management, to weed management and season extension. Having a place where we can talk about, and then look and touch what we are talking about, has been extremely beneficial.

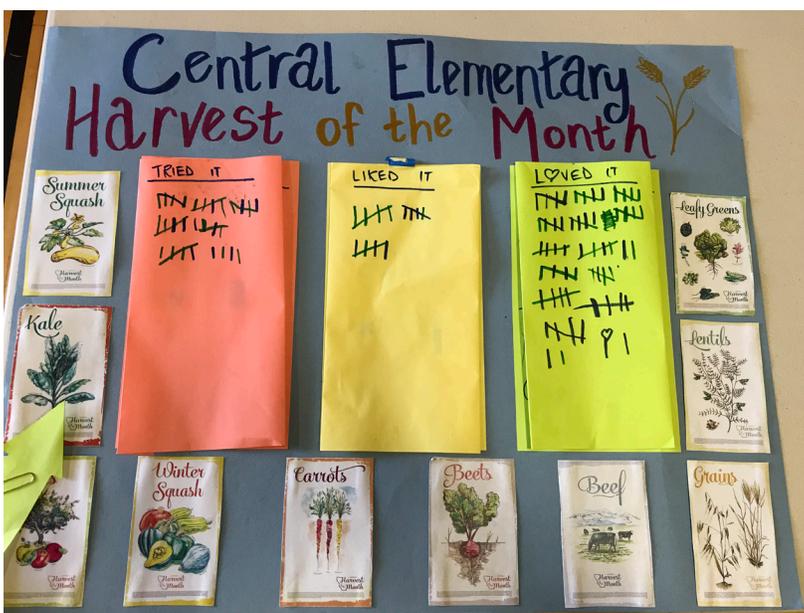
In collaboration with Toby Day, MSU Extension Horticulture Specialist, and others, we have developed 12 fruit tree research and demonstration plots across the state. There are three locations in the Helena area, and plans to add another site in Augusta in the spring of 2018. We have hosted field days at these sites and have used them for teaching topics such as pruning, fruit tree fertility, grafting, irrigation and pest management. The orchards have also been a nice backdrop for other programming and special events that we have done such as food preservation and the MSU President's bus tour.

Two small fruit research and demonstration plots were planted outside of Helena in the spring of 2015. The research project was being led by Zach Miller, Western Agriculture Research Station Supervisor/Researcher. The small fruit plots have many fruit species, such as Haskap and Aronia that many people are not familiar with. Having the opportunity to utilize the research plots in my teaching has been extremely useful and has helped make me a more effective teacher.

## Kids Love Kale

In conjunction with the SNAP-Ed Nutrition Education Program, the Extension office helped to establish the Harvest of the Month Program at a couple of schools in the Helena School District this year. The Harvest of the Month Program promotes local Montana products in Montana schools. This fall, the FCS Agent/SNAP-Ed Instructor has been working with Central Elementary School in Helena to promote the Harvest of the Month Program. The Upper Montessori classroom has been tasting the Harvest of the Month featured products during SNAP-Ed nutrition lessons and then promoting them to their classmates at lunch. For the month of October, they tried a kale salad in the classroom. They then served kale chips, made by Sodexo food service, to their 200 classmates during lunch and asked them to vote if they 'loved it, liked it, or tried it'. The verdict: students overwhelmingly loved the kale chips.

In the Spring, the Harvest of the Month Program was promoted at Helena Middle School with 600 students participating. The seventh grade Life Skills class was awarded a \$250 Harvest of the Month mini-grant to help administer the project. With the funds, the class tried the Montana-grown products in the classroom and then promoted to their classmates in the lunchroom. During the month of March, when Montana beef was promoted, the class had an "Iron Chef" style cooking competition. The students used Montana-raised beef and created their own recipes as a team within an allotted amount of time. The students experienced hands-on food safety including cooking meat to the right temperature and being careful not to spread bacteria through cross-contamination. The teams were then judged by a panel of school administrators, parents, and teachers. The winning team, "Pinwheel Tacos," had their recipe featured at lunch prepared by Sodexo food service. The Helena Independent Record also visited during lunch to do a story and publish the winning recipe.



Students at Central Elementary voted, and they loved kale

# Fruit Trees in Montana

## Food Preservation in the Orchard

There were quite a few opportunities for food preservation education with Lewis and Clark County Extension this fall. One featured program was the “Apple Harvest Celebration” provided in partnership with the county agriculture agent, FCS agent, and Johnson’s Nursery and Gardens north of Helena. The afternoon event included two talks, “Growing Fruit Trees in Montana” and “Preserving Apples.” Activities included a walk through the orchard at Johnson’s Nursery and a discussion around what is needed to care for and grow fruit trees. There was also an overview of food preservation safety, equipment, and different processes to preserve apples including freezing, drying, and canning. The talk ended with samples of locally-harvested apples made into jelly, pie filling, apple butter, and applesauce. Participants also enjoyed fresh apple cider pressed by Master Gardener volunteers. There were roughly 50 people in attendance.

Other food preservation classes included partnerships with Jefferson County and Broadwater County to provide canning classes. These neighboring counties do not have a Family and Consumer Sciences Extension agent, so these

partnerships help our counties work together to provide programming where needed. After the canning class in Townsend, participants recorded a 100% increase in understanding the importance of utilizing USDA standards for preserving and processing foods safely. One participant noted that she will, “be conscientious of our elevation and adding time to the boil for preservation.” It is very important to adjust recipes to account for elevation in Montana so that our foods are processed at the right temperature to kill potentially harmful bacteria and viruses.

Another food preservation partnership was with Rock Hand ACE Hardware in Helena. The store opened their warehouse for a food preservation lecture with the FCS Extension agent and Helena Community Gardens. ACE Hardware supplies a large selection of canning supplies in Helena and promotes the resources the Extension office provides. The lecture included an hour-long discussion on food preservation safety and equipment. Participants also saw a demonstration using the Extension office pressure gauge tester. This is an important tool to make sure we are processing our foods at the correct temperature and pressure to avoid food-borne illness in our canned foods.

Pressing local apples at the Apple Harvest Celebration



## Fruit Tree Research & Education Project Concludes the Fifth Year

Fruit is largely lacking in most local food systems in Montana. Montana has 33 of 56 counties that have food deserts. The USDA defines food deserts as parts of the country void of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas. This is largely due to a lack of grocery stores, farmers' markets, and healthy food providers. Brent Sarchet, MSU Extension agent in Lewis & Clark County and Toby Day, MSU Extension Horticulture Specialist, along with statewide partners, are leading the effort on fruit tree research in the state. The work started with

a Montana Department of Agriculture (MDA) Specialty Crop Block grant in 2013 (\$23,288), followed by a MDA Growth Through Agriculture grant in 2014 (\$9,932). Together these grants funded the establishment of 10 fruit tree cultivar research sites. An additional Specialty Crop Block grant was received in 2014 to conduct research on historic orchards (\$127,680). In the fall of 2016, another Specialty Crop Block grant was received to partner with Montana PBS to develop a film on fruit research in Montana (\$80,000). The video series will feature tree fruit and small fruit research that is being conducted across the state. Sarchet and Day released a publication *Growing Fruit Trees in Montana* (EB0222) in the winter of 2015. The publication has been very well received by the public with over 1,830 copies distributed to date. The publication will be updated every three years as additional data is collected. The fruit tree research and education efforts are encouraging future orchard plantings and supporting existing orchards. Six orchards have been established as a result of the research and education work. Establishing localized fruit production will help address the issue of food deserts in the state. Fruit production is an enterprise that farmers and ranchers can adopt to assist them in diversifying their operations.

Wild Horse Island Heritage Orchard



### EXTENSION

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