Bringing University of Idaho research and trained volunteers to improve the lives of Kootenai County citizens
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Executive Summary

Kootenai County has had a vital partnership with University of Idaho Extension since 1917, to bring university research and expertise to bear on local issues and to help give Kootenai County residents a voice in guiding university research. This report highlights 2015-2016 programs in Kootenai County.

- Family and Consumer Science (FCS) UI Extension programs helped Kootenai County families access healthier foods through 72,986 youth contacts and 8,829 adult contacts. Eat Smart Idaho improves food security and reduces the risks for diet-related chronic diseases. Cost benefit analysis research has shown that Eat Smart Idaho graduates will save $14.55 in future health care costs for every $1 invested in healthy living education through Eat Smart Idaho. The net savings in health care costs attributable to adult graduates over the next five years is projected to be nearly $607,000 for every 1000 participants.

- Two hundred and ninety-two people attended eight UI Extension forestry workshops and field days held in Kootenai County. Over 80% of the participants in these programs indicated they will improve specific forest management practices that sustainably grow more wood, supporting living wage jobs here from forest products harvest and manufacturing, reduce fire risk in wildland urban interface areas, and reduce forest insect, disease, and fire issues. Ten certified Idaho Master Forest Stewards in Kootenai County provided nearly 700 hours of total volunteer service to over 2,100 adults and nearly 500 youth.

- Through the 4-H program, nearly 700 youth gained vital life skills including leadership, citizenship, communications and community outreach with support from over 245 trained adult volunteers. In total, 4-H volunteer leaders gave more than 12,200 hours of service. The extension office made over 5,000 4-H based contacts through teaching programs and other educational events during the year.

- The Idaho Master Gardener program provided home horticulture education to the public through trained volunteers via diagnostic plant clinics (2,362 contacts). In Master Gardener home horticulture classes, 394 individuals learned about raising chickens, propagating native plants, keeping honey bees, food preservation, landscaping for fire prevention, adaptive gardening, tree identification, basic gardening, and organic rose care. Master Gardeners also organized fresh produce donations through the Plant a Row (PAR) Project, whereby 9,326 lbs. of fresh produce was donated back to the community.

- Funding for UI Extension Kootenai County programs is cooperative. The $140K of appropriated funds and $53K of in-kind support from Kootenai County in the form of facilities and utilities leveraged over $257K in University of Idaho funding, $273K in grant funding, and nearly $76K in program fees and donations. Every dollar Kootenai County spends on Extension programs leverages over $3.14 from other sources. If the value of volunteer time of 4-H Leaders, Master Gardeners, and Idaho Master Forest Stewards and other volunteers who were trained and certified by faculty and staff at the Kootenai county extension office is included, that dollar leverages $4.68.

For 100 years, University of Idaho Extension has worked with the Kootenai County Commissioners to offer community-driven, research-based educational programs in Kootenai County. We thank Kootenai County Commissioners, local volunteers, and all our other partners for their support in serving Kootenai County citizens through Extension programming here.
Recently we celebrated the 150th anniversary of the Morrill Act, the law signed by Abraham Lincoln that created land grant universities, such as the University of Idaho. The Morrill Act made higher education available to all and brought more attention from higher education to bear on real world problems.

In 1914, The Smith Lever Act added traction to the Morrill Act’s goals by creating the Cooperative Extension System - a nation-wide system of cooperative funding for extension work which endures to this day. The U.S. Department of Agriculture makes funds available to land grant universities. These funds are matched by each state, and by county governments which fund an extension office and local support staff.

**Extension is Locally Based**

One of the geniuses of the Cooperative Extension System is that local presence and county-based financial support help ensure that extension programs are driven by locally identified needs and priorities. University of Idaho Extension programming in Kootenai County is guided by a whole variety of local groups described throughout this document.

**Extension Helps People Apply Current Research**

Whether it is responses to dying forest trees, a lawn or garden fertilizer recommendation, or training on food safety, extension programming provides adults and youth with alternative solutions based on current scientific research. County-based extension faculty work closely with faculty on the Moscow campus and at UI research and extension centers across Idaho, to make sure programming is grounded in the best available research. However, Extension is not just about disseminating research results - it is also helping local peoples’ needs guide the kinds of research done through the University of Idaho. That is another reason Extension works closely with local stakeholders.

**Extension Program Areas are Broad**

When Extension started, at least half of the nation’s population was living in rural areas and a third was engaged in farming, so initially the main emphasis was agriculture and natural resources. Agriculture and natural resources are still a major focus of extension programs, but as a larger portion of the population has moved off the farm, land grant universities and Extension have evolved to provide a richer array of local programming in youth development, family and consumer sciences, nutrition education, community development, and many other areas.
What is Extension?

Extension Focuses on Practical, Experiential Learning

With the rise of the internet, more information is more widely available than ever before. But ultimately, learning and applying knowledge requires more than a web search. Accessing information is not the same as learning that information, knowing how to judge the validity of information, or knowing how to apply that information to local issues. These are all skills that extension programs empower.

Much has been written about peoples’ different learning styles. Extension’s focus has always been on practical, hands-on learning, or as Seaman Knapp, an early extension pioneer put it, “What a man hears, he may doubt. What he sees, he may possibly doubt. What he does himself, he cannot doubt.” So, in addition to all the well-researched publications and web content UI Extension provides, we offer demonstrations, field days, workshops, peer-to-peer learning networks, and a variety of other unique, experiential learning experiences to help participants solve problems and improve their lives.

Extension Trains, Certifies, and Manages Volunteers

Since its beginning, Extension has carried out its mission by training volunteers to provide additional capacity in the effort. 4-H was one of the first forms of this, whereby adults and teens are trained to lead learning opportunities for youth.

Over time, Extension has developed a variety of other trained volunteer programs that multiply the effectiveness of extension programming exponentially. Examples in Kootenai County include Idaho Master Gardeners, Idaho Master Forest Stewards, Master Food Preservers, and Master Water Stewards. These volunteers complete as much as 70 hours of training to help deliver research-based education and serve as informed local citizens who help guide our research and extension efforts.

Extension – a Very American Idea

The United States Cooperative Extension System has been described as the world’s largest non-formal adult and youth education institution. There are roughly 2,900 extension offices in the U.S. No country has as strong a tradition of the learner-driven, issue-based, practical, problem-solving approach embedded in the DNA of our Cooperative Extension System.
UI Extension office staffing in Idaho varies across the state, according to the needs of different counties. Kootenai County has three faculty and five full and part-time staff. Faculty (called “Extension Educators”) are paid primarily through state and some federal funds. Staff are typically paid through county funds. We also have additional temporary staff paid through grants and similar sources.

**Chris Schnepf** serves as the Panhandle Area Extension Educator in Forestry and is a Professor and with the University of Idaho. Schnepf provides a variety of workshops, short courses, field days, publications, videos and other learning opportunities on applied forest ecology and silviculture for family forest owners, loggers and professional foresters throughout the Idaho Panhandle (Benewah, Bonner, Boundary and Kootenai counties). He also currently serves as chair for the Kootenai County office. He has been with the University of Idaho since 1988.

- M.S., Forestry and Range Management, Washington State University
- M.A., Adult and Continuing Education Washington State University
- B.S., Forestry and Environmental Studies, Iowa State University

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**Shelly Johnson** serves as the Extension Educator in Family and Consumer Sciences for Kootenai County and is a Professor with the University of Idaho. Her primary focus is nutrition, health promotion and wellness programs. Johnson is known for her work in obesity prevention, senior nutrition, diabetes management, and nutrition education for high-risk, low-income families. She oversees Eat Smart Idaho in the 10 northern counties of Idaho, policy and environmental change projects that impact access to healthier foods, and nutrition education that reaches many low-income families with assistance in buying, preparing and eating healthier foods on a limited budget. Shelly oversees 10 nutrition staff and 5 dietetic and/or student interns with grant dollars every year. She has been with the University of Idaho since 1999.

- M.S., Health Promotion, University of Montana
- B.S., Exercise Science, University of Montana

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Sharla Wilson serves as Extension Educator in 4-H for Kootenai County and is an Assistant Professor with the University of Idaho. Wilson oversees 4-H Youth Development programming in Kootenai and Shoshone counties. This includes the 4-H Club/Project programming for youth 5-18 years old and volunteer development and training to accompany these opportunities. She is also working to expand 4-H Youth Development into the area of afterschool and new out of school opportunities for local youth. Sharla previously served as the Kootenai/Shoshone 4-H Program Coordinator from 2002 to 2015.

- M.S., Adult and Organizational Learning and Leadership, University of Idaho
- B.S., Animal Science, University of Idaho

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Kali Gardiner, RDN, LD serves as the Northern District Eat Smart Idaho Program Coordinator and is funded through USDA's Supplemental Nutrition Assistance Program-Education and the Expanded Food Nutrition Education Program. She oversees the day to day operations of Eat Smart Idaho, including monitoring program delivery and data collection compliance, supervision and training of Eat Smart Idaho staff. She also assists to build and enrich partnerships with agencies. Kali has been with the University of Idaho since 1997 and serves Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce and Shoshone counties.

- Registered Dietitian Nutritionist.
- B.S., Food & Nutrition: Dietetics, University of Idaho

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Teresa Balderrama serves as the 4-H Program Coordinator for Kootenai County. She provides leadership for various aspects of day-to-day 4-H operations in Kootenai County, including enrollment, volunteer training for horse and livestock leaders, and a variety of local educational events.

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Kara Carleton serves as the Kootenai County Master Gardener Coordinator, working a little more than half-time. She empowers a team of 60+ volunteers to provide educational outreach and research-based solutions that address a variety of home horticultural, lawn and garden challenges facing local citizens. Carleton fosters a culture that supports the “Helping People Grow” mission. She has diverse experience in the fields of nonprofit administration, green design, horticulture and gardening. Kara joined the Idaho Master Gardener Program in 2013.

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Lindy Harwood provides assistance to the Family and Consumer Sciences and 4-H Youth Development program areas.

“During my tenure, I’ve come to realize what a valuable community resource our extension office truly is, and I’m honored to be a part of that team.”

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Michal Bennett provides assistance primarily to Forestry and Master Gardener programs, working half-time. Michal also helps design newsletters and other graphic materials for extension programs operating out of the UI Extension, Kootenai County office.

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Extension works in diverse program areas. The primary issues UI Extension Kootenai County faculty, staff and volunteers work in are 4-H/Youth Development, Family & Consumer Sciences, Panhandle Area Forestry and Home Horticulture.

4-H/ Youth Development

In 2015-2016, nearly 700 youth annually gained vital life skills including leadership, citizenship, communications and community outreach, with support by over 245 adult volunteers. Our club/project program has nearly 40 community clubs that offer projects in 70 different topic areas ranging from livestock, horses, sewing and cooking to topics like GPS, computers, aerospace, photography, leadership and more.

4-H volunteers enroll annually, during which time they go through a background screening and receive Protecting Minors training. In addition, each volunteer must complete 2-3 hours of program or project topic related training. These volunteers organize and run the various community clubs and provide education in a variety of project topic areas. In total, 4-H volunteer leaders give more than 12,200 hours of service annually worth $257,420.

An eight-year longitudinal study done by Tufts University surveying more than 7,000 youth from diverse backgrounds in 42 states found that 4-H’ers were nearly 4 times more likely to make contributions to their communities and about 2 times more likely to be civically engaged. 4-H youth are also 2 times more likely to participate in science programs out of school, as well as make healthier choices. Overall, 4-H helps to provide positive and sustained relationships between youth and adults, provide activities that build important life skills, and give the youth opportunities to use those skills. The overall impacts of the 4-H program can be seen in youth having higher rates on contribution and reduced risk behaviors.

The Mission of the Idaho 4-H Youth Development program is that “4-H empowers youth to reach their full potential through working and learning in partnership with caring adults.” We strive to do this by engaging youth in non-classroom educational opportunities where they can learn content skills as well as life skills such as leadership and citizenship. These opportunities have traditionally been offered in a community club program where members enroll in projects lead by 4-H volunteers.

Youth participate in the December 2015 First Lego League (FLL) Robotics contest hosted by the Kootenai 4-H Program.
During 2015-2016, we made over 5,000 4-H based contacts through teaching, programs and other educational events. These interactions ranged from camps, 4-H shows and contests, to educational events open to the general public or other non-4-H youth. Of these, 897 interactions were with adults, primarily in volunteer development settings (we offered 18 volunteer trainings during the year).

**Featured Program: District 1 Teen Retreat**

Over Martin Luther King Jr weekend, the Panhandle 4-H Ambassadors (teens with additional leadership training in the 5 northern counties) host a Leadership and Personal Development retreat for other 4-H Teens in the 8th through 12th grades from the 10 northern counties. The Ambassadors manage the planning of the schedule, selection of presentation topics and presenters, some of which they lead themselves, as well as contacting guest speakers and entertainment options. Each year they include a community service project, some form of leadership development, as well as personal assessment, personal development, communication or teamwork topics. In 2016 they also added a healthy living component that will now become a regular part of the retreat.

This an excellent 4-H leadership opportunity for those who attend. It also serves as a learning opportunity for those youth who plan and put it on. The Panhandle Ambassadors have been putting this retreat on for the past 6 years and have had 30-40 attendees each year. Last year over 83% responded stating that they “learned something that they can use in 4-H or Life” and many indicated that they plan on attending in 2017.

At the state level there is an effort to establish regional teen leadership events, as not all parts of the state offer a similar type program. The format that has been developed for the District 1 Teen retreat is currently being reviewed by other regions to be considered as the recommended format for regional teen leadership retreats around the state.
2015-16 UI Extension Programming

Family and Consumer Sciences

Families living in Kootenai County are facing the many health issues currently confronting all U.S. families. The five leading causes of death in Kootenai County are cancer, heart disease, stroke, chronic lower respiratory diseases, and diabetes. Some of the deaths and adverse health effects of these chronic conditions are preventable. Knowledge of the causes of death identifies areas within a community where possible prevention or health education activities could be initiated. For instance, the share of adults in Kootenai County who have been diagnosed with diabetes was 8.4% in 2010; a 40% increase from 2005. The State of Idaho had similar rates to Kootenai County’s numbers, increasing to 7.9% in 2010; an increase of 16%. At the national level, 8.7% of adults had been diagnosed with diabetes in 2010; a 19% increase. Obesity and physical inactivity has played a major role in this dramatic increase.

The concern for good health for low-income residents living in Kootenai County continues to grow. From 2000-2011 the share of Kootenai County’s population living below poverty level increased by 52%. Those that live in poverty are more likely to suffer from chronic health conditions, and have lower life expectancies than those that live above the poverty line. Poverty can affect a child’s performance in school, impact academic achievement, and ultimately lower job prospects due to lack of education. Additionally, economic deprivation can lead to crime and violence within a community.

2015-2016 FCS Programming

An overarching theme for FCS outreach and extension programs in 2015-2016 has been an increased involvement of the Eat Smart Idaho program within Kootenai County and our drive to assist families with increased access to healthier foods. Policy, Systems and Environmental Change projects have been at the core of programming. Shelly and her team have developed strong partnerships with key agencies and individuals within the Coeur d’Alene School District, Second Harvest (our region’s food bank distribution center), several faith based organizations, Kootenai Environmental Alliance, the Kootenai County Farmers’ Market, the Coeur d’Alene Fire Department, Let’s Move, CDA 2030, the Inland Northwest Food Network, as well as many other key agencies. In 2015-2016, Shelly Johnson had 39,260 youth contacts and 2,238 adult contacts. Her nutrition education staff had 33,726 youth contacts and 6,591 adult contacts.

Local Food Pantries

Eat Smart Idaho, the CDA School District, Second Harvest and CDA Assembly Church worked together to establish CDA School District’s first school based food pantry. This has been an extremely powerful tool in assisting low income families at Borah Elementary (91% of students receive free and reduced lunch) and the surrounding neighborhood as the pantry is housed at the CDA Assembly Church across the street from the school. The food bank opened in April 2016 and has been extremely successful. In an effort to link families with more resources, ESI reached out to Heritage Health and we were able to start the conversation regarding the mobile health bus being available during the pantry’s open hours. The mobile clinic is now available to families at this location every other week. This has been extremely important to establish this link for our low-income families. Since the launch of the Borah food pantry, pantries at Coeur d’Alene High School and Venture Alternative High School were also opened. We are also in conversations to add a school based pantry to Lakes Middle School in conjunction with the Boys & Girls Club of Kootenai County. We were able to present this project at the Second Harvest Regional Partnership Conference in September.
Featured Program: The Smarter Lunchroom Movement Project

Eat Smart Idaho, with full support from the Coeur d'Alene School District, administered the Smarter Lunchroom Movement Project during the 2015-2016 school year. Smarter lunchroom has proven that when children are given healthy choices and understand why they should be eating them that they are more apt to consume them, not only at school but during other meals of the day. Smarter lunchroom has also shown that these healthy behaviors turn into long-term behaviors, creating adults that eat more fruits, vegetables, whole grain and low-fat dairy. Ultimately, creating healthy eaters is extremely important and is a powerful way in which we can lower obesity rates and healthcare costs in our future.

Each one of our CDA School District elementary schools were assessed with a pre-Smarter Lunchroom evaluation that occurred in November and December 2015 and a post evaluation in June 2016. The Smarter Lunchroom Movement has been recognized as part of the wellness campaign for the CDA School District. We partnered with the District’s Food Service Supervisor, Ed Ducar and his staff as well as Coeur d’Alene Fire Department, who were asked to be our fitness and health role models for our campaign.

To launch the inception of the Smarter Lunchroom Movement, Eat Smart Idaho created and funded a recipe book and calendar, published in October 2015. Both were created to empower our 5000+ elementary youth in the CDA School District and their families to make healthy food choices and to become more physically active. Presentations were given to every single classroom in all 10 elementary locations in the CDA School District. The meaning of eating healthy and the importance of physical activity was discussed in every classroom. This effort included 186 presentations and was coordinated with the lead Administrator over Elementary Education in the CDA School District, as well as each school’s Principal.

Additionally, with this project we had three focused food interventions at our elementary sites. The first being on fresh corn, the second on fresh carrots (both from local farms) and the third on white milk. The ESI team has had access to all of our elementary schools’ cafeterias and have educated youth about these healthy options. Large posters and photographs of our fire department role models were added to each cafeteria, all wearing white milk mustaches. Large email blasts to each students’ families were also included on the days we visited the school site, encouraging the use of the recipe book, as well as information on why families should eat/drink the three focused food interventions more often.
To further extend the nutrition education in the CDA School District, we purchased and displayed within each elementary school cafeteria youth based signage promoting healthy food groups. Each school site received signage on their sneeze guards, updated posters and a magnetic rolling easel that were placed within the line of youth accessing school breakfast or lunch. Our City of CDA firefighters were invited frequently to each of our school cafeterias handing out playing cards of themselves that further promoted healthy habits. ESI also lead the “naming your school cafeteria” project, also part of the Smarter Lunchroom experience. All of these objectives meet the criteria for developing a healthy school cafeteria. ESI has helped each elementary site make great gains in providing nutrition education to their students.

Smarter Lunchroom places schools after their assessments into scoring brackets of gold, silver or bronze status. It is notable to report in the Fall of 2015 eight of our elementary schools received bronze status within the Smarter Lunchrooms scoring bracket and only two received silver status. Our year’s worth of work has made an impact, the Spring 2016 assessment has placed all 10 elementary sites in the silver status bracket. The average level of improvement at each elementary site was 8.3, with Winton Elementary making the greatest level of improvement, gaining 15 points over the assessment period.

Through our active participation with Let’s Move CDA, our work with the school district and with our local fire department gentleman awarded us a gold medal for our efforts within the scope of Let’s Move. We were also invited to present our work during a City Council meeting, even our Mayor was pictured with a milk mustache, promoting white milk and we also were asked to present at the Regional Healthy Eating, Active Living Meeting in October as a model program.

ESI has also been able to advocate that many of our local food pantry’s switch over to a choice pantry model. This means families can shop for the food that they would like to consume. Each of these choice pantries were asked to design their pantry set-up using MyPlate signage, created by ESI. Choice/Food Group pantries have been shown to assist families in gaining self-dignity and are used as a tool for families to learn more about food groups, meal planning, and eating a healthier diet. We have seven pantries so far that we have deemed as healthy choice/food group pantries. We have also developed a healthy food donation list for these pantries and several local food drives.
Family forests are one of the largest private land uses in Kootenai County. Roughly 77% of Kootenai County is forested. Over 260,200 acres of this forestland (43% of all forested land in Kootenai County) is held by over 9,513 family forest owners.

The average timber harvest from these lands since 1987 has been over 47 million board feet annually, with an estimated value of $28 million milled. Family forests become even more important to Panhandle counties when timber supply from industrial and national forest lands declines. For example, since 1991, family forests produced 25% of Idaho’s timber harvest, even though they only comprise 12% of the state’s forest acreage. The portion of timber supply from Idaho Panhandle family forests was likely even higher, since the ratio of family forest land is higher.

Family forests are also critical to water, wildlife, and many other shared values. For example, family forests tend to be more concentrated near key locations for ecosystem functions (e.g., along lakes and streams).

The Panhandle Area Extension Educator for forestry is based in Kootenai County. In addition to the support provided by Kootenai County and grant funding (notably forest stewardship funding from the Idaho Department of Lands), Boundary, Bonner, and Benewah counties also provide support for Panhandle Area extension forestry programs.

The primary goal of UI Extension forestry programs is to provide education that helps private landowners, loggers, and natural resource professionals manage forest resources to more effectively meet their goals. Extension forestry programs are provided in many formats, including weekend workshops, evening programs, publications, and videos. Last year, 292 people attended the following Extension forestry workshops and field days held in Kootenai County:

- Current Topics in Forest Health. A one-day annual program that provides updates on methods to manage animals, plants, insects, and fungi when they impede forest stewardship goals.
- Forestry Shortcourse.(see “Featured Program”)
- Family Foresters Workshop. An annual UI/WSU Extension 1-day conference updating foresters and other professionals on emerging technology and knowledge applicable to family forests
- Identifying Idaho’s Trees. An evening program where participants learn to identify Idaho’s native forest trees and some common forest shrubs.
- Landscaping for Fire Prevention. An evening program where forest homeowners learned how to make their home site less likely to burn and easier for firefighters to access in the event of a local forest fire.
• Logger Education to Advance Professionalism (LEAP). An annual 3-day program that helps loggers improve their skills related to forest ecology, silviculture, and water quality.
• LEAP Update. An annual 1-day program that deepens and expands on training provided in Logger Education to Advance Professionalism (LEAP).
• Forest Shrubs Field Day. A 1-day program that helped participants identify shrubs, learn about their ecology, and assess shrub management strategies in relation to forest regeneration.

In addition, many Kootenai County residents attended UI Extension forestry programs held in neighboring Panhandle counties. In total, nearly 1000 people attended UI Extension forestry programs across the Idaho Panhandle in 2015-2016.

Generally, more than 80 percent of the participants in these programs indicated they would improve a whole host of specific forest management practices to more sustainably grow wood to support Kootenai County’s economy, reduce fire risk in wildland urban interface areas, and reduce forest insect and disease issues. In addition to the skills gained in these programs, many of them also provide continuing education credits for pesticide applicator licenses and other credentials.

**Idaho Master Forest Stewards**

Idaho Master Forest Stewards receive over 70 hours of education to help them better manage their forests and help others learn more about forest management. In return for their training, certified Idaho Master Forest Stewards provide at least 70 hours of volunteer service over two years.

In 2015-2016, the 10 Idaho Master Forest Stewards in Kootenai County provided nearly 700 hours of volunteer service to over 2,100 adults and nearly 500 youth. In addition to interacting with individual peer forest owners, Idaho Master Forest Stewards hosted and taught at forest owner field educational programs, taught youth about forests and forestry, and served in leadership positions in forest owner associations.
Featured Program: The Forestry Shortcourse

Many Idaho forest landowners desire a better understanding of how forests grow and how they can better manage their forest to meet their goals. Furthermore, forest landowners are often required to demonstrate planned, active forest management to qualify for lower forestry property tax rates and cost-share assistance for management activities such as thinning.

The Forestry Shortcourse is a six-session program designed to enrich forest landowners’ understanding of forest ecology, silviculture, forest health, wildlife habitat, and other forestry topics and help them manage their forest more effectively. In addition to presentations, participants receive a large binder of forest stewardship resource materials, including a wooden USB flash drive with over 120 extension publications. Teachers also commonly take the program for two University of Idaho credits, increasing the integration of local forest science into classrooms.

As a result of the Forestry Shortcourse held in the fall of 2015 in Rathdrum, 79% of the 24 participants indicated they would complete a forest management plan, 74% would contact a forester, and 79% would attend additional forestry education programs.

The program has been held annually in Kootenai County for over 20 years and also serves as a critical part of the Idaho Master Forest Stewards Program.

“Before taking the Forestry Shortcourse I considered myself a forest owner happy just to live in the woods. Once introduced to the concepts of proper forest management, I realize how important it is to be a true steward of some our states most valuable resources and now consider myself a committed tree farmer”. Kurt Koetter, Rathdrum, 2017 Idaho State Tree Farmer of the Year

To learn more about UI Extension forestry programs, check out the University of Idaho Panhandle Area Forestry page at www.uidaho.edu/extension/forestry/panhandle. To receive emails about UI Extension forestry programs in the Idaho Panhandle, scan this barcode or go to http://eepurl.com/GDJr5.
Master Gardeners

The Master Gardener Program was started in 1972 in Pierce County, Washington by an Extension Agent who had become so inundated with calls from home owners with yard and garden problems that he had little time for commercial growers. He devised a program to train volunteers in home horticulture and diagnostics who would then return volunteer time by fielding the calls from the public. This successful program has spread to most U.S. counties and several Canadian provinces.

Master Gardener Volunteers

The Idaho Master Gardener program provides home horticulture education to the public through trained volunteers, educational classes, and outreach and leadership within the community. Each volunteer begins with 60 hours of advanced training in botany, horticulture, pesticide management, entomology, soil science, plant pathology, water quality, forestry, turf grass management, home orchards, small fruit culture, vegetable gardening, plant diagnostics and landscape problems. Training is provided annually to update their knowledge in home horticulture and yearly recertification is required.

After their initial training, Master Gardeners train in the Plant Diagnostic Clinic with our coordinator for 24 hours throughout the summer. The remaining 11 hours of their annual requirements are spent educating the public and completing yearly advanced training and certification requirements. Each Idaho Master Gardener is charged to "Help People Grow" through education, leadership, support and encouragement. Some volunteers have been with our program for over 24 years.

"Help People Grow says it all. I have learned so much about horticulture since becoming a member of the UI Extension family in CDA. You have "jump-started" my brain. I’ve been able to share some of the knowledge with clients who call or come into the Plant Clinic, at the Tree Give-away, the Tree Bagging, etc. The gaining and giving of information is a two-way street. The family of Master Gardeners is very giving when it comes to sharing experiences with all aspects of horticulture. Most of all, I am continuing to learn and there is so much more knowledge to acquire. I have gained confidence (in gardening) while working with the Master Gardener Program and, hopefully, have been able to impart some of that confidence to those I’ve come in contact with." -Catherine George, Veteran Idaho Master Gardener

Annual Horticulture Series

The Kootenai County Master Gardeners also hold an annual Horticulture Class Series, with 8-12 exciting class topics that rotate each year. The classes are taught by Idaho Master Gardeners, UI faculty and staff, and area professionals. In 2016, over 394 individuals learned about raising chickens, propagating native plants, how to keep honey bees, food preservation, landscaping for fire prevention, adaptive gardening, tree identification, basic gardening, and organic rose care.
Featured Program: The Plant Diagnostic Clinic

The Diagnostic Clinic is the focal point of the Master Gardeners program. It is open twice weekly during the six month growing season. Our volunteers staff the clinic 12 hours per week, when the public may drop in or call to access researched-based solutions to their queries. The Plant Diagnostic Clinic teaches citizens to:

- Apply current research to caring for gardens, orchards, and landscapes,
- Get practical “how-to” advice and educational resources on home horticulture topics,
- Identify insects, weeds and disease organisms and choose from the best treatment options,
- Pick up soil sampling kits and send samples to the UI lab (our office provides custom interpretation of soil sample results)

Topics vary greatly. Questions range from plant identification and control, insect identification and control, growing fruits and vegetables, hobby farming and general landscape questions. The alternatives we provide include an element of teaching the public about protecting pollinators through better choices with pesticides and protecting our groundwater, lakes and waterways with better use of products and fertilizers.

In 2016, we revised our training to help volunteers become more comfortable working with clients in the Plant Diagnostic Clinic. Our Idaho Master Gardeners participated in small groups, over 6 weeks, role-playing 50 diagnosis scenarios. They used a standardized diagnostic decision tree to navigate our redesigned clinic to reference appropriate science-based alternative solutions for each scenario. After this training, the certified volunteers felt 44.4% more comfortable in The Plant Diagnostic Clinic.

In response to many requests, we added a Mobile Diagnostic Plant Clinic at the Kootenai County Farmer’s Markets each week this year. In 2016, we were present at every Saturday market, and met with 757 clients there. In total, the UI Extension Diagnostic Plant Clinic helped 2362 clients in 2015-2016.

“The Kootenai County University of Idaho Plant Clinic helps people in our community grow by providing free, accessible and knowledgeable support of their individual horticultural questions and concerns. Each client is treated with respect, focus and individualized research.”
- Julie Green, Certified Idaho Master Gardener
Master Gardener Partnerships

Master Gardeners have many partnerships in Kootenai county. In 2016, Master Gardeners

- Organized fresh produce donations to local food assistance facilities through the Plant a Row (PAR) Project. Free seeds are given to the public for their efforts to donate 50% of their harvest back to PAR. Kootenai County Residents and IMGs donated 9,326 lbs. of fresh produce back to their community.
- Taught horticulture classes to area schools, libraries, nurseries, city municipalities and community groups.
- Partnered with the Inland Northwest Food Network and the Rocky Mountain Seed Exchange to host Seed School in a Day. This workshop helped participants learn the art and science of seed saving from an Idaho seed farmer and her co-op.
- Hosted a food preservation class for the public instructed by Shelly Johnson, Family and Consumer Sciences Extension Educator.
- Worked with True to Seed seed library to create a seed starting class at the CDA Library.
- Worked with the Idaho Transportation Department (ITD) on Operation Wildflower, which helps Adopt-A-Highway groups plant ITD-approved wildflowers along approved streets and highways.
- Educated the public using research-based information at booths at the North Idaho State Fair, the Craft and Garden Show at Lake City High School, the River City Gardeners Plant Sale, the Arbor Day Celebration with the City of Hayden, the Earth Day Fair, Ready Set Grow Program with the CDA Library and the Sodbuster Plant Sale.
- Planted annual plants and vegetables to beautify the North Idaho Fairgrounds.
- Educated people who attended the Free Tree Giveaway hosted by the City of Post Falls on the types, uses and care required of specific tree species to help them make the best selection for their site. Typically 3,000 community members show up to receive trees or shrubs given away at this event.
- Helped the Idaho Department of Lands prepare tree seedlings to distribute to the public for Arbor Day. This annual event allows our volunteers to work alongside local youth and opens conversations about trees, forests and sound environmental stewardship practices.
- Initiated work on a pollinator garden, demonstration garden and youth garden showcasing our new school garden curriculum to be unveiled in 2017.

Kootenai County Master Gardeners will continue to teach environmentally sound techniques for our landscapes and teach tomorrow’s leaders about our valuable natural resources and food sources.
Other Program Areas

A variety of other University of Idaho faculty and staff support extension programming in Kootenai County. For example, Jim Ekins, a UI Area Extension Educator based at the UI CDA Center offers a variety of water quality programs throughout the 10 northern Idaho counties, including the Idaho Master Water Stewards, a program that teaches citizens how to monitor and improve water quality. Jim Wilson, an area 4-H Extension Educator provides support for 4-H and youth development programs in the 10 northern counties, as do other staff from the Idaho State 4-H office in Moscow. University of Idaho Extension also has a staff member named Yolanda Bone, housed with the Coeur d’Alene Tribe, in Plummer who supports 4-H and other youth programming on the Coeur d’Alene Reservation. Colette DePhelps, a new Area Extension Educator based in Moscow, supports programming across the ten northern counties on sustainable small farm/community food systems.

The UI Extension Kootenai County office also leverages many additional Extension faculty and staff who work on extension publications and other curricula used by Kootenai County residents and travel to Kootenai County to help instruct in extension programs. The following faculty and staff from the University of Idaho and partner land grant universities traveled to Kootenai County in 2015-2016 to teach at UI Extension programs here.

- Ed Bechinski, UI Extension Entomologist and Professor
- Randy Brooks, UI Extension Forestry Specialist and Professor
- Jim Church, UI Extension Livestock Educator and Professor
- Stephen Cook, UI Entomology Professor
- Jeff Hicke, UI Geography Associate Professor
- Lorie Higgins, UI Community Development Specialist and Professor
- Tip Hudson, WSU Extension Range Specialist
- Joseph Kuhl, UI Genetics and Plant Physiology Professor
- Larry Makus, UI CALS Dean & Director of Academic Programs & Professor
- Andrew Nelson, UI Silviculture Assistant Professor
- Rob Keefe, UI Forest Operations Assistant Professor
- Tim Prather, UI Extension Weed Ecologist and Professor
- Lisa Shipley, WSU Wildlife Professor
- Bob Trippepi, UI Plant Science Professor

A variety of professionals from the partner agencies listed in this report were also instrumental in delivering extension programs in Kootenai County.
**County Funding**

As with all other counties in Idaho, funding for extension programs is cooperative. None of the programs described in this annual report would exist in Kootenai County without the support of the Kootenai County Commissioners. In 2015-2016, Kootenai County provided $140,000 to pay for support staff, local office operations and travel. Kootenai County also provides $53,500 of in-kind support by hosting the Extension office in a county building with accompanying utilities.

**University Funding**

The University of Idaho provided $257,597 in funding for salaries and fringe of UI Extension faculty and staff working in the Kootenai County office. This amount does not include the value of time from University of Idaho faculty and staff not based in the Kootenai County Extension office who contributed to UI Extension programs in Kootenai County. Of UI funding, roughly 80% comes from Idaho state appropriations and 20% from Smith-Lever funds (federal funding).
Grants and Similar

Grants and similar funds are a big part of extension programming. Extension faculty and staff continually seek grants and other funds to support educational needs identified by local citizens. In 2015-2016, UI Extension faculty and staff working in the UI Extension office in Kootenai County procured over $273,663 in grant funding, from a variety of sources.

Program Fees and Donations

There is public value to nearly all extension programs. 4-H members gain skills that they share with everyone. When more people eat healthier, health care costs are reduced for everyone. When people use the correct amount of fertilizer for home landscapes, everyone benefits from better water quality. When private landowners manage their forests more effectively, everyone benefits from healthy forests, timber supply to local mills, and lower fire-fighting costs.

Nevertheless, there is often a private benefit to extension program participants, so many extension programs charge a small fee to participants primarily to aid in program planning and cover individual program expenses, such as handouts, refreshments, speaker travel, and facility rental. Last year, $75,801 of program fees and donations were generated in support of extension programs in Kootenai County.

The Return on Kootenai County’s Investment

Kootenai County gets a good return on their investment. In addition to the benefits to citizens and the community resulting from the education programs described in this report, for every dollar Kootenai County invests in Extension, there is an additional contribution from other sources of $3.14 in programs for Kootenai county residents. When the value of volunteer hours for Extension ($313,652) is factored in, the return in Kootenai County is $4.68 for every dollar invested, still more if time and travel costs of UI faculty traveling to Kootenai County to participate in programs here is included.