Thank you for your part in making Montana State University Extension relevant and successful in providing educational programs for the citizens of Teton County. This annual report highlights a few of the MSU Extension success stories in Teton County.

We want to extend a special thank you to the Teton County Commissioners and voters in Teton County for their continued support of MSU Extension. We also want to thank the many volunteers, the participants, the readers and listeners who help us deliver our important educational messages.

When you support MSU Extension, the citizens of Teton County and Montana benefit.
**Wellness and Health**

**Program description**
MSU Extension in Teton County recognizes the value of healthy, productive citizens of all ages. Education offered in 2016 included:

- Healthy Tracks: Diabetes and Cardiac Prevention, a nine-month series
- Living Life Well with Chronic Conditions, a six-week series
- Powerful Tools for Caregivers, a six-week series
- Operation Concession Intervention: Healthy Food Changes for Serving the Public
- Strong Hearts Healthy Women, five-year research project with Cornell University
- Real Colors Personality Inventory and Team Building
- Strong People Strength Training, a two-month series
- Physical, Mental and Social Wellness
- Food Safety, Food Preservation and Pressure Canner Testing
- Media outreach through newspaper, blog, radio, social media/internet
- Individual consultations

**Impact Numbers**
In the wellness area alone, we reached 526 students, plus an estimated additional 25,000 media participants (radio, internet, newspapers), with an approximated 435 hours of preparation and instruction. We know from a needs assessment survey that 83% of those who learn through MSU Extension share the information with others, thereby increasing the educational reach exponentially.

**Impact of Program**
In Montana, 6.8% of adults reported having prediabetes in 2013, but data suggest the prevalence is actually 35%. MSU Extension in Teton County uses evidence-based programs that support healthy lifestyle changes for adults who are at risk for developing Type 2 diabetes. Results indicate a reduction of the risk of developing diabetes by 58% over 3 years, and by 34% over 10 years after program participation. By learning a variety of wellness management tools, participants added 2.5 hours of exercise weekly, lost weight, reduced medications and lived their lives more vibrantly. Because many of the programs such as Healthy Tracks have been a long-term effort, the overall impact has been much greater.

Looking solely at impacts from the Healthy Tracks Diabetes and Cardiac Disease Prevention Program since 2011, 120 people have completed the nine-month course, with nearly 40% losing 5% of their body weight and nearly 30% losing 7% of their body weight. Sixty percent of participants increased their exercise to 150 minutes per week.

The Strong Hearts research program has not concluded, but will inform national-level wellness programming. Preliminary evidence suggests that the program is promising for reducing cardiovascular disease risk by reducing weight and caloric intake and increasing physical activity and functional fitness in midlife and older overweight/obese women.
# 4-H and Youth Development

## Program description
MSU Extension facilitates 4-H and youth development programming in Teton County, from project meetings to club and council meetings, to regional, state and national events. We also provide enrichment courses for all youth in Teton County.

## Impact Numbers

<table>
<thead>
<tr>
<th>Impact</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth Members</td>
<td>177</td>
</tr>
<tr>
<td>Adult Leaders</td>
<td>85</td>
</tr>
<tr>
<td>Leadership Retreat Participants</td>
<td>16</td>
</tr>
<tr>
<td>Overnight Campers</td>
<td>69</td>
</tr>
<tr>
<td>Camp Counselors</td>
<td>16</td>
</tr>
<tr>
<td>Textile Competitors</td>
<td>20</td>
</tr>
<tr>
<td>Communications Competitors</td>
<td>6</td>
</tr>
<tr>
<td>4-H Council Leaders</td>
<td>7</td>
</tr>
<tr>
<td>Babysitter Boot Camp Students</td>
<td>14</td>
</tr>
<tr>
<td>Montana 4-H State Award Winner</td>
<td>1</td>
</tr>
<tr>
<td>Montana 4-H Livestock Committee Representative</td>
<td>1</td>
</tr>
<tr>
<td>Montana 4-H BioScience Program Students and Coaches</td>
<td>11</td>
</tr>
<tr>
<td>Montana 4-H Congress Participants</td>
<td>9</td>
</tr>
<tr>
<td>Montana 4-H Rec Lab Participants</td>
<td>4</td>
</tr>
<tr>
<td>Leadership Forum Participants</td>
<td>7</td>
</tr>
<tr>
<td>Montana 4-H Ambassadors State President</td>
<td>1</td>
</tr>
<tr>
<td>Montana 4-H Congress Attendees</td>
<td>2</td>
</tr>
<tr>
<td>Montana Make It with Wool Competitor</td>
<td>1</td>
</tr>
<tr>
<td>Montana Shooting Sports Competitor</td>
<td>1</td>
</tr>
<tr>
<td>Additional youth contacts</td>
<td>258</td>
</tr>
<tr>
<td>Food and donations gathered for Teton County Food Pantry</td>
<td>1,800 pounds of food and $500 in donations</td>
</tr>
<tr>
<td>Volunteer leadership hours</td>
<td>3,468 hours of volunteer leadership</td>
</tr>
</tbody>
</table>

## Impact of Program

4-H members and families report their involvement in the 4-H program in Teton County has been fundamental in allowing them to develop leadership skills, organizational skills and record keeping skills. Many report that learning how to conduct meetings helped them prepare for future service in their communities. 4-H members are more likely to continue service to their communities as adults, not only by serving on volunteer boards, but also in general service projects needed to keep Montana communities vibrant. Numerous 4-H alumni from Teton County have reported that their current occupations started with early exposure through 4-H enrichment projects. One participant said, “4-H taught me how to work with a team to develop and meet goals that were primarily for the benefit of others, such as the food drive for the Teton County Food Pantry. I have a feeling I’ll be using those skills my whole life.”
### eParenting

**Program description**
MSU Extension performed a countywide needs assessment in 2014 that revealed a desire for parenting classes or information be offered through MSU Extension. To meet that need, we combined efforts with University of Wisconsin Extension to offer the eParenting program. Not only did our county make this connection for our local clientele, but we also provided leadership statewide. The eParenting program offered weekly email training from January through May. MSU Extension contacted and partnered with local schools, Extension in counties across the state, and the Montana 4-H program to disseminate information.

**Impact Numbers**
Montana residents visited the eParenting: High-Tech Kids website 11,518 times from Jan. 1 to May 31, 2016.
- 6,834 people visited once
- 3,133 people visited 2-4 times
- 930 people visited 5-8 times
- 437 people visited 9-14 times
- 184 people visited 15 or more times

**Impact of Program**
Of those responding to a survey, 88% reported using at least one new parenting idea or developing a new parenting skill based on information from the eParenting program, 71% reported reading most of the 18 educational messages and 14% read all of the messages, 57% used links provided to sometimes read more resources on parenting, 14% used the links provided most of the time to learn more and 29% used the links each time they received an eParenting message to study further parenting techniques. Of those surveyed, 57% reported they shared the information they gained with others.

Respondents said, “Gave quick little parenting tips to think about, and additional resources if it was something I wanted to pursue.” And “It helped me realize that I am not the only parent having these issues with my children and it offers strategies that can get you back on track with teaching and helping your child develop into an adult.” The eParenting program, “Reminded me to take a minute to simply reflect on being purposeful in my parenting, whether technology was involved or not.”

### Front Range Wool Pool

**Program description**
To maximize income opportunities, local growers need to work cooperatively to compete in the global marketplace. The Front Range Wool Pool is a marketing cooperative facilitated by MSU Extension that allows producers from the Golden Triangle area to deliver their wool to Choteau on a set date each year. The MSU Wool Lab grades, weighs and samples each grower’s wool and assigns the wool to one of seven marketing lines depending on fineness, length, color and contamination. The wool from this area is shipped to Jordan, Montana, combined with wool from seven other pools in the Eastern Montana Consolidated Pool, and sold through a sealed bid process on the international market.

**Impact Numbers**
Thirty-seven sheep producers in the Golden Triangle area delivered 36,676 pounds of wool.

**Impact of Program**
By transporting the wool to a central location for delivery, the pool members saved more than $9,000 in transportation costs. Due to economies of scale realized by selling in a large lot, the pool marketed the wool for 10% more than they would have individually. Front Range Wool Pool members realized an additional income of $14,135 or roughly a 25% increase in the value of their wool clip.
STEM and Youth

Program description
Projections show that growth in science, technology, engineering and math (STEM) careers will outpace the number of skilled citizens to fill positions. MSU Extension in Teton County is aware that early exposure to STEM concepts and careers can influence student learning and career goals. We have offered the Youth Experiences in Science (Y.E.S.) program for 18 years. We have also added STEM concepts to the majority of lessons and 4-H project training. We have implemented the Montana 4-H BioScience program in Teton County.

Impact Numbers
Through the Y.E.S. program approximately 500 youth have been taught science concepts and science career development at an early age. Through the Montana 4-H BioScience program, 16 youth and five adults received 170 immersive hours of direct science training and experimentation.

Impact of Program
Students learned about science careers and concepts and that any person can succeed in science classes and careers. Because of Wolery’s teaching on state and national levels, MSU Extension in Teton County has impacted an additional 20 educators and 450 youth across the nation.

Pesticide Applicator Certification

Program description
Pesticide applicator certification enables producers and commercial applicators to purchase and use restricted-use pesticides. MSU Extension, with cooperation from Montana Department of Agriculture, is responsible for continuing education to keep applicators and handlers advised of current regulatory changes and safety precautions. The two agencies work together to keep people and the environment safe.

Impact Numbers
One hundred twenty-seven producers and landowners received training on pesticide use and safety.

Impact of Program
A new five-year cycle of certification for private applicators with Montana Department of Agriculture in this region of the state started on January 1, 2016. More than 100 producers in Teton County either recertified licenses or became newly certified to apply restricted-use pesticides on their property. These producers now have more options to control weeds and a better understanding of how to protect themselves, their family and the environment from pesticide misuse.
## Program description

MSU Extension in Teton County strives to offer the best diagnostic capabilities for commodity grain and pulse producers, forage growers, commercial horticulturists and homeowners. We offer in-house testing for nitrates in forages pre- and post-harvest, insect and weed identification, disease analysis through the Schutter Diagnostic Lab at MSU, pest insect monitoring, water testing through Energy Laboratories and forage analysis through Midwest Labs.

## Impact Numbers

Records indicate that 275 Teton County residents received diagnostic or educational assistance through MSU Extension in Teton County. The office provided traps and monitored 11 fields in the county weekly for Orange Blossom Wheat Midge, submitted 45 samples for disease diagnosis and/or identification to the Schutter Diagnostic Lab, sent 29 forage and soil samples for analysis, and conducted 20 nitrate tests for producers.

## Impact of Program

One spring wheat field required additional monitoring due to high Orange Blossom Wheat Midge numbers, but no insecticide application was ultimately required. Twenty forage producers saved $400 on nitrate tests for hay. One sample tested 12,000 ppm nitrates and would have caused many production issues if used as feed, including death of livestock. The office forwarded 74 samples on to professional laboratories for more detailed analysis. We diagnosed several cases of Dothistroma Needle Blight in Ponderosa Pine trees around the county. At one municipal location, one tree had already died and the rest were treated in time to save them. The business owner considered these trees invaluable. Through a combination of fieldwork, lab analysis at the Schutter Lab and consultations with specialist at MSU, we concluded a field of chickpeas did not properly inoculate. This 130-acre field should have yielded 37 bushels/acre, but ultimately yielded 19, and without a last minute application of 50 units of nitrogen fertilizer, would have potentially yielded nothing. The nitrogen application conservatively returned $64,220 to the grower based on the current price of 9mm Kabuli chickpeas.
Certified Weed-Seed-Free Forage Program

Program Description
As Teton County is considered a point of access for the Bob Marshal Wilderness, preventing the spread of noxious weeds into our pristine backcountry is vital. To prevent the further spread of noxious weeds, certified noxious weed-seed-free forage is required when horses or pack animals are used on public land in Montana. The MSU Extension office in Teton County certifies fields of weed-seed-free hay for county producers to prevent the spread of weeds on public lands.

Certified 531 acres in Teton County that yielded approximately 911 tons of hay.

Impact of Program
While trying to minimize the spread of weeds into pristine areas, the weed-seed-free hay program also adds value to the forage. Only weed-seed-free hay can be used on federal land. The certification process is strict, so producers who meet the standards can sell their hay for a premium. Conservatively, the sale price will be $50 more per ton for the certified hay, increasing the producer’s gross sales in the county by more than $45,000.

What do citizens say about MSU Extension in Teton County?
“Extension provides a source of up-to-date information in all areas of agriculture and home and family. The 4-H clubs have provided many children with lifetime skills.”

“I would say that by enriching the lives of individuals and families MSU Extension does a great deal for the county as a whole.”

DNRC Conservation Seedling Nursery Program

Program Description
MSU Extension partners with the Department of Natural Resources and Conservation Seedling Nursery to provide technical assistance to landowners planting windbreaks. Windbreaks provide numerous benefits in Teton County to both people and wildlife. MSU Extension in Teton County promoted and advised landowners on species selection, windbreak design and planting techniques of conservation trees and shrubs in Teton county and surrounding areas.

Impact Numbers
The Extension agent facilitated and consulted with 21 landowners on windbreaks and coordinated delivery of 5,087 conservation trees and shrubs.

Impact of Program
Planting windbreaks in Teton County is a long-term and expensive project that can be marked with a high degree of failure due to our dry, windy and cold environment. MSU Extension in Teton County provided landowners with site-specific species selection and planting guidelines to help ensure success. The office also provides post-establishment consulting on disease and insect diagnosis to ensure the investment of trees and shrubs reach maturity.

MSU photos
Wind breaks established in Teton County.

Alfalfa is one of the hay crops that producers grow to sell as certified weed-seed-free livestock forage.
An MSU Extension Teton County participant praises the value of Extension:

“Extension is extremely relevant to us in many different ways. First, our job. We farm and ranch and have found Extension a VERY valuable resource for information to help us do our jobs. We utilize everything from hay certification, crop questions, hay testing, and general agricultural topics. Secondly, our children have benefited greatly from 4-H. We are still in the early stages of 4-H, but the last few years have offered our children many opportunities to grow and develop into productive citizens. We have watched them meet other children with similar interests. We have watched them work hard on a project they didn’t know anything about until 4-H introduced it to them. They have gained a great deal of confidence in public speaking. They have a strong work ethic that is further developed with their 4-H animals. They have learned empathy and good animal stewardship through 4-H. 4-H is absolutely one of the best youth organizations out there!! Lastly, I have utilized Extension for helping in raising my family. I have learned cooking techniques that I would have never known. I enjoy having a friendly face to ask questions. Without Extension, we would miss out on a very valuable service!!”