

# Missoula County Department of Ecology and Extension

ANNUAL REPORT 2023



# Missoula County Department of Ecology and Extension

## Staff

BRYCE CHRISTIEANS  
Department Director

JERRY MARKS  
MSU Extension Lead  
Agriculture Agent

PIRRIE DURKEE  
Financial Coordinator

CAMPBELL BARRETT  
MSU Extension 4-H Agent

KELLY MOORE  
MSU Extension Family &  
Consumer Science Agent

SARAH HOLDEN  
MSU Extension  
Horticulture Agent

SANDY PERRIN  
Plant Clinic Coordinator

DEIDAD WRIGHT  
4-H Administrator

JEAN JENKINS  
Foundation Coordinator

MARIROSE KUHLMAN  
Habitat Coordinator

REBECCA DONALDSON  
Aquatic Invasive Species  
Coordinator

SAWYER MEEGAN  
Aquatic Invasive Species  
Technician

ZACH LEWIS  
Watercraft Inspection  
Station Supervisor

By far the **biggest news** for the Missoula County Department of Ecology & Extension in 2023 was that **we officially moved** in to the Gerald W Marks Exploration Center and Rocky Mountain Gardens! After 20+ years of planning, we have opened our doors to the public with expanded programs in horticulture, nutrition education, ecosystem management and youth development. Learn how to make chocolate mole or about the versatility of potatoes in the new demonstration kitchen, take master gardener in the Lupine Lab, or gain hands on experience planting a pollinator garden by volunteering in the 2.5 acre Rocky Mountain Gardens. We are more than excited by the possibilities our new location has to offer.

As always, our partnerships continue to help us grow. Our new location on the campus of the Missoula County Fairgrounds provides ample opportunities for us to engage more deeply with our community during events like the Western Montana Fair. Our building partners, the Missoula Butterfly House & Insectarium and the Missoula Conservation District allow for expansion of collaborative programs on pollinators, native plants, and water conservation. Our foundation, Healthy Acres, Healthy Communities, along with its newly launched membership, helps provide sustaining financial support to the Department's projects and programs. And our most important partner, you. As a member of our community, we want to hear from you about what you need to be successful in your goals. From managing rangelands to growing peppers on your deck, come ask us your questions and we will work with you to find the answers!



# Program Overview

**Missoula County Department of Ecology & Extension** strives to cultivate resilience and inspire growth by empowering communities through hands-on education and sustainable practices in the areas of:

**Ecosystem Management:** Programs focused on mitigating the economic and environmental impacts of terrestrial and aquatic invasive species in Missoula County, while at the same time prioritizing pollinator, water and native plant community conservation. This includes the active management of new invasive species populations, research and development for new biological weed control agents, and management of the Clearwater Watercraft Inspection Station.

**Horticulture:** Programs focused on showcasing the parts and pieces of the living landscapes that surrounds us as well as inspire and assist you in reaching your gardening and landscaping goals. This includes Master Gardener, plant/pest/disease identification and recommendations, research trials and demonstration in the Rocky Mountain Gardens.

**Nutrition Education:** Programs to inspire confidence in the kitchen! Hands-on learning opportunities focused on conveying science-based information on all things related to food. Major program series include Cultivate & Cook, Food as Medicine, Intro to Canning & Food Preservation and EFNEP.

**Youth Development:** Programs that provide mentorship and service-based learning opportunities in natural resources, agriculture, nutrition and community development. Major program areas include the Missoula County 4-H Program, EFNEP, and the Youth In Restoration Program

## Staff, cont.

STEFFANY ROGGE  
Education Coordinator

TAYLOR HILL  
Youth In Restoration Crew  
Lead

ELIZA GILLILAN  
Education Assistant/Youth  
Biocontrol Coordinator

JED LITTLE  
GIS Coordinator

LAYNE VON LANKEN  
IPM Coordinator

MELISSA MAGGIO  
Statewide Biocontrol  
Coordinator

HARPER TIPPS  
Biocontrol Technician

MOLLY ATTWATER  
MSU Extension EFNEP  
Nutrition Educator

ALYSSA FOOTE  
MSU Extension EFNEP  
Nutrition Educator

MOLLY ANTON  
Rocky Mountain Gardens  
Coordinator

STEPHANIE POTTS  
Rocky Mountain Gardens  
Program Development  
Coordinator

# The Vision

Beginning with just a dream in the late 90's of bringing a learning center to Missoula that included classrooms, labs, and outdoor demonstration space, Gerald "Jerry" Marks' dream became reality in 2023, and includes a state-of-the-art teaching kitchen, master gardener laboratory, large capacity classrooms, 2.5 acres of teaching and demonstration gardens, and thanks to our partners at the Missoula Butterfly House & Insectarium, a year-round tropical butterfly house and insect museum!





## BUILDING A PLACE TO GROW

### providing philanthropic support to missoula county department of ecology and extension

What a journey it has been to achieve the opening of our new home! On December 5th, we hosted our official Grand Opening and Ribbon Cutting. Approximately 200 Community members attended and joined the passport tour leading them through our specialized educational spaces, including the Honeyberry Culinary Classroom, the Lupine Lab and Plant Clinic, the Balsamroot Conference Room, and Clover Boardroom.

October 18th was a beautiful evening for our annual Fall fundraiser. There were 70 attendees and nearly \$25,000 was raised supporting the installation of the Rocky Mountain Gardens and play structures.



## Cultivate your connection to the natural world.

The Rocky Mountain Garden and Exploration Center membership kicked off during the Western Montana Fair, acquiring 84 members. Early members entered a drawing for the wagon filled with garden and canning supplies, seeds, and plants. Congratulations to Phoebe Bean, winner of the drawing. Members enjoy:

- Reduced fees for classes and programs
- Early notification of events
- Member only discounts at local business partners (could include business logos here from Ace, Marchies, Pink Grizzly and Liquid Planet).

### Membership supports

Garden Maintenance

Free admission to the gardens for all visitors

Programs of the Department of Ecology & Extension

### Contact us

jenkins@healthyacres.org  
406.370.0441

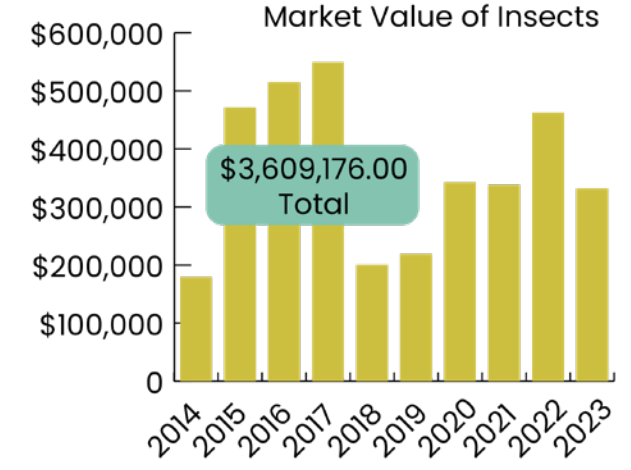
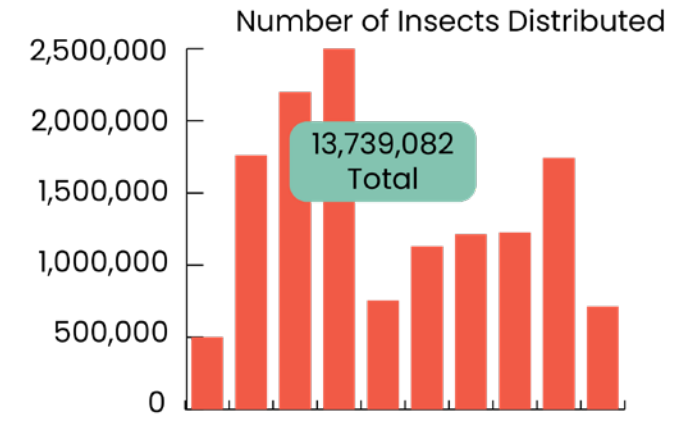
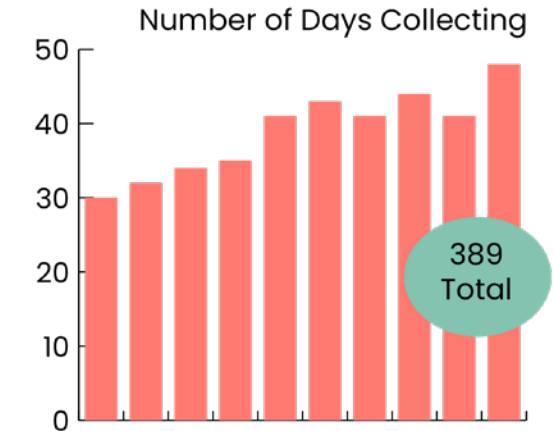


Amber Schelvan, 4-h Ambassador, Jen Marangelo, ED, MBHI, Gerald Marks, MSU Extension Agent, and Tim Hall, Board Chair, Missoula Conservation District; top photos by Mike Williams

## MT BIOCONTROL PROJECT

### celebrating 10 years

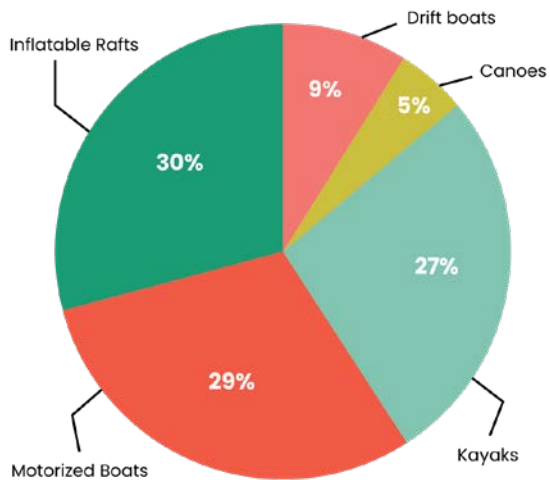
Over the last 10 years, MTBCP has created educational materials and handouts including posters, field guides, stickers, tattoos, boot brushes, resins, and a variety of documents and participated in a variety of biocontrol related research projects on leafy spurge, houndstongue, Canada thistle, and flowering rush. This work is difficult to summarize with graphics but here are some of the project focus areas that can more easily be summarized with numbers and graphics.



## AQUATIC INVASIVE SPECIES

It was another busy year at the Clearwater Junction Watercraft Inspection Station with over 25,000 visitors for the 2023 season! The watercraft inspection station, a joint effort with Montana Fish Wildlife and Parks, intercepts all watercraft traffic driving along Highway 200 (about 40 minutes East of Missoula). The majority of the recreators that came through the inspection station this year were local Montanans, but we still saw plenty of out-of-state boaters, including individuals coming from as far away as New York State!

We inspected almost as many kayaks as we did motorized boats. It's important to remember that any vessel that touches the water needs to be inspected at one of our stations (motor or not)!



ecosystem management

## MOST POPULAR

Seeley and Salmon Lakes -  
2,500 visitors each  
Blackfoot river -  
6,000 visitors



# 19,534

high-risk boats

# 95,298

total watercraft inspections

# 51

statewide mussel fouled boats



## POLLINATOR CONSERVATION

On June 22nd, 2023, the Missoula County Commissioners signed a resolution making Missoula County an official Bee City USA affiliate, joining a growing, nationwide effort to protect and promote our vital pollinators. This designation entails implementing pollinator-friendly practices, raising awareness about their importance, and collaborating with the community and local stakeholders to create bee-friendly habitats. Together we can ensure a thriving future for pollinators and our community!

**BEE CITY USA**  
**MISSOULA COUNTY**

# 250

lbs of flowering  
lawn seed  
mix distributed



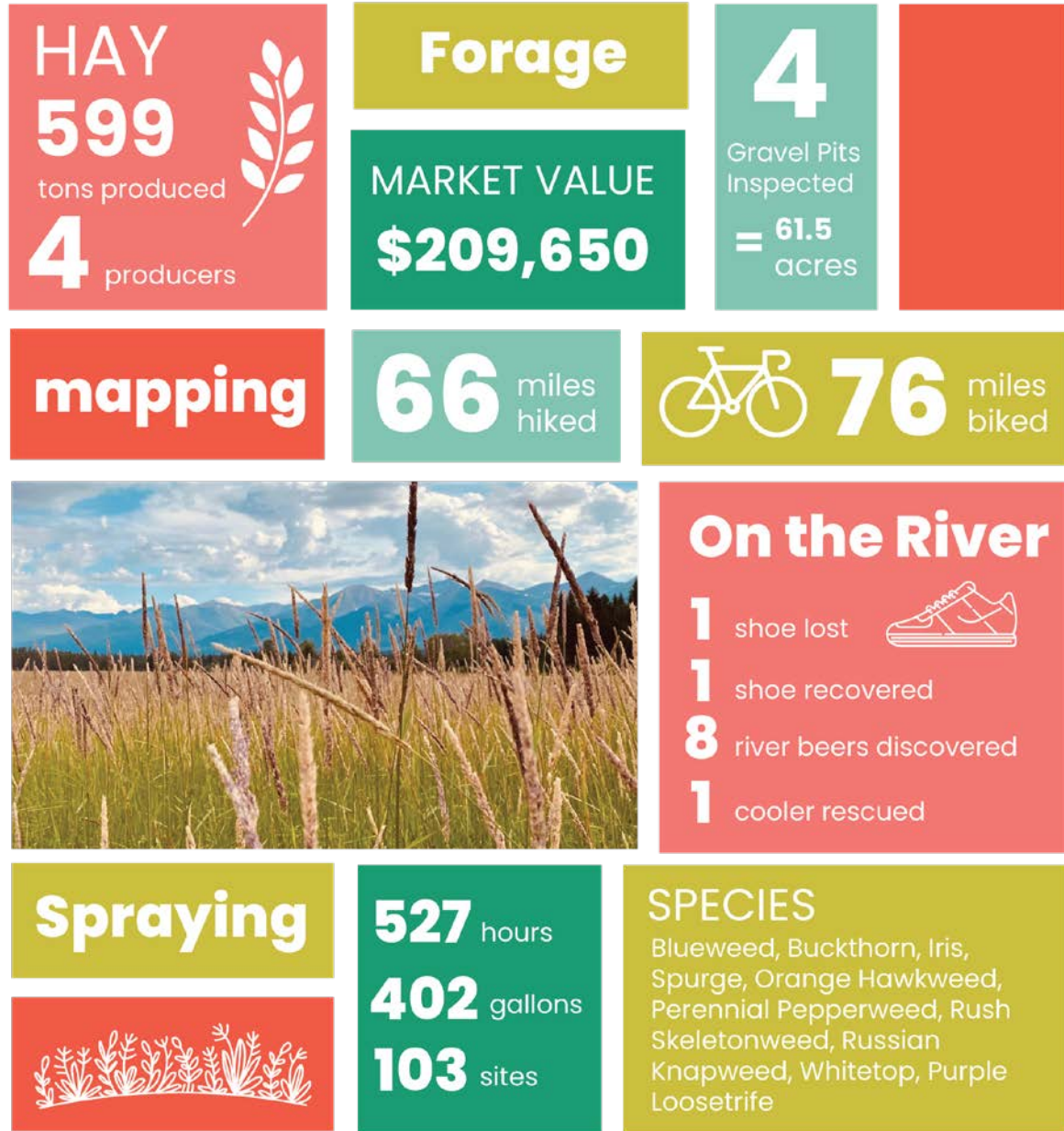
enough to diversify  
**62,500**  
square feet of lawn

ecosystem management





## PREVENTION by the numbers



ecosystem management

## ROCKY MOUNTAIN GARDEN

While we were moving boxes and furniture into the Gerald W Marks Exploration Center this fall, we were also moving dirt and plants into our new 2.5-acre hands-on education space: Rocky Mountain Gardens.



Thankfully the weather was cooperative for our first fall planting. Over three days in late October, groups of volunteers assisted staff in planting more than 2,400 bulbs in the Color Garden. Staff and volunteers also set down stones for our unique Montana Native Crevice Garden, which will exhibit native plants in resource-wise and small-space arrangements. Additionally, Loni Waters & Justin Rittenmeyer of Garden City Florascaping installed the garden pathways and several of the plants for the Waterwise Garden space, and Bill Caras of Caras Nursery began laying the stone walkway through the Ornamental Garden space, preparing it for spring planting. We also began preparations for more education and volunteer opportunities as the gardens are installed throughout 2024.



horticulture



In 2023, our **horticultural endeavors** have spanned radio engagements, educational initiatives, diagnostic services, and landscaping projects. The numerous interactions and accomplishments reflect our commitment to enhancing horticultural awareness and creating thriving green spaces. As we look ahead, we are excited about the opportunities and growth that the upcoming year holds.

### MONTANA CUT FLOWER ASSOCIATION

Sandy Perrin with Missoula County Extension helped organize and support the new Montana Cut Flower Association, which is ongoing education, collaboration, and innovation to ensure the continued growth and sustainability of Montana's cut flower industry.

Members of the Cut Flower Association participated in seed trials to explore and evaluate different seed varieties, contributing valuable data to the understanding of what thrives in Montana's growing conditions. They attended the national Cut Flower Conference in St. Louis to gain insights into broader industry trends, innovations, and best practices. And, the Cut Flower Association provided 8 scholarships aimed to provide financial support and resources to catalyze members' business growth and success.

The statewide Cut Flower Conference brought together 50 attendees from the local cut flower industry. The conference served as a dynamic platform for networking, knowledge exchange, and collaborative initiatives. The Association has also launched a video campaign celebrating local cut flowers, aimed to raise awareness about the benefits of supporting local growers and encourage a stronger connection between producers and consumers.



### MASTER GARDENER

Master Gardener is always a popular educational opportunity offered annually. This program trains volunteers in our community to act as an arm of the MSU extension Horticulture program. The course runs 10 weeks and includes lectures from local experts and state extension specialists and offers a hands on learning component in each class. This year we had over 130+ people on our waiting list! Our new Horticulture agent, Sarah Holden, started in October and plans to expand the Master Gardener volunteer program and offer many new educational opportunities in our new 2.5 acre gardens.

### ON THE RADIO

Listeners across Northwest Montana can now connect with Sandy Perrin, Plant Clinic specialist on the radio! In 2023, Sandy began regular radio appearances sharing helpful facts and tips about plants and pests for growers, landowners, and others. You can hear her on KGVO from 7:45-7:50 Monday through Friday for the Horticulture/Forestry Minute, and monthly on Talk Back.

30  
site visits

82  
soil testing  
questions

225  
insect  
identifications



290  
cultural plant  
diagnoses

102  
plant & weed  
identifications

71  
horitcultural  
minutes  
read  
on KGVO  
radio

12  
hours  
on KGVO  
talk back  
radio  
program

PLANT CLINIC  
937  
diagnostic calls,  
e-mails, texts, walk-ins,  
and site visits





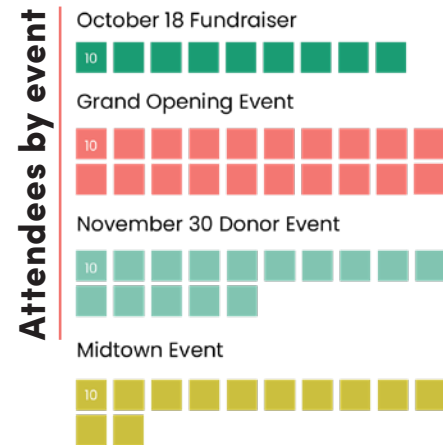


## HONEYBERRY DEMONSTRATION KITCHEN

### Family and Consumer Science, MSU Extension

“Cultivate and Cook” is a monthly series of demonstration cooking classes featuring seasonal, locally sourced foods. Plant and horticulture staff specialists, provide information on growing, harvesting, and sourcing featured products. Butternut Squash Soup, Holiday Edible Yule Log, What’s so Great about Lentils and Beans? Mole—the Holy Grail of Mexico, Potatoes –Irish Colcannon for St. Patrick’s Day.

The upcoming “Confidence in the Kitchen” 4- part series, focuses on improving kitchen skills, obtaining a knowledge of kitchen terminology, and developing and cooking a list of fresh, healthy, locally sourced recipes for all ages.



nutrition education

## EXPANDED FOOD & NUTRITION EDUCATION PROGRAM

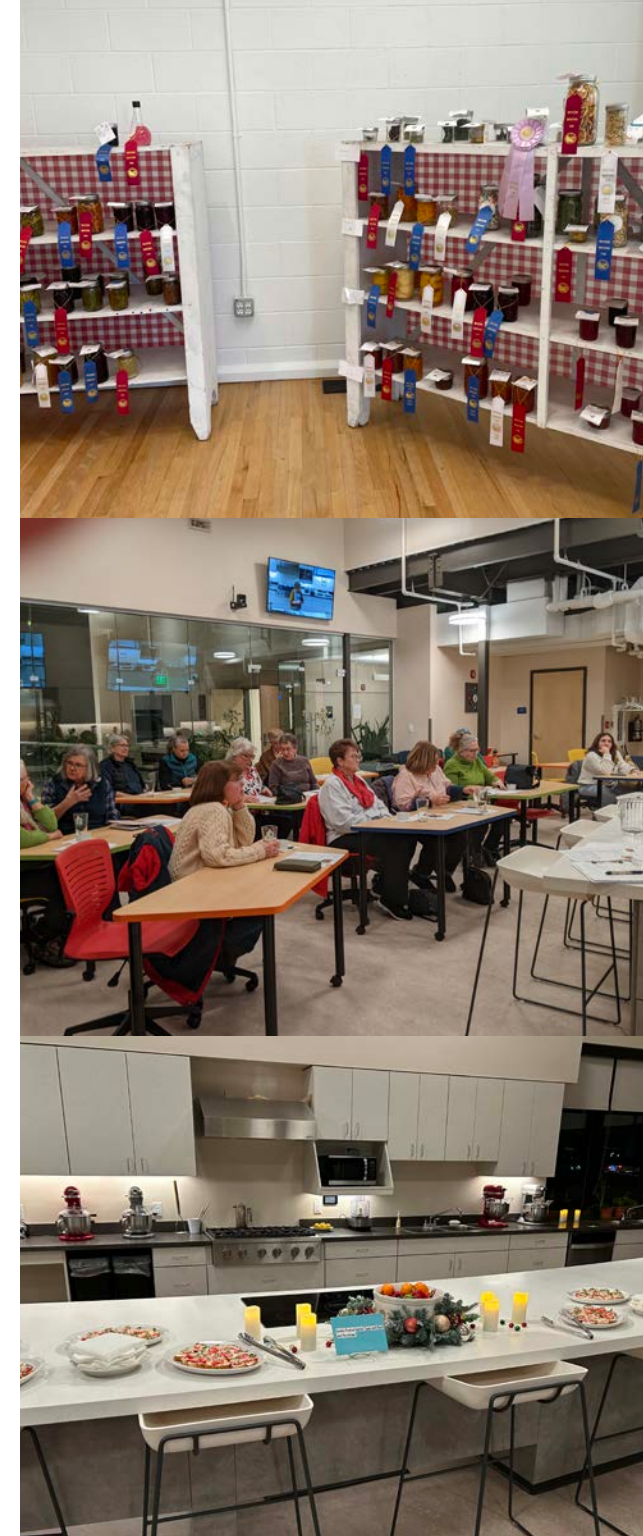
The mission of the Montana State University **Extension Nutrition Education Program** is to improve the likelihood that individuals with limited resources will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the current Dietary Guidelines for Americans (DGA) and USDA Food Guidance System. Programming reached 35 adults and 415 youth through 39 adult classes and 138 youth classes.

### Eating Smart, Being Active! (ESBA)

Adults that participated in ESBA classes showed:



nutrition education



## 4-H

### 4-H teaches leadership, citizenship, and life skills.

In 2023, Missoula County 4-H teens participated in State 4-H contests at Montana 4-H Congress on the campus of Montana State University in Bozeman. Autumn Schelvan, a Senior at Big Sky High School won 2nd Place in the state, earning a trip to compete in Denver at the Western National Roundup. Autumn also interviewed and was selected as Montana's State 4-H President. Cassidy Schelvan, a Homeschool Freshman competed in the Stir-Ups (cooking) Contest, coming in 2nd place, and earning a trip to Atlanta to attend National 4-H Congress.



**385** youth members



**53,000**  
hours caring for animals  
or participating in  
hands-on learning



youth development

### OUTSTANDING LIFETIME VOLUNTEER

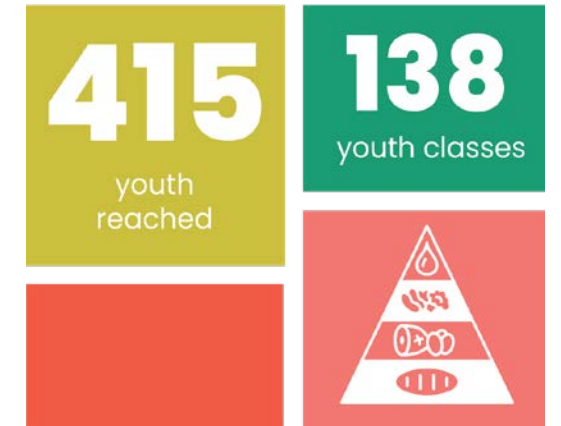
Long-time Missoula 4-H Volunteer, Joey Hennes, was recognized as Montana 4-H's 2023 Outstanding Lifetime Volunteer during the Montana 4-H Volunteer Institute in Billings in February, 2023. Joey has been a volunteer for more than 40 years, serving as a club leader for many of those years. Through decades as the 4-H Leaders Council Treasurer, Joey worked to streamline the budget and improve the financial process for everyone involved. Joey is an outspoken supporter of the Missoula County 4-H Program. In 2006 Joey led the efforts to resist encroachment on the 4-H/FFA exhibit area at the Fair, helping create what was known for many years as the Country Fair. Joey has always been a trusted advisor and supporter of the 4-H mission. Congratulations, Joey!



### EFNEP YOUTH CURRICULUM

Expanded Food and Nutrition Education Program strives to improve the likelihood that individuals with limited resources will make healthy food choices within a limited budget and choose physically active lifestyles.

The children's youth curriculum classes showed a 75% improvement in abilities to choose foods according to Federal Dietary Recommendations or gained knowledge in healthy food choices; 57% use safe food handling practices more often or gained knowledge on safe food handling; and 36% improved their physical activity practices or gained knowledge on physical activity.



youth development

## PURPOSE OF PLANTS

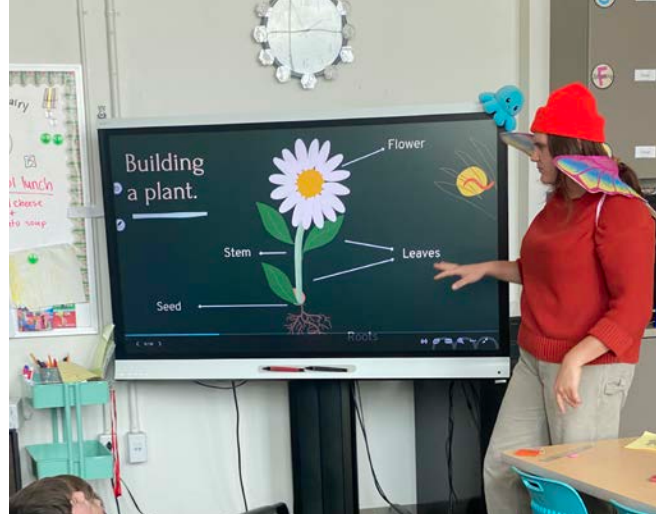
### Second Grade Education Program

The Purpose of Plants program for second graders had a successful year in 2023, continuing its mission to educate young minds about the structure and function of plants, particularly in relation to attracting pollinators. Through engaging lessons and hands-on activities, students explored the fascinating world of plants, learning about their different parts and how they work together to attract pollinators like bees, butterflies, and hummingbirds.

By understanding the purpose behind different plant adaptations, students develop a deeper appreciation for the natural world and the vital role plants play in their everyday lives and sustaining ecosystems. Throughout the presentation, students are encouraged to make discoveries and learn about the various parts of plants and how each contributes to their survival and reproduction. From roots anchoring them in the soil to colorful flowers signaling pollinators, every aspect is unveiled through hands-on activities, vivid illustrations, and interactive lessons.

As they further engage in the power of plants and the vital role they play young minds are nurtured to become curious, compassionate, and informed about the importance of native plants and the important role they have in biodiversity.

As we look ahead to the next year, we are excited to build upon the successes of this program and continue inspiring a love for plants and nature in our students.



## WHAT'S IN A NAME?

### Bitterroot 7th grade haikus

Soft toes of a cat

Its leaves are silvery grey

Step light or meouch!

Cooper - Pussy toes  
- *Antennaria rosea*

Clusters of goodness

Beginning with white flowers

Make them bears happy

Miranda - Serviceberry  
- *Amelanchier alnifolia*

Eat what's underground

My flower gives all a nod

It may make you cry

Newt - Nodding onion  
- *Allium cernuum*

Cauliflower tops

And red roots that num your mouth

With green feathers too

Lily G- Yarrow -  
*Achillea millefolium*

Beautiful flowers

Useful food from roots, short, green

Pretty purple pink

Brooklyn - Bitterroot -  
*Lewisii rediviva*





youth development



### YOUTH CONSERVATION EDUCATION Leave No Weeds, Purpose of Plants, Nature Walk Week, and Earth Stewardship Programs

**1,445**  
students

**1,474**  
miles hiked

**24**  
schools



**57** different  
classrooms

**120** parent volunteers &  
teachers learned  
something new



youth development



**MISSOULA COUNTY**  
DEPARTMENT OF ECOLOGY & EXTENSION

1075 SOUTH AVE W, MISSOULA, MT 59801

P: 406.258.4200 | F: 406.258.3916

