



Forest Health and Family Heritage

Forest Stewardship Connects Family with Long Lost Resources

“This is a major accomplishment for our family” stated Marianne Clark. “This land has been in Marianne’s family for over one hundred years” states husband Bob. “But we have never set foot on it” he continues.



Forest Stewardship combines classroom learning with hands-on experience to build forest inventory and management plans

Bob and Marianne Clarke of Scottsdale, Arizona enrolled in the 2015 Montana State University Extension Forest Stewardship program in Philipsburg with great anticipation.

It was their second time enrolling, and they had yet to stand on the property that has been in their family for over a century.

Forest Stewardship Montana is designed to provide non-industrial private forest landowners essential tools to make informed management decisions. Marianne and Bob learned to inventory their forest resources, identify management goals for their property, and develop a management plan to achieve identified goals. They are now working with a certified forester to implement specific management actions.

MSU Granite County Extension Agent Dan Lucas drove the steep winding road east of Philipsburg with the Clarkes to assist in locating their property. Bob and Dan hiked the slope and found the original witness tree established in 1904.



Witness trees were used to identify property corners

“Wow, Marianne’s family was right here 111 years ago to stake this claim” Bob stated.

Welcome to Granite County

Granite County is a rural natural-resource-supported county in central Western Montana. Winter and summer recreation draw visitors to the scenic beauty year-round.



MSU Granite County Tri-funded Support



Montana State University Extension in Granite County is supported by three strong and important partners. County, state and federal funding sources work together to assure that MSU Extension in Granite County has the resources to provide timely and relevant education addressing locally identified issues. Montana counties provide about 40% of the funding to support local offices, state funding provides about 40%, and federal partners about 20%.

Herdsmanship School Inspires New “Tillage” Technique

Estate Planning to Plowing Fields

MSU Granite County Extension Herdsmanship School Provides Important Tools

“We need to know the ins and outs of different ways to pass the ranch on” stated Dave Buck of Hall, Montana. Dave always provides direction for the MSU Extension Herdsmanship School during the annual rangeland monitoring trip to the family grazing allotment in Beaverhead County.



Keeping the ranch in the family is important to Montanans

Dr. Marsha Goetting, Family Economics Specialist, Montana State University, taught Transferring Ranch Real Property to the Next Generation at the 2015 edition of the MSU Extension Granite County Herdsmanship School. “I did not know that contract obligations supercede a will” stated Dave following the program. “We will go next week and make changes to our papers. This is really important” he continued. Providing tools for Montana families to achieve transgenerational transfer of agricultural enterprises has been identified as a critical issue by Granite County families.

Streamlining crop rotation and minimizing non-productive time has also been identified by Granite County agricultural producers as an important issue. Each year as fields progress through crop rotations from perennial to annual forages in preparation for returning to perennial forages in one to two years, the fall time period becomes non-productive for most Granite County operations.

Cover crop cocktails have been successfully applied to dryland grain production to address soil health concerns. A variation of cover crop cocktail ideas provides an opportunity to minimize non-productive time periods during crop rotations and add the benefit of reducing tillage costs.



Tillage costs add significantly to crop rotation expenses

Hall rancher Ron Skinner had been looking for several years for a solution to the non-productive fall rotation period. Based on the Herdsmanship School class, Ron planted 70 acres of forage turnips following his hay barley harvest. The turnips responded well and Ron was able to graze the palatable and nutritious turnip crop. Ron says “The grazing is great, but the real benefit will come next spring when the soil works so much easier because of the turnips.” Reducing tillage practices by one pass with a tractor saves \$12-16 per acre in the crop rotation sequence. Ron estimates the savings for his annual farming alone at \$3,000 - \$4,000 per year. Additionally, the added fall forage is valued between \$4,000 and \$5,000.



Forage turnips are palatable and nutritious

4-H . . . Youth and Adults Making the Best Better

Granite County and Beyond

Flint Creek Valley 4-H Club member Sydney Cutler recently said “I love showing cattle. I love going to the shows, the friendship, learning how to improve my breeding program, learning about feeding and health care, I love everything about it.”



Sydney Cutler with her Angus heifer KaGee she received through the NILE Merit Heifer Program

Raised on a Philipsburg cattle ranch, Sydney has been a youth superintendent at the Tri-County Fair and a recognized leader in the Granite County 4-H program. Her 4-H experiences provided critical skills and confidence to advance her endeavors. In 2014 Sydney applied for and received an Angus Merit Heifer through the Northern International Livestock Exposition. She returned to the NILE in 2015 and won Overall Reserve Champion Female with her Angus Merit Heifer KaGee.

Sydney has shared her passion for raising cattle to become a resource and leader for other Granite County 4-H youth. Whether she is at a Granite County 4-H event, the Tri-County Fair in Deer Lodge or the NILE, Sydney says “I just like to keep learning about cattle and sharing that with other kids.” Her zeal for life-long learning at a young age is an inspiration for Granite County 4-H youth and adults alike.

Skillathon Combines Competition and Camaraderie

Granite County 4-H Council members expanded the summer skillathon offering in 2015 to include topics across the board. A skillathon consists of teams moving through a series of stations responding to focused questions in a timed format. Each station visit lasts 5 minutes and teams must correctly answer 5 questions. The 2015 4-H Skillathon added foods projects, wood working projects to the previous skills of dog, beef, sheep, swine, rabbit, and poultry projects.

Spencer Parke, long time market swine project member said “Those foods questions were hard, but I learned a lot.” “Foods weren’t hard, but that wood working was challenging,” added Kristin Piippo.



Kristin Piippo (Far right in dark glasses) of the Best in the West 4-H Club checks with her team before they answer a question about dogs at the 2015 Skillathon.

While 4-H teams compete in earnest the friendship and growth experienced through county-wide events is the prize that lasts a lifetime.



2016 Brings New Opportunities and New Challenges

Climate Science Provides an Opportunity to Hone Crop Production

Irrigation water management is a critical factor for many Montana hay growers. Adjustment of current techniques may enhance production as climate variation changes crop water use patterns.

Tuning Fork Ranch owner Chuck Johnson noted this year “I did not know that when a system is rated to apply 800 gallons of water per minute, that is not exactly the amount applied to the hay crop.” Chuck invited MSU Granite County Extension Agent Dan Lucas to measure actual water entering his center pivot system from the pump. It was rated at 800 gallons per minute, but due to inherent drops in efficiency the actual amount of water entering the system averaged 695 gallons per minute.



Flow meters are an important tool

Actual application is extremely important in early portions of the irrigation season. Growers must build soil moisture reserves as plants pump water out of the soil faster than center pivot systems can deliver it in the heat of the summer.



Can variations in climate alter the time of year when soil moisture storage must be accomplished? Currently crop water usage is highest in July, but recently June temperatures have been increasing. Does this shift indicate coming changes in irrigation strategy?

Montana State University Granite County Extension will use a combination of tools including a flow meter, rain gauges, evaporation pans, and Paul Brown Soil Moisture probes to evaluate crop water use and evapotranspiration rates throughout the growing season.



Paul Brown soil moisture probe

Chuck goes on to say “That information will be critical to evaluate the effectiveness of our irrigation strategy. We cannot afford a drop in production and still keep our cow herd fed through the winter.”

Contact Us



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