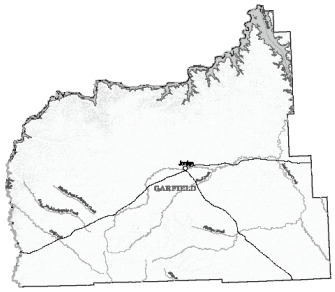
Summer 2010 Volume 10 Issue 2

News News

Garfield County Conservation District



"Local Common Sense Conservation"

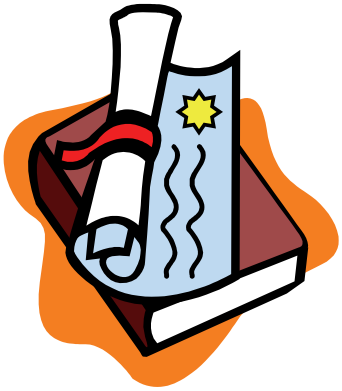
DISTRICT QUARTERLY REPORT

- AMANDA LAMMERS, DISTRICT ADMINISTRATOR

The district has been keeping fairly busy wrapping up some of the old grants that have been in the office for quite sometime now.

The district recently applied for a HB223 grant project. The purpose of this project is to establish the control of Canada thistle in Garfield County by releasing stem mining weevils. This project will take place over the next four years. If you have any questions or concerns you can contact the district office at 557-2740 x 100.

Inside this issue:



Congratulations to:
JE Cooley & Ethan Johnson

For receiving the Garfield County Conservation District Scholarships. Each student will receive $250.00 towards a school of their choice towards an Ag and or conservation related field.

Meet Kachmir Eddy

By Kayla Higgins

Kachmir is the new NRCS Employee. She is working as a Soil Conservationist through the SCEP (Student Career Experience Program). She grew up in Barronett, Wisconsin. Kachmir stated she is glad to be moving closer to family and friends for the summer and likes living in Jordan. She is attending the University of Montana and working towards a degree in Resource Conservation.

Ag Alert– Grasshoppers in Rangeland and Cropland

The area of Montana infested with 15 or more grasshoppers per square yard has increased from one million acres in 2006 to 17 million acres in 2009. Grasshopper populations tend to increase during periods of drought and region-wide outbreaks typically last from 2 to 4 years. Grasshopper populations are expected to be higher across Montana this summer. The migratory, two-stripped and clear-winged grasshoppers are common species in the current outbreak. Grasshopper scouting typically begins during the last week of May or the first week of June depending on weather conditions. Sweeping with a net close to ground level can be used to detect small first instars that are hard to see. When the nymphs are more visible, the square foot method can be used; visually count the number of grasshoppers in a one square foot area. Randomly repeat 18 times while walking an area and divide the total by 2 to give the number per square yard.

Rangeland: A total of 15-20 grasshopper nymphs per square yard is considered an economic threshold for treatment. At these densities grasshoppers can result in 200-500 pounds of lost forage per ace of rangeland, depending on their duration and conditions such as precipitation. Reduced Agent and Area Treatment strategies (RAATs) can be used to control grasshoppers in rangeland. USDA research has demonstrated that RAATs, a "skip pass" approach that also uses lower rates of insecticide, can achieve 80% to 95% control (compared to 85%-99% control with complete blanket coverage at the full insecticide rate) at a lower cost. The insecticide dimilin is commonly used in large-scale grasshopper spray operations. Dimilin is an insect growth regulator that is only effective against juvenile insects that are molting. It is NOT effective against adult insects that no longer molt, so timing is critical. Ideally the majority of grasshoppers should be in the 3rd instar stage during treatment. Commercial honey bee colonies are often placed on ranchland. A benefit of dimilin's mode of action is that is relatively safe to adult grasshoppers.

Internet Information:

High Plains IPM Guide:

http://wiki.bugwood.org/uploads/Grasshoppers-RangePasture.pdf

USDA-ARS Aerial RAATs brochure:

http://sidney.ars.usda.gov/grasshopper/Research/aerial.pdf

Spring Wheat: Grasshoppers are notorious for their ability to move into cropland from surrounding grassy areas; cropland surrounded by grass is particularly at risk. A total of 8-14 grasshoppers per square yard within the field, or 20-40 per square yard along the field margin, are considered to be economic thresholds for spring wheat. The stage and condition of the crop can affect the economic thresholds.

Crop protection is typically achieved by applying a boarder treatment of insecticide to keep the grasshoppers from entering the crop. A boarder width of 150 feet surrounding the crop may be adequate for control, but if grasshopper densities are high, control may require up to a 1/4 mile border treatment where ground applied RAATs can be considered. Under extreme pressure, control may be difficult and multiple border treatments maybe required. Border Insecticide baits can also be effectively used but USDA research has found that the effectiveness of insecticidal baits can depend on grasshopper densities.

Baits are not recommended when grasshoppers densities are higher than 30-40 per square yard.

Internet Information:

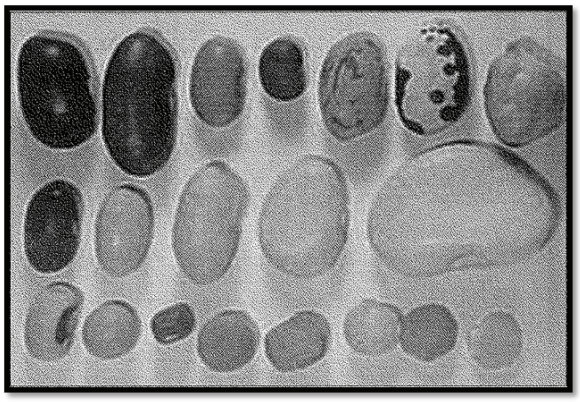
High Plains IPM Guide: Small Grains– Grasshoppers

USDA-ARS Ground RAATs brochure: http://www.sidney.ars.usda.gov/grasshopper/Research/atv.pdf

Growers: Think Spring, Think Legumes

Legumes Can Reduce the Need for Nitrogen Fertilizer

MSU NEWS SERVICE



Adding legumes to a crop rotation has may benefits, including reducing the need for external nitrogen input.

For growers, planning for legumes in spring makes sense.

"It's a good time to think about crop rotation and consider replacing some fallow ground with a legume crop," said Clain Jones, Extension soil fertility specialist in the Department of Land Resources and Environmental Sciences (LRES) at Montana State University (MSU).

Annual legumes grown in Montana include field pea, lentils, and chickpeas, whereas perennial legumes include alfalfa and sainfoin.

Dryland grain produces might be hesitant to plant a crop rather than fallow because soil moisture is often a limiting factor to wheat production. However, planting legumes rather than fallow can have several benefits.

Legumes, with the proper soil bacteria, convert nitrogen gas from the air to a plant available form. Therefore, they do not need nitrogen fertilization, and can even add nitrogen to the soil.

"Much of the nitrogen benefit of legumes comes from the plant residue – shoots and roots. This gradually decomposes over a few years to provide plant available nitrogen and increases long-term soil fertility," said Jones.

Replacing fallow with any kind of crop has also been found to decrease nitrate leaching and saline seeps.

Whether as a replacement to fallow or part of annual rotations, the benefits of legumes go beyond nitrogen addition. According to work done in Saskatchewan, only a portion of the benefits from a legume in rotation -compared to continuous small grains- comes from the added nitrogen.

The greatest benefit is improved soil structure and breaking weed, disease, and insect cycles.

"Unincorporated pea residue may also enhance germination and survival of wheat under dry fall conditions because it provides soil cover to reduce evaporation loss," said Perry Miller, MSU professor in LRES.

These benefits generally add up to higher yields and protein in wheat planted after an annual legume rather than a cereal. How much higher depends not only on the growing season, but also largely on whether the legume was grown as green manure, that is, terminated early before maturity, or for a grain or forage crop. The management objectives will determine whether or not the legume should be harvested and whether an annual or perennial legume is the better choice.

Article continued to pg 4

Article continued from page 3

"If replacing fallow, you want to select a shallow-rooted crop that uses little water and nitrogen, such as annual legumes," said Miller.

For water conservation, terminate the legume as green manure by first bloom (when 50 percent of plants have one flower). If adding nitrogen and organic matter is a higher priority, then the legume can be terminated at the pod stage. This practice generally increases grain protein in the following wheat crop. An annual legume crop can also be harvested as grain for an immediate economic benefit.

"Remember," said Jones, "legume grain and forage harvest remove a large portion of the potential nitrogen gained and there will be less benefit to the soil." When legume grain prices are high, such as currently with lentils, harvesting legume grain makes sense, but decreased yield of the next crop due to lower water availability needs to be considered.

Of course, management for good stand establishment and growth are important to optimize benefits of legumes. This includes seed quality, seeding rates and dates, and proper inoculation. Legumes also need sufficient phosphorus, potassium, and sulfur for adequate nitrogen fixation, and will not fix much nitrogen in soil that already has high nitrogen levels. Cutting back on tillage helps retain nitrogen in the system. "Minimum or no-till management slows decomposition and erosion loss," said Jones.

Be sure to have your next rotation planned to take advantage of increased nitrogen. High protein wheat is a good option. Be aware that high persistence sulfonylurea (SU)-herbicides such as Ally (metsulfuron), Glean (chlorsulfuron), Finesse (chlorsulfuron), and Amber (triasulfuron), among others, can damage subsequent annual legumes. "If you have been using these produces and want to grown legumes, you'll likely need to avoid their use for a minimum of three to four years prior to seeding legumes, depending on the product, application rate, and climate," cautioned Fabian Menalled, assistant professor in LRES at MSU. A study in Bozeman showed a 16-19 percent reduction in pea yields 4½ years after applying as SU-herbicide.

"It may be necessary to conduct a field bioassay for SU residuals, by planting a row of desired crop and checking for herbicide damage, before seeding an entire field to legumes," added Menalled.

"The nitrogen 'credit' following a legume harvested for grain is about 10 pounds per acre and can be more if the crop is terminated as green manure," said Jones.

Properly managed legumes in rotation can increase crop income by providing a legume forage or grain crop, or improving wheat yields after a legume green manure. Legumes improve soil health, especially compared to fallow, by adding nitrogen and organic matter and reducing potential erosion and leaching loss. Legumes may reduce the energy footprint of cropping systems by reducing the need for nitrogen fertilizer and improve the stability and health of agro-ecosystems.

MSU Extension has documents on both field pea (MT200502AG) and chick pea production (MT200204AG). For these and other Extension publications, visit the Web at msuextension.org/publications.asp, or call Extension Publications at (406) 994-3273 for more information.

END OF ARTICLE

Council seeking to form Stakeholder Group for the Charles M. Russell Refuge

The Missouri River Conservation Districts Council, working with the Garfield County Conservation District and the Eastern Plains Resource Conservation and Development Council, is helping form a Stakeholder Group specific to the Charles M. Russell National Wildlife Refuge. The goal is to convene a diverse group of stakeholders to discuss management of the Refuge, identify conflicts among user groups, agencies, and others; indentify potential solutions to the conflicts; work to resolve conflicts; and provide a forum for increased understanding, cooperation, and partnership among the user groups, agencies, and others. Some of the issues that the group might delve into include: livestock grazing, hunting and wildlife management, access roads, wildfire concerns, and any other issue brought to the table. The group would likely include local landowners, grazing permittees, agency representatives, county commissioners, local business owners, outfitters, wildlife organizations, environmental groups, noxious weed experts, and others.

The Council was inspired during their tour of the Beartooth Wildlife Management Areas last summer, where they heard from a Council Member Scott Blackman who owns land adjacent to the WMA and grazes livestock in the area. Scott states "Years ago we didn't want a Wildlife Management Area next to us, now we consider them one of our biggest neighbors." Much of that increased good-will is the result of 20 years of conservations and problem solving accomplished through their stakeholder group, the Devil's Kitchen Working Group. The group includes area landowners, recreators, sportsmen, agency representatives, and anyone else who wants to come to the meetings. They have no formal membership list and include anyone who is interested. Additionally, they vided to agencies only when everyone at the table agrees. It may sound impossible, but this model works! For example, one of the groups early goals was to reach specific elk heard numbers in the area. Winter elk now indicate that they are rapidly approaching those numbers. After discussion on all sides, the group agreed to pursue damage hunts in specific areas to lessen the impact of the herds on private lands.

Based on the success of the Devil's Kitchen Working Group, the Council hopes to hear from a similar group specific to the CMR Refuge. Thanks go to the Garfield County Conservation District for sponsoring the project and to the Eastern Plains RC&D for agreeing to pursue it. The next step is to identify interested parties and hire a facilitator. If you are interested in participating or would like more information, please contact the Council office at (406) 454-0056 or mrcdc@missouririvercouncil.info.

END OF ARTICLE

Grazing Workshop

The Lewis & Clark Conservation District is hosting a Grazing Workshop

WHO?	When and Where?
Jim Gerrish American Grazing Lands Services, LLC www.americangrazinglands.com	Tuesday, June 29, 2010 Valley Community Center Helena, Montana

9:00-9:30 am	Registration & Welcome
9:30-10:20 am	Why you should be out of the hay business
10:20-10:40 am	BREAK
10:40-12:00pm	Extending the grazing season
12:00-1:00 pm	LUNCH
1:00-3:00pm	Layout and design of grazing systems
3:00-3:20pm	BREAK
3:20-4:30pm	Pasture inventory and feed budgeting
4:30-5:00pm	Questions & Answers
5:00pm	Adjourn for the LCCD Annual Dinner

Sponsors: Lewis & Clark Conservation District, Lewis & Clark County Weed District, Lewis & Clark County Water Quality Protection District, Sterling Ranch Company.

Registration for the Seminar is $20.00 per person or $35.00 per couple. Please make checks payable to the Lewis & Clark Conservation District and mail to 790 Colleen Street, Helena, MT 59601

Tear off this portion and send with payment to the office by June 22, 2010 to reserve your place. If you have questions, please call Chris at 406-44-5000 ext. 112.

Name: _____

Number attending: _____

Address: _____

City: _____ State: _____ Zip: _____

Missouri River Noxious Weed Mapping

Join Missouri River Fly Fishers, the Pat Barnes Chapter of Trout Unlimited, and the Center for Aquatic Nuisance Species (CANS) in mapping the Missouri River for noxious weeds. Volunteers and boats are needed to float the Missouri and map problem weeds from the boats using handheld GPS units. This mapping information will be used to map and to track current weed infestations and to provide the data necessary for control measures. In addition all GPS data points will be added to the statewide river mapping page provided on the CANS website. **The mapping will take place on June 26th and volunteers will meet at the Craig fishing access site at 10:00 am.** This program is as much of an education program as it is a conservation program. Our hope is to help make folks realize that weeds are not only an agricultural issue, but they are everyone's problem. Noxious weeds threaten the fragile diversity of riparian ecosystems, native plants, water quality, and even fish spawning habitat. We look forward to you joining us for a day of floating, learning, and improving the Missouri River!

Contact: Matt Wilhelm, Center for Aquatic Nuisance Species
406-222-7270 matt@stopans.org

Mountain Ash

By: Kayla Higgins

Mountain Ash trees are found throughout the northern hemisphere, reaching heights of forty feet. This tree has reddish bark with compound leaves and clusters of small white flowers that develop into clusters of red-orange berries. The fruit is usually harvested in the fall. Before using the berries as a food you should remove the seeds because the seeds contain cyanogenic glycosides. When the berries are in contact with water they produce poisonous prussic acid.

For more information please visit:
http://www.innvista.com/health/herbs/mountash.htm

From my Kitchen to Yours

Snickerdoodle Cookies

Dough:

½ cup each butter and shortening (or Marg), at room temperature.
1 ½ cup sugar
2 eggs
1 ½ teaspoons cream of tarter
1 teaspoon baking soda
¼ teaspoon salt
2 ¾ cups all-purpose flour
~Beat butter, shortening, sugar and eggs together until creamy. Add cream of tartar, baking soda and salt, and then blend. Add flour and mix well. Chilling over night is preferred, otherwise at least two hours.

Topping:

3 tablespoons sugar
1 tablespoon cinnamon

Preheat oven to 375°F

Combine topping ingredients in small, shallow bowl. After chilling, shape dough into balls about 1 ½ inches in diameter. Drop dough balls into topping mixture and coat entire surface well. Place on ungreased baking sheets about 2 inches apart.
~Bake in a 375°F degree oven for 10 minutes or until golden brown. Let stand one minute and remove to cooling racks.
~Makes about 3 dozen cookies.

ITEMS FOR SALE

"Weeds of the West"	$28.00
"Grassland Plants of South Dakota"	$25.00
"Range Plants of Montana"	$17.00
Landownership Map Book -one township per page	$50.00
Landownership Map Book -four township per page	$25.00
Garfield County Wall Map	$25.00
Garfield County Road Map	$10.00
Rental	
No Till Drill	$2.00/acre
Fabric Layer (min of $10.00)	$0.10/ft
Soil Sampling Probe	5 day loan
ATV Sprayer	$25.00/day
ATV Broadcast Spreader	$15.00/day
ATV Herbicide Applicator	$15.00/day
Plant Supplies	
Tree Sentry	$2.75
Mesh Tube, 3ft	$0.50
Bamboo Stake, 4ft	$0.20
Fabric Staple - 6" x 1"	$0.10 each
Fabric Staple	
- 10" x 2"	$0.15 each
Landscape Fabric 6' x 500' roll	$130.00
6' x 300' roll	$100.00

ATV SPREADER

ATV SPRAYER

NO TILL DRILL

Garfield County Conservation District
307 Main (PO Box 369)
Jordan, MT 59337

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All Garfield County Conservation District and Natural Resources Conservation Service programs are offered on a nondiscriminatory basis without regard to race, color, gender, political beliefs, national origin, religion, sex, age, marital status or handicap.

The public is welcome to attend the meetings of the Conservation District Board of Supervisors. Please call for meeting date and time.

Views expressed by individual columnists in this newsletter do not necessarily reflect the official policy of the Garfield County Conservation District.

310 Permits

A 310 permit is required if you are planning any project including the construction of new facilities or the modification, operation, and maintenance of an existing facility that may affect the natural existing shape and form of any stream, its banks, or its tributaries. Any private entity or non-governmental individual that proposes to work in or near a stream on public or private land must obtain a 310 Permit prior to any activity in or near a perennially flowing stream.

Contact the Garfield County Conservation District for Permit Applications.