

# THE MONTANA CONSERVATIONIST

News from Montana's Conservation Districts

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## March 7, 2019

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Left to right: AJ Limberger (Range Mgt Specialist), Doug Bonsell (Carter County Conservation District Chairman), Jalyne Klauzer (SGI-Wildlife and Rangeland Conservationist), Rebecca Knapp (District Conservationist), Lauren Manninen (Soil Conservationist), Kami Kilwine (Area Range Mgt Specialist)

## Knapp Wins National Level Rangeland Specialist Award

*NRCS Release:* Rebecca Knapp, district conservationist with the USDA NRCS in Ekalaka, Montana, received the agency's highest honor in her profession - rangeland management specialist of the year.

The award is recognition for a culmination of conservation work during her career with the NRCS. Knapp has spent most of her career in Carter County, a county that is 3,300 square miles of diverse landscape that presents plenty of conservation challenges: limited livestock water, marginal soils, mixed land uses and ownership. It is also home to one of the largest sage-grouse core habitat areas in the state.

A unique fund pool created by NRCS's Sage Grouse Initiative opened the door for landscape level planning in Carter County and provided the means for the Ekalaka Field Office to work with individual producers to create and implement whole ranch conservation plans. *Continued on page 2*

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CONSERVATION DISTRICTS  
of MONTANA**



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## Knapp, Continued

Knapp and her staff seized that opportunity. She says it has been a group effort.

The Field Office added 2 additional staff members, AJ Limberger and Lauren Manninen. Through the ACES program, NRCS was able to retain the knowledge and experience of Wayne Yost, retired NRCS district conservationist. The Carter County Conservation District hired employees to assist with the effort. Justin Hughes and then Jalyn Klauzer have served the District and the Ekalaka Field Office in the capacity of rangeland and wildlife conservationists. The Miles City Area Office pitched in and provided additional planning and engineering staff. Engineering staff from Glasgow, Glendive and Miles City have assisted, along with State Office engineering staff. Kami Kilwine, area rangeland management specialist, has assisted the Ekalaka office since 2014. The Baker NRCS Field Office

has also provided technical assistance for both planning and engineering support.

Since 2011, her office has had 146 conservation contracts worth \$21 million covering nearly 821,000 acres. Knapp and her staff have written the most contracts for prescribed grazing in the country through NRCS's Sage Grouse Initiative.

That workload and the conservation benefits it provides is a testament to Knapp's ability to sell conservation and work effectively with landowners.

"We consider ourselves lucky to have such a knowledgeable and ambitious DC in our District, she helps whenever she is needed," wrote the Carter County Conservation District. "Rebecca lives and breathes rangeland; her hard work and dedication has put hundreds of thousands of acres

in conservation plans. The District looks to Rebecca for guidance and knowledge in all different realms of conservation."

With the increased workload came more staff to help carry it out. She now has four employees who work with her and also receives assistance from many others in the Miles City Area. That requires Rebecca to train, communicate, and coordinate. "The amount of time Rebecca has invested into teaching me anything and everything range-related goes beyond my imagination," Kilwine said. "Myself and so many others are so fortunate to have her as a mentor and a peer."

Knapp also dedicates time to help the youth. She has been a long-standing leader, organizer and instructor for Montana Range Days and mentors the local FFA agronomy team.

## USDA-NRCS Montana Takes a Focused Approach to Conservation in 2019

BOZEMAN, Mont., Feb. 26, 2019 – The USDA Natural Resources Conservation Service (NRCS) is changing the way it does business to better identify and prioritize Montana's natural resource concerns on private land and to better focus its technical and financial assistance.

Referred to as Montana Focused Conservation (MFC), NRCS will focus its Environmental Quality Incentives Program investments in targeted areas to achieve clearly defined natural resource goals as identified by conservation districts

and other local partners through the locally led process.

For the past several years, NRCS has asked Montana agricultural producers to submit applications for general EQIP funding by June 1 each year so that applications could be ranked and landowners had time to finalize contracts and begin implementing their conservation plans. In 2019, NRCS will not set a general EQIP deadline, but will announce sign-up deadlines throughout the year for targeted projects across the state.

For 2019, NRCS will accept applications for the EQIP projects in targeted areas across Montana until March 29, 2019. Applications received after that date will be accepted and evaluated for future rounds of funding.

The NRCS Montana Website has information on targeted implementation plans that have already been approved for funding in Montana counties.

[READ MORE](#)



### ARS microscopy research helps unravel workings of a major honey bee pest

Research by scientists at the Agricultural Research Service (ARS) and the University of Maryland released today sheds new light -- and reverses decades of scientific dogma -- regarding a honey bee pest (*Varroa destructor*) that is considered the greatest single driver of the global honey bee colony losses. Managed honey bee colonies add at least \$15 billion to the value of U.S. agriculture each year through increased yields and superior quality harvests.

The microscopy images are part of a major study showing that the Varroa mite (*Varroa destructor*) feeds on the honey bee's fat body tissue (an organ similar to the human liver) rather than on its "blood," (or hemolymph). This discovery holds broad implications for controlling the pest in honey bee colonies.

The study was published on-line Jan. 15 and in today's print edition

of the Proceedings of the National Academy of Sciences. An image produced by the ARS Electron and Confocal Microscopy Unit in Beltsville, Maryland is on the cover of today's journal.

Varroa mites have been widely thought to feed on the hemolymph, of honey bees (*Apis mellifera*) because of studies conducted in the 1970's which used outdated technology. But today's collaborative study, by University of Maryland and ARS researchers at the ARS Electron and Confocal Microscopy Unit, offers proof of the mite's true feeding behavior. Through the use of electron microscopy, the researchers were able to locate feeding wounds on the bee caused by the mites, which were located directly above the bee's fat body tissue. The images represent the first direct evidence that Varroa mites feed on adult bees, not just the larvae and pupae. [READ MORE](#)

### Can you graze through the winter in extreme cold and snow?

*On Pasture:* One of the biggest challenges farmers and ranchers face is feeding their livestock through winter. It can be costly and time consuming. But as the seventeen ranchers in this video series demonstrate, bale, swath or corn grazing on pasture is a way to make the winter more profitable while freeing up a lot of time.

Grant Lastiwka, Forage and Livestock Business Specialist for Alberta Canada Agriculture and Forestry, says the goal of "Managing Risk in Winter Grazing Systems" was to help new winter graziers learn from the experience of old hands at the practice. If you've got a question, it's answered by one of the 47 short videos. You'll find information about different feeding options like swath, bale, straw/chaff bunch, corn grazing and stockpiled forages. Ranchers talk about winter fencing, from the kinds of fencing the use to how to power and ground your fence in snowy conditions, how to water animals, and how they figure how much forage animals need. There are videos on feed quality, weather challenges, water accessibility, management practices, managing for animal type and wildlife issues.

The longest video in the series is 5 minutes, though most are in the 3 to 4 minute range. That means you can learn a lot during a coffee break.

[READ MORE \(& watch the videos!\)](#)

## Acidification of soils an emerging problem in MonDak region

*Williston Herald:* A field in Chouteau County three years ago helped researchers spot a troubling trend in the region. Soil so acidic that it is causing crop failure. The problem has since been found in as many as 20 Montana counties, as well as a number of northwestern North Dakota counties as well.

Professor of soils Dr. Rick Engel is among researchers who helped identify the emerging problem. He will be coming to Sidney for the MonDak Ag Days & Trade Show to talk about his research, as well as what can be done to mitigate soils that have become too acidic to grow a viable crop.

The annual event begins at 8 a.m., Thursday, March 7, and features a slate of speakers on topics ranging from hemp and problematic weeds to Engel's talk about acidic soils in northeastern Montana.

The two-day event will be at the Richland County Fairgrounds Event Center in Sidney, Montana. Lunch is being served by Cattle-Ac each day.

The banquet, meanwhile, is 6 p.m. Friday, March 8, and features Chad Prather. He's back for an encore performance, sure to be as bold and brassy as last time. Tickets are \$45 each and are available at Richland County Extension, Sidney Chamber, SidneyMT.com, Stockman Bank and Tri-County Implement.

"Every year, the Ag Days committee tries to put together a program that covers a variety

of topics that ranchers and farmers will find useful to their operations," said Richland County Extension Agent Tim Fine. "This year, they did a fantastic job as there is something for everyone as talks will focus on emerging issues, financial considerations, technological advancements, weather, and potential new crops and practices to add to their crop and/or livestock production practices. There truly is something for everyone."

In addition to all the great lectures, each day of the MonDak Ag Days & Trade Show will begin with a trade show at 8 a.m., featuring the latest and greatest products and services all in one room. There will be implement dealers, irrigation specialists, cover crop gurus, seed dealers and more.

The trade show is what makes the two-day program, featuring so many great lecturers, possible, including Engel's research into soil acidification.

In collaboration with soil fertility specialist Dr. Clain Jones, Engel has since pinpointed the culprit in soil acidification as ammonium-based fertilizers, such as urea, applied in excess of crop uptake. It's a problem that is occurring even in fields where recommended levels of fertilizer were not exceeded, however, Engel said, which points to the potential for widespread problems.

[READ MORE](#)

## More than just grass: US prairies make a comeback

*CS Monitor:* A vibrant sea of grasses once flowed across the North American continent: the great prairies that Laura Ingalls Wilder described as "spreading to the edge of the sky." All but a fraction vanished during the 19th century as migrants from Europe advanced across the heart of America, plowing the land into farms and settlements. But not many people paid attention then.

Even many of today's prairie conservationists agree that grasslands are underappreciated ecosystems. "Most people, I think, would drive past a prairie and just see a lot of boring grass," says Chris Helzer, director of science for The Nature Conservancy in Nebraska and author of a popular prairie photography blog. "Prairies are not an ecosystem that smack you in the face with beauty if you're not tuned into it."

But in the 1980s, a prairie conservation movement that had been gradually growing since at least the 1950s started gaining serious momentum. Over the past three decades, a dedicated community of conservationists and land managers has worked to preserve American grasslands in all their manifold forms: the tallgrass, shortgrass, and mixed-grass prairies of the Midwest, as well as lesser-known varieties, such as the northwest prairies in Oregon and Washington, or the sandplain grasslands in Massachusetts. Since the '80s, conservationists have made significant progress in their ability to reestablish and care for prairie ecosystems. [READ MORE](#)

## Bitterroot Water Forum program fosters future earth stewards

*Ravalli Republic:* "What is a watershed?"

That is the first question Emilie Lahneman, the Big Sky Watershed Corps member with the Bitterroot Water Forum has been asking seventh-grade students this month during lessons for the Earth Stewardship Program.

On paper, students draw out what they think a watershed is.

"Many of the kids draw a building with pipes coming out of it. They logically take the word at face value of a shed for water," said Lahneman.

Throughout the lesson Lahneman works to change that idea.

Through an exercise going over the geography of the valley and eventually building a model of the Bitterroot watershed with tarps and flower pots the students come to understand that the watershed is the valley itself. From the highest point in the Sapphire Mountains to the highest point in the Bitterroot Mountains, from the headwaters at the border with Idaho to the south, to the Bitterroot River meeting with the Clark Fork in Missoula, all of the land where the water runs off and ends up in the Bitterroot River is part of the watershed.

[READ MORE](#)

## Bills aimed at Montana's hemp industry move forward

*KBZK:* The 2018 Federal Farm Bill legalized industrial hemp production and Montana lawmakers are considering the best ways to integrate it into the state's agriculture economy.

Sen. Tom Jacobson (D-Great Falls) is sponsoring two hemp-related bills.

Senate Bill 176 would allow the Montana Department of Agriculture to create a hemp certification program plan. Senate Bill 177 would eliminate the criminal background check requirement to grow hemp.

The Montana Senate passed both bills and they now head to the

House of Representatives. SB 176 passed third reading in the Senate 50-0 and SB 177 passed 48-2.

Jacobson said the more opportunities and diversification farmers have, the better, "when our ag producers are successful, then our small, rural communities are successful."

Jacobson introduced a third bill that would exempt hemp processing facilities from property taxes, but that bill — Senate Bill 178 — was tabled in committee. Jacobson said he plans to work on amendments to move the bill forward.

[READ MORE](#)

## Simplifying how (and when and where) snow turns into flow

**A Montana researcher has developed a map for predicting how climate change may alter the water supply.**

*EOS.org:* In Montana, the tiny streams that trace through mountains do more than feed the mighty Missouri and Mississippi Rivers. They could hold great power as a bellwether for climate change.

With scant summer rain, almost all of the precipitation that matters for watersheds comes from winter snowfall. And therein lies the key to its predictive power, explained Rebekah Levine, geomorphologist and assistant professor in the Environmental Sciences Department at the University of Montana Western in Dillon. "If we lose snow early, we also lose late-season base flow, so these streams will go dry. That's what people are really worried about," she said.

Dry streams in Montana mean low flows in some of the mightiest rivers in the country when summer and growing seasons for agriculture are in full swing. But what if there were a way to use snowfall patterns early in the year to anticipate dry conditions later?

Levine has been pondering these and other questions since 2012. And by simplifying her approach, she may have hit on some answers.

[READ MORE](#)

## Grants

### 223, Mini Education, and District Development Grants

The Fiscal Year 2019 deadlines for the 223, Mini-Education, and District Development grants are: **April 25, 2019** [Grant Application](#)

### DEQ Nonpoint Source Pollution Grants

Montana DEQ has \$500,000 in funding to address or nonpoint source pollution. Projects should be between \$30,000-\$100,000. \$300,000 will be focused on the Bitterroot watershed. Applications are due by 2 p.m., Friday, **March 15, 2019**. [More Info](#)

### Water Quality Mini-Grants

SWCDM is seeking to fund local education and outreach efforts in Montana to address water quality issues resulting from nonpoint source pollution. Mini-grants of up to \$3,000 are available and SWCDM has approximately \$14,025 to award for this cycle. The deadline to apply is **March 27, 2019** by 5 p.m. [More Info](#)

### Aquatic Invasive Species Grants

DNRC offers state-funded grants for the prevention & control of aquatic invasive species. Activities include but are not limited to aquatic invasive species: (1) outreach and education; (2) prevention; (3) surveying and monitoring; (4) control; (5) treatment demonstration, research or design; or (6) other related actions. Applications due **March 28**, 5 pm. [More Info](#)

### Sage Grouse Program Grants

The Montana Sage Grouse Oversight Team (MSGOT) has opened its second grant application cycle for conservation projects to benefit sage grouse and sage grouse habitat. Priority will be given to projects involving partnerships between public and private entities, as well as projects that leverage matching funds. Pre-proposals due **March 30**. [More Info](#)

### Future Fisheries Improvement Program

For almost two decades, FWP's Future Fisheries Improvement Program has worked to restore rivers, streams, and lakes to improve and restore Montana's wild fish habitats. Between \$350,000 and \$650,000 are available each year for projects that revitalize wild fish populations. Any entity proposing a project that would benefit wild fish will be considered for funding. Due **May 31**. [More Info](#)

## Events, etc

### Montana Lakes Conference

This conference will gather resource professionals to exchange information, scientific advancements, and management strategies that promote clean and healthy lake and reservoir ecosystems. Whitefish, **March 13-15 2019**. Hosted by the Whitefish Lake Institute, sponsored by DNRC, Flathead CD. [More Info](#)

### 310 Database Trainings

Montana DNRC is planning on scheduling some 310 Database training starting in early March. This

will consist of some live webinars which will also be recorded and stored on the DNRC site for future training. We may also schedule some in person training if there is enough interest. The first webinar will likely be scheduled for the first week of March. You can find the [310 Permit database here](#).

### SWPP Preparer & Administrator Certification

The Montana DEQ, starting this year, requires SWPPP Preparer certification for Stormwater Pollution Prevention Plan (SWPPP) writing for construction activity. We are currently offering a SWPPP Administrator and SWPPP Preparer certification and recertification class in Kalispell on **March 13 and 14**. More Info: 509-947-6583.

### Judith Basin Range School

Johann Zietsman, world renowned speaker, will be presenting at a 2-day seminar on Livestock Management and Grazing. Zietsman will be sharing proven concepts for selecting the best adapted genetics with ultra-high-density grazing. **May 29 & 30**, Hobson, MT. For info call 566-2311 x107.

## Jobs

### Fuel Reduction Program Administrator

The Lower Musselshell Conservation District in Roundup, MT is looking to hire a fuel reduction program administrator to work directly with USDA-NRCS to further develop and administer the district Fuels Reduction Program. Open until filled. [More Info](#)

## Coming Up

### March

- 13-14 SWPP Preparer Certification, Kalispell
- 13-15 Montana Lakes Conference, Whitefish
- 15 National Ag Day
- 18 **MACD Board Conference Call (rescheduled from 3/11)**
- 25 **MACD Executive Committee Conference Call**
- 27 Water Quality Mini-Grants Application Deadline

### April

- 8 **MACD Board Conference Call**
- 22 **MACD Executive Committee Conference Call**
- 25 223, Mini Education, and District Development Grants Deadline

#### Have an event to share?

Please email [tmc@macdnet.org](mailto:tmc@macdnet.org) with details.

### MACD Scholarships now open!

Each year, MACD awards two \$500 scholarships to Montana students. Eligibility requirements include: US citizenship, Montana residency, minimum grade point average of 3.0, and enrollment or plans to enroll in a course of study that allows students to explore natural resource issues. Appropriate courses of study include agriculture, agribusiness, animal science, range science, forestry, environmental science, land resource science, plant science, etc. Students may receive a scholarship both as a high school senior and once during post secondary career. Visit [macdnet.org/scholarships](http://macdnet.org/scholarships)



### Montana Range Days Scholarships

Montana Range Days, Inc. is an annual event that celebrates the importance of range and provides opportunities for learning about range and range management. To encourage young people to continue with education and careers in Range Science and related fields, three scholarships are offered through Montana Range Days. Scholarships are available to graduating seniors in high school or college students who are continuing their education. **3 Scholarships of \$1000 each are available. The application deadline is April 30.** For more information & to apply, visit [montanarangedays.org](http://montanarangedays.org)

### Montana Farm Bureau offers scholarships

**MFB Foundation CYF&R Scholarship.** One \$1,000 scholarship to a current member of the Collegiate Chapter of Young Farmers and Ranchers at MSU Bozeman, UM Western or Miles Community College.

**Bernard Greufe Honor Scholarship.** This \$1500 scholarship assists Montana high school students in paying for higher education. The award is not limited to students seeking a degree or career in agriculture.

**Future of Agriculture Honor Scholarship.** The purpose of this \$1500 scholarship is to assist students toward the completion of a degree in a field pertaining to agriculture.

**The Montana Farm Bureau Federation Scholarships:** Two \$1,500.00 scholarships are available through the sponsorship of the MFB Women's Leadership Committee. The scholarships are available to young men and women. The applicant must be an incoming college freshman and must be a paid Montana Farm Bureau member.

For more information and scholarship applications, visit [www.mfbf.org](http://www.mfbf.org) or call 406-587-3153.