# Mid-Missouri River Prescribed Burn Association

MID-MISSOURI RIVER

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Summer 2023

Focusing on cedar tree control and grassland health

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**MMRPBA** News

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## Successful spring burning

By Keith Hovorka & Sean Kelly, MMRPBA Chairman and Vice Chairman

After several years of disappointment and frustration, the MMRPBA finally had a successful spring burn season. Due to all the snow from the past winter, we were getting concerned we may be shut down again for spring 2023. However, by the middle of April, most of the snow was melting fast and we were ready to burn.

On April 17, we conducted our first burn of the season on the Jon Smikle and Jo Wulf unit north of Herrick. After that successful burn, we went hard and fast over the next three weeks and burned roughly 6,000 acres up and down the Missouri River. We couldn't have asked for a better spring burn season – and certainly realized that our patience, preparations and perseverance paid off! See photos and more information about the burns that were conducted on pages 3-7 of this newsletter.

Much of our burning season success was also due to the preparation and team effort from everyone involved. A huge thank you to all the landowners, agency folks, and everyone else who made these burns possible. We look forward to conducting more burns this fall, and spring 2024 is also shaping up to be another busy season.

The interest in burning continues to grow in South Dakota. We have had several news articles highlighting the efforts of MMRPBA, which has helped teach others about the important efforts to conserve our grasslands and control cedar tree encroachment.

Additionally, we are hosting three tours this August on burn units from this spring so everyone can see with their own eyes the positive effects prescribed burning has on rangelands. See page 6 for details about the tours.

Please continue to visit our new website (midmissouririverpba.com) and the MMRPBA Facebook page for more updates about our efforts and events throughout the year.

Mid-Missouri River Prescribed Burn Association News Sponsored by the Mid-Missouri River Prescribed Burn Association and SDSU Extension Editorial Coordinators: Trailhead Promotions, Kindra Gordon & Codi Vallery-Mills Graphic Design: Branding Impressions, Breezy Millar & Cassie Hicks



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### MMRPBA 2022-23 Officers

Keith Hovorka, *Chairman* 100 Cleveland Ave. Fairfax, SD 57335 (605) 464-0377

Sean Kelly, Vice Chairman/ SDSU Extension Liaison Officer 33815 288th St. Gregory, SD 57533 (605) 840-2200

Tom Hausmann, Secretary 2209 Western Ave. Yankton, SD 57078 (605) 770-5576

( )

**Sara Grim, Treasurer** 35801 Old 1806th Road Bonesteel, SD 57317 (605) 654-2288

Brad Christensen, *Training Officer* 1022 Whittecar Ave. Gregory, SD 57533 (605) 830-0931

> Greg Schmitz, *Director* 36296 Eldeen Ave.

Bonesteel, SD 57317 (605) 654-2894

**Doug Feltman,** *Director* 25361 341st Ave. Chamberlain, SD 57325 (605) 234-4143

# Stay connected to MMRPBA and upcoming event details:

Facebook: https://www.facebook.com/MMRPBA/ Website: www.MidMissouriRiverPBA.com

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# Six prescribed burns on over 5,000 acres

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April & May 2023 allowed good conditions for the Mid-Missouri River Prescribed Burn Association to burn cedar tree infested lands



**900 Acres** Burn date: May 3 • Location: north of Bonesteel, SD • Landowner: Mulehead Ranch

This large burn was conducted the day after Rich and Sara Grim's burn. This burn unit was also along the Missouri River north of Whetstone Bay. May 3rd offered perfect weather conditions for killing cedar trees, and the burn crew achieved one of the most impressive crown fires across solid cedar canopy of 30-40' cedar trees. The excellent crew conducting this intense burn included several neighbors, MMRPBA members and the Mulehead crew.



#### About the Cover:

Fire burns on land owned by Jon Smikle and Jo Wulf near Herrick, SD. The Mid-Missouri River Prescribed Burn Association is a non-profit 501(c)(3) formed to control cedar tree infestation and improve grassland health by conducting prescribed fires. MMRPBA's efforts will focus on land along the Missouri River in Brule, Charles Mix, Gregory and Lyman Counties.

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### **1,448 Acres** Burn date: April 17 • Location: north of Herrick, SD • Landowner: Jon Smikle/Jo Wulf

This was MMRPBA's first burn for spring 2023. This burn had been planned since 2020 and was the largest MMRPBA has ever done that was not along the Missouri River. This made the burn extra challenging since the Missouri River was not on one side for a fire break. The burn went very well, with an excellent crew of landowners, neighbors and MMRPBA members.

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After the burn, Jon Smikle shares, "The burn has been the improvement that has had the greatest impact with the quickest and cheapest return that any rancher can experience – myself included. The pasture that has been restored since May is without a doubt only possible with prescribed burns. At this time, I am already cutting, stuffing and preparing my next pasture for another burn in two years!"

He also jokes that it was "well worth dealing with [Sean Kelly's] nitpicking about every tiny aspect of the burn."



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### 50 Acres

**Summer 2023** 

Burn date: April 23 • Location: south of Dallas, SD • Landowner: Richard Rubel

This burn had been planned since 2021, and was one of the smaller units outside of the Missouri River breaks, but still had light cedar encroachment. Many of the cedar trees were 2-3 foot tall. The prescribed burn produced a very good kill on many of the smaller cedars.



### **530 Acres** Burn date: May 2 • Location: north of Bonesteel, SD • Landowner: Rich and Sara Grim

This burn was a real milestone for MMRPBA. It had been planned for several years, and we were finally able to get it done. This was the most challenging burn unit of the year as it consisted of very rough terrain and very volatile fuel loads along the Missouri River. The burn area included several old cut and stuff piles of dead cedar trees that had been cut several years before this burn was planned. We had to be extra careful burning these piles as they were close to the fire breaks. An excellent crew of over 25 people consisting of other landowners, neighbors, Lower Brule Sioux Tribe, NGO's and MMRPBA members all contributed to make this burn a success.

Landowner Sara Grim shared these comments on her Facebook page: "After 7 years of planning, 3 years of deferred grazing, Covid, floods, and drought, we were able to burn the west side of our river pasture! Huge success today, thank you to everyone who helped, it was awesome." She also paid tribute to a late friend and range manager saying "Here's to you Dave Steffen, we killed some more cedar."

Grim also shared this comment: "For those of you that ask the question, why should we have to burn after we already sheared our trees. These little buggers have taken off since we did our shearing over 8 years ago." She noted that many new cedars were growing in the past eight years, but prescribed fire was going to help kill them off.



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### 400 Acres

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Burn date: May 21 • Location: north of Academy, SD • Landowner: Todd Olson

This burn had been planned since 2018, and was finally able to be completed in 2023. This was MMRPBA's first growing season burn. Since this burn was so late in the spring, the vegetation was green and growing fast. Luckily, the unit had been deferred from grazing in previous years, so it still had adequate fuel to conduct the burn.

The burn was slow and smoky but still achieved a 75% kill on the cedar trees. An excellent crew of roughly 25 people from the surrounding area and from across the Missouri River assisted with the day's burn.

To safely burn this unit, it was split into two areas. The plan is to burn the other 300 acres this fall or next spring.

Todd Olson shares, "I think the burn has taken care of 75% of the cedar trees, especially those six feet and under. There are several larger trees which burned about two feet above the base, and we are hoping these tip over as well in the coming months."

He does add this advice, "We learned that making big piles of trees is not ideal. The ground gets very hot under these piles and while grass is growing well throughout the burn, only weeds are coming back where we burned big tree piles." However, he says, thistle and other noxious weed are easy to see and spray now that the burn has happened."



# Taking a "Post-Burn" ViewAfter the Burn: Three post burn tours scheduled in August

How does the land respond in the months after a prescribed burn? The Mid-Missouri River Prescribed Burn Association is hosting tours to review and discuss just that. The tours will return to sites from the April and May 2023 burn season. Events include: **Aug. 2** at Rich and Sara Grim's property near Bonesteel, SD; **Aug. 9** at Jon Smikle and Jo Wulf's property near Herrick, SD; and **Aug. 30** at Todd Olson's property north of Academy, SD.

Each tour will begin at 10 a.m. and go until 12:30 p.m. when a complimentary lunch will be served. It is necessary to bring your own UTV or ATV for the tour, however there will be limited seats available if you do not have a machine. RSVP is requested for each tour, and directions to the locations will be provided at that time. To reserve your spot, contact sharon.klein@sdstate.edu or sean.kelly@sdstate.edu 605-842-1267.

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## MMRPBA and Nebraska group partner for 1,795 acre burn

#### **1,795 Acres** Burn date: April 26 • Location: 1 mile west of Fort Randall Dam • Landowner: Jerald Dennis

On April 26, 2023, the MMRPBA conducted their largest burn to date, which had been planned since 2021. This burn was in rough river break country just west of the Fort Randall Dam on land owned by Jerald Dennis and a few other landowners.

This burn was unique because it was the first time MMRPBA was able to partner with another prescribed burn association. The Niobrara Valley Prescribed Burn Association (NVPFA) – East Boyd County Burn Group from Nebraska took the lead in conducting and planning the burn. Jerald and Perry DeKay from Boyd County, Nebraska were integral inhelping the MMRPBA get started and helped conduct the MMRPBA's first prescribed burn in 2016. It was great to work with them and many others again for this successful burn.

A post burn tour was also hosted on this site on July 22, 2023. Pictured are images from that tour, showing the progress in killing the cedar trees and the land's recovery to grassland.



The Dennis cattle photo shows cattle (circled in yellow) grazing and moving through the cedar skeletons of an area that was 100% covered in heavy cedar canopy. It had been decades since that ground had been opened up. Neither cattle or wildlife could get through those thick cedars the past few decades.



MMRPBA burned very large swaths of ground heavily encroached with cedar trees.



Smoke from the Jerald Dennis burn unit by Fort Randall could be seen up to 20 miles away.



This photo from the burn at the Grim's shows how well the native grasses have started filling in after the burn.



After a prescribed burn, it is interesting – and a little exciting – to watch the post-burn recovery process. These drone photos were taken June 8 over the Grim's unit and from the Mulehead unit. This photo from the Mulehead is a good representation of burns from different years. The foreground is skeletons from the burn in 2020. In the background is this spring's burn from 2023. Notice how the vegetation has filled in from the 2020 burn.

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# MMRPBA's landowner-led effort along the Missouri River



Tom Hausmann, in brown vest, gives a briefing before the burn, while Greg Schmitz, in the foreground in a brown jacket, listens with the rest of the burn crew.

#### By SDSU Extension

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Started in 2016, the Mid-Missouri River Prescribed Burn Association is a landowner-led effort to combat the spread of trees along the Missouri River corridor in Gregory, Charles Mix, Brule and Lyman counties.

Sean Kelly, SDSU Extension Range Management Field Specialist, has been working with the burn association since 2016 as a liaison officer and is vice chairman of the board. Along the river, people can already see the tree encroachment. But people are still wary of using fire to fight the issue.

"Everybody down here knows the problem. It's just a matter of what to do to start addressing it," Kelly said.

Kelly said one of the challenges in conducting prescribed burns, particularly along river corridors, is that it often involves a mix of public and private lands. As a member of SDSU Extension, Kelly is wellsituated to bring those agencies together to hammer out jurisdictional issues.

"I want to make sure the landowner, burn association, and any state or federal organizations are all on the same page," Kelly said.

He helped bring together the burn association, Department of Game, Fish and Parks, and United States Army Corp of Engineers to sign a memorandum of agreement for prescribed burns. That agreement has been a tremendous help, he said, and having a burn association made it easier to accomplish than with one or two individuals.

"I think that's one of the great things about being organized into a burn association – you can solve problems like this," Kelly said.

A native of rural Winner, Kelly also

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brings his longtime experience as a volunteer firefighter to the board. The association has been busy since its inception in 2016, completing prescribed burns on 688 acres in 2017, 271 acres in 2018 and 314 acres in 2020. In 2022, the association had 1,832 acres planned for burns but could only burn about 300 of them. For 2023, there were 6,563 acres planned for prescribed burns, plus the 1,500 carried over from last year. And there are already 10,940 acres on the books for prescribed burns in 2024.

Spring is the ideal time to burn, but it's a short window from winter snows melting to when summer growth starts – March and April, with maybe a few weeks in February or May. By June, Kelly said the burning season is done.

In 2019, rampant flooding canceled any burns, and COVID-19 canceled

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most in 2020, as well. A dry, windy spring in 2022 made burning impossible. After three years of being foiled in the spring, the burn association decided to try a fall burn – and it was a success. Kelly said the success of the Mid-Missouri River association has started to persuade people in the area that prescribed burns can be done safely – and that they work.

"Our best advertisement is when we're getting burns done, because you can see them for a long way," Kelly said. "Everybody wants to know what's going on."

For a \$25 membership fee, the association helps the landowner plan their prescribed burn, including providing manpower and equipment. The landowner must attend another burn prior to their own and may need to prepare fire breaks. It can easily take a year of planning — sometimes two — between the landowner, Kelly and the burn association before a landowner gets the green light.

Even once the planning is done, conditions must be right the day of the burn. Temperature, wind speed, wind direction, humidity – everything must meet specific parameters or the burn is postponed. Bonesteel-area landowner Tom Hausmann said the detail and caution that go into the planning eased his own trepidation. A successful 300-acre prescribed burn on his property cemented his commitment to fire as the best tool for the job.

"When I did my burn, I really didn't know what was going to happen," he said. "But we got along just fine."

Sandy Smart, SDSU Extension Agriculture and Natural Resources Senior Program Leader, and Kelly credit the success of the Mid-Missouri River Prescribed Burn Association to the tireless efforts of the ranchers and landowners who lead the organization. They are the ones who have championed the burn association, providing the manpower and equipment that make prescribed burns possible.

Along with burn schools and the ultimate goal of establishing another burn association within the state, Smart said SDSU Extension will continue working with other organizations to draw attention to the trees encroaching the grasslands. It will take everyone coming together to meet the issue, he said. And just as the spread didn't happen overnight, neither will combating it.

"This is a long-term problem, so it requires a long-term solution," Smart said. "The hardest part is to recognize the slow change on the landscape. We have the opportunity to protect those core areas that haven't been invaded yet."

" Everybody down here knows the problem. It's just a matter of what to do to start addressing it,"

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Sean Kelly, SDSU Extension

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IMPORTANT NOTICE

# **MMRPBA** deadline for completing firebreaks

Hard deadline of March 1 in effect for 2024 burns

Due to the very small window to get prescribed burns done in the spring and fall, the MMRPBA has set a policy firebreaks for planned on burns effective in 2024. A soft deadline of February 1 and a hard deadline of March 1 has been set that all firebreaks must be complete on burn units planned for that year. If firebreaks are not complete, that burn unit will go to the end of the burn list.

It's imperative that landowners have their firebreaks complete and burn units ready to go. Due unpredictable to weather conditions in the spring, the

conditions for a burn may meet the prescription with very short notice. Having those firebreaks ready to go helps ensure the best chances complete to the burn. If you have any questions on your firebreaks please contact Sean Kelly or any other MMRPBA board member.

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# South Dakota takes part in Working Lands for Wildlife workshop



The landowner panel at the Working Lands for Wildlife Workshop was moderated by Shelly Kelly, Executive Director of the Sandhills Task Force (shown at left). The panel featured landowners throughout the Great Plains who help conserve and protect the grasslands, and included Tell Deadrich, Nebraska; Russell Blew, Kansas; and Sara Grim, South Dakota.

Several members of the Mid-Missouri Prescribed Burn Association attended the Working Lands for Wildlife Workshop in Manhattan, Kan. on July 12-13.

This is the tenth year for the workshop which focuses on conserving America's grasslands through diverse and innovative ways.

Conservationists, landowners, specialists and others take part in the workshop each year. Sean Kelly and Tom Hausmann with MMRPBA attended the workshop and South Dakota rancher Sara Grim represented South Dakota on a landowner panel.

Sara, along with her husband, Rich, ranch near Bonesteel, S.D. Their ranch had seen a decline in land use due to the encroachment of cedar trees, that is until they began to use planned, strategic fire.

The couple has found that prescribed fires implemented through MMRPBA is the most efficient way to kill cedar trees. Grim made remarks during the panel to support that claim and share what has worked for their ranching operation.

HID-HISBOUR	Mid-Missouri River Prescribed Burn Association (Brule, Charles Mix, Gregory & Lyman Counties South of I-90) <u>Membership Application</u>
Name:	
Address:	
City, State, Zip:	
Home Phone:	Cell Phone:
Email Address:	
If you own land that may be b	urned in the future, which county is it located in:
	Category of membership requested: (Check one) Individual Membership: (May vote, dues \$25) nizational Membership: (1 vote/organization, dues \$25) Name of organization represented: Associate Membership: (No vote, no dues)
	ri River Prescribed Burn Association and agree to pay the applicable \$25.00 membership dues, certify that I r crime involving arson, sexual misconduct or extreme immorality and, agree to a background check.
Signature:	Date:
Return Application a	and Membership Fee To: Sara Grim, 35801 Old 1806th Road, Bonesteel, SD 57317 Make membership fee checks payable to: MMRPBA

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# Campaign to "Defend the Core, Grow the Core" when tackling Eastern Redcedar encroachment

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By Dillon Fogarty and Dirac Twidwell University of Nebraska

**Summer 2023** 

Grasslands in South Dakota, Nebraska and other Great Plains states are declining as woody plants like eastern redcedar spread and take over what were once intact and treeless grasslands. This process, referred to as woody plant encroachment, is among the greatest threats to Great Plains grasslands. Every year, more of our grasslands are lost due to woody encroachment.

As an example, in 2019 Nebraska lost more than 419,000 tons of forage production to woody encroachment. Past management approaches have largely been unable to stop or reverse this trend.

However, a new management concept is showing promise. Known as "Defend the Core, Grow the Core," this is becoming widely adopted among producers and natural resource groups for confronting woody encroachment on grasslands. The idea is to anchor management to intact grassland areas and target surrounding low and moderate infestations to gain back ground and grow a grassland core.

This approach focuses on proactive management where there are greater chances for long-term success.

Because a mature eastern redcedar tree can produce over 1.5 million seeds per year, and the majority of which are dispersed within 200 yards of the tree, proactive management focuses on that 200 yard zone. By anchoring management to intact grasslands and targeting the leading edge of the problem (e.g., seeds, seedlings, and scattered seed sources), managers



Pictured: University of Nebraska's Dirac Twidwell

can impact more acres and have a better chance of long-term success.

#### How to start?

To get started with building a core, when you are out planning practices for your land, consider where you have intact grasslands, where the leading edge of encroachment occurs, and where you can treat the most acres with the least effort. Instead of treating 100 acres of dense infestation, can you treat 1,000 acres of low infestation on the leading edge?

Even better, talk to your neighbors about growing a grassland core across properties. We give encroaching woody plants an advantage when we limit our planning to the boundaries of a single property. Efforts to solve the encroachment problem are more successful when neighbors collaborate and work together, including collaborations that span private and public land. There is no single correct size for building a grassland core. Instead, the goal is to maximize the size of the core based on the context of a landscape or region. In more intact grassland regions, there's potential to establish large core areas relatively quickly, while in more infested regions, smaller cores can help protect remaining grassland values. What's more important is that we get started defending grassland cores, and the sooner the better.

Download a pdf of the management guide detailing how to defend and grow grassland cores at this link: https://agronomy.unl.edu/ faculty/Twidwell/redcedar/E-1054-WoodyEncroachment.pdf

Also listen to a discussion of the content in this article on the BeefWatch podcast. You can subscribe to new episodes in iTunes or paste http:// feeds.feedburner.com/unlbeefwatch into your podcast app. Mid-Missouri River Prescribed Burn Association Sean Kelly 33815 288th Street Gregory, SD 57533





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After a successful spring 2023 burn season, three post-burn tours are being held to review results from the prescribed burns. The tours are Aug. 2, Aug. 9 and Aug. 30 each starting at 10 a.m. and concluding with a complimentary lunch. For specific details about each tour, see page 6 inside.

The Mid-Missouri River Prescribed Burn Association is a non-profit 501(c)(3) formed to control cedar tree infestation and improve grassland health by conducting prescribed fires. MMRPBA's efforts will focus on land along the Missouri River in Brule, Charles Mix, Gregory and Lyman Counties.