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# Grassroots

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## Stacking Enterprises By Sandy Smart

I've lived in the Great Plains for 30 years and you would think I would be used to the wacky weather we have here in South Dakota. However, each year seems to bring on its own unique challenges. The recent derecho was a new one for me. I've never seen wind like that before and such widespread damage. And now we've had two of them in one summer!

The turbulent weather was hard on urban areas, where tree and roof damage were high in recent storms, but it was even harder on farmers and ranchers. In order to "weather" the storms, either economic or natural phenomena like a derecho, hail, flood, or drought, farmers and ranchers need to be resilient. One of the tried-and-true ways to be resilient is to maintain diversity in your operation. Such diversity can occur within an enterprise like crop production and by having multiple enterprises like crops, livestock, and hunting.

Diversity within a cropping operation can include a rotation of corn, soybeans, small grains, sunflowers, pulse crops, brassicas, and cover crops. Diversity of multiple operations like crops, livestock, and hunting allows you to 'stack' enterprises on top of the same land base. Synergism occurs when we stack enterprises and they interact with each other. For example, grazing livestock like cattle, sheep, and goats need pastures to graze in the summer. In the fall, they can graze crop residues like corn stalks, soybean stubble, or fall cover crops. In the southern Great Plains, winter wheat is commonly grazed in the winter and early spring and then harvested for grain in the summer. Our growing conditions in South Dakota doesn't allow us the dual purpose of grazing and harvesting wheat, but we can graze winter annuals like rye or triticale planted after corn in the fall and then grazed the following spring before being sprayed out and planted to soybean. Synergism means that cattle benefit from the cropland by harvesting residual feeds (cheap feed) and the cropland benefits by the cycling of nutrients from cattle grazing (turning residue into manure). It's a win-win. Stacking enterprises is all about finding the 'win-wins'.

The great thing about South Dakota is that we have plenty of cropland and grassland. When we desire to run a livestock operation, we need grassland. If we have cropland and grassland we can get synergism "win-wins" between the two. Because one of South Dakota's favorite past-times is pheasant hunting, operations who take advantage of providing good habitat (grassland and a mixture of crops) benefit from adding a third enterprise by offering guided hunts. This can also occur with deer hunting.

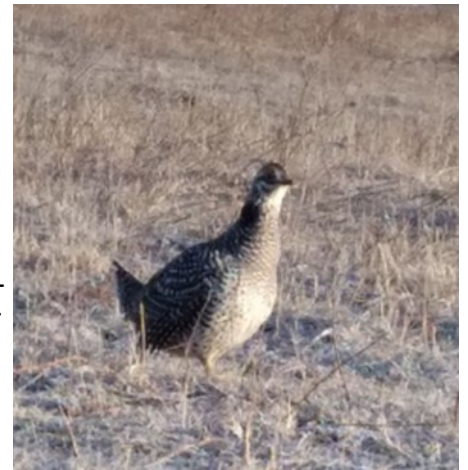
**Stacking Enterprises Continued on Page 2**

## Stacking Enterprises Continued by Sandy Smart

I know many farmers and ranchers who do this. This third income stream can be very lucrative and can help to even out the cash flow when agricultural prices are low.

Another opportunity to stack enterprises can be through agritourism or nature watching. This is a way to cater to urban people who desire to understand and experience what its like to farm and ranch and see the beauty that many of our rural landscapes offer. This enterprise has to be developed and marketed, but like hunting has great potential to even out the cash flow when income from agriculture is down.

I was able to experience my first prairie grouse mating ritual this spring on native grassland managed in Deuel County. We hiked to our spot before sunrise and set up a blind. Twenty minutes later, on that chilly April morning, we heard and saw close to a dozen male sharp-tailed grouse dancing just feet away from us. This experience was on my bucket-list and it did not disappoint. The fact that we still have native prairie and wildlife doing this ancient mating dance in eastern South Dakota is amazing and is worth protecting. Is it wrong to profit from this “enterprise”? To me farmers and ranchers whether they choose to do so or not are providing important ecological services that often go unnoticed. It takes a lot of work to get up early and set up a blind where you know the grouse will be. So, the answer is yes, I think it is okay to profit from something nature is already providing. It is just another creative way we can stack enterprises and in doing so make a place where crops, livestock, and grass are a great combination.



Sharp-tailed grouse on a lek in Deuel County, SD. (Photo: S. Smart)

## The Green Side Up by Pete Bauman

### “No substitute for Getting Out on the Land”

“Sometimes we get in our own way”. We’ve all heard this before, but recently I’ve been reminded of this little truth more often. Organizations are all trying to figure out how to provide quality learning opportunities in what is a new era, largely driven by effects of covid on how people now engage each other. On top of that are concerns driven by challenging weather, high fuel prices, etc. There just seems to be a background level of stress in our efforts to help South Dakota’s grassland managers stay profitable and relevant. In a nutshell, I’m generally of the opinion that ANY grassland event is good, even if one might have reservations about the content or the person or entity sponsoring the event. Why? Because ANY event that puts people in the grass has the opportunity to help society value grasslands, and that is good. To that end, I want to encourage everyone to get back out in the grass. Attend a local field day, pasture walk, school, or other event. Don’t worry about who is sponsoring it or speaking...you might not agree with all that is said, but that is only a small part of any field day. The real learning comes from rubbing elbows with others that you can learn from and they can learn from you. The biggest threat to our grasslands is the assumption that we’ll always have them. See you out there! See calendar of events in this issue for upcoming opportunities across the state.

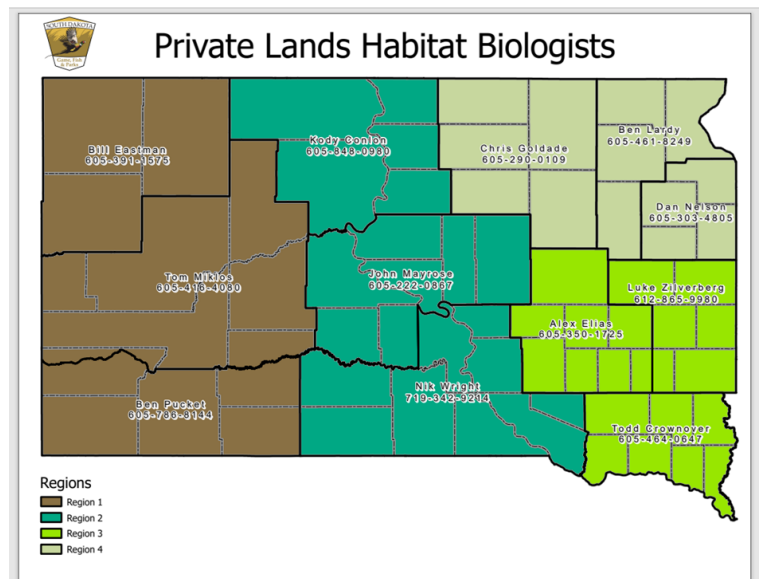
## SDGFP Private Land Biologists by Eric Magedanz

Partnerships start from the beginning with identifying similarities in organizational missions and mutual goals and determining what can be accomplished for the resource through collaboration. The nexus between South Dakota Game, Fish, and Parks (SDGFP) and the South Dakota Grassland Coalition (SDGC) is grassland stewardship. Since 2017, SDGFP and SDGC have been partnering to promote grassland stewardship through technical assistance and educational opportunities to assist landowners in improving grassland management and health. The results of better management not only benefit a landowner's pocketbook but also yields a healthier and more diverse ecosystem and landscape for grassland dependent wildlife.

Recognizing the importance of building landowner relationships, SDGFP recently expanded its private lands habitat biologist staff from four to twelve. These positions are strategically placed throughout the state and work one on one with landowners designing and developing tailored management prescriptions and recommendations to meet a landowner's goals and objectives. Through SDGFP's Private Lands Program, private lands habitat biologists are able to provide cost share incentives to implement certain conservation practices. One of the more common project types SDGFP private lands habitat biologists assist in designing and potentially funding is grazing systems, which include practices such as cross fence and water development. The principal goal of these working lands projects is to facilitate grassland management through improving grazing infrastructure. Now you may ask, why is SDGFP working with landowners on livestock pastures? Visit a well-managed grassland where cattle are being moved from pasture to pasture or paddock to paddock and you'll find vegetation of varying heights, density, and plant composition. While one unit is actively being grazed and is comprised of moderate vegetation height, another unit has not had a hoof on it and is composed of taller vegetation. This varying degree of disturbance at different times of the year creates dissimilar vegetation structure. It's this differing plant structure that attracts different species of wildlife. In particular, grassland songbirds select for and prefer specific vegetative structure. This type of grazing regime also benefits the producer and rangeland health by allowing for adequate rest and recovery and thereby increases plant productivity, diversity, and prevents over utilization. All key components to building rangeland resiliency.

Having a keen understanding of the interactions between cattle, grazing, and wildlife as well as understanding a landowner's challenges and needs are fundamental to promoting best management practices that works for the producer while providing benefits for the land and wildlife. Annually, the SDGC, along with its partners, conducts comprehensive educational workshops in the form of the Grazing School and Grassland Management School where landowners and resource professionals can come together to share experiences, exchange information, and obtain knowledge relating to grasslands. These workshop opportunities serve as a way for SDGFP private lands habitat biologists to further broaden and reinforce their understanding of these interactions and elevate the importance of working side by side with landowners and the SDGC on grasslands and their significance to South Dakota's communities and natural resources. To learn more about SDGFP's Private Lands Program, contact your area's SDGFP private lands habitat biologist at <https://gfp.sd.gov/contactus/>.

*Eric Magedanz is a senior private lands biologist for SDGFP located in Watertown, SD.*





## Electric Fencing by Garnet Perman

The first cross fences consisting of steel posts and barb wire went in at Rock Hills Ranch in 1985. After stringing what probably amounts to several thousand miles of fence over the years Luke Perman shared what's working for him in 2022. With the cattle split into four herds and two bands of custom grazed sheep multiple fences go up and come down every week.

Permanent perimeter fences continue to use more traditional barbed wire and heavy posts, but electric fence is what makes the grazing plan work. Cattle and sheep can be trained to respect electricity. Electric wire and fiberglass posts make up the biggest share of the ranch's fencing supplies.

Fiberglass is inexpensive, light weight and doesn't short out as often as steel posts. Corner posts are 1-1.25" fiberglass rod. For line posts the most economical option is 3/8" UV coated fiberglass rods with harp or spring clips. These can be placed in the ground prior to freeze up to be used for winter grazing for the cattle. Holes for the posts can be predrilled with a cordless drill to help section off cornfields if the ground is hard or slightly frozen. These are also durable as some have been used for 15 years.

O'Brian Treadaline or Strainrite Multiwire Step Ins from Premier One Supplies are more costly but easier to install than the cheaper fiberglass rods and handle multiple wires well. The skinnier the spike end the easier to step in. Wire height can also be adjusted for smaller animals. These are used primarily for holding sheep. Alfred Hinostroza, one of the Peruvians that manage the sheep bands estimates it takes ½ to 1 hour for two people to set up a two wire, 1-2 acre pen depending on the terrain. He and his brother, James, take down and set up new pens every day. Perman has used these in heavy snow for cattle with a hot top wire and second ground wire.

Electric netting is used for the pen surrounding the water source where the sheep spend 4-5 hours a day. The Permans thought netting was the best electric option when they first started custom grazing until informed otherwise by a Peruvian with electric fence experience. Netting has good holding capacity and can stay in place for a couple of weeks.



Fiberglass post supporting two polywires to hold in sheep on the Rock Hills Ranch. (Photo courtesy of Garnet Perman)

**Electric Fencing Continued on Page 5**

## Electric Fencing Continued by Garnet Perman



Electric netting fence used to hold sheep to concentrate grazing on leafy spurge on the Rock Hills Ranch. (Photo courtesy of Garnet Perman)

Gallagher ring-top or pigtail posts are simple to install and take down but are made for only one wire, which makes them suitable for cattle but not sheep. They can also be fairly expensive. Braided polywire, such as Premier One Intellibraid or Powerflex PolyBraid is well worth the extra money vs regular polywire that is twisted rather than braided. Perman finds it to be much stronger and have better visibility which helps animals respect it better.

Knots matter! Use a clove hitch to tie off the polywire on the corner fiberglass posts. On the braided polywire it's important to use a fisherman's knot when joining two wires, to maintain strength and conductivity of the metal filaments. Diagrams of both knots can be found on the Internet.

Other fencing supplies include:

- An EZ Reel XL from Premier One can be rolled up with a cordless drill (with the appropriate attachment) and holds 1/2 mile of polybraid. Some people prefer a geared hand-crank reel for shorter distances, but that's labor intense for 1/2 mile of fence so we use the EZ Reels mostly.
- Solar-powered 0.15 to 0.5 joule energizers work well for well-trained cattle on 1/2 mile of temporary fence. If a lot of green forage touches the wire, a bigger energizer may be necessary. Perman likes Gallagher, Patriot, and Speedrite energizers. All seem to perform and are fairly durable.
- Fence handles - Zammr handles can be hooked up to either conduct electricity if hooking onto another electric fence, or insulated if hooking on to a barbed wire fence.
- A must-have accessory is a fence tester/fault finder. Perman prefers the Gallagher fault finder, keeping one in every vehicle/atv.

*Garnet Perman is a freelance writer and ranches with her husband, Lyle, near Lowry, SD.*



## Agricultural Land Trust Hosts Conservation Easement Celebration

News release provided by SDALT

The South Dakota Agricultural Land Trust (SDALT) celebrated its first conservation easement with a gathering on Thursday, June 23rd. Individuals from across the state were invited to the recently conserved Oak Hills Ranch. The Ranch is located directly adjacent to the city of Spearfish and borders privately-owned and public land. The SDALT Board of Directors could not have envisioned a more beautiful setting to celebrate South Dakota's open spaces, wildlife habitat, picturesque views, and agricultural heritage.

SDALT partnered with Lawrence County landowner Johanna Meier Della Vecchia to establish a conservation easement on Oak Hills Ranch in the spring of 2022. The agreement conserves 762 acres of forests and mountain meadows, adding to the scenic character of Spearfish while maintaining the local agricultural landscape.

"We all need to be grateful for the opportunity of stewardship," Johanna Meier Della Vecchia expressed during the easement celebration. She discussed why she chose SDALT to hold the easement, noting that the agricultural-based trust ensures the land would be kept in its pristine productive state. The Oak Hills property will continue to be a working ranch grazing cattle and horses under the direction of ranch managers Mark and Terri Weber.

The protected property will also provide critical watershed protection to the ecological and recreational values of Spearfish Creek and contribute to a clean and abundant natural water supply for the DC Booth Fish Hatchery.

The easement celebration consisted of short presentations on the mission of SDALT, the history of the Oak Hills Ranch, and a discussion of the value of conservation easements. Those in attendance had the opportunity to visit the historic ranch outbuildings and participate in a walking tour to the top of Lone Tree Hill, located near the center of the property. The view allowed everyone to survey the sprawling residential developments surrounding the ranch.

"The best way to keep land healthy is to protect it from encroachment and have it continue to stay productive," Karl Jensen, SDALT Secretary said. "This hill will always be here, it's a glorious moment to see what can be done in an area of intense urbanization."

*The South Dakota Agricultural Land Trust (SDALT) is a nonprofit land conservation organization formed in 2019 with the mission to work with landowners to conserve South Dakota's agricultural heritage and working landscapes for the benefit of future generations. You can learn more about the Trust at [www.sdaglandtrust.org](http://www.sdaglandtrust.org).*



Oak Hills Ranch located near Spearfish, SD.



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## - News from the SD Section of the Society for Range Management

### Range Camp by Emily Helms

The SD Section of the Society for Range Management hosted their annual “Young Professional’s Range Camp” in Belle Fourche, SD on June 28 – 30. This year’s range camp focused on riparian health and restoration, with a few other topics spread in. Participants included employees from Natural Resources Conservation Service, US Forest Service, Bureau of Land Management, The Nature Conservancy, Pheasants Forever, and South Dakota State University, along with some landowners. Between participants and instructors, there were about 50 people in attendance.

The first day started off at the Branding Iron in Belle Fourche, learning about riparian systems, health and restoration, focusing on a new Western South Dakota Stream Guide developed by SDSU, TNC, and NRCS. The afternoon took the group out into the field to look at some riparian restoration projects. The group was able to see some beaver dam analogs, and other low-cost structures that help capture sediment, and repair riparian health.

The second day was a work-day! The participants rolled up their sleeves and were tasked to build some of the structures they saw the day before. The group was split into three teams and spent all morning “thinking like beavers” to build structures that would slow water and help mimic beaver dams that would help improve riparian vegetation over time. Thankfully the landowners where the structures were built, love what the structures are doing on their spring-fed stream system. They ended up with 5 new structures along the stream’s stretch. A few other structures were built last year in this pasture, so after lunch the group took some time to discuss the merits of each type of structure. The afternoon was spent going over how to evaluate streams using the stream assessment tool from the Western SD Stream Guide.



One of the beaver dam analog structures built on the second day. This will help slow water, allowing sediments to deposit and helping to restore riparian area vegetation.



One of the structures the group saw on the first day: a rock run-down structure that helps to stop a head-cut from eroding further.

The third day was a morning session that covered the typical range camp topics – soils, ecological sites, and plant identification. The day ended with a lunchtime presentation on virtual fencing strategies and other precision ranch management techniques that SDSU researchers are testing out at the Cottonwood Research Station. Chad Blair also spoke to the group about his experiences with virtual fencing.

The Professional’s Range Camp is held at the end of June every summer. The camp focuses on various rangeland management topics, and invites all interested parties (agency, NGO, landowner, etc.) to attend if interested!

*Emily Helms is the State Rangeland Management Specialists for SD NRCS.*



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## Calendar of Events

Event	Date	Location	Contact Person	Phone/email
East River Grazing School	July 26-28	Marvin, SD	Pete Bauman	Peter.bauman@sdstate.edu
Leopold Tour	Aug 9	Veblen, SD	Judge Jessop	605-280-0127
Michalski Pasture Walk	Aug 12	Willow Lake, SD	Jessica Michalski	jessica.michalski@usda.gov
Grubl Alkali Ranch Pasture Walk	Aug 23	Union Center, SD	Tanse Herrmann	tanse.herrmann@usda.gov
Chamberlain Grazing School	Sep 13-15	Chamberlain, SD	Judge Jessop	605-280-0127

Please remit any comments, suggestions, or topics deemed necessary for further review to: Sandy Smart, SDSU Box 2207D, Brookings, SD 57007, alexander.smart@sdstate.edu, (605) 688-4940



