



**FOOTHILLS FORAGE  
AND GRAZING ASSOCIATION**

*Innovation, education and regenerative agriculture*

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## GRASSROOTS NEWS & VIEWS

# June 2022

## Director's Note — Wolter van der Kamp

*Hello,*

And so it's June. Summer Solstice is just around the corner, a weird feeling really, considering as I write this, the poplar trees around here are just turning green, and the forecast finally consists of mostly frost-free nights.

It's been a slow, and somewhat disappointing spring. For most, the moisture we have desperately been waiting for hasn't come, or only in very small amounts. For those, like us, nestled up against Kananaskis who have gotten a little bit more than most, it hasn't been accompanied by the necessary heat to make growth happen.

Due to a slow start to spring, the plan here at the ranch was to keep the cows fenced in and on feed for a little longer than usual, ensuring the grass a good start. However, as with all things, especially in the agricultural industry, plan A hardly ever works exactly as planned. With the lack of heat, the runoff also hasn't come yet, leaving the Highwood river very low for now. Even after securing a little extra hay to continue feeding, the cows had other ideas, crossing the river into the neighbours. Worried about having cows calf where they shouldn't, and having to try to retrieve pairs from across the river, where good corrals are hard to find, we had to make the decision to implement our grazing plan early. When making a plan, I always like to keep human resources at the forefront. I'm okay with bringing some cows back across the river once, or maybe twice, but I'm only one person, and I have other things to do, so at some point, something else has to give. This year that meant turning out to grass a little sooner than initially planned, but I'm hoping that my management over the last five years, has prepared the soil and grass to take this adjustment,

and now we just hope we get the moisture and heat to help replenish that which we took.

The weather is, and always will be, a hot topic, an easy thing to complain or comment about, and for most people, especially us in agriculture, something we keep a close eye on. However, it is something we can not control, and therefore I try not to focus my energy there. Utilizing management skills I've acquired over the years, both by experience, but mostly from interaction with others, I'm hoping to make the most out of what we do get. The forecast looks promising, although they might just do that to keep our hopes up, as 2 weeks out almost always looks promising. I hope for all of you who have not gotten the moisture needed, that it will come.

We have a summer full of excitement to look forward to. Grass and trees are turning green, flowers are starting to bloom. Forestry grazing season, and with that many saddle hours, enjoying the beauty of nature, is around the corner. For most of us, seeding and/or calving is finished, or at least well underway, and whether watching those little boogers fly across the pasture, visiting with our neighbours during this year's branding season, or watching our crops grow, we realize what we do it all for. Let's make sure we don't forget to enjoy those little moments, for it is a beautiful life we get to live.

*Wolter*

*Wolter in the branding pen*



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*On the Cover: Prescribed Burn at Tongue Creek Ranch.* Visit <https://www.foothillsforage.com/videos> to see how Tongue Creek Ranch (TCR) intends to use prescribed burns as a tool to reverse the encroachment of grasslands by wood species (brush and trees). The information session will provide historical and vegetation context to the issue, explain the role prescribed burns can play and outline TCR plans.

Thank you for your support!



# ♦ OH & Tongue Creek Ranch Tours

## July 28, 2022

### OH Ranch

- OH brush encroachment history on grassland. Using tools such as mechanical, spray & grazing management.
- NCC and OH partnership: water projects.
- OH field sites - MULTISAR project, historical observations, lease & deeded, disturbed & reclaimed grassland.

### Tongue Creek Ranch

- Tongue Creek Ranch plans regarding prescribed burns
- Using prescribed burns as a tool to manage brush encroachment of grasslands by wood species (brush and trees).
- Historical and vegetation context on Tongue Creek Ranch

**8:45am-** Coffee & Registration at OH Ranch Cookhouse (map on Eventbrite)

**9:15am-** Presentations & tour at OH Ranch

**Noon-** Lunch (provided)

**1:00pm-** Presentations & tour at Tongue Creek Ranch

**4:00-** Wrap up

#### **Cost:**

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**Non-Members: \$25.00 + GST**

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**\*Please dress appropriately for the weather as we will be outside for much of the day.\***



# Rotational grazing doesn't make rain, but it helps to keep it, study finds



Fencing & Grazing workshop at VXV Farm

Rotational grazing isn't just good for the soil — it turns out the practice results in a huge bump in soil water infiltration.

"What we were finding for water infiltration was that AMP (adaptive multi-paddock) grazing was adding about 30 per cent more water infiltration into the soil," said Timm Döbert, who was part of a five-year study conducted by University of Alberta researchers.

"This is quite important because there has been a drought for some time and droughts have been forecasted for the future."

The project, completed in March 2021, paired AMP ranches with neighbouring ones that don't use intensive rotational grazing. About 70 ranches from across the Prairies were included, making it one of the largest such studies ever conducted.

"Small-scale studies have been conducted before, over the fence," said Döbert, who was a post-doctoral fellow at U of A. "But it's never really been tested at a broader scale. So this was really important too, because there is so much variation in so much of everything in nature."

"It's difficult to compare a handful of ranchers, so it was important to get a large pool of ranchers across a large radius."

Döbert said the primary focus of the study was soil carbon.

"But carbon is not just isolated — it's related to the processes which are driving sequestration of carbon and emissions of soil organic carbon into the atmosphere, taking us to plants, which are taking up the atmospheric carbon, to enzymes and

microbes which drive the activities in the soil," he said.

Water and carbon cycles are linked, and water infiltration is one component of this, he said.

Two grazing practices in particular made a huge difference on a ranch, researchers found.

"The rest-to-grazing ratio looks at how long the grazing takes place and how much rest is given to a piece of land. It's the relationship between rest and grazing," said Döbert.

The other key practice was the animal unit density, not the stocking rate.

"We looked at the density because the idea of AMP is to hit a small area of land for a short period of time with a high density of animals," he said. "The entire land that belongs to the rancher may support the same amount of cattle that belongs to a rancher who is not using this high rotational system."

"The rest-to-grazing ratio and density really separated AMP and neighbouring ranches quite nicely."

But when they drilled down, it was really the resting period that seemed to have the biggest impact.

Another key finding was that "water infiltration is not the same as water availability."

When there is more water infiltration through the soil, there's a greater chance that more water will be available to plants.

Döbert said a 30 per cent increase in water infiltration can make a major difference.

"What is clear from the water infiltration study — we have seen that the extended rest period is beneficial."

And that beauty of this practice is that it is "straightforward to implement and doesn't require any new techniques," he added.

One of the participants was cow-calf producer Sean McGrath, whose ranch near Vermilion has been using rotational grazing for about 35 years.

The study backs up what he's seen — a massive difference in the water infiltration on his land com-

pared to other ranches in his area.

"I think it changes the way our sloughs fill," he said. "If we have a big rain or a big melt, our sloughs don't necessarily fill up. They may fill from underneath later on or they may hold the moisture they've got longer."

"There's so much vegetation there that there is not a lot of overland filling and flooding. It changes the water cycle."

McGrath said he is always thinking about "effective rainfall."

"I may get an inch of rain and my neighbour might get an inch of rain, but if I can get that entire inch into my ground as opposed to having it run off, my inch is bigger than their inch," he said.

McGrath said he has seen the benefits of a longer rest-to-grazing ratio on his ranch.

"The roots will open up the pores and there's a chance for that soil to rebound from any compaction," he said. "If you're doing it carefully or cautiously, you're also getting some nutrient cycling, but you're putting some litter on the ground. That slows the water down."

The litter slows down the water and diffuses it, he said.

"If you've got enough organic matter in your soil from that pulse of grazing, and then the rest, that will hold that moisture and it will cushion the blow from those raindrops, and allow them to soak into the ground as opposed to running off, or hitting and bouncing back in the air and taking soil and nutrients with it," he said.

The project included professors from the Rangeland Research Institute, and researchers working in economic and social sciences. U of Alberta ecology professor, Mark Boyce, spearheaded the project.

*Author: Alexis Kienlen*

*Original Article: <https://www.albertafarmexpress.ca/livestock/rotational-grazing-doesnt-make-rain-but-it-helps-to-keep-it-study-finds/>*



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# SOIL STRUCTURE & PRODUCTION FIELD TOUR

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- 9:30am @ Gem Community Centre
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- We will be touring Gemstone Cattle Company
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Register at:

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# Going slow speeds handling process



Dylan Biggs- Low stress cattle handling

An Alberta rancher says cattle are better behaved if they can walk into a corral calmly and quietly instead of being chased

Dylan Biggs recognized the benefits of quiet cattle handling early in his career. The Hanna, Alta., rancher learned from Bud Williams, who spent many years in Alberta practising and teaching low-stress methods for moving and sorting cattle.

"The first thing that sets the stage for good handling in a corral is how the cattle were brought in," says Biggs.

"If they arrive upset, it's more difficult to handle and sort them. Bud said that 90 percent of the problems people have in corrals reflect the cattle's state of mind when they come in, which is reflective of the process you went through out in the pasture to get them in."

"Cattle are a lot more forgiving if they can walk into the corral calmly and quiet."

Cattle may take the blame for bad behavior but it is an anxiety response to people shouting and chasing them.

"It's easy to blame the cattle but if we look at how we would feel if we were coerced to go into tight quarters — unhappy about how we were manhandled to go there — we would not feel comfortable in there with the same people who tormented us to get us in," notes Biggs.

Improved behaviour starts with getting cattle into corrals without upset. Good facilities, though helpful, are not the entire solution.

"In today's technological age, we rarely question our own contribution to the ill behavior of cattle and quick to remedy it with a technological change. I've done livestock handling clinics for more than 25 years, and when discussing human behaviour and how it affects cattle, there is reticence," says Biggs.

"There is a lot less reticence when people ask how they might change the design of their corral. They become very engaged in a discussion of technology, design and gate placement. ... It is much easier for people to embrace changing their corrals than changing their own behaviour."

Corrals designed for ease of loading are an advantage.

"There are differences of opinion about specifications and features, but it is demonstrably true that cattle like to keep going the way they are already going," Biggs says.

Abrupt stops or directional changes can make animals uncomfortable.

"A corral system that allows the whole herd to go straight in is best, and ideally, they can see the exit — daylight out the back side — with no visible barrier to indicate a dead end or trap. When I design a system, I make it so the flow continues straight and you can get all the cattle loaded into the system without having them change direction.

"Bud said that you control the flow, when there's movement, by pressing into the side, then coming back in the opposite direction of the flow to feed the movement. Then you are not stuck behind the herd pushing, like you would a wheelbarrow. When you get stuck behind, pushing, especially if there is any kind of barrier, the herd balls up. Cattle want to flare out instead of continuing forward," says Biggs.

When cattle come to a gate, keep them moving, he advises.

"You don't want to be at the back of the herd. You need to be in position to keep the leaders going if the herd starts to stall."

When trying to funnel cattle toward the gate, a wing can be a disadvantage because it constricts the space closer to the entry point.

"This takes away opportunity for the lead person to be in a position to pressure into the side of the front cattle and keep them moving when they start to slow. The wing constricts access for cueing the movement and for pressuring herd movement effectively. The wing is in the way," Biggs says. He got rid of all wings in his corrals 20 years ago.

"Now we can more easily feed move-

ment from the front, and back against the flow, in position to bump them at the hip or ribs with pressure and pop the lead cows forward if they start to slow."

Some people struggle because they are uncomfortable near the front or side of the herd. "They feel more secure with the traditional idea of being behind and pushing. Yet in the pasture, if you understand how to drive cattle effectively, you train yourself for proper manoeuvres and the cattle become comfortable with those manoeuvres as well."

Once cattle are in a corral and sorting begins, there are ways to make it easier, especially when sorting calves from cows. Biggs uses a calf-stripper bumper gate, set up so calves can go under and into another pen as the cows go out of the corral or into a different pen.

Cattle tend to circle after entering a corral and they want to go back out the same way they came in.

"I take advantage of that natural behaviour to facilitate flow for sorting or loading into a crowd tub. You don't need to push them to get them to come out that gate. If anything, you might need to slow them down."

"We separate calves from the cows this way for branding since we use a calf cradle/table. The gate we come in and go out with the cows is adjacent to where the calves slip through into a different pen."

Experienced cows will come to the gate and exit, while calves are shunted under a panel into a different pen.

Many people used a hinged gate to trap calves behind it and force them through the bumper gate.

"But if you can control the natural flow, you can use your position better to sort off the calf because as soon as he gets stuck behind that gate and he sees mama going on without him, and there's the bumper gate to go under, he tends to hesitate rather than just slipping under the bumper gate as he moves along with mom," says Biggs.

If the calf can keep going alongside its mother and is suddenly on the other side of the fence, it keeps going.

Biggs is a proponent of using natural herd flow to get the desired results.

"I've seen people have problems using bumper bars at brandings and at

(Continued on page 7)

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weaning when it's a traditional get-together with neighbours there to help. Often there are too many people trying to push cattle to the gate. They want to be helpful but usually make it more difficult."

Cattle handling goes more quickly when animals are moved slowly, he

notes.

"Too many people wanting to help can be counterproductive. One or two people that the cattle know and trust can sort cattle easily. A bunch of strangers can mess it up."

"Sometimes even the natural flow is almost too fast. You might need smaller groups coming toward you. Depending on

the number of cattle, you might want someone to shut gates farther back in the corral and have smaller groups trickling the flow rather than having a tsunami of cows coming at you."

Author: Heather Smith Thomas

Original Article: <https://www.producer.com/livestock/going-slow/>

## Soil & Grazing: Biology Not Geology



# Western Canada Conference on Soil Health & Grazing

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# 19th Annual Southern Alberta Grazing School for Women

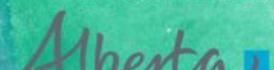
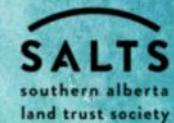
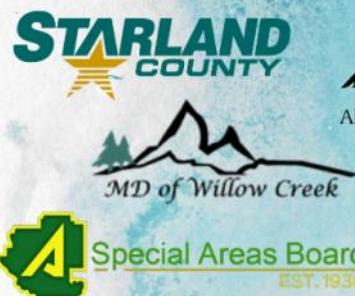
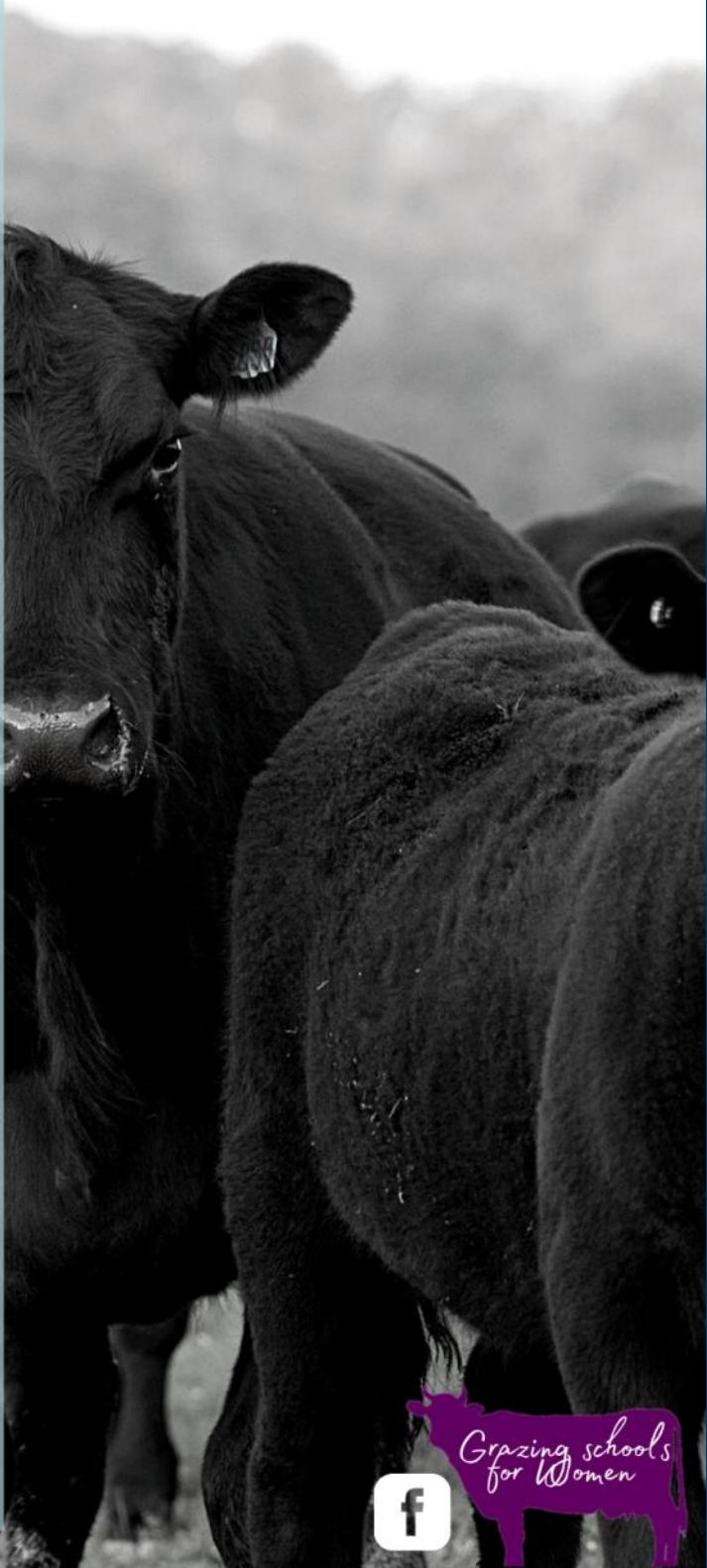
July 13 & 14, 2022 in  
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## Topics include:

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- Soil Health
- Hands- On Plant ID
- Range Health Assessment
- Livestock Behavior
- Pasture Diseases
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# Satellite tracking of cows still a work in progress



Photo: Lakeland College

Oyen producer Heather Mundt has been keeping an eye on her eight high-tech heifers since fitting them with GPS-enabled smart tags last September.

Despite some setbacks, she remains excited about what the technology has to offer, she said.

Mundt and husband Brenton are part of a pilot project testing the Australian-made Ceres Tag. Unlike other tracking technology, the tags don't require any extra infrastructure because the data they generate is tracked by low-orbit satellites (which means they can even transmit data through tree cover). Alongside GPS location data, the tags also monitor ambient temperature and animal activity levels.

Mundt said that the mapping data (accessed through an app called Aglive) has been the most useful for her 150-head cow-calf operation — despite the herd staying in the home pasture all winter.

"We can set a fence perimeter on the software so that, should the tag cross the physical fence and a cow gets out, it sends us an alert," said Mundt, adding she's keen to see how the location data will also save on time and fuel costs once the herd moves to larger summer pastures.

Because the cows were kept close to home, the Ceres Tag's cold-weather limitations weren't an issue. Designed in Australia (where the coldest temperature ever recorded was -23 C), the tags are designed to shut off and conserve battery power at -21 C. However, the cold snaps didn't kill them, said Mundt, and the tags came on again

without problems when the weather warmed up.

Tagging was also a bit of an issue as the dual-pin tags contain delicate technology and require a special applicator and a gentle touch.

"You can't just crunch it as hard as possible," she said. "As experienced as we are at tagging cattle, I guess there's maybe just a bit more for us to learn here."

The tags also only upload data every four hours, which is less than Mundt would like — although since each one uploads independently, the gap between herd-locating pings isn't that long.

"Even though we only had such a small sample of our herd tagged, it was really interesting to notice where they went, because that did seem to be generally where the herd was going to," she said.

But the biggest barrier is cost.

The Ceres Tag is considerably chunkier than a normal ear tag — it's nearly 2-1/2 inches long — and you can't use too much force when fastening it to a cow's ear. photo: Lakeland College

An intro kit — 10 tags and an applicator — goes for US\$2,999, although the Canadian Agricultural Partnership's Farm Technology Program ([www.tinyurl.com/bp99f86u](http://www.tinyurl.com/bp99f86u)) covers GPS tags and trackers.

"And that really makes a big difference because if you didn't have this government funding available, then I would say that it's probably out of reach for quite a few ranchers," said Mundt.

Cost is definitely an issue, agreed Susan Markus, a livestock research scientist at Lakeland College.

"All these technologies, they're expensive," she said. "We're trying to see, is there some other value-added components to these tags besides just knowing where the animal is?"

Because the tags measure movement and temperature, they have been described as a "fitbit for cows" and in her study, Markus wanted to see if they could monitor breeding activities — specifically, what was happening when

a bull was close to a cow.

But again, the four-hour upload interval didn't offer frequent-enough data points to get that picture.

Still, monitoring cows via direct-to-satellite GPS has a lot of potential, she said.

"The whole GPS concept is extremely promising because ranchers don't want to have other infrastructure and towers and other things set up to capture that data," said Markus, adding the Ceres Tag might suit producers who require less frequent location data.

While this particular tag didn't have what Lakeland researchers were looking for, they will continue to study GPS cattle tags, and other monitoring technologies.

For example, they are currently studying a smart Rumen Bolus from a Hungarian company called Moonsyst International. It can detect heats, monitor calving events and track changes in behaviour that indicate health troubles. It can even track water intake via an animal's temperature.

"If they're not drinking water over a period of time, we don't get those spikes in the decrease in the temperature," said Markus. "And in the one case, the water had frozen up and there was no water to be drank. And they're in a pen and there's no snow to be licked. So they obviously had no water for the day and so just to know that was extremely useful."

However, the Moonsyst bolus is not GPS enabled, and so cattle must be relatively close to a base station (which the company says has a range of 500 metres).

And it's the tracking capability of the Ceres Tag that intrigued Mundt, who noted it would be particularly useful for ranchers who have issues losing animals or grazing them in hard-to-reach areas.

*Author: Brittany Ekelund*

*Original Article: <https://www.albertafarmexpress.ca/livestock/satellite-tracking-of-cows-still-a-work-in-progress/>*

# SOIL HEALTH

# FIELD TOURS



## FEATURING ODETTE MENARD

**Odette Menard is an agricultural engineer who has had a major role in the promotion of soil conservation.**

**Odette is an expert in earthworm behaviour and practices that promote health & fertility.**



## PINCHER CREEK

July 11, 2022

### Topics Include:

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- System approach to grazing management
- Cost effective strategies
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**Speakers:** Julia Palmer, Uriel Delgado & Odette Menard

### Topics Include:

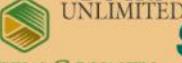
- Enhancing your grazing options
- Adding to the land's natural value
- Reclaiming land for production
- Cover crop silage mix under irrigation
- Soil health

**Speakers:** Rod Vergouwen, Graydon Garner and Odette Menard

Registration & details visit: <https://www.foothillsforage.com/events>

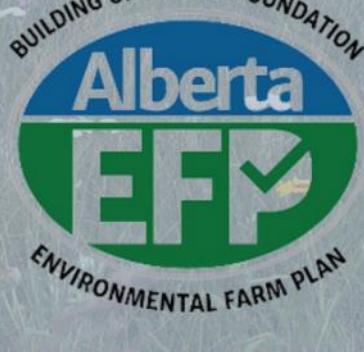
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