

Antelope Creek Habitat Development Area

2021 Annual Report

Prepared by

Neal Wilson



Antelope Creek Ranch 2021 Annual Report

What is the Antelope Creek Ranch?

The Antelope Creek Ranch (ACR) was established in 1986 through a multi-agency partnership. Alberta Fish and Wildlife Division, Wildlife Habitat Canada, Ducks Unlimited Canada and the Alberta Fish and Game Association were the purchasing partners of the Antelope Creek Ranch. ACR is in southern Alberta, west of Brooks. The land base is managed to provide productive plant cover for livestock and wildlife, and adequate nest cover for waterfowl on mixed grass prairie and wetland margins. Crested wheatgrass, irrigated pasture and native rangeland are incorporated into a complementary, deferred-rotation grazing system to achieve the management goals.

The Antelope Creek Ranch serves as a demonstration project for producers and resource managers in the mixed grass prairie region. ACR research focuses on sustainable rangeland management through specialized grazing systems to benefit both livestock and wildlife. ACR has also been a valuable research venue assisting several M.Sc. thesis research projects from the University of Alberta, University of Lethbridge and the University of Regina. In addition, ACR supports independent studies concerning wetlands, industrial reclamation, and tame grass production.

Research at ACR consists of a co-operative, multi-disciplinary monitoring program to document changes in range vegetation and range condition, forage production and utilization, litter reserves, cattle performance, soil chemical and physical characteristics, and changes in relative diversity of wildlife.

Vision

To improve the health of Alberta's prairie ecosystems while maintaining the benefits which society derives from its use of these landscapes.

Mission

Use the ACR as a demonstrative and educational tool to show land users and resource managers how to manage and integrate agricultural, recreational and industrial use of the prairie landscape while maintaining its health and the integrity of its ecosystems.

ACR Management

Antelope Creek Ranch is managed by two very different and distinct committees. They are the management committee and the technical committee. The committees consist of members from Alberta Fish and Game Association (AFGA), Ducks Unlimited Canada (DUC), Alberta Environment and Parks (AEP) and Wildlife Habitat Canada (WHC).

The management committee is responsible for managing the financial aspect of the ranch and setting policy of overall management. The Technical committee is responsible for the management of the habitat and anything that applies to the ground work of the ranch. This is all implemented with the grass roots contributions from the ranch managers.

The ranch managers work closely with the technical committee and manage the day to day operation of the ranch with consideration for cattle and range management, wildlife, oil and gas development, as well as monitoring recreational activities on the ranch.

The People and Partners of ACR

Management Committee

Craig Johnson – Chairperson, EAP
Delinda Ryerson- Vice Chairperson, AFGA
Duane Radford – AFGA representative
Wayne Lowry – ACR Finance Chair
Thorsten Hebben– Ducks Unlimited representative
Pierre Vary– Wildlife Habitat Canada representative

Technical Committee

Joel Nicholson – Chairperson, EAP, Fish and Wildlife Division
Colin Kure – AFGA representative
Ross Adams – Public Lands Division representative
Carson McCormick- Ducks Unlimited Canada

Ranch Managers

Neal Wilson
Shannon Burnard

Ranch Extension

Once again 2021 was a challenging year for in-person extension work due to covid and the ever-changing restrictions. Even so we were able to host a targeted grazing workshop and a training day on the ranch during the summer and fall. In the spring Joel Nicholson, Sandi Robertson, Meca Klem and Eric Spilker, biologists with Alberta Environment and Parks came out to the ranch to complete some wildlife surveys on a couple of areas that were missing a bit of data from the Multisar survey completed in 2019. This data was used to complete the report from Multisar on the ranch's ecological integrity and to provide professional advice on management opportunities for the ranch to provide better habitat for wildlife and the cows on the ranch. During this survey we were lucky enough to provide a new home for a little brown myotis as they had one that needed to be released back to the wild. The wildlife surveys completed in June 2019 and May 2021 reported 86 species on the ranch with 20 of these species considered at risk either at the federal or provincial levels.

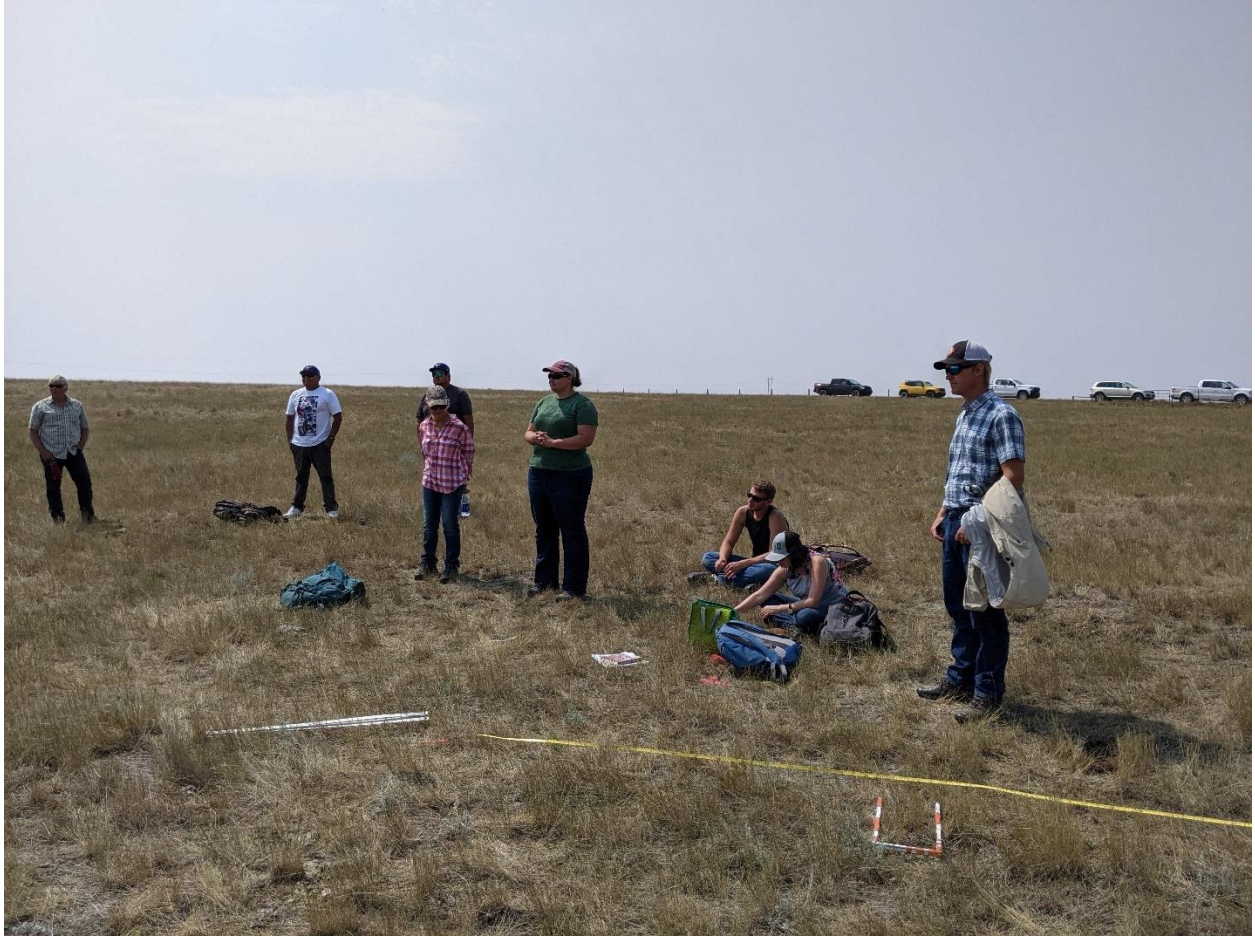


Photo 1 Targeted grazing workshop on Antelope Creek Ranch July 2021

Over the past years we have been targeting our spring grazing at crested wheat grass that has been seeded as part of reclamation activities in the native pastures. ***Prescriptive Grazing for Vegetation Management in Natural Landscapes*** hosted by: Sue Michalsky of Paskwa Consulting Ltd, Amanda Miller of Palouse Rangeland Consulting, and Marilyn Neville of Gramineae Services Ltd. Is a guide that was published in the fall which uses some of the data recorded on the ranch. There was a workshop held on the ACR in July with approximately a dozen attendees in plus 35-degree weather. The focus was on using defoliation of targeted vegetation species at specific times of the year to reduce and eventually remove the species from the area.

September usually brings many activities and visitors to the ranch and this year was shaping up to have a return to normal with three tours and training days planned. The reintroduction of covid restrictions in the middle of September changed this. Grassland Restoration Forum held their annual Rangeland Health Training Day on the ranch again in 2021 but there were many last-minute cancelations as the restrictions were brought back in and it became unfeasible for registrants to attend. Those that did attend and the trainers that were onsite enjoyed a rather windy and cool day on the prairie.



The combined Management and Technical committee meeting and tour was also postponed due to covid although Pierre Vary our Management Committee representative for Wildlife Habitat Canada and his wife were already out in the area so we had a tour of the ranch one morning so that he had an idea of the landscape the ranch encompasses and some of the wildlife that use the area (we kept missing the pronghorn that were in rut at the time).

The ranch has been a member of the Prairie Conservation Forum since 2008 and this year Neal was elected to the Chair position of the board of directors. In this position

we have helped organize the spring and fall meetings and tour in Lethbridge as part of the fall meeting. As well four regular BOD meetings were held and two quick unscheduled meetings to try and decide on the PCESC conference that it is Alberta's turn to host. The conference is now a go with The Wilder Institute/Calgary Zoo as title sponsors providing the venue.

We also wrote an article about the ranch for the Outdoor Canada West Magazine in the summer issue. The article was quick overview of the ranch and what it is like to live and work out here on this interesting piece of land.



Hunting and Recreational Users

2021 was another interesting year for recreational use of the ranch. This year I spoke with 20 folks that were on the ranch to bird watch and just hike on the prairie. These folks had come out from BC., one person from the Yukon, many from Calgary



and Cochrane and a few from Saskatchewan as well there were always people from the area that were exercising dogs or just out for a drive.



There was an explosion in the Richardson ground squirrel population in 2021 so there was a good opportunity for my boys to practice shooting, there as well were 4 gentlemen that drove out from Calgary and Cochrane to

shoot. We understand that the Multisar report recommended to leave the ground squirrels alone as much as possible, but the population growth was so large that the vegetation was being hurt by the large numbers that were grazing, so the population needed to be reduced a bit faster than the coyotes and raptors could bring it down. Although there seems to be an increase in badger, skunk and weasel activity as well.



Hunting season in the fall brought many folks out to hunt waterfowl and upland birds and pheasants with probably an average of six guys out walking for pheasants each day. The reports from the hunters was that the birds were very strong and were a lot of fun to hunt this year.



Waterfowl hunting was tough in 2021 due to the drought and the low water levels in all the wetlands on the ranch. We were able to get a few ponds filled for the fall and enough water in Lake San Francisco to float a boat and provide a place for the birds to come back to in the evening.

Oil and Gas Activity

The oil and gas companies that are operating on the ranch are Torxen Energy and Blackspur. There has not been any new drilling activity on the ranch in 2021. There has just been the regular operating and maintenance activities on the ranch on the production side of operations.



In the past few years there has been several leases that the reclamation has been started on. 2021 has seen reclamation certificates issued for three leases with another six reaching the stage to seed and get them back under a grass cover. The decision was made to hold off fall seeding due to the drought and to wait until the spring when hopefully there would be some moisture to seed into.

Grazing

2020 had received a decent amount of moisture and so we started 2021 off with enough carryover grass to start the season which was a good thing because we didn't see a lot of moisture through the growing season and vegetation growth was limited. We started the year with the plan to graze the equivalent of 245 cow/calf pairs. We took in 210 pair on the 15th of May with the idea to receive the balance of cattle in the middle of July which would allow the native prairie to get its full season of growth before being grazed. Unfortunately, nature had other ideas and the temperatures went to 35 deg C by the end of June and we ended bringing the other cattle in early because they ran out of grass on the lease they

were on. Due to this we ended up grazing the equivalent to 260 pair for the season and were still able to leave a litter layer in most areas of the ranch between 300- 500lbs/acre.

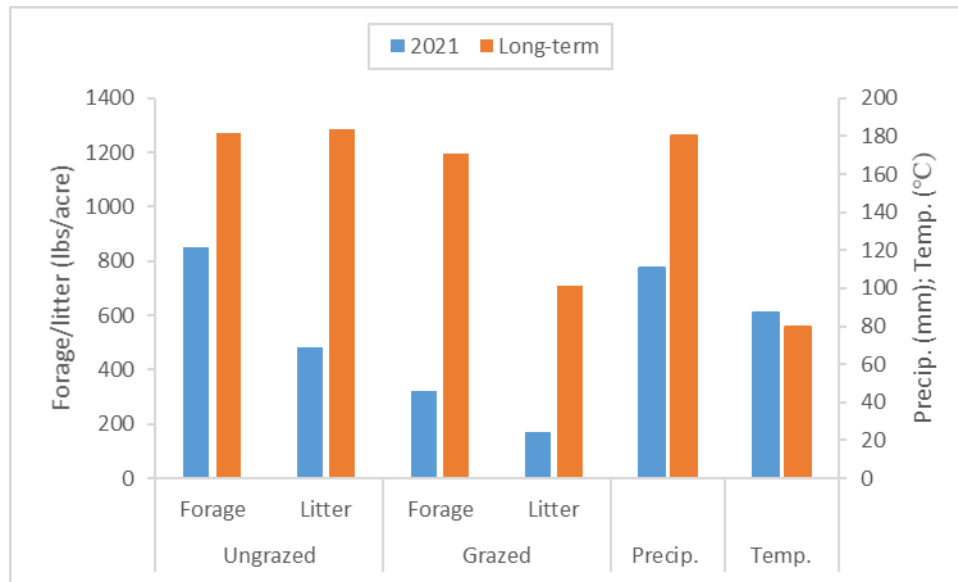


Fig. 1 Forage/litter in lbs/acre for grazed and ungrazed areas and precipitation and temperature in Field 2.



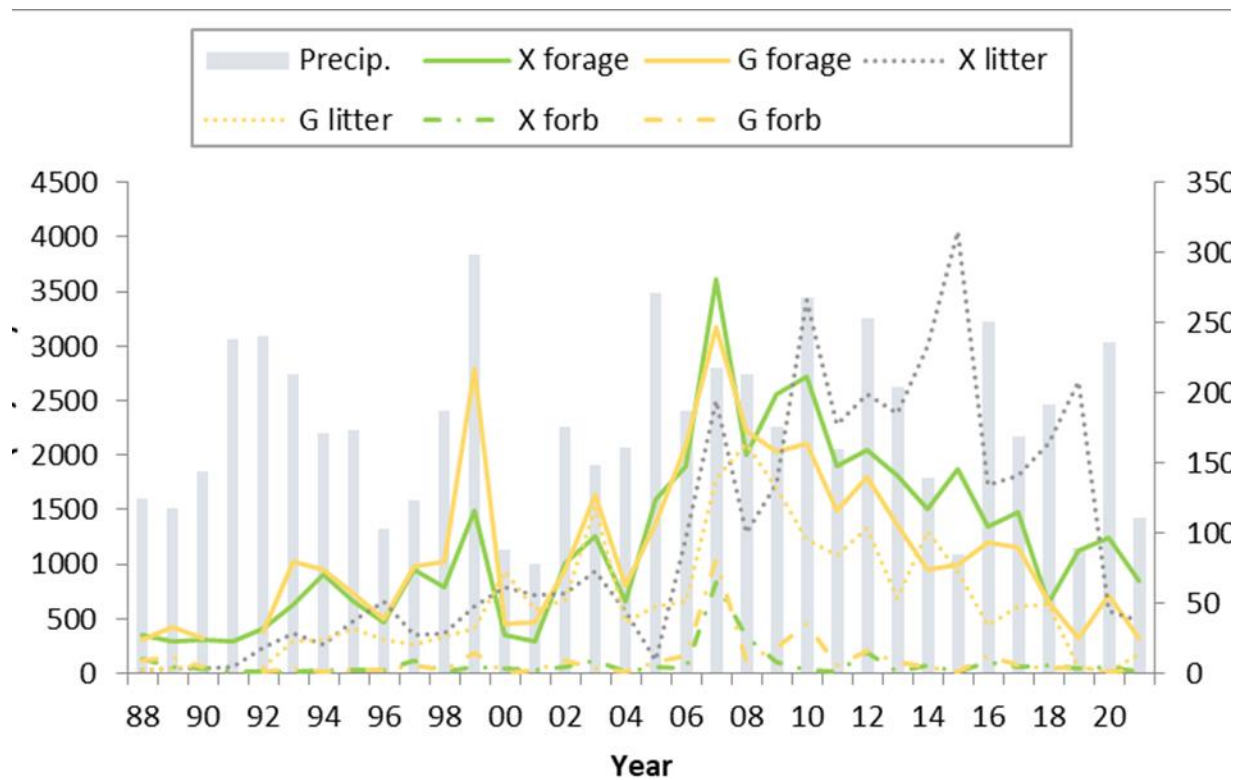


Fig. 2 Long term production data in lbs/acre and precipitation in Field 2.

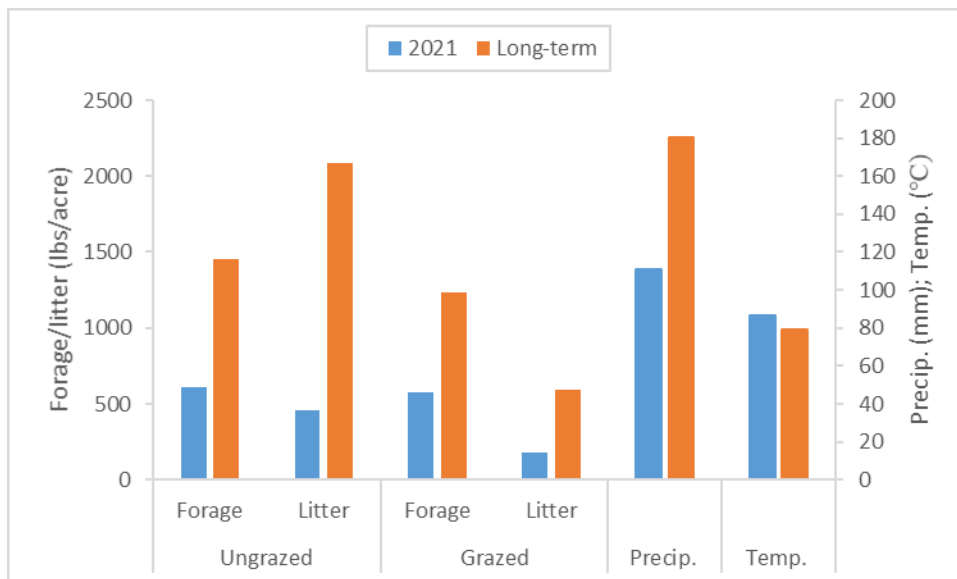


Fig. 3 grazed and ungrazed vs forage/litter and precipitation and temperature of Field 4.

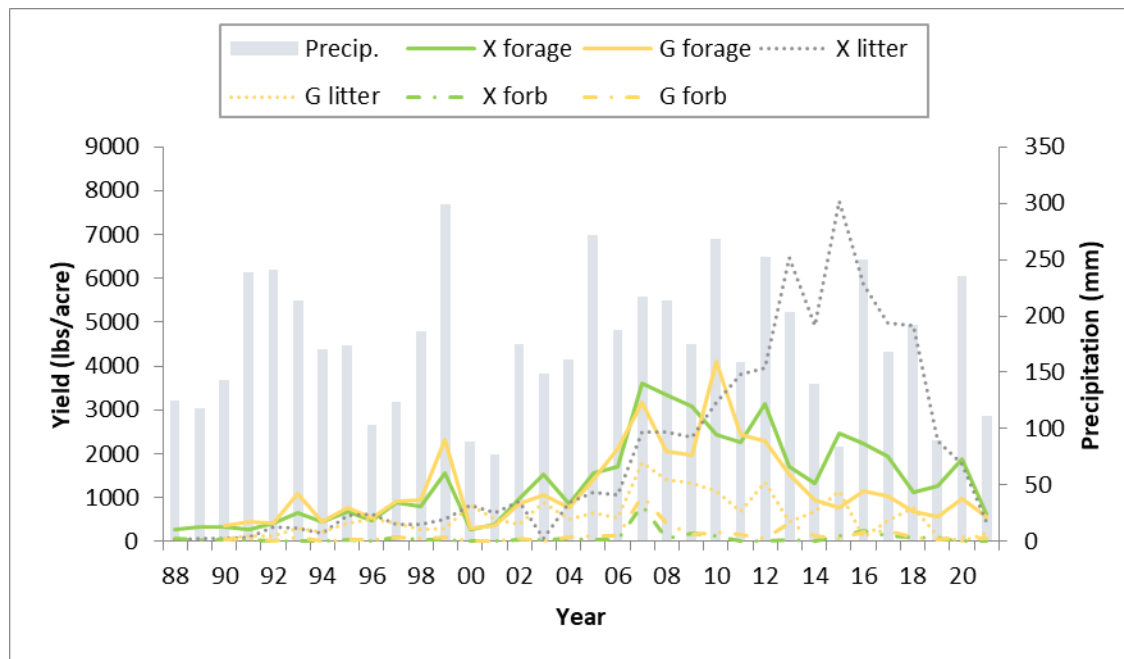


Fig. 4 Long term production data in lbs/acre and precipitation in Field 4.

In May the cattle arrived on the ranch and spent 2 weeks on the CWG fields and then were moved to Field 3 to skim graze the cwg on the pipelines and leases in that pasture. 304 AUMs were used out of Field 3 throughout the grazing season.

Cows were next moved into Field 4 where the last 75 pairs joined the herd. We were running water to fill dugouts in the field at the time which was helpful as the temperature soared at the end of June to 35 degrees. Field 4 provided 427 AUMs in 2021 and was left in decent shape on average. The east side of the field was grazed heavier than the west side as most of the cattle want to stay on that side to go home.

Field 2 was the next field which provided grazing for 426 AUMs. The field started the season with good litter level and finished with enough even though a hail storm came through and flattened the standing litter.



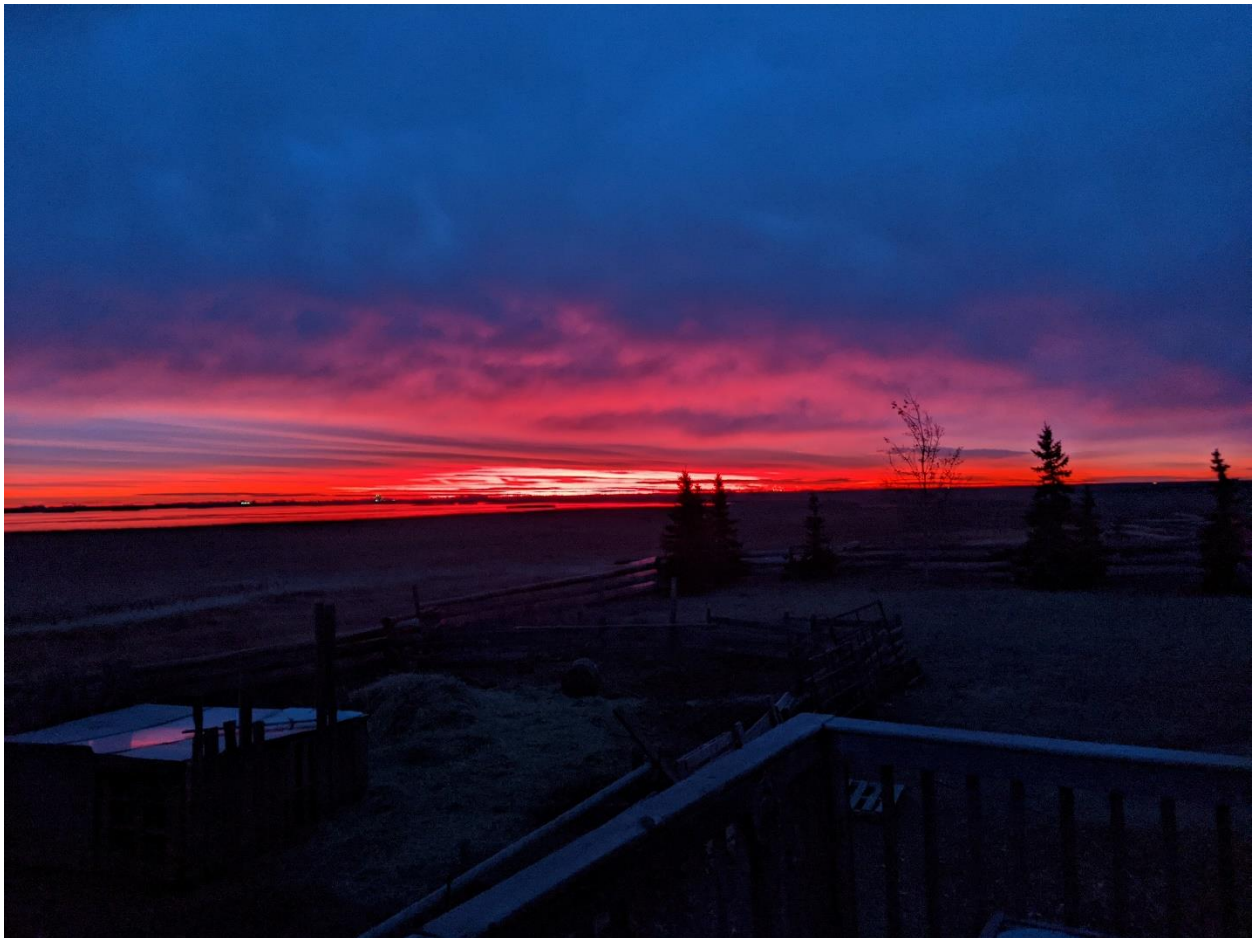
Field 1 provided 317 AUMs and was a tricky field to graze this year as the big wetland was completely dry so water points in the pasture required the cattle to walk a long way to either the north or south end with no water in the center of the field. This did cause some issues with even distribution of grazing this year.



Pivots provided 146 AUMs this year as the pump and pivots all had trouble staying running and parts had to be ordered in which caused delays in watering the fields so that productivity was a lot smaller than normal.



Pic.2 Chinook at the beginning of January left everything covered in ice and difficult to get around.



Even though we were in a drought through the majority of 2021 we were able to continue with our grazing plan due to using a moderate stocking rate which leaves us able to maintain at the current stocking levels going into 2022.

Contact Information

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