

Agricultural Service Board Bulletin

April 2023

GRAZING LIVESTOCK IN RIPARIAN AREAS

Inside This Issue:

Grazing Livestock in Riparian Areas	1
Herbicide Mixing Order	2
Curb Heat Stress In Cattle	2
Weed Reporting Tools	2
Open Farm Days Host Registration Open	3
Farm Equipment on Public Roads	3
Meet Your ASB	3
New Grain Bag Roller & Other Rental Equip.	4

Did you know?

- The hamburger debuted at the 1904 Worlds Fair.
- 40% of Canada’s canola seed, oil, and meal exports are consumed in the Indo-Pacific region.
- The soybean oil from one bushel of beans will make 2,112 crayons.
- 70% of all carbon sequestered by field crops in Canada is due to canola.
- There are over 800 different cattle breeds.
- 86% of Canadian farmland is under conservation tillage.
- There are just over 1 billion head of cattle in the world. (USDA, 2021)
- Canadian egg farmers produce more than 9 billion eggs per year.
- 1 in 8 farms have a renewable energy system on their farm. (2021 census)
- Farms cover just 6.3% of Canada’s land area.

The following is adapted from the Agroforestry & Woodlot Extension Society’s factsheet of the same name. To view this and other factsheets from AWES, visit <https://bit.ly/3y8K3hz>.

‘Riparian areas’ are the transitional zones between water bodies and upland areas. Fully functional, healthy riparian areas provide valuable services that include filtering and trapping runoff, recharging groundwater, slowing soil erosion along banks and gullies, supporting biodiversity, and producing abundant forage for livestock throughout the growing season. Riparian areas can be damaged when livestock are allowed access to graze and/or drink from the adjacent water body. However, with careful management that accounts for the unique characteristics of riparian areas, riparian grazing can be done without long-term degradation.

Grazing that maintains or increases riparian health is an art and a science, and requires determining the appropriate stocking rate and grazing period for the available forage, controlling access to water, allowing for adequate rest periods, and introducing livestock only when soil moisture conditions are acceptable. These and other considerations are described below.

Stocking Rates

- A cow requires about 2-3% of her body weight in forage every day. By estimating the forage yield of the riparian area, you can determine an appropriate stocking rate over a given time period that does not lead to overgrazing. Keep in mind that water is the limiting resource for most plants, and forage yields may vary greatly in wetter and drier years. Ongoing monitoring is essential to adjust plans to reflect current growing conditions.

Access to Water

- Cattle drinking directly from the stream or wetland can destabilize the bank, muddy the water, and contribute to nitrification of the water supply. Off-stream or off-site watering areas prevent degradation of stream banks and improve water quality. Plus, cattle experience better gains when they have access to clean water!

Rest Periods

- Letting riparian areas rest during the growing season enables plants to re-grow leaves and root mass post-

grazing. Keep in mind that overgrazing is a function of time, and can result from staying in a riparian area for too long or returning to a grazed riparian area before plants have fully recovered. Monitor for re-growth, bare ground, and changes in species composition to determine whether a riparian area needs more rest.

Moisture Conditions

- Wet soils are vulnerable to pugging and compaction, especially in the spring. Graze in low moisture conditions to avoid damaging sensitive streambanks.

Grazing Management

- Cattle may linger around riparian areas on summer days due to the availability of water and shade. Thus, allowing cattle to simultaneously access riparian areas and upland areas can lead to overutilization of the former and underutilization of the latter. Fencing your riparian area as a separate pasture makes it possible to better manage the grazing process and to exclude livestock from particularly sensitive areas.

Livestock Preference

- It is important to be aware of the palatability of different riparian species to livestock. Trees and shrubs tend to be browsed more intensively in late summer and fall, when grasses have cured and good forage is lacking. Livestock are particularly fond of willow, dogwood, saskatoon, and young aspen and balsam poplar trees.

Riparian Reforestation and Grazing

Integrating riparian reforestation and riparian grazing can be a delicate balance, but the two practices need not be mutually exclusive. Indeed, grazing prior to planting in the spring can help seedlings get a jump start in growth before their herbaceous neighbors re-grow and begin competing with them.

On the other hand, grazing of restored riparian areas in the first couple of years after planting should be avoided or minimized. If you are planning on grazing the riparian area in the first couple of years, then it is recommended that you primarily plant species that are not preferred by livestock (e.g. spruce, pine, fir, gooseberries, currants, cranberries, etc.), and/or install protective measures to safeguard them from browse. If possible, grazing should be done in mid-summer when moisture conditions are low and there is plenty of herbaceous forage available. Grazing at this time also gives seedlings a chance to recover before winter and allows for taller grasses to grow up around seedlings, providing shelter and trapping snow.

HERBICIDE MIXING ORDER

With more interest in recent years in tank mixing different herbicide products to provide more effective control of weeds, and reduce the risk of selecting weeds for herbicide tolerance, producers need to follow the proper mixing procedure.

It's not just a matter of which products can be safely tank mixed, but also what order different formulations should be added to the sprayer tank. **Remember to always read and follow herbicide labels and manufacturer recommendations.** A good rule of thumb to remember is W.A.L.E.G.S.

Start with a half or a full tank of water and follow this order:

W: Wettable powders (all dry ingredients).

A: Agitate thoroughly to ensure proper mixing.

L: Liquid flowables and suspensions are next.

E: Emulsifiers and concentrate formulations are added next.

G: High-load glyphosates (products used as a pre-harvest aid).

S: Surfactant solutions are added last.

Remember to always read and follow herbicide labels and manufacturer recommendations.

CURB HEAT STRESS IN CATTLE

The following is adapted from Purina Mills' article "11 Tips to Curb Heat Stress in Cattle". To view the full article, visit <https://bit.ly/41InDRY>.

Cattle have sweat glands, but it's not a very efficient way for them to cool off. Instead, they rely on respiration, or opening their mouths and panting, to help them dissipate heat. When it's 80 degrees [26°C] or hotter out, their ability to regulate their own temperature becomes a big challenge. You start to see behaviour changes—more time in the shade, less time grazing and increased water consumption.

Curb heat stress in cattle by planning for proper shade, water and the right nutrition program.

11 Hot Weather Tips For Cattle

1. Ensure access to fresh, clean water. A brood cow drinks 25 to 30 gallons of water on a normal day. She'll drink even more in hot weather.
2. Check water tanks often to make sure they are clean and free of contamination (algae, feces, organic material, etc.). You might need additional portable tanks to ensure adequate access.
3. Place water tanks in shaded areas to keep water cool if possible. Keep waterers several feet away from buildings or fences, so cattle can access water from all sides.
4. Offer supplements to help cows make the most of their forages.

5. Choose a mineral designed for consistent consumption during hot weather.

6. Control flies to prevent further stress and grazing disturbance. Stop the horn fly life cycle by preventing pupae from developing into biting, breeding adult flies.

7. Supply ample shade. Whether it's provided by trees, a manmade building or portable structures, shade is critical. It might be necessary to move cattle to a pasture with trees or additional shade.

8. Strategically move rotational grazing herds to fresh pastures in the late afternoon/early evening instead of the morning. Cows will have access to fresh grass when temperatures are beginning to cool and will be more likely to graze.

9. Work cattle as early in the day as possible when temperatures are lower.

10. Don't graze pastures short before moving cows to another. Pastures with taller, thicker grass feels cooler than pastures with short grass where more soil surface is exposed.

11. Observe cattle frequently and take precautions when hot and humid weather is forecast.

WEED REPORTING TOOLS

With the growing season on the horizon, the ASB would like to remind everyone about the various methods available to residents to report invasive species sightings.

The County has an online reporting tool found at <https://bit.ly/2x2HOjE>, or by navigating to the "Agriculture & Utilities" section of the County webpage (countypaintearth.ca).

You can also phone ASB staff at (403)882-3211 to report weed issues within the County. ASB staff can also be reached by email if preferred. To reach the Director of Environmental Services, email

icosens@countypaintearth.ca. To reach the Assistant Agricultural Fieldman, email tkerr@countypaintearth.ca.

The Association of Alberta Agricultural Fieldmen also has a very useful smartphone app available for download on both the Apple App Store and Google Play store. The app has a comprehensive weed identification section, a directory of all Fieldmen across the province (and a contact method for each), as well as a reporting tool. Just search for "Alberta Agriculture Fieldmen" in Google Play or on the Apple App Store.

AB OPEN FARMS DAYS HOST REGISTRATION OPEN

Registration is now open for farms and ranches to be part of the next edition of Alberta Open Farm Days.

The weekend showcases Alberta's agriculture industry and growing the agri-tourism sector. Host farms open their gates to share their agricultural experiences with their urban neighbours and to help them understand where their food comes from.

Since 2013, Open Farm Days has seen nearly 150,000 person visits,

injecting over \$1.1 million into the rural economy through on-farm sales; and the public has enjoyed visiting over 900 Alberta farms.

Host farms can participate either day or both days, and educational materials about hosting are available.

Visit <https://albertaopenfarmdays.ca/host-farms/registration/> to register as a host farm. Registration is open until April 30, 2023.

FARM EQUIPMENT ON PUBLIC ROADS

The following is adapted from AgSafe Alberta's Toolbox Talk, "Farm Equipment on Public Roads". To view all of AgSafe Alberta's resources for farms, visit <https://agsafeab.ca/resources/>.

Hazards of farm equipment on public roads include:

- **Narrow roads and/or soft road shoulders** make travel difficult, and even dangerous, for large equipment.
- **Winding roads and blind spots**, combined with the differences in speed of travel between farm equipment and motorists, can result in a collision.
- **Dirty/dust covered lights** make it hard for the operator to see and be seen by other motorists.
- **Dirty/dust covered signage** (e.g., slow moving vehicle sign) and reflective markings make it hard for motorists to see you or judge the size of your equipment when attempting to pass.
- **Differences in the speed of travel between farm equipment and motorists** make it difficult for motorists to accurately assess their rate of approach and can result in a rear-end collision.
- **Farm equipment that is too wide to fit in one lane** may get clipped or hit head on by motorists.

What can be done:

- Follow the regulations around lighting and signage; ensure you have a slow-moving vehicle (SMV) sign on your equipment.
- Ensure that the SMV sign and other retroreflective stickers are in good condition, not faded, properly mounted and clean.
- Retroreflective tape and reflectors are recommended in dark or dim conditions; in Canada, this material should be red and white stripes on the back of the equipment and yellow reflective material on the front. In dark or dim conditions, these markings will reflect the light from the approaching motorists' headlights back at them, not only alerting them to the presence of the equipment but helping them assess the size/width of the equipment as well.
- Work planning should include avoiding busy roads whenever possible.
- Where possible, move equipment in daylight during periods of low traffic.
- Consider the use of pilot vehicles and placing signage on the road to warn motorists of your equipment.

For more detailed information on requirements and best practices while operating farm equipment on public roadways, refer to the Alberta Government's "Safe Transportation of Farm Equipment in Alberta"

MEET YOUR ASB

Continuing our series of Q&A conversations with ASB members with the goal of getting to know them better, we spoke with George Glazier, councilor for Division 1.

Could you provide a brief description of your farming operation?

I've downsized my farm recently and no longer have any cattle. Now I farm 500ac as well as renting out my pasture and some farmland.

Are there any unique practices or innovations used on your farm?

I don't use much technology, but my renters, who I help out, do use GPS technology on their farm.

What piece of new farm technology do you find the most interesting?

The way that you can detect where you need to put more fertilizer using the technology they have on combines now that can say this part of the field needs this or that is very interesting to me.

What goals do you have as a member of the ASB?

I guess my goal with the ASB has always been to make sure that we support the agricultural industry in our county, that we provide safe roads for residents to drive on with the mowing program, and supporting young farmers.

What do you see as the biggest challenge facing County of Paintearth producers?

Manpower. I think manpower is something that's affecting our whole province. We don't have enough workers and we don't have enough people that are willing to come out and work on a farm, even seasonally.

What do you feel is the most promising opportunity for County of Paintearth producers?

We've been working on getting some sort of pea processing plant. With our water line system and seed cleaning plant, which is one of the best in the province, I think it could be a great boost for our area.

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Any comments or suggestions for the ASB Bulletin can be made to Trevor Kerr by phone or email tkerr@countypaintearth.ca

Test Your Knowledge

1. A cow requires ___% of her body weight in forage daily.
2. What is the acronym used to remember the proper herbicide mixing order?
3. Brood cows drink ___ of water on an average day.
4. What number should you call to report a weed within the County?
5. Since 2013, how many farms have participated in AB Open Farm Days?
6. What sign should be on farm equipment moving on public roads?
7. Is there a charge to rent the grain bag roller?
8. How much twine has been collected in the County of Paintearth since 2019?

Test Your Knowledge Answers

1. 2-3%
2. W.A.L.E.G.S.
3. 25-30 gal
4. (403)882-3211
5. Over 900
6. A slow-moving vehicle (SMV) sign
7. No, there is no charge!
8. 3,720 kg

NEW GRAIN BAG ROLLER & OTHER RENTAL EQUIPMENT

The County has invested in a Grain Bag Roller to help producers with the issue of recycling agricultural plastics.

The Grain Bag Roller will be offered to producers on a 20' trailer in partnership with Paintearth Regional Waste Management Ltd. (PRWM) at no charge. The unit will have its own gas motor, so it runs independently so as not to mix up hydraulic oil on your tractor. Depending on the number of grain bags you have, you can bring them in with you on the trailer and drop off at the nearest collection site (Castor & Coronation transfer sites), then return the unit back to the ASB yard for the next person.

Alberta farmers have generated 2,605 tonnes of used plastics that has been collected since the inception of this program back in 2019 according to the Agricultural Plastics Recycling Program (APRG). There has been 13,280 kg of grain bags and 3,720 kg in twine collected in Paintearth alone since 2019.

Recently, the federal government called for bans of single use plastics in the residential sector. The bans don't apply to plastics in the agricultural sector, but it should serve as an important call to action. We all have a responsibility to ensure resource materials in all sectors, including agriculture, are recovered for recycling and proper disposal, if needed. Farmers generally agree the negative environmental impact of these practices is a deterrent and they welcome better management options for the used plastic.

Grain bags are converted into plastic pellets, the pellets are shipped to manufacturers across Canada and the USA to be used in the manufacturing of various plastic

items such as plastic bags and construction sheeting, composite dimensional lumber, and agricultural fence posts; research and development is underway to use these pellets in the manufacturing of new grain bags.

Loosely rolled grain bags weigh very little but do require a lot of space, plus they're difficult to manage and they're inefficient to transport for recycling. Please help out by taking 3 steps before you bring them to a collection site.

1. Remove Debris – Grain bags need to be free of as much foreign material (spoilage, dirt, rocks, etc.) as possible. Using the County's grain bag roller will help achieve that objective.
2. Roll – Grain bags need to be rolled tightly with a mechanical grain bag roller or old hay baler (most grain bag extractors roll the bags too loosely), and then secured tightly with twine.
3. Return – Bring grain bags that are rolled and tied securely to the collection site. Collection sites cannot accept unrolled, extractor rolled, or hand-rolled grain bags. Please contact your local collection site to check hours of operation or if you are unsure if you have prepared it properly.

Grain bags on average are 150-500' long, 8-10 mil thick and weigh about 300 lbs per bag. Once you do the above steps the bags get rolled up into 3' x 4' bundles.

The grain bag roller is available to producers free of charge. To book it call the County's ASB Department at (403) 882-3211.



Other rental equipment available from the ASB include:

- Backpack sprayer [\$50.00 refundable deposit]
- Hand broadcast seeder [\$50.00 refundable deposit]
- Cattle scale [\$40.00/half day or \$75.00/full day]
- Hay probe [No charge]
- Gallagher tag reader [\$50.00 refundable deposit]

- Magpie trap [\$50.00 refundable deposit]
- Skunk trap [\$50.00 refundable deposit]
- Scare cannon [No charge]

For more information about the bag roller, or any of the other equipment listed, call the ASB Department at (403) 882-3211.