

Forage Facts

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Pasture Quality in Wet Summers

By: Katie McLachlan

According to Alberta Agriculture and Forestry reports, most of the Peace received higher than normal amounts of rainfall in May and June. Producers are reporting to us a startling amount of unseeded acres in areas that were saturated last fall and then hammered with rain again this spring. With all of this spring moisture however, there are some amazing looking hay and pasture stands in the area.

Last fall, we received reports from producers in wet areas saying that when their cows came home off of grass, they were ravenous for hay - consuming much more than they usually would coming off of grass. Some producers who grazed yearlings were also reporting that their gains were less than they normally would be and that the animals spent more time walking around the pasture than they were with their heads down grazing.

With 2020 shaping up to be wet again, we are receiving similar reports this spring that cattle are flying through grass supplies already. So, let's have a quick look at cattle nutrition on grass in wet years.

In years of excessive moisture - especially late in the grazing season, standing forages in pasture hold more water than they would on a normal or dry year. This means that the % Dry Matter (%DM) in the plant is lower than usual. (*Dealing with Excessively Wet Conditions on Beef Cattle Operations, Jane A. Parish & Justin D. Rhinehart, Mississippi State University Extension*)



Many pastures and hay crops look great this year, but what is out there in terms of nutrition?

Photo: <https://www.canadiancattlemen.ca/features/steve-kenyon-the-economics-behind-bale-grazing-cattle/>

When we talk about % dry matter, it is important to understand how cattle utilize the dry matter portion of their diet. When we create rations for cattle, we do everything on a dry matter basis. This excludes all of the water and moisture in the feed as the vast majority of this water goes right through the cow or is utilized in place of water. In order for a lactating cow to feel full and satisfied, she needs to consume approximately 2-2.5% of her body weight worth of dry matter per day. We call this Dry Matter Intake (DMI).

So for a 1,300 lb cow, she will need approximately 25lbs of dry matter per day to feel full. Let's assume that the pasture this cow is on is 20% dry matter. That means our lactating cow needs to consume about 125lbs of green grass per day.

Now let's assume it is a wetter than normal year, and the % dry matter of our pasture is only 15%. In order to reach our 25lbs of dry matter, our same cow now needs to consume 170lbs of fresh grass to make her feel full.

This 'wet' grass also contains less fiber, and goes through the cow's digestive

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DID YOU KNOW?

Due to lightening restrictions on social gatherings, we are going to be hosting Pasture Walks & Plot Tours! See the back page for more info!

tract very fast, which results in the cow's manure looking more like green water than it does manure.

On excessively wet years when we are seeing this drop in dry matter, some cows may not consume enough dry matter to meet dry matter intake and nutritional requirements. This could lead to cows having issues during the breeding season, lower calf gains, and cows coming off grass in less than ideal shape going into winter.

If you are noticing that your herd is flying through grass faster than usual, not gaining like they should, or passing manure that looks more like green water than manure, try to find a pasture with lots of dry, carried over forage. They will pick away at that dry forage to fill themselves up and get those missing nutrients. It seems counterintuitive to throw a bale out with grazing cattle, however may be warranted in extremely wet situations.

In addition to the effects on nutrient availability, mud and soft ground also affects grazing behaviour. When cows have to walk through mud to get to mineral or water, it creates a suction effect on their legs and hooves. Us ranchers also experience that in the spring when we accidentally leave a rubber boot behind in the mud when following a cow up to the corrals. This requires more energy for their day-to-day activities.

Research out of the University of Mississippi shows that cattle having to walk through mud 4-8 inches deep to access mineral or water can slow gains on yearlings by up to 14% (*Dealing with Excessively Wet Conditions on Beef Cattle Operations*, Jane A. Parish & Justin D. Rhinehart, Mississippi State University Extension).

There is also of course the fact that cattle walking around in the mud can 'pug' up the soil with hoof prints. In some cases, cattle gathering or moving through wet areas can basically cultivate the area, leading to bare,

rough patches that you may have to deal with for years to come.

Restricting cattle's access to low areas during wet times will help to mitigate damage to the soil and to the animals. Frequent moves in a rotational or managed grazing system limit the amount of time cattle are on a piece of ground. Managed grazing is also shown to help improve soil health and soil structure. Well-structured, healthy soils are more resilient to excessive rains and hoof damage because they can grow more forage faster and hold water like a sponge.



Off-Site Watering Systems like this one are eligible for funding up to 50%

Photo: PCBFA

Wet conditions also take a toll on water quality, especially when cattle are drinking directly from a water source and having to bog their way to the water's edge. Fencing out water sources and providing clean water via an off-site watering system is an easy way to avoid gain losses due to poor quality, dirty water. There is funding available through the Canadian Agricultural Partnership for producers to purchase off-site watering systems. Please call Katie at 780-772-0277 if you are interested in accessing funding for an off-site watering system.

If you are interested in getting your pastures evaluated for feed value, give your closest PCBFA staff member a call and we can walk you through the process.

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We are always
looking for ideas!
Give us a call!

PCBFA Member Perks:

- Two Free Feed Tests Per Year
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- CAP Application Assistance
- Environmental Farm Plans
- Scale & Tag Reader Available for Member Use
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Managing Your Run-Off



By: Katie McLachlan

This spring saw A LOT of water running. You may have been one of the many who unfortunately had to deal with flooding during the spring melt, and I think that it is safe to say that we all dealt with higher than normal amounts of water running through our fields and farm yards. Even now at the time of writing this article at the end of June, many creeks and streams that are typically drying up by this time of year are still running like crazy due to all of the rain we have received over the last couple of weeks.

According to the Mighty Peace Watershed Alliance's *State of the Watershed Report (2015)* the number one threat to our watershed is contamination from run-off from agricultural and industrial activities. Since many of us in the Peace Region rely on the Peace River and its tributaries for fresh water, it is in our best interests to mitigate surface contamination where we can.

Common sources of surface water contamination from agricultural activities include water running through livestock pens, solid manure storage sites, and excess fertilizer and pesticide residues being washed from fields.

Mitigating run-on and run-off is the best way to do our part to protect the water quality in our watershed.

Run-on refers to all water that runs onto your land. Having controls in place to divert run-on away and around your farmstead is one way to prevent contamination. This could include dykes, ditches, berms, or pipes that diverts water from coming into contact with potential contamination sources such as manure or sewage. Building pens and other contamination sources on higher ground when able also helps to physically prevent water from running through them. Removing snow from pens and manure storage areas is also a strategy to lower risk due to run-on and precipitation.

Sometimes however, run-on cannot be prevented. In this case, we may need to try to control our run-off out of our farm yards and land. There are several options for doing this.

Catchbasins

Catchbasins are used to collect contaminated run-off water, preventing it from leaving the property. A two-stage catchbasin is typically recommended. Water runs into the first basin, where it slows down and solid sediments are able to settle out of the water. The water then flows slowly into a second basin which serves as a storage area until it can be emptied in a safe manner.

Vegetative Filter Strips

A filter strip, also sometimes known as a buffer strip, is a wide length of diverse vegetation that acts as a filter to trap and utilize sediment and nutrients carried by run-off. These strips should contain a variety of perennial forages, forbs, brush, and trees. Typically, vegetative strips are sufficient for filtering run-off out of fields and pens that are not used year-round.

Constructed Wetlands

Wetlands are nature's Brita filter. Constructed wetlands can be used to collect and filter run-off as it would in nature. Wetlands help to process run-off water by:

- Breaking down and transforming nutrients with micro-organisms and plants
- Filtering contaminants through slow, prolonged contact with plants and soil
- Settling of sediment
- Predation and natural death of pathogens carried in the water
- Ability to be harvested with proper grazing management

Did you know that through the Canadian Agricultural Partnership's Environmental Stewardship & Climate Change Producer Program that you may be eligible for funding to complete some of these projects? Funding available through the program covers 50% of expenses up to \$100,000. If you are interested in this funding, or have questions about it, please call Katie at 780-772-0277 or email katie@pcbfa.ca.

For more information on the state of our watershed, and what you can do to help protect it, please check out mightypeacewatershedalliance.org.



Upcoming Events

Event	Date & Time	Location
What's in Your Pasture Assessment Series	July 14th 9am - Noon	Pybus Ranch near Spirit River
	July 15th 9am - Noon	Thompson Ranch near Wanham
	July 16th 9am - Noon	Dolen Ranch near Fourth Creek
	July 21st 9am - Noon	Toews Ranch near Lymburn
	July 22nd 9am - Noon	Davies Ranch near Brownvale
	July 23rd 9am - Noon	Hodgeson/Trudeau Ranch near Jean Cote
6th Annual Field Day at the Research Farm featuring WheatStalk	August 6th & 7th	Fairview Research Farm

**Attendance is Limited for These Events
Pre-Registration is Required! Please Register Early!
Social Distancing Guidelines will be in Place**

**For Directions & to Register:
Visit peacecountrybeef.ca/upcoming-events
Email info@pcbfa.ca or Call 780-835-6799 ext. 3**

On June 30th, we said farewell to our
Extention Assistant, Marianne Krahn.

If you were previously working with Marianne,
please feel free to reach out to Monika,
Johanna, or Katie.

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