

# Forage Facts

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## Lets Talk About Water Quality

By Codie lee Yasieniuk

Water is the most crucial resource to any agricultural operation, and its fragility adds to its importance. Without proper water, plants and animals cease growth—cattle can only survive a couple days without water, and vegetation needs water before it can even begin growing.

We have the good fortune to live in an area of the world where getting our hands on a decent quantity and quality of water isn't too difficult in comparison to other countries. However, in order to keep our water situation favourable, we need to watch our production techniques and habits.

Now, lets think about your watering system and where it is set up. The type, and location, of your livestock's watering system can have a larger effect on your herd than expected! Cattle will likely drink water, no matter the quality,

if it is the only water available; however, they may choose to consume less than they should. Less water intake can mean less feed intake. This is incredibly important to take into account regarding heifers, pregnant cattle, and weaker animals. Its been said that heifers who had only pond water as their water source, can gain up to 23%

less weight than heifers drinking from a clean water source (manmade water system etc.) Cows, with new calves, will also produce more milk if given fresh water. Your water source may be challenging your herds growth!

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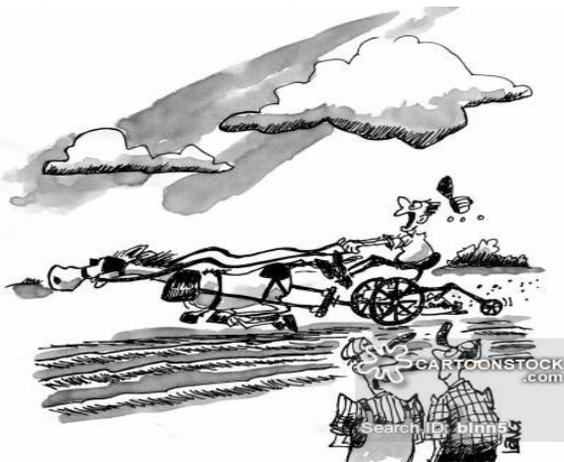
*"Filthy water cannot*

*be washed."*

*- Western African Proverb*

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When water is such an important component of livestock health, naturally cattle will likely loiter in watering areas. This behaviour can raise many red flags—cattle excrements (urine and manure) that leech into the water source can increase growth of disease causing bacteria, toxic algae blooms, contamination of water sources down stream and many more consequences. Place watering systems on flat ground, and away from water collection areas. This will decrease the chance of excrements directly effecting the water source, or seeping down to low lying water bodies that feed the water source. Though it may sound beneficial for aquatic ecosystems to have an abundant amount of nutrients from manure, the richness of nutrients can actually cause eutrophication.



"I GUESS HE SHOULDN'T HAVE ADDED AN ENERGY DRINK TO THE WATER TROUGH."

Eutrophication is when a water body has a much larger volume of nutrients than needed to sustain itself. The excess nutrients cause a rapid increase in vegetation growth, which in turn, depletes the oxygen in the system and deteriorates living organisms.

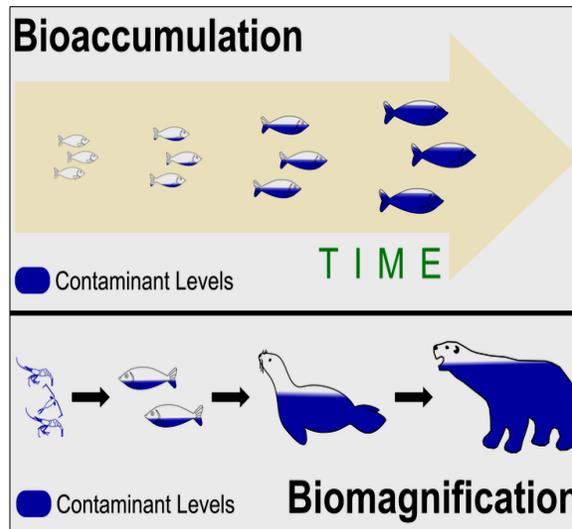


Tillage and ploughing can also lead to the degradation of a water systems health.

These practices involve the displacement of soil aggregates and topsoil to increase water filtration, spread nutrients and increase decomposition of added natural materials. Although these benefits may be seen in the following years crop growth, what you may not be seeing is the loss of soil. Recently disturbed soil is very vulnerable to runoff – loose, displaced soil means its easier to move. When soil is collected in runoff, it is carried to water bodies where it causes sedimentation. Sedimentation disturbs aquatic ecosystems over time by making water bodies too shallow to support plant and animal life.

Fertilizers and herbicides are designed to dissipate in soil if not used by a plant; however, if excess amounts of either are used, the product may have trouble dissipating before it reaches a water source.

Pesticides, especially, are dangerous for ecosystems. Water soluble pesticides can cause loss of top predators from reproduction failure and stunted growth, and cause an aquatic ecosystem to become unbalanced. Pesticides can also be bioaccumulative, meaning they can stay in an organism's body and accumulate in their organs and fatty tissue. When a small, contaminated fish is eaten by a larger fish, the pesticides are then absorbed into the predators system. When a human consumes the contaminated fish, the pollutant is then stored in their body's tissue. Over time, and after continual consumption, the concentration of an accumulated chemical can increase to dangerous levels. This poses a huge risk to the public's health.



The goal of proper, and environmentally friendly agriculture, is to create longevity and sustainability in our operations. We are people who live off the land, so taking care of, and protecting, natural resources is our responsibility.

### Thank you to the PCBFA Board of Directors

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### Have Project or Workshop Ideas?

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

### PCBFA Member Perks

- Two Free Feed Tests/Year
- Ration Balancing Assistance
- Growing Forward 2 Assistance
- Environmental Farm Plans
- Scale & Tag Reader available for member use
- Soil & Livestock Water Quality Testing

### Thank-You to our Municipal Partners

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# Water: Myths or Facts?



## MYTHS

The agriculture industry is using more and more water every year to produce crops.

Taking preventative measures to stop leeching of contaminants into ground water costs more than its worth.

Cattle farmers and ranchers are not working to conserve natural resources.

Most of the water contaminated through agriculture is just surface water and doesn't reach ground water (aquifers etc). Surface water contamination stays there.

## FACTS

It takes 50,000 fewer gallons of water to grow an acre of corn today than in 1990!

It is far more expensive to remedy water contamination, than to stop it in the first place!

It takes 34% less land and 14% less water to produce one pound of beef today than it did in 1977!

Groundwater can easily become contaminated by surface water, posing a threat to water wells, underground water systems and any water sources fed by ground water!

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## Director's Corner

*The winter winds and snow is coming. I sometimes wonder about the economics of feeding cattle 8 months of the year. However, those of you who have been members for a while know that PCBFA has made great strides in finding profitable ways to manage our herds. Currently, PCBFA staff are making the rounds to the various M.D.s and Counties to solidify funding for next year. One of our goals is to increase our membership. Have you recruited any neighbors to join? Our membership perks more than make up for the membership fee. Panning is underway for AGM, so if you have any suggestions for keynote speakers, let our staff know. Keep warm everyone!*

*- Nancy VanHerk*



# Upcoming Events

**Soil Health Workshop**  
With Mike Dorion "The Compost Kid"

November 17th 2017

Ag. Society  
High Prairie

**Soil Health Workshop**  
With Mike Dorion "The Compost Kid"

November 18th 2017

Legion Hall  
Grimshaw

**New Zealand Ag. Study Tour**

November 23rd -  
December 12th

New Zealand

**Your Farms  
Environmental Footprint**  
With Mike Hittinger and Gabriel Ribeiro

November 27th

Triangle Hall  
High Prairie

**Your Farms  
Environmental Footprint**  
With Mike Hittinger and Gabriel Ribeiro

November 28th

C.O.C.O Hall  
Wanham

**Western Canada Conference on  
Soil Health and Grazing**

December 5th - 7th

Radisson Hotel  
Edmonton

**PCBFA 2017  
Annual General Meeting**

February 23rd  
(Tentative)

TBA

For more information or to register for any of these great events, please visit our website or call the Fairview office at 780-835-6799 or email [info@pcbfa.ca](mailto:info@pcbfa.ca)

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