PCBFA
PEACE COUNTRY BEEF & FORAGE ASSOCIATION

Feeding During & After a Drought

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Forage Facts

With below average precipitation falling during 2015's growing season, hay land, pasture and crops are suffering from these dry conditions. When faced with tough times, farmers are known to get creative; PCBFA has been receiving calls and visits with questions ranging from grazing canola, baling or silaging peas and making greenfeed out of cereals. With all the questions surrounding feed for this summer, fall and winter, we thought we'd address some feeding solutions that may fit your operations.

Photo: americancattlemen.com

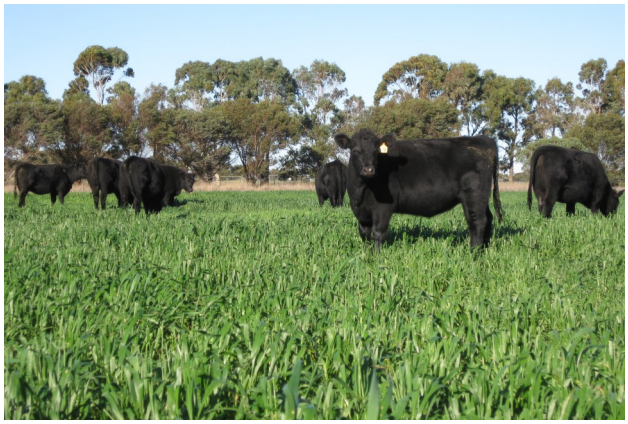
Maintaining our cowherds is still possible, even with dry conditions and feed shortages, it takes some innovation, research and planning. Some of the options include using feedstuffs that we normally wouldn't consider and formulating rations more carefully and using supplements. Culling older, non-productive animals may also be a good option that will allow the feed we have to go a little further.

While we are still in summer, and the grazing season, reviewing the Summer 2015 *Forage Country* article, "Pasture Management in Dry Weather" is a good place to start. To summarize, by grazing a little more severely, we can allow plants more time to recover before potentially grazing them again. By supplementing feed during the summer, we also extend this recovery time and buy more time before the next rain event. Supplementing with hay, pellets or grain are options for extending the amount of time in a given pasture. It should be noted, that this type of management decision is entirely operation dependent, and the same decision may not be right for every operation. By planning for a dry year when the forecast is dry, we can plan our grazing accordingly.

As summer continues and our cows are bred, we definitely want to be conscious of the increasing requirements of the bred cow, including a mineral package to help cows obtain the vitamins and minerals she may not be getting from dry pasture.

Options

Some emergency feeding options include cutting crops that just aren't producing between heading and soft dough stage to stockpile for winter feed. Cutting these crops may also encourage regrowth that can later be grazed as well. Grazing cereal crops is also an option, but care should be taken that the heads haven't filled as to avoid grain overload, as cattle will preferentially consume heads. Purposely seeding summerfallow or a poor producing pasture to cereals can also be used for emergency pasture, however this strategy is ideally implemented in the spring or previous fall.



Grazing Cereal Crops to Extend the Season
Photo: www.agric.wa.gov.au

Preparing for winter feeding is already on the minds of producers with the shortage of feed due to dry conditions.

Slough Hay is a good option for feed in dry years, especially as producers may be able to access more of it than in a normal year. Weed infested crop areas, and wild oats are also good options to consider haying.

Crop residue and aftermath may be an especially important feed source in times of drought, as it provides roughage for cattle when being supplemented with pellets or grain.

By collecting straw & chaff to use in feeding systems, or by bunching it with equipment like the "Whole Buncher" and leaving it on the field to limit feed (much like swath or bale grazing), we can utilize residue to its full potential. One of the issues with using straw chaff is the inconsistency in the yield, and especially in a dry year where crops are shorter than normal, even straw may be in short supply. The efficiency of modern combines can also pose a problem in collecting straw & chaff, as it is often chopped too fine to bale. In this case, bunching it may be a good option. Being aware of the cereal variety when feeding straw chaff is also important, as rough or barbed awns can pose problems in cattle, and even make the chaff unpalatable.

Piles from the "Whole Buncher"
Photo: www.farmshow.com

Canola silage is alternative feed that can be considered and is nutritionally comparable to low-to-medium quality haylage. It's important when putting up canola silage, that it is harvested at 55-60% moisture, if it's wetter than that there are issues with palatability, and if harvested over 70% moisture, cattle will only eat it as a last resort (Canadian Cattlemen 10-19-09). In addition to feeding canola silage, canola straw can also be baled and fed. However, canola in the form of greenfeed or straw isn't very palatable to cattle, but grinding and mixing with silage produces a palatable feed. Some stats on harvesting canola for feed: full bloom 19-20% CP; late bloom 12-16% CP; full pod 10% CP; canola straw 6-8% CP. We need to be careful not to lose leaves or flowers when baling. Canola silage takes about an extra day to dry down after cutting to silage, something to be aware of to prevent seepage from the pile and to make sure it's not too wet for fermentation (Canadian Cattlemen 10-19-09).

Ammoniation of straw and chaff is an option that can increase the feed value of low-quality hay and crop residues. This process increases the feed quality by increasing both TDN and CP, as well as increase the amount of feed cattle will consume. This process involves sealing the roughage (hay or straw) in a gas tight enclosure and adding anhydrous liquid ammonia. This reaction is complete after 21 days if the temperature remains above 10°C (Cattle Producer's Library CL1150).

Feed Testing

When feed is in short supply it is more important than ever to test feed and use those tests to formulate rations. This allows producers to make the most efficient use of the feed they have in supply, as well as to allow time to make plans to acquire additional feed if needed. Formulating a ration will also allow producers to determine it can be stretched by incorporating a pellet or supplement.

Photo: albertafarmerexpress.ca

Supplementation

There are several options for supplementing cattle rations, from grain, to pellets, to screenings and by-products. Determining what we are looking for in a supplement can aid in the decision process, as can availability.

Liquid Protein Supplements – mixtures based on molasses and contain urea, preformed protein, vitamins and minerals.

Canola Meal – produced after oil is extracted from canola (avg 35% CP)

Western Grain Screening Pellets (GSP) – contain grains, wild oats, weed seeds, chaff and hulls that are ground and pelleted, similar to oats in feeding value.

Fortified Grain Screening Pellets – similar to GSPs, but also fortified with Ca & P, as well as trace minerals and vitamins and may contain ionophores

Canola fines screenings – small or broken pots, chaff and weed seeds, oil content is high.

Lentil screenings – good protein source for cattle

Cereal Grains – Barley, Oats, Wheat & Rye

Pea Vines – residue from pea and lentil fields (equivalent to low-quality grass hay)

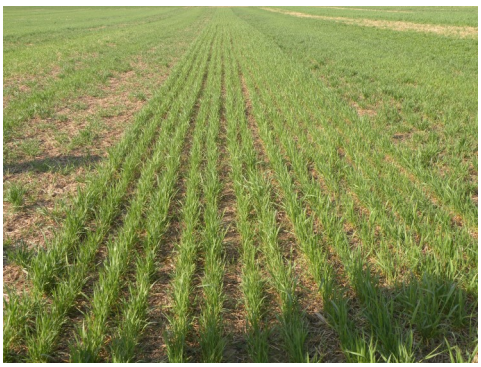
Brewer's mash (distillers grains) – by-product of malting barley or corn, can be fed wet or dry

Now that we've come up with some possible solutions and alternatives to stretch feed through the winter, we should come up with a strategy for how we're going to feed it. Minimizing feed wastage should be a high priority, as well as minimizing the effect on cattle when switching between feedstuffs. By switching feed slowly and incorporating new feedstuffs a little at a time, we can allow the rumen to adapt to the new feed source and prevent any kind of upset to the rumen environment.

Heading into winter with cows in good condition is important and will leave cows in better shape to make it through the winter in better shape, as well produce healthy calves, and still be able to produce enough milk to raise those calves. Something else to consider as we plan for winter feeding, is that thin cows require more feed to maintain and to keep warm through the winter than cows in good condition.

Some approaches to maximizing the feed we do have on farm include preg-checking and culling open animals, also culling lame, non-productive and hard-keepers will reduce the amount of feed going to non-productive cows. Grouping our herd in to mature cows, 1st & 2nd calf heifers and thin cows will allow us to target the appropriate nutrition to the animals that need it. This will increase the efficiency with which we can utilize our feed.

Being aware of nitrate levels in crop residues, canola straw or silage and cereal crops harvested for forage is also an important detail. Cows can adapt to higher nitrate levels if they are increased slowly, and the rumen is allowed time to build up the appropriate microbes, however, abortions do occur in late pregnancy if cows are fed a high-nitrate diet in the last 30-45 days of gestation.



Winter cereals for spring grazing
Photo: agronomator.wordpress.com

This spring we may still be looking for feed, and now (August, September) is the time to be thinking about seeding winter annuals into summerfallow, unproductive pasture, or fields. These winter annuals (fall rye, winter wheat, and winter triticale) will grow in the spring and provide much-needed nutrition for our livestock. These crops can be grazed and rested throughout the following summer as well, to provide more rest to the pastures that were stressed this year.

Feed Shortage Feeding Resources

The following are some great resources available online for more information on feeding during droughts and feed shortages:

- PCBFA Summer 2015 Forage Country "Pasture Management in Dry Weather"
- Feeding Livestock During Feed Shortages—Saskatchewan Ministry of Agriculture
  http://www.agriculture.gov.sk.ca/Default.aspx?DN=e05fd8c9-ff22-44c7-9500-ad1619cdc7f6
- Foragebeef.ca
  http://www1.foragebeef.ca/$foragebeef/frgebeef.nsf/all/ccf78
  http://www1.foragebeef.ca/$foragebeef/frgebeef.nsf/all/frg77
- Alternative/Emergency Feeds for Cattle—Canadian Cattlemen
  http://www.canadiancattlemen.ca/2009/10/19/alternativeemergency-feeds-for-cattle/
- Canola as a Forage Crop—Manitoba Agriculture
  http://www.gov.mb.ca/agriculture/livestock/production/beef/canola-as-a-forage-crop.html
- Alternative Feeds for Cattle During Drought—Colorado State University
  http://www.ext.colostate.edu/pubs/livestk/01626.html
- Alternative Feeding Strategies for Cows and Calves Due to Drought Related Forage Shortages—Colorado State University
  http://www.ext.colostate.edu/drought/altfeed.html
- Beef Cattle Management Strategies During a Drought—West Virginia University
  https://www.wvu.edu/~agexten/forglvst/stokdrut.htm

For more resources and information please contact us! We'd be happy to help!

With your PCBFA Membership you are Entitled to 2 FREE Feed Samples! These results are more important than ever in a year with feed shortages! Get yours in today!

Look for Feed & Ration Workshops coming this Fall!

Contact us for:

- Project Ideas
- Feed Testing
- Growing Forward 2 Assistance
- Ration Formulation Help
- Environmental Farm Plans
- Past Project Information

Upcoming Events!

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Morning at the Research Farm

August 5th

We Want to Show Off our Plots!

⇒ Tour the plots: corn, cover crops, fescue, sainfoin, silage and much more!

⇒ Hear from experts on grazing, fescue production, electric fencing and more!

⇒ **8am Pancake breakfast to start the day!**

MD of Fairview Research Farm

This event is Free to Attend!

PCBFA Valleyview Field Day

Aug 12th

~Corn Tour ~ Soil Pit ~ Cocktail Cover Crops~

⇒ Hear from the Experts: Grazing Corn & Corn Production

⇒ Cocktail Cover Crops & a Soil Pit!

North of Valleyview, At Pat Eaton's

10am-3pm

This Event is Free to Attend!

Whole Farm Water Planning

A Workshop with Rob Avis

Join us with Rob Avis to learn how to use your landscape to fill your dugouts every year and maximize your water by selecting the most economical dam and dugout location!

In 2 Locations!

High Prairie	**Nampa**
Aug 18th	**Aug 19th**

Western Canada Conference on Soil Health

December 8-10, 2015

Radisson Hotel Edmonton South

Visit www.albertasoilhealth.ca for more information on this and more!

For more information, directions or to register for PCBFA events please call Stacy or Kaitlin at 780-835-6799!

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