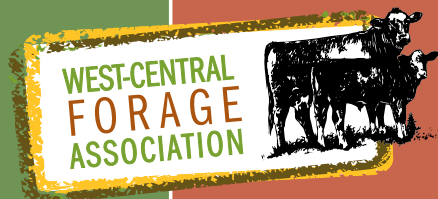


forage VIEWS



July 2019



In This Issue

Dangers of Blue Green Algae	1
How to Make Hay When Facing Variable Conditions...	4
Meet Our New Staff Members	6
Dealing With Moisture Stressed Perennial Forages	7
Career Opportunity	8

Important Dates

Aug 20-21: Regenerative Ranching & Farming with Gabe Brown Workshop

Aug 23 : Lake Health Day at Shiningbank Lake

DANGERS OF BLUE GREEN ALGAE

HOW TO IDENTIFY AND TREAT AS WELL AS PREVENT THIS TOXIC BACTERIA THAT CAN GROW IN DUGOUTS

"Blue-green algae is actually cyanobacteria, and can produce toxins that can be very dangerous," says Shawn Elgert, agricultural water engineer with Alberta Agriculture and Forestry. "It can cause organ damage or even death if ingested by livestock or pets."

"If you are trying to determine the cause of poisoning, there are other potential toxins on the farm that can also cause damage to cattle such as poisonous plants, such as water hemlock."

Elgert says the first and most important step is to identify the type of growth. "Blue-green algae can look like blue-green scum, pea soup or grass clippings suspended in the water. You should start watching for it when the temperatures increase."

If blue-green algae is suspected in a dugout, it is best to be cautious, says Elgert. "You should contact a water specialist to diagnose the growth to determine if it is potentially a toxic growth. You should also remove your livestock from the water source in the interim and prevent them from accessing it. One rule of thumb is that if you can grab it as a solid mass in your hand, it is not blue-green algae."

If blue-green algae is present, the dugout can be treated using a copper product registered for use in farm dugouts. "Once you treat it, consumption should be restricted for up to a month. The use of copper will break the cells open and release the toxins if present into the water all at once. It's important that you



DANGERS OF BLUE GREEN ALGAE CONTINUED

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stop using the water during this time so the toxins can degrade. You can follow up with aluminum sulfate and / or hydrated lime treatments afterwards to remove the nutrients from the water to prevent regrowth."

Elgert says there are also preventative measures that can be taken to try to avoid the problem. "Temperature is an important factor in the growth of blue-green algae, so a deeper dugout with slopes that are not too flat would help make the dugout water cooler."

Nutrients are required for growth of blue-green algae. "We have information on how to reduce nutrients from entering the dugout in our Quality Farm Dugouts manual. Buffer strips and grassed waterways are examples of how you can reduce nutrients."

"Dugouts should not be built in the waterway, as sediments can bring

more nutrients into the dugout and depth can be lost quickly. Aeration of the dugout can also help improve the water quality. A dye packet can also be thrown into the dugout to help prevent photosynthesis from occurring, thereby reducing the growth of blue-green algae. However, one action alone may not be enough to prevent growth."

Elgert also notes that the wind can push the blue-green algae into highly concentrated pockets where the risk of harm is higher. "Since blue-green algae can rise or fall in the water column, inspection of the dugout should include peering into the deeper part of the water. Always be safe around the dugout by going along with another person and have a rope with a flotation device attached."

For more information or assistance, contact an AF water specialist at 310-FARM (3276).

Gabe Brown

Regenerative Ranching & Farming

Workshop



August 20th-21st/2019

PRICE: \$200 PERSON /\$350 FARM UNIT

**Entwistle, Wildwood and Brazeau
Plots, Producer Fields**

Lunch and Bus will be provided

Register at www.westcentralforage.com or call

780-727-4447





HOW TO MAKE HAY WHEN FACING VARIABLE CONDITIONS

With different areas of the province receiving anywhere from 12 to more than 250 mm of rain in the last few weeks, and the unsettled weather patterns experienced over the last few weeks, it will be a challenge to make good quality hay.

In the drier areas of the province, plants are in survival mode and are trying to complete their lifecycle as quickly as possible. The sole purpose of plant growth is to produce seed to ensure longevity of the stand. Plants are shorter in height to conserve nutrients and water and mature 2 to 4 weeks sooner than when adequate moisture is available. Quality

declines more rapidly with more fibre and less protein in the forage.

Waiting to get a higher yield in this situation is not a good management practice. Once grasses have headed out and legumes are in the 10 to 20% flowering stage, there will be no additional growth. Plants will not grow taller. For every week that cutting is delayed, protein content will drop by 1 to 2% per week. If cutting is delayed for two weeks; instead of harvesting a crop with 14% protein, it is possible that the hay will be in the 10 to 11% range. Energy is also negatively impacted when crops are cut late. TDN values can drop by 1.5 to 2 points

per week as well. Take what there is and allow time for the plants to recover as much as possible before they go dormant.

Over the last two to three weeks, some areas of the province have received up to 300 mm (12 inches) of rain. Some fields are too soft for any type of equipment to be on the fields without cutting ruts, damaging the stand and making future field work unpleasant at best. In these situations, there is nothing to do but wait. Unfortunately, the plants will continue to mature and quality losses will occur.

In areas with less rainfall and the fields can support equipment, the

question is what to do and when to cut the hay with the unsettled weather conditions. Rainfall on cut hay can reduce yield and quality. Various studies have reported up to a 40% reduction in yield, especially when there is a high percentage of legume in the stand. Leaching of soluble sugars and protein cause quality loss. More damage occurs when the plants are within 1 – 2 days of baling compared to crops that are freshly cut.

With the occurrence of frequent showers and wet soil, it will take longer for the cut hay to dry and cure. It will be very challenging to make dry hay if the weather does not improve. A couple

options to consider: 1) make chopped silage out of the hay crops and place the material into a pit, pile or bag. 2) make round bale silage and place the bales in either long tubes, or wrap as individual bales. The time required between cutting and baling can be reduced from a week (or longer) to one to two days. This prevents weather damage to the forage. When comparing dry hay to higher moisture product, generally the yield and quality of the high moisture product is higher.

Making silage bales is time sensitive. Moisture should be in the 45 to 55% moisture range if the bales may be stored more than 12 months. If the bales are to be

used this winter, moisture can be down in the 30 to 35% range. Once the bales are made, if possible, the bales should be in a tube or individually wrapped within 10 to 12 hours of making the bales to have proper fermentation and a high quality product.

If moisture content in the bales is higher than 55%, the bales freeze solid and the cows have difficulty eating the hay from a bale feeder. Moisture levels above 70% impairs the fermentation process and quality is reduced. Also, there is a slight chance that listeria could be present in the silage.

Barry Yaremicio
July 11, 2019



MEET A BOARD MEMBER

Brian Dickson is a fourth generation farmer from the Niton Junction area. His family farm was established in 1929 and celebrates its 90th anniversary this year. Brian co-operates the farm with his dad Al, as well as with his wife Falon and their three children, Ty, Hanna, and Madison. They run a cow calf operation in which they are working toward a year round grazing management plan. This includes using swath, corn, and bale grazing techniques to keep getting them closer to this goal. Brian has been on the West-Central Forage Association Board for two years now and is currently serving as our Vice President.

MEET OUR NEW STAFF MEMBERS

Over the last couple months we have had some new faces join our WCFA team! Learn more about our new staff by reading their bios below.



CHRIS BECK

Summer Field Technician

Christopher was born and raised in Medicine Hat, Alberta. For as long as he can remember, he and his family had spent many weekends camping and spending time outdoors. This is where he grew an appreciation for nature and the drive to work in an environmental field. To accomplish this, Chris completed a two year Environmental Reclamation Degree from Medicine Hat College. This degree taught him the importance of not just looking at one aspect of a site, but to include all the available information to best manage a site. When not at work Chris enjoys spending time riding his bike or fishing in one of the local lakes and rivers.



ALEX HODGSON

Summer Field Technician

Alex was born and raised on a family farm just outside Alberta Beach. She spent the majority of her childhood playing with her sisters and cousins outside. Being around cows and horses all her life gave her an appreciation for animals and the great outdoors. Although her education background in travel and tourism, and soon to be elementary education, doesn't steer towards environmental concepts that did not stop her in obtaining summer employment with West-Central Forage! She has previous experience as a weed inspector with Lac Ste. Anne County and is very eager to learn and appreciate all this company has to offer. In her free time, Alex enjoys hanging out with her friends and family, playing sports, hiking, swimming & going to rodeos (especially the Calgary stampede!) each summer.



JESSICA STAMBULIC

Agronomy Technician

Jessica grew up in the Fraser Valley region of BC and moved to Alberta in 2017. She recently graduated from the University of the Fraser Valley with a Bachelor of Science, majoring in Biology and minoring in Geography. Working as a summer student for Agriculture and Agri-Food Canada she fell in love with agricultural field research. In her spare time, Jessica likes to hike, ski, play softball, and hang out with her cat.



DEALING WITH MOISTURE STRESSED PERENNIAL FORAGES

“A lack of sufficient moisture stresses plants, and that is certainly apparent this spring,” says Karin Lindquist, forage and beef specialist with Alberta Agriculture and Forestry.

“Plants that do not get enough moisture are usually stunted and are forced to set seed earlier than normal. Management considerations - for hay production especially - when faced with such issues are timely.”

All plants strive to produce seed regardless of present conditions. Plants experiencing stress from lack of moisture are at risk of dying. As a result, they need to produce seeds as soon as they possibly can. Once they have accomplished this stage, they go dormant - usually for the remainder of the year.

Lindquist says that it is a distinct disadvantage to allow plants to

reach seed set when growing a forage stand for hay or pasture.

“Even when moisture is adequate later in the growing season, it is unlikely the mature plants will regrow. If any regrowth does occur, it will primarily be from tillers.”

“Alfalfa plants that are cut when they reach 30% to 50% bloom - one plant with an open blossom compared with three to five other plants - or grasses when they are almost ready to flower, will be encouraged to restart regrowth. By the time the rains arrive, the plants will be able to take full advantage of the sudden arrival of moisture to provide greater yields than the previous first cut.”

She notes that when cutting short and moisture-deficient hay crops, the volume of hay to be harvested may be insufficient. “Some of that cut forage may need to be left behind to break down.”

Attempting to harvest as much hay as possible from the swaths carries risk of kicking up soil into the bales, and that can cause white mould issues that are only realized once those bales are fed to livestock.

“While the hay may cause some feed refusal, soil-borne molds typically do not contain mycotoxins,” she says. “However, feed quality can certainly be reduced by 10 to 20% or more.”

Lindquist adds that fertilizing forage stands when there is a lack of moisture is a waste of money. “At least a half-inch, 1.25 cm, of rain is needed in less than 12 to 24 hours for fertilizers to be able to dissolve and get absorbed by the roots. Fertilizer left on the soil surface without the timely rains can result in almost half of the fertilizer to be lost to the atmosphere.”

CAREER OPPORTUNITY

FULL-TIME LIVESTOCK PROJECTS COORDINATOR

WCFA requires a full-time Livestock Projects Coordinator to join our team.

The Livestock Projects Coordinator is responsible for conducting, executing and disseminating information from research, demonstration and projects as prioritized by the Manager and WCFA Board of Directors and to encourage producers to adopt proven processes that increase profit and suitability. The Livestock Projects Coordinator will also identify needs and collaborate with appropriate partners on forage and livestock research management and production economics.

PRIMARY DUTIES AND RESPONSIBILITIES

The Livestock Project Coordinator performs some or all of the following: (The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position.)

- Oversee and deliver on projects as directed by the Manager including:
 - Overall execution of project and program activities;
 - Develop and assist in execution of specifics for research and demonstration projects;
 - Maintain communication with co-operators on projects they are participating in;
 - Collection and recording of all project and research data;
 - Report to the Manager on project activities, site and equipment maintenance.
- Improve environmental stewardship of soil and water resources
 - Promote and facilitate adoption of sound forage and beef management practices that improve soil, water and air quality
- Work in partnership with industry organizations and government departments to develop extension programs, materials, and activities as required
- Promote awareness in farmed animal health and welfare, plant health and safe food products
- Promote and support practices that are environmentally sustainable and encourage responsible use of pesticides and other pest control products or measures.
- Promote and support practices that optimize animal health and production
- Research and compile information from a variety of sources for the completion of specialized forms, newsletters, technical and annual reports.
- Collaborate with other livestock, crop, forage, and market and farm management specialists on a regular basis for technology transfer activities.
- Partner with other forage associations, AFIN (Alberta Forage Industry Network), Agriculture and Agri-Food Canada, university research scientists, applied research organizations, agri-businesses and producer groups, etc. to provide an integrated multidisciplinary approach to develop and deliver information and technology in meeting producer needs and assist in their business decision-making.
- Ensure that all equipment is operated in a safe manner and well maintained.

REQUIREMENTS

- Applicants must:
 - have completed a degree or diploma in Animal Sciences or in related field;
 - have a valid class 5 drivers license;
 - have excellent communication and organization skills;
 - be able to multi task different programs and projects through-out the year;
 - mechanical experience is an asset;
 - have good working computer knowledge;
 - be able to work individually and within teams.

APPLY

Applications can be submitted via mail or electronically to:

Melissa Freeman, Manager

West-Central Forage Association

Box 360

Evansburg AB, T0E 0T0

Email: manager@westcentralforage

For more information please contact the WCFA office at (780)-727-4447