



Saskatchewan Hay & Pasture Report

Volume 18, Issue 1

May 9, 2017

Note from the Saskatchewan Forage Council

Welcome to the first edition of the 2017 Hay and Pasture Report! This report is now in its 17th season, and will continue to provide current forage industry production and marketing information. This publication complements our monthly Forage and Livestock eNews, which keeps you current with news and updates from the forage industry in Saskatchewan. This year we've given our Hay & Pasture Report a fresh new look and format that we hope you'll love! Please share this Report with anyone you feel it might interest.

As always, we welcome your feedback and encourage anyone interested in being placed on our email distribution list to contact the SFC at office@saskforage.ca. Please visit our website www.saskforage.ca for regular news and information related to the forage industry.

Visit Our Website

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The latest news from CFGA

2017 CFGA Conference

The Canadian Forage and Grassland Association (CFGA) is working with the Ontario Forage Council to host the 8th Annual CFGA Conference at the Delta Guelph Hotel and Conference Centre, Nov. 14 to 16, 2017. This year's theme is Next Generation Forage Cropping Systems: Profit Above, Wealth Below in recognition of the important role forage and grasslands play in providing both economic and environmental benefits to Canadians from coast to coast.

Conference organizers are working on a powerful lineup of educational and informative

speakers in four key areas the conference is focused on: soil carbon storage, soil health enhancement, forage exports and profitable forage systems. For more info on the conference visit <http://canadianfga.ca/conference/>



8th Annual CFGA Conference

November 14-16, 2017, Delta Guelph Hotel & Conference Centre, Guelph, ON

Next Generation Forage
Cropping Systems:
Profit Above, Wealth Below

New Program Announced

The CFGA is set to become climate change leader with the launch of the Agricultural Greenhouse Gas Program (AGGP) in Fredericton N.B. April 24. Member of Parliament Matt DeCoursey (Fredericton) announced an investment of \$656,000 for the project with the CFGA to demonstrate to farmers the carbon sequestration (sink) potential of their farmlands. The CFGA is in the preliminary stages of the program which will develop and test a carbon reduction protocol for high performance forage management systems in Canada.

Sign up for CFGA News

You may sign up for the CFGA newsletter and other updates here:

<http://www.canadianfga.ca/sign-up/>

Saskatchewan Agriculture Crop Report

For the period ending May 1, 2017



Saskatchewan farmers are slowly making their way into the field.

Adverse weather has delayed spring field work, such as applying herbicide, harrowing and seeding, in some areas. Many fields remain wet. Warm and dry weather will be needed in the coming weeks before seeding can get fully under way.

Much of the province received large amounts of precipitation over the last month, and fields remain wet in many areas. Provincially, cropland topsoil moisture is rated as 30 per cent surplus, 69 per cent adequate and one per cent short. Hay land and pasture topsoil moisture is rated as 16 per cent surplus, 81 per cent adequate and three per cent short.

Producers are busy seeding, calving, controlling weeds, working fields and trying to wrap up last year's harvest.

[Read the full report here.](#)

Seeding for Success

By: Tara Mulhern Davidson

There are a suite of factors that go into creating a successful forage establishment. Statistics Canada continues to report that forages and grasslands are the dominant crop across Canada, which means forage still play a valuable role in agriculture, and many producers continue to seed forages in their production systems.

The Saskatchewan Forage Council (SFC) has some valuable resources to assist producers with their planning. View the [SFC Successful Forage Crop Establishment](#) fact sheet for more information on inoculation, herbicide resistance, seedbed preparation, fertility management, germination, seed certificate analysis, and more!

Plant species selection is one of the most critical steps to long-term success of a forage crop. The SFC has a helpful [Forage Species Selection Tool](#) that can guide users through determining what species may be best suited for their soil and moisture conditions, as well as their end-use goals. The tool also includes a useful seeding rate calculator that helps producers determine how much of which species must be planted to meet their desired species composition.



Seed Mixes According to Weight vs. Plant Composition

Producers may choose to seed a pre-made forage seed blend or they may prefer to develop a custom blend suited to their specific needs. Did you know there is a big difference between blends "by weight" compared to blends "by end species compositions?" Forage crop species have different seed counts per pound, therefore it's important for producers to understand what they are ordering and to have a discussion with their seed provider.

For a simple example, perhaps a producer wants a forage crop that will result in 50% alfalfa and 50% hybrid brome grass plants and they planned to seed this mix at 10lb per acre. The producer could just seed

5lb alfalfa and 5lb hybrid brome, right?
WRONG!!!

Using the above seed mix would result in the following number of potential plants actually seeded per acre:

Alfalfa - approximately 200,000 seeds/lb x 5 lb = 1,000,000 alfalfa plants/acre

Hybrid brome - approximately 90,000 seeds/lb x 5 lb = 450,000 hybrid brome plants/acre

Seeding the above blend "by weight" would result in a forage crop that was nearly 70% alfalfa and just 30% hybrid brome, which is quite different than the desired plant composition. The [SFC Forage Species Selection Tool](#) can help producers determine an appropriate blend that meets their end goals with the seeding rate calculator.

Using "coated" seed also has an impact on the number of seeds/lb and therefore the seed mix and end species composition. While coatings are often used for inoculation or to prevent bridging in the drill, some coated plant species have up to half as many seeds/lb as their non-coated or "bare" counterparts. Check with your forage seed supplier for an accurate number of seeds/lb. A chart of approximate seeds/lb for common forage species can also be found in the [SFC Successful Forage Crop Establishment Fact Sheet](#).

Producers are encouraged to contact their local SK Ministry of Agriculture Regional Forage Specialists as well as have conversations with their forage seed suppliers to ensure they optimize their chance of having a successful forage crop establishment that will persist long into the future.

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The value of fertilizing forages

By: Charlotte Ward, MSc, PAg

Saskatchewan Ministry of Agriculture Regional Forage Specialist, Regional Services Branch, Yorkton

The value of fertilizing forages is often overlooked. As a crop that has been traditionally thought of as low input and low value, producers often hesitate to spend fertilizer dollars on forages. But by not managing forage fertility, are they leaving money on the table?

Forages are high users of soil nutrients. For example, 70 per cent alfalfa and 30 per cent brome grass hay results in the exportation of 50 lb. of nitrogen (N), 13 lb. of phosphate (P), 55 lb. of potassium (K) and six lb. of sulfur (S) for every ton of dry matter produced. To maintain a high level of production, these exported nutrients must be replaced. A fertility plan must address the species present, expected forage stand response, overall nutrient removal, cost of additional nutrients, value of additional forage production and

alternative forage sources. Every fertility plan should start with a soil test.

Commercial fertilizer can be a viable option to replace exported nutrients. Grass-dominated stands respond well to N fertilizer. In legume-dominated fields, numerous studies have identified P, K and S as key nutrients for improving or maintaining yield through enhanced N fixation and improved winter survival of alfalfa.

Expected Three Year Response or Costs	Non-Fertilized	Fertilized
Expected yield (tons/acre)	3.75	6
Forage production (bales/acre)	5	8
Land and establishment costs (\$/acre)	\$ 142.26	\$ 142.26
Fertilizer cost (\$/acre)	-	\$ 75.09
Cutting cost (\$/acre)	\$ 35.91	\$ 35.91
Baling cost (\$/acre)	\$ 52.81	\$ 84.32
Hauling cost (\$/acre)	\$ 33.02	\$ 52.72
TOTAL COSTS (\$/acre)	\$ 263.99	\$ 366.36
TOTAL COSTS (\$/bale)	\$ 52.69	\$ 45.80

Fertilizing at current prices can be a wise investment.

The accompanying table shows the effect of managing soil fertility on a three-year-old alfalfa-dominated hay stand in the Black soil zone. The calculations were made based on the following assumptions:

*Fertility plan will maintain current yield of two tons per acre per year.

*Cutting, baling and bale hauling costs based on the Custom and Rental Rate Guide.

*Fertilizer prices from December 2016 (46-0-0 at \$440/MT, 11-52-0 at \$615/MT, 0-0-62 at \$355/MT, 20-0-0-24 at \$390/MT).

*One-time broadcast fertilizer application of 75 lb. P, 100 lb. K and 20 lb. S actual nutrients per acre

In this example, maintaining highly productive stands with greater legume content results in lower fixed costs per bale, and overall savings of nearly \$7 per bale. The "Economics of Commercial Fertilizer for Hay and Pasture" is one tool available on www.saskatchewan.ca that allows producers to input their own numbers and explore different scenarios.

When determining net returns resulting from fertilizing forages, producers must also consider alternative sources of nutrients (winter field feeding, manure), feed sources and land uses (annual crops).

Read this and other articles in the [March 2017 AgriView Publication](#).

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BCRC: Cover Crops

Posted by Beef Research2 On February 22, 2017. Rural Roots Canada

Cover crops are typically diverse, annual crop mixtures planted with the intent to build and improve the soil. Cover crops may also include biennial or perennial species, depending on the end-use and goals of the producer. Cover crops may be grazed, baled, or used for silage, depending on the species that are seeded. Cover crops may also be used as a green manure or plough-down crop.

Cover crops, often called "cocktails," consist of plants that will benefit the soil ecosystem and support a variety of soil microbes, fungi, and other biodiversity, such as earth worms. Cover crops can enable soils to have improved water infiltration, increased organic matter, and more efficient nutrient recycling. Some cocktail crop species may be useful in utilizing excess water in a field that would otherwise be water logged, while other species may be selected for their drought-tolerant qualities and their ability to make the most efficient use of existing moisture.

A mixture of cover crop species is usually recommended, and may include both cool season (i.e. C3) and warm season (i.e. C4) species, broad leaved species, legume species, Brassica species, and grassy species. Using a mix of cover crop species maximizes photosynthesis, allowing solar energy to be captured at different heights and angles. Different cover crop species will also have different rooting zones, therefore impacting soils at different depths.

Cover crops can be a valuable and quick-growing source of forage for livestock, and provide grazing in the same year the crop is seeded. Cover crops also allow cropland and pastures to be

more efficient with water and nutrient cycling, and less reliant on costly inputs such as fertilizer. From an animal standpoint, a forage cocktail also provides cattle with a diet that is nutritionally diverse. A mix may include species such as clover, a forage Brassica (i.e. turnip, radish), barley, or peas. Each plant species may reach maturity at slightly different times, therefore providing green forage continuously through the growing season. Using a combination of plants rather than a single forage species also helps to increase the overall yield potential of the crop. Producers will want to manage cover crops through grazing management strategies, such as temporary fencing, that allow appropriate and timely grazing that matches the species and their stage of growth.

[Read More](#)

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Risk Management and Insurance Survey

Alberta Beef Producers (ABP) and Saskatchewan Cattlemen's Association (SCA) are conducting a risk management and insurance survey for forage producers to provide important information that may be used to design more effective insurance and risk management tools for forage producers. Your feedback is greatly appreciated, and the survey should take about 10 minutes to complete. A final report with the survey findings will be made available to ABP and SCA by April 2018.

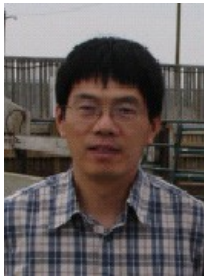
Complete the survey here:

<https://www.surveymonkey.com/r/foragesatellite>

Improving Fiber Digestibility and Utilization of Barley Silage in Dairy Cows through Exogenous Enzymes:

A Dairy Production Trial at Dairy Research Station, University of Saskatchewan

By: Dr. Peiqiang Yu, Professor and Ministry of Agriculture Strategic Feed



Research Chair, Department of Animal and Poultry Science, University of Saskatchewan

The U of S researchers are carrying out barley and corn silage research projects which have been funded by ADF, WGRF, NSERC and SNK and managed by Ministry of Agriculture Strategic Feed Research Chair. This article contains information on the silage project.

Research Motivation Background

There is increasing interest in using exogenous enzymes as a cost-effective method for improving animal productivity. The main enzyme products marketed for livestock are derived mainly from only four bacterial (*Bacillus subtilis*, *Lactobacillus acidophilus*, *L. plantarum* and *Streptococcus faecium*) and three fungal (*Aspergillus oryzae*, *Trichoderma reesei* and *Saccharomyces cerevisiae*) species. Other fungal species, including *Humicola insolens* and *Thermomyces anuginosus*, are being marketed to a lesser extent. Several studies have confirmed the addition of enzymes to feeds can increase DMI and fiber digestibility. Exogenous feed enzymes with fibrolytic activities have been reported to enhance fiber digestion in the rumen. Most of the commercial products that have been investigated in dairy cows have had cellulases and xylanases activities, with proteases and amylases being tested in a minor number of studies.

Research Objectives

The main objectives of this study are to 1) examine the effect of exogenous enzymes with mainly cellulolytic and hemicellulytic activities on the NDF degradability characteristics of barley silage, 2) screen the best dosages that would improve the lactation performance of dairy cattle.

Research Projects

This research is being carried and consist of following two project:

Project 1: In vitro feed study to screen the best dosages for barley silage for lactation dairy trial

Project 2: Study the effect of exogenous enzyme on lactation of performance for high lactating dairy cows

For more detailed information, please contact:

Peiqiang Yu, Ph.D.

Professor & Ministry of Agriculture Strategic Research Chair

Research Areas: Feed Science, Ruminant Nutrition, Feed Technology & Feed BioTech

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Image: Dr Peiqiang Yu, Professor & Ministry of Agriculture Strategic Research Chair

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Saskatchewan Hay Market Report

As of March 31, 2017 the Saskatchewan Agriculture Forage, Feed and Custom Service Listing site has been discontinued.

A search of hay asking prices in Saskatchewan resulted in very few listing of hay for sale in the province. There were no listings for buyers wishing to purchase hay. Asking prices for 2016 hay crop were on average:

Alfalfa Hay: \$65-88/metric tonne and/or \$50/bale

Alfalfa/Grass Hay: \$66-77/metric tonne and/or \$50-60/bale

Grass Hay: \$40/bale

Small Square Bales: \$3-6/bale

Wheat Straw: \$25/bale

USDA Market News Service Hay Report

Wyoming, Western Nebraska, and Western South Dakota Hay Report

Compared to last week, prices were mostly steady with activity and demand light in all classes. The NASS Wyoming Crop Progress and Condition report for the week ending April 30, 2017 states that Wyoming experienced cooler than normal temperatures for the week, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. All 34 stations reported below average temperatures for the week with the high temperature of 76 degrees recorded at Torrington and a low of 8 degrees at Laramie. All 34 stations reported some precipitation as 30 of the 34 stations had more than average precipitation. A reporter from North Central Wyoming reported three days of blizzard conditions with a foot of snow and plenty of moisture. They also indicated that calving and lambing are almost done but it is too early to determine losses from the storm. A reporter from Eastern Wyoming indicted that it was quite cold last week and the area is suffering a hay shortage, and many ranchers have concerns about the lack of water. A reporter from South Central Wyoming stated that the recent moisture has given producers hope for good pastures. They also indicated that calving and lambing have gone well due to the warm dry conditions. A reporter from Southeast Wyoming reported that a wet week has helped with rangeland conditions. Stock water supplies across Wyoming were rated 8 percent very short, 8 percent short, 68 percent adequate, and 16 percent surplus. Hay and Roughage

supplies were rated 7 percent very short, 29 percent short, 61 percent adequate, and 3 percent surplus, while pasture and range conditions were rated 6 percent very poor, 18 percent poor, 26 percent fair, 49 percent good, and 1 percent excellent. According to the United States Drought Monitor, it was dry in the Dakotas but wet over much of Nebraska and Kansas as well as the plains of Colorado. The same storm system that brought the rain to the Midwest also brought rain and snow to both Kansas and Nebraska. Significant snow totals were associated with this storm for this time of year. All moderate drought was removed this week from Nebraska and eastern Colorado and only 2 small pockets of moderate drought remain in northeast Wyoming. Abnormally dry conditions were also improved over all of Kansas, western South Dakota, eastern Colorado, and southern Nebraska. Only a few pockets of dryness remain in the region.

Weekly Montana Hay Report Compared to last week: Hay prices sold weak to 10.00 lower this week in a narrow comparison. Producers continue to try to move excess loads as warm weather and excess rain has many producers worried about heavy supplies for the 2017 crop. Hay sales volume continues to be very light as many produces are out of hay for the year and many ranchers have turned out cattle onto grass in many parts of eastern Montana. Grass hay was too lightly tested this week to trend, however lower undertones were noticed.

No prices are available this month for Wyoming, Western Nebraska, and Western South Dakota.

To read the full reports and to view the hay quality designations - physical descriptions [click here](#).

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	Montana
Alfalfa	
Supreme	200**
Good	105-120 105-120* 150**
Fair	90-110 100-110* 120**
Utility	75-85*
Grass	
Good	110*
Fair	100*
Timothy	
Premium	120-125* 210-240**
Good	110-120*
Alfalfa/Grass	
Good	150**
Wheat Straw	
Barley Straw	30

*All prices in US Dollars per ton FOB stack in large square bales unless otherwise noted. Most horse hay sold in small squares. *large rounds
**small squares*

The Saskatchewan Forage Council Gratefully Acknowledges funding for our 'Facilitating Forage Initiatives in Saskatchewan' project through the Saskatchewan Cattlemen's Association Saskatchewan Beef Industry Development Fund:



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Gold



Silver



Bronze



Financial Support for the Saskatchewan Hay & Pasture Report Has
Been Provided by Saskatchewan Crop Insurance Corporation



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