TALKS AND BIOS
June 11th, 2018

John Basarab, Alberta Agriculture & Forestry

The Benefit of Genomics Tools in Managing Fertility and Stayability in Commercial Beef Cow Herds

The application of genomics in the beef industry has progressed more slowly than in other livestock species in part due to the degree of fragmentation, lack of integration and profitability within the industry. Initial applications tended to be limited to the pure breed industry due to the high value of the animals and their use for breeding. Over time, the collection of larger volumes of genomics data within the pure breed populations and lower costs as the technology matures have allowed the development of tools targeting the commercial beef producer. One tool developed in Alberta shows particular promise in allowing the commercial cow/calf producer to select for greater fertility and stayability and therefore produce more pounds of weaned calf and more profits. These developments are also expected to lead to the development of commercial cattle gEPDs, including maternal trait gEPDs.

John Church, Thompson Rivers University

The Use of Unmanned Aerial Vehicles (UAVs) to Monitor Cattle

Dr. John Church is an Associate Professor of Natural Resource Science at Thompson Rivers University (TRU) in Kamloops, British Columbia, and Research Chair in Cattle Industry Sustainability. John started Canadian Rocky Mountain Ranch, a large bison and elk operation east of the Rockies just southwest of Calgary, Alberta, in 1997. In addition to practical and direct bison industry experience, John served for eight years as the Alberta provincial animal welfare specialist, and as Chair of the Scientific Committee for the Canadian Bison Code of Practice.

Dr. Church earned his PhD in Agriculture from the University of Alberta in 1997, studying the effects of production practices on the behaviour and management of bison, elk and cattle on farms. He now leads a multidisciplinary research team at TRU dedicated to the exploration and invention of innovative practices and technologies leading to the sustainability and enhancement of the cattle and bison industry, rangelands, and meat production and related products.

The focus of Dr. Church's research program is on new opportunities for beef and bison producers in the areas of value-added and branded meat production, which includes human and

environmental health. His research program uses drones for precision ranching, with a goal towards improved management of the land base as well as the animals.

Barry Irving, University of Alberta

Barry Irving

Barry is manager of the agricultural research stations, including the Kinsella and Mattheis Research Ranches, for the University of Alberta. His background is in integrated land use, especially on rangeland. He is a Professional Agrologist and an active member (currently President) of the Society for Range Management, a diverse international group of 2,200 members interested in the management of rangeland. Barry and the staff at the University of Alberta ranches use moderate cattle-stocking rates, rotation, seasonal grazing, water developments, fire and other means to manage rangeland vegetation.

Barry is past coach of the University of Alberta Range Team, which has won over 160 awards in international competitions sponsored by the Society for Range Management. He holds a BSc (Forestry), MSc (Range Management), and PhD (Plant Science), all from the University of Alberta.

When Old Becomes New Again…

Barry Irving's career spanned 35 years in numerous roles that he describes as that of Practical Manager responsible in various capacities for integrating beef production with rangeland management.

After a long career and a "retirement" lasting several weeks, Barry will deliver a brief overview of how practices evolve (and in some cases revolve) around three general themes: the grassland / forage interface, fitting the cow to the environment, and the carbon future.

Difficulty Ranch Forage to Beef Demonstration

Environmentally conscious, innovative, sustainable, family raised, quality cattle

Sean and Holly LaBrie own and operate Difficulty Ranch, 10 miles northwest of Didsbury. Difficulty Ranch began 13 years ago when Sean and Holly LaBrie purchased a section of land to go with their cow herd of 14 first-calf heifers. The ranch has subsequently grown to 125 commercial pairs on 5 quarters of native and tame pasture with protected riparian areas.

Sean and Holly are active within the beef industry; Sean as a director and Past Chair of the Foothills Forage and Grazing Association and Holly applying her computer expertise with BIXS and now as part of the Beefbooster team. The LaBries have two children, Taryn and Dalton, who

are growing up in the ranching culture. With this in mind, the LaBries combine innovation and effort to ensure the profitability and sustainability of their business.

Difficulty Ranch Demonstration:

- Forage:
  Some of the challenges involved in raising cattle in west-central Alberta include managing grass and forage production in conditions that can be very dry in summer with heavy snowfall in winter, particularly in the colder months of January/February. Sean will talk about how he and Holly have adapted watering stations to allow them to maximize rotational grazing in the summer while producing enough to allow for sufficient bale and swath grazing throughout the winter.

  The pasture walk will also showcase some of the efforts undertaken in conjunction with the Riparian and Ecological Enhancement Program (REEP) and Alternative Land Use Services (ALUS) program to protect sensitive areas of their lands.

- Beef:
  The LaBries entered the industry with some of the consequences of less than ideal genetics. Holly will talk about some of the steps they have taken towards migrating their herd towards optimal performance, given their feed and environmental conditions and how today's performance compares with that of the initial herd.

Morrie and Debbie Goetjen, Whisky Ridge Cattle Company

Morrie, his wife Debbie, and their daughters have operated Whisky Ridge Cattle Company since about 1984. Over time, their operation has migrated away from mixed grain farming to focus on the cattle along with pasture and swath grazing—a move that has allowed them to double their herd. They currently manage about 170 mother cows and 30 yearlings which have an Angus base with Simmental and Hereford influences. Fertility is the most important factor in the herd by a factor of 10 to 1. The Goetjens believe in a tight breeding window and use disciplined culling to enhance fertility continually.

Forage topics to be presented at Whisky Ridge include:

- Swath-grazing: the systems used on this operation may result in the cows being moved less often than at some operations and allowing them to eat snow when it is clean and plentiful.
- Fencing: techniques used include cross-fencing and a transition from electric to permanent fencing as a means to better incorporate wildlife while minimizing maintenance. Ways to increase forage production are always being investigated as a means to expand the number of cows an area of land can supported.

A perennial forage grazing demonstration site will run in conjunction with Alberta Agriculture and Forestry, looking into the performance of various species in actual field conditions.