FORAGE FIRST

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SECOND ANNUAL GENERAL MEETING
OF THE
PEACE RIVER FORAGE ASSOCIATION OF BRITISH COLUMBIA

to be held Wednesday, December 1, 1993

1 PM at the Taylor Community Hall

Taylor, British Columbia

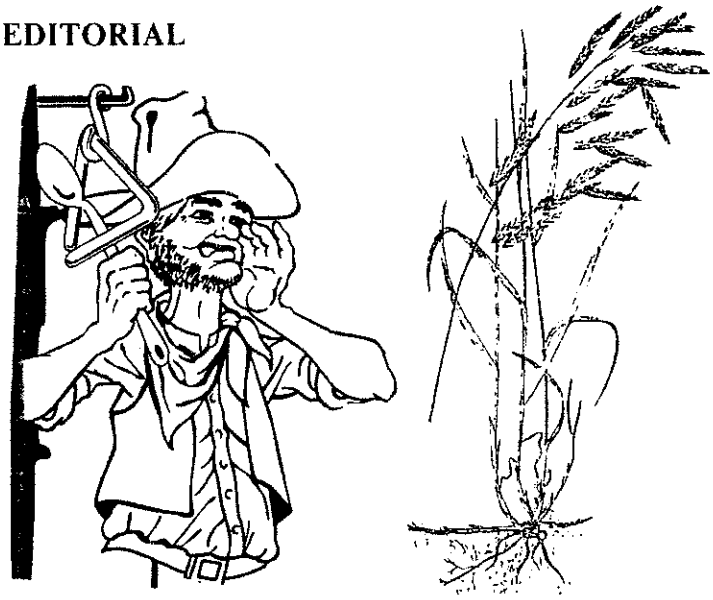
Proposed Agenda

1. *Reports of Officers*
   (President, Secretary, Treasurer/Financial, Auditor)
2. *Reports of Committees*
   (Research and Development, Nominations, Advisory, Newsletter)
3. *Peace River Agricultural Strategic Planning Society Report*
4. *B.C. Forage Council Report - Mark Grafton, Manager, Bar K Ranch, Prince George and President of BCFC*
5. *Guest Speaker Dr. Daphne T. Fairey, Ag Canada, Beaverlodge "Legume Research Program in Northern Canada with emphasis on Needs and Requirements of Agricultural Producers".*
6. *Guest Speaker - BCMAFF "Fall Fertilizer Management of Forage Crops"*
7. *Old Business*
8. *New Business (Including election of three directors of the Peace River Forage Association of B.C.)*

Members, friends and supporters of the Peace River Forage Association of B.C. are with this newsletter officially notified of our Annual Meeting to be held in Taylor on the afternoon of December 1, 1993

The Directors look forward to your attendance and participation in this important function of your Forage Association.

EDITORIAL



First of all, Thank you to Butler Farm Equipment of Fort St. John for sponsoring this November issue of Forage First.

Butlers offer a full line of haying/forage making and livestock feeding equipment with their New Holland Farm Equipment as well as the correctly powered field unit for your farm or ranch with their Ford tractors.

Second, Forage Association President Glenn Hogberg has attended several meetings of the Peace River Agricultural Strategic Planning Society and we will have a report of what PRASPS can offer to forage based agriculture at our December 1st AGM.

Third, Alfalfa has often been referred to as **Queen of the Forages**, so you will find several information pieces dealing with alfalfa in this issue of **Forage First.** Now that winter is soon approaching, it isn't too soon to start making your legume seeding plans for hayfields and pastures in 1994.

Fourth, as your are all aware, the **Hay and Forage Growers Magazine** will now come to Association members via the B.C. Forage Council with very considerable less frequency.

Therefore, is **The Stockman Grass Farmer** (Box 9607 Jackson, Mississippi, USA 39286-9607 Telephone 1-800-748-9808 or Fax (601) 981-8558) with a subscription price of $40.00US/2 years a viable alternative?

Editor of this tabloid newspaper, H. Allan Nation, seems to be well informed and up to date on current forage crop management practices and state of the art grazing techniques throughout North America. As well, there is always interesting grazing/forage information from other places around the world in nearly every issue. **The Stockman Grass Farmer** has a different editorial and journalistic approach than **The Hay and Forage Grower**, but it certainly is stimulating and thought provoking to any forage enthusiast.

Fifth, Memberships for 1994 are now due and payable for our combined BCFC/PRFA of B.C. membership at $30.00. Please make cheques payable to the Peace River Forage Association of B.C..

One of the objectives of the Forage Association is information exchange amongst our membership and we hope that this issue of **Forage First** allows you to acquire useful forage knowledge as knowledge is often a better investment than some more tangible farm inputs.

Good Reading.

WINTER HARDINESS AND LONGEVITY IN ALFALFA STANDS

Dr. Paul G. Jefferson, Grass Physiologist and Plant Breeder from Swift Current Ag Canada Research Station provides us with 10 ideas regarding managing alfalfa stands with specific emphasis on achieving longevity. While he stresses that this information is based on his prairie experiences, no doubt it also has a fairly high degree of relevance to our Peace River region too. Dr. Jefferson is an important member of the Federal-Provincial team of plant breeders and researchers dealing in their work with Western Canada and Northern Canada.

1. **Cold temperature tolerance.** The Swift Current site can experience air temperatures as low as -40 degrees C with very little snow cover. This results in soil temperatures nearly as low as air temperature and produces low temperature injury to alfalfa crowns. Varieties selected and bred in a region almost always have superior cold tolerance to varieties developed further south.

2. **Amount of snow cover.** This is related to number one. If there is just a foot of snow on the alfalfa, it can act as an insulator and improve soil temperatures during severe winter cold snaps. On the other hand, in regions with heavy snowfalls that last all winter, snow mould can cause severe stand losses. This factor is complex because the advantages or disadvantages of snow cover vary from region to region and year to year within a region.

3. **Disease resistance.** Root and crown diseases reduce the ability of the alfalfa crowns to withstand low winter temperatures. Genetic resistance to crown rot and bacterial wilt diseases have improved the winter hardiness of alfalfa varieties.

4. **Pest resistance.** Grasshoppers remove all the shoots of dryland alfalfa seedings which then die, usually the following winter. Other pests probably have indirect effects on winter hardiness through the reduction in plant vigour and reduced root reserves.

5. **Harvesting frequency.** You may have seen this. A field harvested twice or three times the previous year winter kills while the neighbour's alfalfa seed field is unscathed. Frequent harvesting (number of harvests depends on the length of the growing season) reduces winter hardiness by reducing the root reserves. Uncontrolled grazing has a similar impact. Rotational grazing that provides a period of protection from grazing for the alfalfa to recover root reserves will not cause reduced winter-hardiness.

6. **Fall regrowth/fall harvesting.** Some varieties have rapid regrowth after cutting and in the fall. To make use of this forage, a second or third harvest is taken in September or October. Winter-tender varieties produce more forage in fall but are sensitive to fall harvesting. Winter-hardy varieties can withstand this harvest but don't yield as much. Grazing fall regrowth on winter-hardy varieties does not seem to increase winter kill (provided the grazing is not too severe). Some irrigated producers in this region leave strips of standing alfalfa every two trips of the haybine when they harvest in the fall. These strips trap snow and help protect less winter-hardy varieties (see #2 above).

7. **Fertility management.** High rates of potassium increases alfalfa winter hardiness in some regions, like Ontario and Quebec. This region has soils that are high in potassium but often phosphorus becomes limiting and I believe low phosphorus may contribute to winter kill but I do not have any data to prove it.

8. **Delayed removal of bales after harvest.** When the alfalfa has 4 to 6 inches of regrowth after harvest and then is subjected to wheel travel by bale removal operations in the field, the alfalfa must replace those shoots with new ones. The reduces root reserves and can cause loss of vigour and increased susceptibility to winter-kill.

9. **Soil water content in the fall.** Irrigated alfalfa producers at Kamloops do a light fall irrigation if possible because soil at field capacity is better buffered against rapid temperature declines than a dry soil.(see #1 above).

10. **Flooding, ice caps and having of alfalfa crowns by freeze/thaw of soils.** These factors are often discussed by American alfalfa workers but I have not found them to occur here.

ARE YOU INTERESTED IN BECOMING A BORN AGAIN GRAZIER?

Deciding to develop a proper understanding of Holistic Resource Management may well be the most important step you have taken in your career as an agriculturist or as a person interested in an uninterrupted and continuing bountiful food supply in North America.

Join us in this article as we explore the why's and wherefores of HRM a la Allan Savory as seen with the appropriate Canadianized attitude and content. Savory and his coworkers, the HRM Registered Educators, are busy killing off sacred cows by the herd all over North America in the range, pasture and grazing management field and we shall attempt to throw some light on these important developments as they pertain to farming and ranching on the Prairies and in the Peace River Country.

An ecologist is by definition one who concerns himself with the totality or patterns of relationships between organisms and their environment. Allan Savory bills himself as an ecologist. Many ranchers and some farmers are practising ecologists.

Some people think this world would be a lot better place to live in if ecologists had more to say about how things are done while economists and engineers had less sayso.

SOME MAJOR OBSERVATIONS

After being exposed to considerable of Savory's philosophy in writing plus being fortunate to hear him speak in some depth, these things stick in my mind as very relevant to anyone who is beginning to think of Holistic Resource Management in terms of something of interest to themselves.

1. Based on the considerable publicity that Mr. Savory has received all across Western North America **most** farmers, ranchers, business/agency resource managers and bureaucrats **do not understand what he is talking about.** A lot of said publicity has been based to a high degree on journalistic sensationalism woven around the theme of **a quick economic fix** for a ranching operation in financial difficulty by implementing a Savory grazing program complete with **a grazing cell of 16 to 32 paddocks.**
2. **Holism** is a long term and complex process; definitely **an experience of continual growth** and mind expansion for those who choose to become involved. Every individual's concept of the holistic process (which basically emphasizes the functional relationship between parts and wholes) may be slightly different and is certain to evolve over given time periods as the individual becomes more involved.
3. Savory completely subscribes to **flexibility of management** and disdains to a high degree rigid procedures that thoroughly lock programs in. He stresses that holism involves a lot of trial and error and then looking forward as the only way to proceed.
4. Primary Agricultural producers main businesses is **converting sunlight into solar dollars** which then represent the income from the land unit. Plants, soil, water and animals help convert the sunlit into solar dollars. Efficiency of **solar dollar production** of course is to be desired.
5. A mono culture economy such as corn, wheat or only one grazing/haying grass/legume in a field is the antithesis of Holistic Resource management. Thus one could extrapolate that in terms of **HRM a multicultural ecology is what we should be striving for.**
6. The application of **modern technology in isolation** to other management possibilities **is not the solution** to our present state of agricultural disrepair, rather it is the **cause of our present difficulties.** Drought, loan interest rates, poor markets, et cetera are symptoms of the disease. This is a story as old as history itself which is being repeated once again in the late 20th century.
7. Some of the **most exciting and challenging experiences** in world wide agriculture today managementwise and economicwise are occurring in **short duration, managed intensive grazing,** which often becomes an integral part of the holistic means of production for livestock producers. Therefore, instead of becoming a born again Christian like that notable peanut farmer Jimmy Carter, the past President of the USA, you may wish to cast out some of the old and weathered

grass and bring in some of the fresh, new growth and become A Born Again Grazier?

When I cogitate Holistic Resource Management I think of viewing everything regarding our farming and ranching land unit as interrelated and each category (eg: wildlife, tractors, cows, insects, grass, borrowed money, markets, birds, climate et cetera) as having a distinct part in the whole program, or another way to put it: **nothing can be ignored, everything and everybody has to be considered in planning and management if one is to achieve economic success.**

I believe the concept of Argo Rust, a rancher and Savory enthusiast from Nambia, is valid for Western Canada. He subscribes to the idea that he has **a large work crew all engaged in their specific jobs to benefit his entire operation.** These include all plant and animal life (from soil microorganisms to grass to cattle to huge trees, to lions, leopards and elephants) on the ranch. He truly believes each has an important role to play in the overall success of the ranching venture.

For most folks whose curiosity has been aroused by the holistic approach, probably what they want to do is: to be able to evolve in HRM comprehension to a point where as an individual they can develop the proper interpretation of the correct way to proceed with managing their land unit.

When an individual starts to understand HRM probably begins when he or she decides that to work in harmony with nature is the in thing to do, while **to try and conquer nature is a nowhere attitude.**

NOW THEN, EXACTLY WHAT IS SAVORY TALKING ABOUT?

He is talking about a **practical, totally goal oriented approach to the management** of our ecosystem including the human, financial and biological resources. His concept includes ranches, farms, Indian reserves and public lands managed by government agencies (amongst others). North America is littered with government and political programs of economic development which fail miserably when closely examined because they totally ignore the full management planning process.

To adequately manage the human, biological and financial resources we first have to understand how they relate.

According to Savory, Holistic Resource Management originated after several decades of study which eventually led him to new discoveries; the four missing keys which form the foundation of HRM.

KEY #1 - Plants, soils and animals evolved together and need each other for their own health.

KEY #2 - Environments are either brittle or non brittle. A brittle environment had an original population of migrating animals. (In North America this means Buffalo, Elk, Deer, Antelope and Caribou). A brittle environment requires the hoof action of the "excited herd" to maintain its viability. A lot of the Prairie and Peace River may fit in the brittle category.

KEY #3 - Andre Voisin, a farmer and scientist in Normandy, discovered and fully documented in his grazing trials with animals in the 1940's and 1950's that overgrazing is not caused by the presence of too many animals. It is caused by how long they remain in one place. Thus the **management of time** and not numbers is the way to avoid overgrazing.

KEY #4 - Jan Smuts, a well respected former leader of South Africa, presented the idea that there are no parts in natures whole. There are only interrelationships and it is only through the study and manipulation of these interrelationships that we can understand and manage our complex ecosystems.

GOAL ORIENTED PLANNING WITH THE MODEL

Savory stresses that farmers who want to stay in business are going to have to learn how to model; otherwise he strongly suggests they will encounter bankruptcy and/or other equally unpleasant situations.

The African born ecologist did not invent models (for instance: Dale Carnegie uses them, large corporations use them and all MBA candidates study them); but his model is very thorough and it does relate well to agriculture and natural resources.

The HRM model is programmed on a computer and by applying the appropriate techniques the model can be used both for planning and predicting.

First Step. To set a goal for the land unit in question. Be it a ranch, a provincial forest or whatever. This is always

a three part goal: a landscape description that will allow the means of production to establish and maintain the desired quality of life for the long term. This should and will take quite some time to establish.

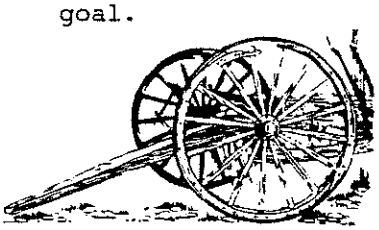
Next. To determine how the four ecosystems blocks (succession, water cycle, mineral cycle and energy flow) must operate interrelatedly to achieve the goal.

Then determine how the various tools (rest, fire, grazing, animal impact, wildlife and technology) may be utilized with the ecosystem blocks most effectively with the available dollars and the necessary human creativity.

Certain guidelines must be considered and followed for the exercise to be successful, including planning with monitoring and establishing adequate control and replanning procedures.

For technology (brush control, regrassing, grass hopper poisoning, fencing et cetera) to be acceptable for use it must pass five tests: 1.Funds should always be spent on the weakest link in the chain of events. 2. Examination of cause and effect relationships. 3. Put it where the greatest $ reaction towards the ultimate goal will be achieved. 4. How does it affect the four ecosystem building blocks? 5. What are the socio-cultural aspects?

Using the full planning process of the HRM model, a solution is acceptable if it meets three simple criteria: it must be ecologically sound, economically sound and it must help achieve the goal.



WHO IS LIABLE TO BE INTERESTED IN SAVORY'S PLANNED MANAGEMENT PROCESS

Well, quite a number of people; and, for very different reasons!

Firstly, the people with the herds of sacred cows. This could include companies that figure the solution to a problem is selling: grasshopper poison, brush control chemicals, caterpillar type tractors with machinery to clear brush mechanically, heavy doses of crop herbicides and fertilizers. It could also include Universities, federal and provincial government agencies that have pet grazing rotation systems and other venerable research or management programs.

A HRM person's usual message to people influenced by the above groups is that **isolated technology application is part of the problem and not part of the solution** (or in simple language they are just making the problem worse and not curing it); that they are trying to achieve nongoals with their technology, probably they are not spending $ in the weak link and should instead be taking the modeled total planning approach to insure their dollars are being invested wisely.

Many companies, universities and government agencies of course have a lot of vested interests to protect so periodically you hear some very, very unusual and uncomplimentary comments regarding H.R.M.

Secondly, a group of people who are seeking a churchlike association and may be looking for a quasireligious affiliation through the Church of Allan Savory Zimbabwe-Albuquerque. You can tell these folks by the shine on their face and the gleam in their eye everytime Savory's name is mentioned. These folks are not dangerous to society of course, but might be better off in the long run if they took a more discriminating or **eclectic** approach to the Savory Grazing Method and the other parts of H.R.M. **And then**, there is the group that this article is directed to.

* A composite of this individual might reveal a person of management orientation, inquiring mind and a flexibility of approach in terms of dealing with life's trail.

* As well, this person is prepared to try new ideas and new techniques to better the economic wellbeing of their farming or ranching operation in order to improve their quality of life as a family.

* Furthermore, this individual will be able to relate how modern technology goes well with the world is flat group while HRM fits right in with the world is round group.

And, if Allan Savory is correct in his assumption, this individual is most likely to be the female partner of the farming or ranching unit.

Authors Note: HRM and Holistic Resource Management are now registered trademarks of the Centre for Holistic Resource Management, Albequerque, New Mexico. USA. Having now given this group proper credit, I will suggest that in Canada we think in terms of holistic management of resources and the above message will still be the same. R.R.

SEEDING CANADA #1 ALFALFA MAY PUT THE ECONOMICS OF YOUR HAY PROGRAM AT RISK

Here is what Dr. Jefferson of Ag Canada Research Station at Swift Current, Saskatchewan has to say about using Canada #1 alfalfa seed instead of planting seed of an adapted, certified variety.

The winter hardiness rating of Canada #1 seed is extremely difficult to predict. Any variety can be listed as Canada #1. If you buy from a local seed grower who wants repeat business and guarantees that it is an adapted variety, it probably is. If you buy from someone who has no interest in your repeat business in five years you don't know what variety it was grown from. Perhaps it is an American variety that was grown under contract to be shipped back to the U.S. but there was seed surplus to the contract so it is marketed as Canada #1. This seed will have limited winter-hardiness and stand longevity. I don't believe that this happens very often, but why risk it? What is more expensive, paying a few cents per pound more for certified seed of an adapted variety or paying to reseed your Canada #1 field in three or four years after it winter kills?

Longevity of production for alfalfa stands is important to farmers and ranchers because proper seeding and management of the seedlings represent what most producers figure is an 8 - 10 year investment. To achieve longevity beyond that in Western Canada it appears that alfalfa must be allowed to reseed itself periodically (every 5 - 10 years).

Research on dryland alfalfa crops at Saskatoon, Brandon and Swift Current indicates that normal winterkill on selected adapted varieties for a geographical area run around only 3 - 10% over a several year period.

Furthermore, late summer and early fall cutting of alfalfa regarding high or low % of winter kill appears to highly variety dependent based on research findings from Montana and Saskatchewan. Hence, the old, standard, blanket advisory of don't fall harvest alfalfa 4 to 6 weeks prior to first killing frost now needs to be reevaluated.

While no doubt a certain variety may do exceedingly well in a certain farm district, varieties that appear generally suitable for seeding in the Alberta and B.C. Peace based on test plots by Ag Canada Beaverlodge and BCMAFF include: **Group I:** Algonquin, Angus, Beaver, Heinrichs , Kane, Peace, Rambler, Rangelander, Roamer. Beaver was the 100 yield index benchmark here in these tests. **Group II:** Apica, Thunder, Peace, Rambler, Rangelander, Beaver, Armor, Anik, Heinrichs, Alouette, Champion, Roamer, Oneida VR, Spredor 2, Arrow, Profit, Sure, Dedinovskaya, Ufimouskaya, Vernal, Riel/Stampeder. Peace was the 100 yield benchmark here in these tests. Unfortunately, it appears there is no winter hardiness/longevity data available from the Group II tests; rather it is all yield data over a very short period of time. Varieties listed herein all achieved a minimum of 100 index on test.

Grimm, one of the old standbys is still a certified variety. Seed is still available in the Peace Country and some folks think it still is a quite satisfactory hay crop performer in Northern B.C.

A final thought for farmers to keep in mind regarding suitable alfalfa varieties to seed which info is determined from varietal test plots: no where do researchers in Western Canada ever appear to include a selection of Canada #1 seed when they do varietal and cultivar testing on small research plots.

DIRECTORS 1993 PEACE RIVER FORAGE ASSOCIATION OF BRITISH COLUMBIA

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The Seventh Annual

QUALITY FORAGE SEMINAR SCHEDULED

FOR

TUESDAY JANUARY 25, 1994

To be co-sponsored again this year by the B.C. Ministry of Agriculture, Fisheries and Food and the Peace River Forage Association of British Columbia.

Adequate time will be made available during our annual meeting on December 1st to discuss the program for this important annual forage event.

In the meantime here are some program possibilities for you to ruminate on and be prepared to voice your opinions on December 1st:

1. *Speaker Pete J. Ballerstade, an agricultural extension specialist from the state of Oregon. Topics: Dealing with Pasture Management and Productivity and Forage Quality. Specifically targeting on Pasture Fertility Management, Pasture Renovation, Grazing Management, Grazing Alfalfa, Utilizing Poor quality Forages for Winter feeding.*

2. *Speaker Noel McNaughton, Holistic Resource Management Registered Educator, Edmonton. Topic: An introduction to the holistic process and the holistic management of resources, specifically targeting agriculture and forage crop management.*

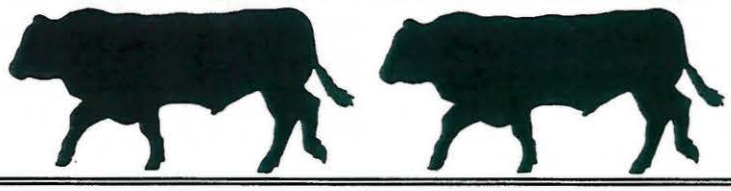
3. *A speaker, perhaps from the BCMAFF or a beef producer, speaking on extending the grazing season with beef cattle via stockpiled fall pasture, and stockpiled spring pasture as well as through late fall grazing and midwinter grazing of greenfeed swaths.*

4. *Is the Farmington Community Hall the right location?*

5. *Should our seminar include a full afternoon with a supper break followed by several evening hours to wrap up?*

6. *Should we have a panel of forage speakers and producers as a significant part of the seminar program?*

7. *Is $10.00 per adult the correct amount to charge for the Seminar;or, should it be more or less?*



ANNUAL GENERAL MEETING OF THE B.C. FORAGE COUNCIL TO BE HELD IN THE PEACE RIVER DISTRICT IN JANUARY 1995.

It is now time to start planning for this major forage event to insure that it is a most informational and successful gathering of the Directors of the B.C. Forage Council and other Forage Enthusiasts.

Your inputs as a member of the Association are required. So please bring your thoughts and ideas with you to Taylor on December 1st.

Historically there is an annual business meeting, some technical speakers and a trade fair. Maybe we should add some farm and ranch tours to show our guests what the Peace Country is all about?