

# FORAGE FIRST

"Published by the Peace River Forage Association of British Columbia"

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Tenth Edition

April 1994

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## Bob Tubb Elected President of B.C. Forage Council

At the 1994 Vernon annual meeting of the B.C. Forage Council, Bob Tubb well known forage enthusiast from Tomslake was elected president of this province wide organization which promotes the forage business at all levels of B.C. agricultural industry. He succeeds Mark Grafton of the Bar K Ranch in Prince George. Bob and his wife Joan own and manage a medium size crossbred cowherd plus a small purebred sales cattle herd. High producing silage fields are the back bone of their operation whilst summer grazing is provided by the One Island Lake Community Pasture and at Horst David's Intensive Managed Grazing Pastures.

## PRASPS Supports Peace Country Forage Variety Trials

At their March meeting the directors of the Peace River Agricultural Strategic Planning Society approved the necessary funding which will insure that the forage cultivar and variety testing program continues in the B.C. Peace for several more years.

Without the PRASPS involvement it is very doubtful if the forage varietal/cultivar program would have been able to continue at a level acceptable to local farmers and ranchers. The directors under the guidance of Chairman Doug Summer approved a proposal from the Peace River Forage Association of British Columbia which will see an umbrella partnership agreement on forage varietal/cultivar testing for 1994 involving the following groups: Ag Canada Beaverlodge Research Station, B.C. Ministry of Ag Fisheries and Food, B.C. Forage Council, the Peace River Forage Association of British Columbia and the Peace River Agricultural Strategic Planning Society. PRASPS will contribute 40% of total project budget of \$43,000.

The objectives of the project are:

- \* To evaluate winterhardiness/forage/seed production of new tetraploid Red Clover cultivars.
- \* To continue winterhardiness measurements of cultivars tested by: summarizing all available information; harvesting old and present forage testing sites to gather new yield and longevity data; establishing new forage tests of falcatta Alfalfa cultivars.
- \* To evaluate new annual legume and cereal species for use as winterfeed or to extend the grazing season.
- \* To publish the acquired information and present the data to local farmers and ranchers.

As many as one dozen sites maybe required in this comprehensive project. If you as a producer wish to become involved please contact Glenn Hogberg, Chairman of the Association R & D Committee 843-7653.

## Koppel and Schindler Receive Forage Awards

Awards recognizing top quality forage were presented at the Seventh Annual Quality Forage Seminar in Farmington by BCMAFF staff. Winner in the Grass-Legume Hay class was Arvo Koppel of Doe River. His hay had 70% TDN, 20.5% Protein and 23.2% Fibre. In the Grass-Legume Silage class Eric Schindler, owner of Hansel and Gretel Dairy at Tomslake was the winner. His silage had 70% TDN, 25.3% protein and 29.8% fibre. Ben Hansen of Taylor placed second in the Green Feed category. His oats greenfeed had a 63% TDN, 11.2% protein and 30.18% fibre. Bill Colwell of Sunset Prairie produced the best Barley Silage with 62% TDN, 11.47% protein and 34% fibre. Other winners were Legume Hay - Peace Vale Farm, Fort St. John, 68% TDN, 20.2% Protein, 25.2% Fibre; Grass Hay - Doug London 59% TDN, 9.7% Protein, 34.4% fibre; Cereal Silage & Green feed - Ron Enderlin (Greenfeed) 65% TDN, 13.8% protein, 28.4 Fibre.

The BCMAFF sponsors this competition in order to encourage livestock owners to feedtest their winter forage supplies. BCMAFF covers the cost of two feed sample tests per farm/ranch. 171 feed samples in the Peace Country were tested for the winter 93-94.

## EDITORIAL



\* The last four months have been busy ones for both the Research and Development Committee and the Directors of your Association. **The Evidence.** The last page of this newsletter which outlines coming events and programs that the Peace River Forage Association has been able to assist in getting underway.

Memberships for 1994 are now due and payable for those of you who wish to participate in the activities of the Association and are not yet paid up.

Memberships are \$30 and provide you with joint membership in both the B.C. Forage Council and the Peace River Forage Association of B.C. **Please make cheques payable to: Peace River Forage Association.**

\* The Directors are presently in the process of negotiating some **product discounts** for our members with two groups. **Bill Awmack, Dawson Seed Co. Ltd, Surrey, B.C.,** merchandisers of quality forage seed. **Rob Davidson, Beaverlodge Alberta,** field Representative for Shur-Gain Livestock feeds, Gallagher Electric Fencing Supplies and Morand/Cattle Bison Handling Facilities. We expect positive results on behalf of the membership in the near future.

\* Being the host group for the **Annual Meeting of the B.C. Forage Council in January 1995** represents both a big challenge and a great opportunity for our Association. Id you want to become involved in this exciting and interesting project there is plenty to do and you are welcome to contribute at whatever level you feel comfortable.

\* And last but not least. **Thank you to R.N.C. Sales Ltd., the John Deere dealership in Dawson Creek, for sponsoring this issue of Forage First.** R.N.C. Sales Ltd.with their sponsorship has made this possible to get important forage news out to both our members and other forage enthusiasts in the Peace Country.



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## INTENSIVE GRAZING AT PEMBINA COW-CALF PASTURE

### "60,000 pounds of beef on 290 acres"

When the Pembina Forage Association Cow/Calf Pasture project was initiated, the following goals were set:

1. To extend the grazing season to a minimum of 6 months;
2. To increase production to 2 acres or less per cow-calf pair for the entire grazing season;
3. To maintain and graze a minimum 25% legume stand;
4. And to demonstrate innovative ideas.

Goals 1 and 2 combine for an expected carrying capacity of 3.0 AUM/acre.

Rotational/intensive grazing principles were to be used on the pasture. A half section of grey-wooded soil was located, rented and seeded to forages in 1985. Fencing, x fencing, clearing/land development, corrals and water development were also required. The pasture was originally split into 14 paddocks according to land type and species of forage, hence the pastures are irregular in shape. In 1989, one of the larger paddocks was split to obtain more even grazing, creating a fifteenth paddock. In the last part of the 1986 grazing season, the first cattle came on pasture. The first full season of grazing occurred in 1987. The number of cow-calf pairs change each year, adjusting for weather and production levels.

**Grazing:** Dry and hot can describe the 1992 grazing season. The forages got off to a good start due to the snow melt, the last of the good moisture. There was only 6.77 inches of rain this season, half of the six year average; July had the highest amount of rain. Despite the dry conditions the 121 cow calf pairs managed to have a 117 grazing season (May 2- Sept. 14). The cattle had good quality forage until exit day. The 1992 season also came complete with snow on May 20 and August 21st.

Summary of the PFA Cow/Calf Pasture		
	1992	1987-92
# Cow-calf Pairs	121	137
# Grazing Days Cows	117	146
# Grazing Days Calves	117	128
Fortified Salt consume (lbs/pair/day)	0.097	0.062
Bovatec Salt consumed (lbs/pair/day)	0.043	0.056
Total Salt Consumed (lbs/pair/day)	0.140	0.118
Mineral consumed (lbs/pair/day)	0.058	0.048
Rainfall (inches)	6.77	12.21
Carrying Capacity (AUM/Acre)	1.60	2.22

Not all species are present in the same pasture, so depending on the location the key management species may be: Alfalfa, Meadow Bromegrass, Timothy, Creeping Red Fescue, Alsike Clover, Meadow Foxtail.



PFA's grazing philosophy is to have the cattle on the first grazing (spring/early summer) clip the top two to four inches of forage material and to graze the remaining material in subsequent grazing. The last grazing usually takes the grass to approximately the three inch level. **The objective of this philosophy is to keep the forages in a vegetative state so they will keep growing.** In 1992, as in 1991, the weather made this harder to do as the plants wanted to head out quickly. The alfalfa paddocks are an exception to this philosophy as they were grazed each time to the three to four inch level.

Rainfall (inches) by Month, 1988-1992 PFA Cow/Calf Pasture								
Year	Apr	May	June	July	Aug	Sept	Oct	Total
1987	Not Record by Month							12.60
1988		1.40	5.25	6.55	2.35	1.00		16.55
1989		2.20	2.90	2.95	2.85	1.55	1.20	13.65
1990		2.00	1.80	4.40	2.50	1.35		12.05
1991	.30	4.55	2.40	1.55	1.95	.070	.020	11.65
1992		.95	0.92	2.00	1.75	1.15		6.77
Average								12.21

Cattle spend an average of 2.4 days/paddock/grazing (except the two alfalfa paddocks which were grazed twice only, late June and early July and late July early August for a total of 17 days), with a range of 1 - 4 days/paddock/grazing. Paddocks had an average of 33.5 days of rest between grazing, with a range of 9-76 days.

The overall grazing capacity was down in 1992, 1.60 AUM/acre, as compared to the six year average, 2.22/ acre. This year some of the better producing paddocks were once again the alfalfa paddocks, the meadow brome grass paddocks and the creeping red fescue/timothy paddock. Another paddock that can be considered high producing is the meadow foxtail paddock. This is despite an overall carrying capacity of 1.39 AUM/acre. What is not accounted for is the fact that the cows spend an estimated two thirds of their time on the 15 acres of meadow foxtail in this 40 acre paddock. When considered, the carrying capacity for this 15 acre area increases to 2.48 AUM/acre.

Towards the end of the grazing season when the forages were poorer in quality it was harder to keep the cattle in the paddocks. If we were a couple of hours late in moving them they often moved themselves to a paddock they thought was greener. Though the internal fences were electrified, it was thought with the dry weather the cattle were not grounded when they touched the hot wire.

While grazing the alfalfa there were no incidents of bloat. The following bloat prevention practices were taken:

1. Feeding of Bovatec, as a bloat guard, in the salt at least one week prior to and during grazing of legumes (experimental)
2. Cattle entered with full stomachs. This was done by not fully utilizing the previously grazed paddock.
3. Cattle were not turned into the alfalfa until conditions were dry, ie.. morning dew was "burned off".

289 acres of the 320 acres are grazed. The remaining area is dedicated to working corrals, lanes to water, and water locations. The pasture use is measured in AUMs. A standard unit of grazing measure, the AUM is usually defined as the feed consumed by a 1000 pound cow with calf at foot each month. The Pembina FA AUM is a bigger one as the average cow weight on pasture has been 1,275 pounds while the average calf weight on pasture has been 393 pounds.

AUM's/acre on the average are as follows: 1989 - 2.86; 1988 - 2.69; 1990 - 2.05; 1991 - 1.69; 1992 - 1.60 for a five year average of 2.18 AUMs per acre.

Type of Forage Material	% Protein	Digestible Energy (Mcal/lb)
Meadow Foxtail -vegetative	11.8	1.23
Creeping Red Fescue - mature	8.5	1.23
Timothy - mature	5.7	1.19
Meadow Brome Grass -mature	6.9	1.18
Forage mixture- quality mixed	8.2	1.19

Forage and soil samples were taken on August 28 of some some paddocks. These soil analysis provide the basis for the fertilizer program for this next grazing season. Only the meadow foxtail, as it was more vegetative than the other forages, would meet the protein requirement of 9.2% protein (on a 100 percent dry matter basis) of an average milking cow 1150 - 1400 pounds three to

four months after calving. The meadow foxtail was more vegetative as it had been grazed five times by August 28, compared to one or three grazings of the other paddocks.

**Six year (1987 - 1992) average Operating Costs per Acre, per Cow-calf Pair at the PFA Cow Calf Pasture**

Operating Costs	Average	Per Acre	Per Cow-Calf
Fertilizer, soil test	\$ 7,273	\$ 25.08	\$ 53.08
Ear Tags	\$ 188	\$ 0.65	\$ 1.37
Veterinary	\$ 1,121	\$ 3.87	\$ 8.18
Breeding	\$ 1,690	\$ 5.83	\$ 12.34
Salt & Mineral	\$ 408	\$ 1.41	\$ 2.98
Bovatec Salt Mix	\$ 711	\$ 2.45	\$ 5.19
Implants	\$ 27	\$ 0.09	\$ 0.20
Preimmunizing Program	\$ 177	\$ 0.61	\$ 1.29
Other Expenses	\$ 1,539	\$ 5.31	\$ 11.23
Total Cash Costs	\$ 13,133	\$ 45.29	\$ 95.86
Labour	\$ 2,344	\$ 8.08	\$ 17.11
Total Operating Costs	\$ 15,477	\$ 53.37	\$ 112.97

Based on 290 grazing acres. Six year average number of cow-calf pairs, 137, for the entire grazing season of 146 days (4.87 months). Cost per AUM \$23.20. This reflects a higher actual cost than is actually charged to the participants who are PFA members.

**Fertilizer.** In 1992 only nitrogen fertilizer was applied to the pasture as soil testing in the fall of 1991 showed that there was sufficient phosphorus, potassium, and sulphur in the soil. The fertilizer (34-0-0) was applied using a pneumatic flow floater truck. It was applied in a split application on April 13 (followed by snow) and June 15 ( followed by 0.3 inches of rain on June 23). Rates varied from paddock to paddock depending on the soil test recommendations, the desired production and the cost. The overall fertilizer cost, based on 259 fertilizable acres, was \$18.90 per acres, not including application.

Fertilizer applications ranged from a low of 30 lbs on Alfalfa paddocks to a high of 110 lbs. 79 lbs/acre was the average on the 259 acres.

**Health** The health was good with mainly problems of cracked hooves and foot rot. One cow was sent home with a high fever. There were no deaths. Treatments were for 13 cases of footrot plus 2 cases of pink eye and 4 miscellaneous in cows. In calves treatments were: 1 pneumonia, 10 pinkeye, 7 miscellaneous.

**Bulls.** Two three year old Charolais bulls, originally purchased in 1990 were used for breeding. The bulls were pulled from the herd August 7 and sold. Upon pregnancy checking on exit day there were 7 open cows (5.8% of the herd) of which two had physical problems.

Summary of Calf Production (based on full weights), 1987 - 1992 PFA Cow/Calf Pasture							
Year	# Head	Grazing Season # of days	Entry Weight (lbs)	Exit Weight (lbs)	Gain (lbs)	ADG (lbs/day)	Gain (lbs/acre)
1987	127	142	243	595	352	2.48	154
1988	136	147	231	602	371	2.52	170
1989	146	135	246	556	310	2.30	157
1990	154	121	229	542	311	2.54	163
1991	139	107	231	517	284	2.65	135
1992	121	117	202	526	322	2.76	135
<b>Average</b>	<b>137</b>	<b>128</b>	<b>230</b>	<b>556</b>	<b>325</b>	<b>2.54</b>	<b>152</b>

Summary of Cow Production (based on full weights) 1987 - 1992 PFA Cow/Calf Pasture							
Year	# Head	Grazing Season # of days	Entry Weight (lbs)	Exit Weight (lbs)	Gain (lbs)	ADG (lbs/day)	Gain (lbs/acre)
1987	127	172	1146	1318	172	1.00	75
1988	136	183	1265	1291	26	0.14	12
1989	146	178	1251	1308	57	0.32	29
1990	152	121	1211	1355	138	1.14	72
1991	139	107	1247	1372	124	1.16	59
1992	121	117	1165	1363	196	1.68	82
<b>Average</b>	<b>137</b>	<b>146</b>	<b>1214</b>	<b>1335</b>	<b>119</b>	<b>0.91</b>	<b>55</b>

The Average Charge per Cow-calf Pair, 1987 - 1992 at the PFA Cow/Calf Pasture					
Year	Calf Gain	Monthly Charge	Breeding Fee	Pregnancy Test	Total
1987	0.00	54.80	10.00	1.50	66.30
1988	68.14	12.00	22.06	1.88	104.08
1989	56.75	14.00	11.23	1.75	83.73
1990	56.20	0.00	15.00	2.00	73.20
1991	51.24	0.00	15.00	2.25	68.49
1992	58.75	0.00	15.00	2.10	75.85
<b>Average</b>	<b>48.51</b>	<b>13.47</b>	<b>14.72</b>	<b>1.91</b>	<b>78.61</b>

In 1987 the grazing fee was \$10.00/animal unit month; in 1988 it was changed to \$0.20/lb of calf gain plus \$10/month/dry cow. Cost charged per aum based on 146 days ( 4.87 months) is \$16.14.

**Water.** Water was supplied by three dugouts. At the west dugout a solar pump moves water into a wooden reservoir. The water then gravitationally feeds to a stock tank with a float control. This year the reservoir had to be relined with a plastic tarp. The original tarp had been sun damaged and was leaking. Also the area around the stock tank cement pad was refilled as the cows had punched it out over the last two years. The west dugout was limed in May for algae control. Both the west and east dugout were treated for blue-green algae in late August with bluestone.

**Production.** As in 1991 the pasture did not meet either the goals of a 6 month grazing season or a carrying capacity of 3.0 AUM/acre. In 1992 there was only 117 days or 3.84 months of grazing. The grazing capacity was only 1.60 AUM/acre.

The calves gained well despite the dryer conditions. They had an average daily gain (ADG) of 2.64 lbs/day from May 20 to July 28, and 2.94 lbs/day from July 28 to September 14. Their overall ADG was 2.76 lbs. day, 0.22 lbs/ day higher than the six year average.



Total costs by Year, 1987 - 1992, for PFA Cow/Calf Pasture							
Operating Costs	1987	1988	1989	1990	1991	1992	Average
Fertilizer, soil test	\$8,043	\$7,791	\$6,590	\$7,367	\$8,680	\$5,164	\$7,273
Ear Tags	\$226	\$209	\$183	\$237	\$219	\$56	\$188
Veterinary	\$294	\$2,027	\$1,395	\$1,165	964	\$881	\$1,121
Breeding	\$1,200	\$3,486	\$2,080	\$893	\$1,780	\$702	\$1,690
Salt & Mineral	\$403	\$292	\$438	\$493	\$391	\$429	\$408
Bovatec Salt Mix	\$400	\$1,235	\$959	\$737	\$526	\$406	\$711
Implants	\$75	\$86	0	0	0	0	\$27
Preimmunizing Program	0	0	\$1,064	0	0	0	\$177
Other Expenses	\$40	\$2,132	\$1,355	\$1,775	\$2,259	\$1,670	\$1,539
<b>Total Cash Costs</b>	\$10,681	\$17,258	\$14,064	\$12,667	14819	\$9,308	\$13,134
Labour (\$7/hour)	\$2,400	\$2,562	\$2,513	\$2,541	\$2,268	\$1,778	\$2,343
<b>Total Operating Costs</b>	\$13,081	\$19,820	\$16,577	\$15,208	\$17,087	\$11,086	\$15,477
<b>Capital Costs</b> (9% Interest, 10 year Amortized) ) Fencing, Land Clearing, Corrals, Water							
Establishment	\$3,192	\$3,192	\$3,192	\$3,192	\$3,192	\$3,192	\$3,192
Capital Investment	\$7,047	\$7,098	\$7,355	\$7,355	\$7,355	\$7,355	\$7,261
Bulls	0	0	0	\$950	\$475	\$475	\$317
<b>Total Capital Costs</b>	\$10,239	\$10,290	\$10,547	\$11,497	\$11,022	\$11,022	\$10,770
Land Rental	\$4,000	\$4,000	\$4,000	\$5,200	\$5,200	\$5,200	\$4,600
<b>Total Costs</b>	\$27,320	\$34,110	\$31,124	\$31,905	\$33,309	\$27,308	\$30,846

*Editors Note: The information herein represents a summary of the 1992 annual reports of the Pembina Forage Association in the Westlock-Barrhead area North of Edmonton.*

#### **Directors 1994 Peace River Forage Association of British Columbia**

Steve Shipton	President	Box 158 Cecil Lake, VOC1GO	781-3476
Bruce Turner	Vice President	RR #2, Site 16, Comp2, Dawson Creek, V1G 4E8	782-4538
Bob Tubb	BCFCRep,	Box 302, Tomslake, VOC2LO	786-5634
Ernest Nimitz	Sec-Treasurer,	Box 908 Dawson Creek, V1G 1L6	843-7108
Glenn Hogberg	Director,	Progress, VOC2EO	843-7653
Walter Fritsche	Director,	Box 864, Dawson Creek, VOC1RO	782-5187
Keith Weaver	Director,	Tomslake, B.C., VOC2KO	

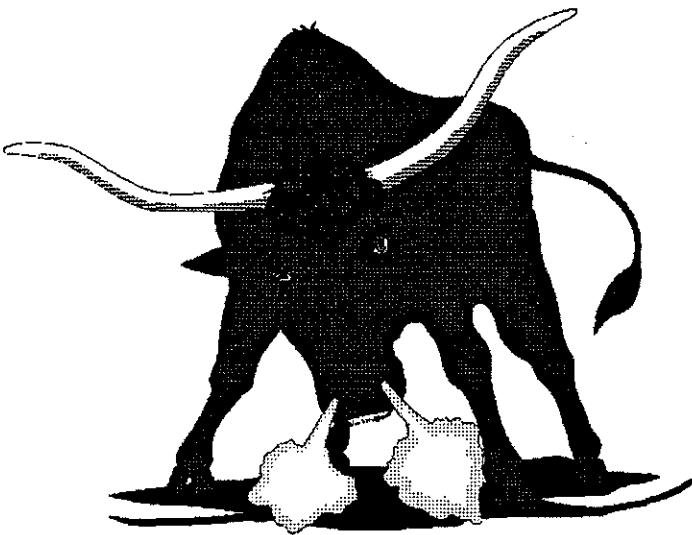
## Cattle, People, Fish. How Does It all Fit together?

"Cows and Fish - Conflict of cooperation", that's the title of a workshop recently organized by the Alberta Cattle Commission and Trout Unlimited Canada and held in Blairmore, Alberta. A crowd of 168 in attendance represented a healthy mix of ranchers and government range, wildlife, and environment types. Keith Carroll, owner of the Bear Mountain sheep Farm was one of those in attendance and he tells us what the speakers had to say:

**Chris Mills, Alberta Cattle Commission:** The Cattle Commission conducted a survey which identified riparian areas (those areas adjacent to bodies of water) as being the issue of greatest concern with respect to environmental impact of the beef industry.

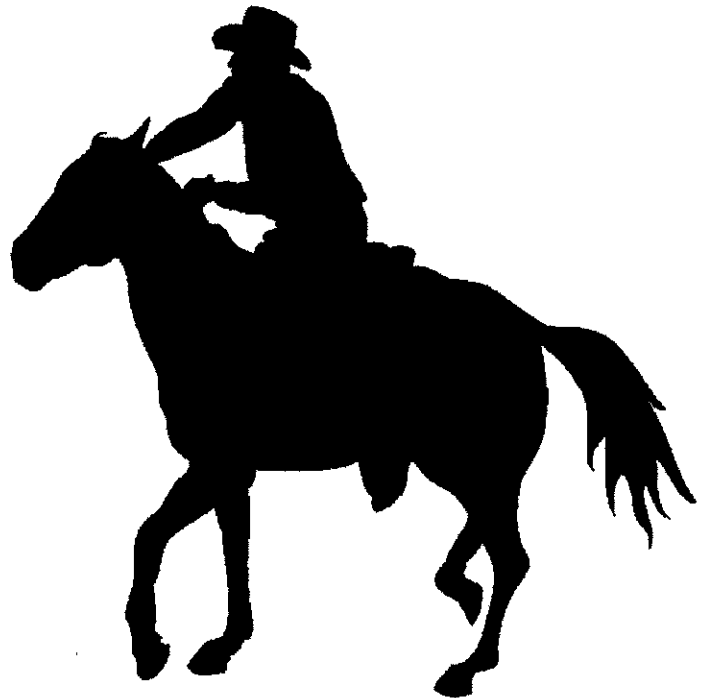
"We are not judged, in this day of 10 second TV clips, by what most of us do but by what the worst of us do".

Proactive is better than reactive. The person responsible for public relations with the cattle commission after visiting the Clayoquot area on vacation, came to the conclusion that the loggers are going to lose the argument there because they started too late after the pressure was on.



**Kevin van Tighem, Past President, Alberta Wilderness Association:** Everybodys a little panicky right now. Many people are genuinely afraid about the environment their children will inherit. Resource users are afraid about losing their livelihood and way of life.

"What you see lasts longer than what you read;" 50% of the Canadian population go fishing. It's not bumper stickers ( e.g. "Cows galore in '94") that are going to bring them outside, it's the quality of the streams they fish in. "Upland grasslands have generally been well managed, but riparian areas have not."



**Barry Adams, Range Management Specialist, Alberta Agriculture:** "Poor grazing management has resulted in conversion of some soils in southwestern Alberta from black to dark brown. We can use the same tools for managing riparian grazing that we use for managing grazing anywhere:

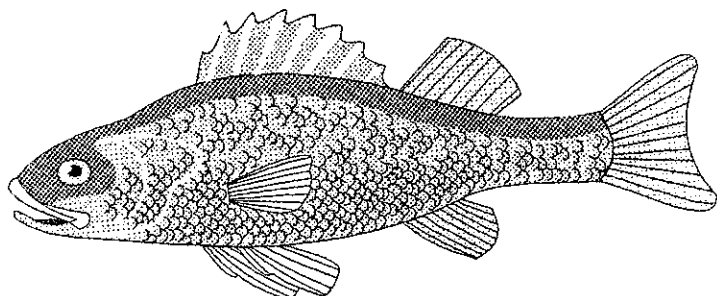
- regulating stock numbers
- regulating season of use
- distributing grazing
- providing rest

**Lorne Fitch, Alberta Environmental Protection:** When you double the velocity of a stream, you increase its energy for erosion and transport and deposition of sediment by 4 times. Velocity depends on volume of water and characteristics of the channel. For example, there's often erosion just downstream of a culvert because the bottom of the culvert is smoother than the bottom of the stream so water speeds up. Health vegetation is very important for binding soil and reducing water velocity. Incised channels are usually associated with removal or abuse of riparian vegetation. As pools and riffles get filled with erode soil you get a wide shallow channel, much less desirable as fish habitat.

Groundwater below and on both sides of streams acts as a reservoir, drawing water from and adding to streams. A good deep stream has a better ground water supply. This in turn can

result in more productive pasture in the riparian area.

**Bill Platts, Fisheries Consultant, Idaho:** Bill, the special guest speaker, commented on the mood of cooperation at the workshop. When wildlife people and ranchers get together south of the border, they're on opposite sides of the room, with a judge in between.



He presented several case studies where, following complaints that grazing was destroying a stream, improved grazing management resulted in conditions that satisfied the environmental group (sometimes they even helped pay for the improvements) as well as increasing profits for the rancher due to increased carrying capacity.

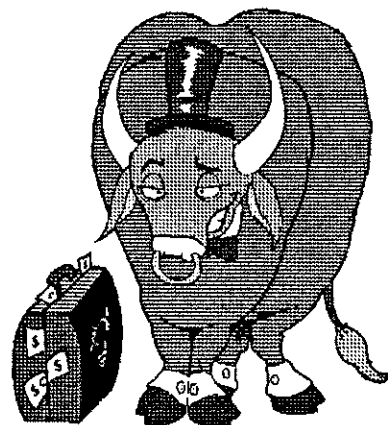
He avoided giving us a "cookbook" approach, emphasizing that each situation is different, and you have to work with the rancher's needs and abilities. He did suggest that most problems with grazing on riparian areas resulted from season - long continuous grazing. He was pretty cautious about intensive rotational grazing, on the other hand. He showed us one area where it was working, thanks to careful management, including daily checking, and a large reserve pasture where cattle could be dumped for a while, say during a drought when there was no regrowth. He warned against a system with a large number of paddocks, each with a bit of riparian and some upland. The riparian will still likely get overgrazed. The system that Bill seems to have recommended most often, at least in dry mountain valley areas, is a 3 pasture rest rotation system with any one pasture being grazed early one year, late the next year, and rested the following year. This system works well for preserving native grass. It doesn't work so well where your goal is to preserve bush cover next to the stream. Bush improves fish habitat by moderating water temperature. It also helps to maintain stability of the stream banks. A short period of annual use might be considered for situations ( such as many in the Peace) where you want to preserve bush along stream edges.

Bill was raised on a sheep ranch and while admitting that sheep can damage riparian areas, he said they are generally easier to manage on these areas because they don't like to get their feed wet, so are less likely to be crossing and recrossing streams than cattle. He was coauthored a publication on riparian management aimed at the men and women who move livestock and Keith is prepared to share this book with anyone who is interested.

## Beef Cattle Mineral Requirements (NRC) Are Important

With the spring and summer before us, the breeding and grazing season present some important challenges to Peace Country livestock producers.

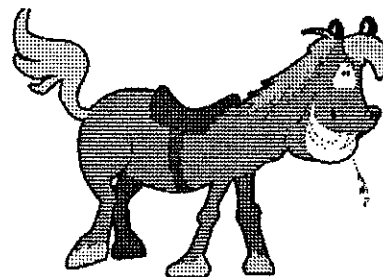
To develop the appropriate **Economic Aura** around your farm/ranch, the combination of your pastures and mineral supplements must totally provide what your beef cattle and other classes of livestock require both for their well being plus a good level of animal production.



To simply throw out a bag of some kind of livestock mineral and a block of salt now and then and hope for the best is not good enough; to provide no salt or mineral is worse, but I'll bet you know someone who treats their cattle one way or the other?

The National Research Council ( N.R.C.) requirements indicate that in the Peace Country livestock minerals are necessary as follows: **Macro Elements:** Calcium, Phosphorus, Magnesium, Potassium, Sodium (Salt as NaCl) **Trace Minerals:** Copper, Molybdenum, zinc, manganese, selenium, iodine, cobalt.

While a good grazing program involving palatable forage in front of your cattle for the next 150 days can provide a lot of the necessary minerals and vitamins for your herd, our soils are deficient in some important elements, hence some kind of mineral supplement is required by all livestock producers. For further and appropriate information in this regard contact either Jim Forbes/Tom Pittman BCMAFF or the field service representative of your feed company.





# Have You Considered "Range Cattle Supplement Crumbled" for your Livestock Mineral Program?



Loves Livestock Nutrition manufacture a variety of minerals for dairy cattle, sheep, horses and beef cattle.

Their minerals all come in crumble form and meet NRC requirements for vitamins, macro & micro elements.

According to the folks at Loves, mineral supplements fed in crumble form are very palatable. At Loves they have spent and continue to spend a lot of time with their mineral products to ensure that they are palatable to livestock. After all it doesn't matter how good the mineral analysis is if your cows or other livestock hate the taste and don't eat it!

Crumbled mineral format keeps individual minerals from separating and there is less abrasion, so Vitamin A and other important nutrients stand up better for a longer period of time. Carbohydrates are utilized to make the crumble. This process increases the palatability too.

Consumption of minerals in correct amounts is important. Good consumption of water and good consumption of feed and minerals go together hand and hand. Hence, the importance of having available lots of good quality water year around.

Loves make five mineral crumble supplements of interest to beef cattle owners: **2:1 Mineral** (if you are feeding grain) for winter use with vitamins; **Magnesium supplement** (for use if you have problems with grass tetany 60 days before calving); **Bova Mix Pasture supplement** (to increase summer weight gains of yearling grass cattle); **1:1 Mineral** for summer green grass period, without vitamins; **1:1 Mineral** with vitamins for winter use. All Love's Crumble Minerals are essentially salt free to help avoid abrasion which destroys valued nutrients.

To get what you pay for always know what you are buying. For instance phosphorus is expensive as are all the vitamins except vitamin D; whereas, other elemental components are cheap by comparison.

The makeup of the 1:1 winter mineral is: Calcium, Phosphorus, Magnesium, Sulfur, Zinc, Manganese, Copper, Iodine, Cobalt, Fluorine, Selenium, Vitamin A, Vitamin D3 and Vitamin E in amounts that meet nutritional requirements when fed in proper amounts.

The best type of salt to use with Love's Crumble Mineral is

coarse white #8. Regular salt is too fine to mix with Love's crumble. Extra cobalt/iodine is also a waste of money if you use Love's Crumble Mineral.

Two key mineral availability periods to the cow are 60 days before calving and post calving through breeding season, so special attention must be paid at these seasons to achieve satisfactory economic results in your herd.

Minerals should always be put out quite a distance from water for best results; otherwise, you may find your cattle playing with and wasting the mineral instead of eating it.

While cows should generally eat the two to three ounces daily required ( 60-90 grams), in some cases you may wish to add some salt to the mineral to get them to eat enough. Use of salt (or no salt) helps insure with careful monitoring daily ingestion of proper amounts. Actually, Loves have found that salt is best used to hold crumble mineral consumption down. They recommend 25% salt be added if you want to limit consumption of their mineral. Only 5% salt added to mineral is generally adequate to meet animals nutritional requirements. The best type of salt to use with Love's Crumble Mineral is coarse white #8. Regular salt is too fine to mix with Love's crumble. Extra cobalt/iodine is also a waste of money if you use Love's Crumble Mineral.

Minerals should always be put out quite a distance from water for best results; otherwise, you may find your cattle playing with and wasting the mineral instead of eating it.

A reduction in salt consumption appears to be the general outlook at Loves and you are likely to get the feeling after talking to them that your cattle are getting access to salt way beyond their actual nutritional requirements. One reason for this is that they believe most livestock drinking water may go a long way towards satisfying the cows daily requirement for salt. Salt blocks for winter are low on their priority list.

Regarding legume grazing, Loves offer this information:

- \* Get cattle on good trace mineral program at least one month before exposure to legumes.
- \* Put cattle into alfalfa pastures at time of day when legume leaves are dry
- \* Put cattle into alfalfa pastures when not exceptionally lush.
- \* Monitoring of pastures and livestock and regularly by the rancher are most important of all to prevent problems and achieve success.
- \* Whilst Bovatec is not licensed for bloat control there is some evidence researchwise that the chemicals in Bovatec aide in the digestive process of legumes.

For further information contact:

Mike Love or Dennis McKerracher  
1-800-661-8455 or FAX: 403-640-4680

## Range Facts

"CrownLands provide farmers and ranchers with 114,000 AUMS grazing"

### Dawson Creek Forest District

The Dawson Creek Forest District is located on the south side of the Upper Peace River Valley and comprises 3.6 million hectares. Elevation ranges from 1500' A.S.L. on the Peace River flats to over 6000' A.S.L. on some of the plateau's. The area has a northern continental climate characterized by long cold winters and short warm summers with extreme monthly fluctuations in both moisture conditions and temperatures. The average annual precipitation during the growing season ( May-Sept)is 280 mm. The mean temperature during the growing season is 12.5°C.

In the Dawson Creek Forest District there are approximately 60,000 AUM's of grazing allocated. Grazing tenures are administered under grazing permits, grazing licences, and grazing leases held by individuals and grazing licences held by each of the seven Community Pastures. In 1992, 54% of the AUM's in the district were in the Community Pastures and the remaining grazing was on individual tenures.

Approximately 67% of the grazing in the Dawson Creek Forest District is on native range which is mainly deciduous and transitional forest types and the other 33% is on tame pasture. The total area of tame grass is approximately 7,800 hectares and is mainly located within the Community Pastures. All this tame grass is being rejuvenated on a maximum 10 year cycle. The grazing season on native range usually runs from June 1 to mid- September. The use of tame grass extends the grazing season until the end of October in some years.

One of the responsibilities of the Ministry of Forest (Range) is to ensure "conservative use" of the range resource and to facilitate integrated resource use on range tenures. Each Community Pasture is covered by a coordinated Resource Manage Plan ( C.R.M.P.) These plans are an attempt to coordinate and harmonize the many different uses begin made of the area covered by the grazing tenures. Meetings are held annually to update these plans. Individual tenures are covered by a signed grazing management plan which outlines the conditions of use and integrates grazing with other uses being made of the tenure area. Beef cattle operations using crown range are predominatly cow/calf with a few cow/yearling and one or two straight yearling. In addition there are 9 or 10 tenures issued for grazing horses on Crown Range. Grazing tneures are distributed throughout the Forest District.

The cost of grazing on crown land is determined by a formula based on cattle prices. In 1992 the cost was \$1.58/AUM. Recently announced fee increases will amount to approximately \$1.00/AUM over the next 5 years based on present cattle prices. In addition to paying for the forage used, all tenure holders are also required to fence to control stock on the tenure area and to provide adquate water. In the Community Pastures users must also rejuvenate tame grass at an annual cost of \$5.00 - \$8.00/AUM derived from the tame grass.



Grazing Tenures	# of tenures	# users	# head	% of total # of head	# AUM	% of total # AUM
Bear Mountain Assoc.	1	22	1397	8	5422	9
Farrell Creek Assoc.	1	7	653	4	2519	4
Groundbirch Assoc.	1	22	1965	11	8352	14
One Island Assoc.	1	8	545	3	2184	4
Sunset Assoc.	1	38	3,114	18	11,453	19
Lone Prairie Assoc.	1	10	443	3	1879	3
<b>Total for Assoc.</b>	<b>6</b>	<b>107</b>	<b>8117</b>	<b>46</b>	<b>31815</b>	<b>54</b>
Other Permits & Licences	131	131	7392	42	23017	39
Grazing Leases	27	27	2143	12	4430	7
<b>Totals</b>	<b>164</b>	<b>265</b>	<b>17652</b>		<b>59262</b>	

## Fort St. John Forest District

The Fort St. John Forest District covers about 4.4 million hectares, 90% of which is Crown. The area has a continental climate, with long, cold winters and short, warm summers. Annual precipitation is 400 - 450 mm. The effective growing season varies from less than 30 days in the north and at high elevations, to about 110 days near Fort St. John.

The majority of grazing (75%) takes place on native range including open range, deciduous and transitional forest areas. The remaining 25% occurs on the 6500 ha of tame or developed pasture, almost all of which is located on the three community pastures and 12 Upper Cache range tenures.

Crown grazing is commonly available from June 1 to September 30 depending on location, forage type and weather. Tame pasture generally allows an additional 1 - 4 weeks of grazing into October.

The amount of forage available on Crown Range throughout the entire district, for both domestic and wildlife, is estimated at 300,000 A.U.M.'s. Approximately 117,000 A.U.M.'s are required for wildlife. With domestic use at 54,000 A.U.M.'s there may be an additional 129,000 A.U.M.'s available for future allocation.

Prescribed spring burning continues to be an important range enhancement tool in the Fort St. John District with an average of 5,000 - 7,000 ha burned annually. Ongoing renovation of 5 - 10% (300 - 600ha) of tame pasture hectareage also takes place to maintain and improve carrying capacity.

One of the main objectives of the Range program is to ensure "proper" use of the Range resource. This involves maintaining or improving range conditions in all areas and ensuring that current/expanded use is integrated with all other resources. The Fort St. John District Forest Land Management Planning (F.L.M.P.) process ensures Integrated Resource Planning takes place. Coordinated Resource Management Plans (C.R.M.P.'s) are also used as a communication forum for Resource Managers and users to discuss their problems or concerns and resolve issues as they relate to the Range resource. These C.R.M.P.'s are also used as a communication forum for Resource Managers and users to discuss their problems or concerns and resolve issues as they relate to the Range resource. These C.R.M.P.'s (6) include the three community pastures as well as Upper Cache, Upper Halfway, and Pink Mountain/Cypress Livestock Association areas. The existing C.R.M.P.'s cover 75% of tenures as follows: In addition, tenure areas are covered by signed Grazing Management Plans that outline the overall improvement/maintenance, integration and range management practices/conditions required to ensure proper range use.

Beef operations are almost exclusively cow-calf. Many of these are located between the Halfway River and Alaska Highway. A few tenures and all community pastures are located in the farm belt. A significant number of tenures and all community pastures are located in the farm belt. A significant number of tenures are also located along the Peace Rivers. Six large Guide-Outfitter areas are located in the western mountain/foothill area, all of

which have horses under tenure.

A.C.R.M.P.'s:	# Operators	# Cattle	Tame Pasture (ha)
1. Community Pastures			
Beatton-Doig	11	1363	1600
Cecil Lake	10	343	1334
Umbach	10	219	586
<b>Totals</b>	<b>31</b>	<b>2216</b>	<b>3520</b>
2. Non Community Pastures			
Upper Cache	20	5540	2830
Upper Halfway	18	1994	50
Pink Mtn./Cypress	14	939	50
<b>Totals</b>	<b>52</b>	<b>8473</b>	<b>2930</b>
B. Non Affiliated	27	3705	50
<b>Grand Totals</b>	<b>110</b>	<b>14374</b>	<b>6500</b>

Three types of tenures are administered including Grazing Licences and Grazing Permits under the Range Act and Grazing Leases under the Land Act as follows:

Type	# Tenures	A.U.M.'s Cattle #	Cattle #	Horses #
Grazing Licences	46	30252	8853	466
Grazing Permits	64	18011	4780	546
<b>F.S. Total</b>	<b>110</b>	<b>48263</b>	<b>13633</b>	<b>1012</b>
Grazing Leases	19	5183	1739	73
<b>Total</b>	<b>129</b>	<b>53446</b>	<b>15372</b>	<b>1085</b>

The average tenure in the District covers 128 head of livestock (414 A.U.M.'s) An A.U.M. or Animal Unit Month is the amount of forage required by a 450 kg cow, with or without a calf, for the period of one month. The smallest tenure covers six A.U.M.'s ( 12 horses for two weeks) and the largest includes 5969 A.U.M.'s. The largest single ranch operation grazes 2314 head ( 4538 A.U.M.'s) The cost of grazing (1991) is \$1.43 per A.U.M., or \$4.50 - 6.00 per animal, per season.

(Information provided by Keith Carroll and Gerry Gleeson, and based on 1992 data.)





## Coming Programs and Events

Watch for the exact dates on the programs and events which you are interested in. Contact the Forage Association Director nearest you for Further Information:

**May 1994: No Til Forage Field Days in North Peace and South Peace.** Four locations, 15 acres of forage each featuring John Deere and Hay Buster No Til Drills. Cooperators: BCMAFF, Agribusiness, Peace River Forage Association.

**May 1994: Shiptons Grazing Comparison begins at Cecil Lake.** Two 320 acre areas are involved: conventional continuous grazing versus Intensive Managed Rotational Grazing with 12 pastures.

**May 1994: Long Term Forage Productivity Benchmarks Project** begins at 4 locations. More locations are required for this summer. Contact: David Klassen, Centre for Agricultural Diversification, if you are interested 782-7502

**May - June 1994: Annual Summer Grazing and Haying Tour.** To be held in the North Peace area this summer beginning in Cecil Lake and carrying on into Rose Prairie/Montney areas. We hope to have the PR Regional Cattlemen's as a cosponsor of this event. Likely date is Saturday June 25.

**June 1994: Farm Forage Facts:** Fieldwork begins on this important project at the level to which we can attract adequate funding to cover the costs.

**June 1994: Annual Summer Grazing & Haying Tour** To be held in the North Peace area this summer beginning in Cecil Lake and carrying on into Rose Prairie/Montney areas. We hope to have the PR Regional Cattlemen's Association as a cosponsor of this event. Likely date is Saturday June 25, 1994.

**July 1994: Silage Bagging Field Day with Tubes of Chopped and Big Round Bales at Tomslake.** When the Silage is ready to cut, likely the first part of July, this demo will be held. Contact Bob Tubb 786-5634 or Ernie Pilz 786-5984. Agri Pac Equipment by Alberta Ag Industries Ltd. Westlock will be demonstrated.

**November 1994: Seminar on Holistic Resource Management.** One day seminar First week in November, location yet to be determined. A peek at Holistic Management of Resources will give graziers, cattlemen, grain-oilseed-forage seed farmers and other farm groups an opportunity to learn about the holistic process and to find out how this approach to Farm Business Management may benefit their own farm/ranch. Funded by: P.R.A.S.P.S., BCMAFF, Agribusiness and other local groups.

**December 1994: 3rd Annual Meeting Peace River Forage Association.** Date and location to be determined though it will be very early in the month.

**January 1995: B.C. Forage Council AGM Seminar and Trade Fair - January 26, 27 28.** George Dawson Inn, Dawson Creek. This important meeting is being hosted by the Peace River Forage Association of B.C. Whilst the selection and obtaining of good speakers is well underway for the Forage Quality Seminar we still need a lot of help with the Trade Fair and the Host families. Let us know if you are interested in helping out.