Future of Rangelands in Canada

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An outsider looking at agriculture in North America would probably notice that pasture, forage and rangelands have not been in the limelight. The glamour crops have been the cereals and the oilseeds. But I think we are about to witness a major change. I think forages, and especially the grasses and clovers, are going to come to front and center stage over the next 20 years here in North America.

What leads me to make this prediction? Basically, the increased demand for food, and in particular, the growing demand for beef. The beef industry in Canada predicts that demand will increase by 38% between now and 1980. That's only 6 years from now. And that increase will come on top of the absolutely huge increase in beef production that has taken place over the past 10 years.

There are basically two ways to produce beef in Canada. We can either produce it completely on grasses and forage, or finish heifers and steers in feedlots using grain. During the past 10 years, the Canadian beef industry has emphasized grain-fed beef. I think a good deal of the expansion for the future will come from grass-fed beef. In any case, we are going to have more cattle on pasture and grass.

First of all, it is obvious that all of our beef starts on grass or rangeland. There is an expression in our beef industry that says every steak starts out as a cow and a calf on pasture. Whether or not our future beef production comes from grain-feeding feedlots, we will still increase the number of feeder cattle produced on range or grassland.

Secondly, more of our beef is going to come from beef animals, as opposed to culls from dairy herds. Our national dairy herd has been shrinking for many years, and so has the dairy herd in the United States. The slack in beef production has had to be taken up by beef animals, and those animals start out on rangeland and pasture.

Many people in our beef industry seem to think that most of our beef will continue to be fed out on grain and in feedlots. I'm not so sure about that forecast. Anyone who operates a feedlot in North America will tell you that the price of feed grains has moved so high that grain-fed beef is becoming very expensive to produce. But the demand for beef is continuing to increase. I think we are at the price level today where grass-fed beef can compete, right here in North America, with grain-fed beef.

Our studies in Canada show that we can produce top-quality beef on grass. The industry seems to think that only grain-fed beef will qualify for the top grades. But research shows otherwise. We have found that a cow, coming off grass, can grade right in our top-quality bracket. We have also found that we can breed a heifer, have her drop a calf, then feed that cow up to beef standards and get an A-quality carcass.

And we can do that on grasses and forages, not grain.

The growing demand for beef, and the rising prices and demand for feed grains, are putting grasses and forages back into the picture. And that, in terms of Canadian potential, is good news. We have more marginal crop land than almost any other nation in the world. It's marginal land if you are talking about cash crops, but much of it is top-notch grass, forage, and pasture land. There is a tremendous belt of this type of land in eastern Canada, stretching from the clay belt in northern Ontario, past the Ottawa Valley, and right through to Nova Scotia. There is another huge tract of this top-notch forage and pasture land in our Peace River district, and it stretches north in the Slave River lowlands.

You are the experts in grasses, forages, and pasture. In the past, you have shown Canadian farmers how to manage rangeland to increase the production of beef per acre by six times. You have developed the new varieties and the feed rations for beef cattle. I predict that, over the next 10 years and beyond, the results of your work are going to be applied to beef production as never before, and that you will be challenged to develop beef production systems based entirely on grass, hay, and forage. Corn silage is really only the beginning of this trend. I think it will broaden and grow to include many more types of forages, silages, and haylages.

The scientists at our federal research stations at Lethbridge, Swift Current, Manyberries, and Melfort in western Canada have done a great deal of work which is contributing to increased beef production on forages.

The most recent work at Lethbridge indicates that we can increase beef production by six times, simply by seeding our native rangeland to Russian wildrye and managing it properly. There are about 40 million acres of native rangeland in western Canada, and about a third of it could be seeded to Russian wildrye. The two varieties they recommend are Mayak and Sawki.

An economist looked into the research and figured that it pays a rancher to seed native range to Russian wildrye whenever the price of calves goes over 30 cents a pound. That work was done a few years ago so you might want to add a

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few cents — perhaps bring it up to 35 cents a pound. But today's calf prices are up around 60 cents a pound, so it certainly pays a rancher to seed native rangeland down to Russian wildrye, or even the Parkway or Summit varieties of crested wheatgrass. If calf prices go any higher, our ranchers could increase production even further by using fertilizer, but our research shows that we have to use a lot — about 200 pounds of nitrogen per acre. At today's prices for feeder calves, and at today's fertilizer prices, it's not a paying proposition. But the point is that we know we can increase our beef production by a hefty amount on the land we are already grazing in western Canada.

Shifting over to eastern Canada, our research scientists see a very definite potential to increase beef production. We could double the number of beef cattle in eastern Canada, and that would only bring us back to the level we were at 50 years ago in terms of total forage-eating animals. Add to that the fact that we now know how to double forage production per acre, and you can double that beef production figure again.

We have enough potato waste and cull potatoes to feed out 50,000 cattle in feedlots. None of that is being used for beef today. We have another 10,000 beef cattle that could be fed out on pea vines that are left in the field after the crop is harvested for processing.

The Maritimes has ideal weather for cow-calf operators, with plenty of rainfall, and right through the entire season. Summer droughts are almost unheard of in the Maritimes, so pasture is lush right through the entire grazing season. Add to that the fact that we only need about 2 or 3 acres per cow unit, compared to 25 and 30 acres per cow unit required in the west, and the fact that there is plenty of land available at \$100 an acre or less — roughly the same price as in western Canada — and you begin to glimpse the potential that hasn't been scratched in the east.

We can't over-winter cattle on rangeland in the east, but we do know that we can put up plenty of grass silage on a 30 to 35% dry matter basis. The best grass is timothy, and a lot of work has already been done with the crop for the dairy industry that can be applied directly to grass silage for beef herds. Our scientists have developed three outstanding varieties — Bounty, Champ, and Climax. We have another source of winter feed in straw, which can make up 50% of a cow's winter ration.

In Ontario, farmers are seeding down marginal or rough land with birdsfoot trefoil, and find that it is an excellent forage once it is established because it can keep on producing for years and years without having to be ripped up again and reseeded.

I don't think we should be ruling out the future for grain-fed beef, even though I happen to believe that we have been overemphasizing feed grains when it comes to producing more beef. The feedlot industry, especially the one that has developed in western Canada, is probably here to stay. And the Federal government is developing a new national feed grains policy to help make sure that Canadian agriculture can take full advantage of the growing market for grainfed meats.

The Federal government has taken a number of other positive steps to encourage beef production in Canada. I have already mentioned the research into pasture and range management, and the development of new grasses and forage varieties. For the past 3 years, the Federal government has encouraged an increase in forage production across the Prairies by offering a \$10-an-acre subsidy to farmers who divert land

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from grain or special crops into grasses and forages. We have spent more than \$41,800,000 on the program, and about 4,400,000 acres have been diverted into grass or forage production.

A growing percentage of our calves are the product of artificial insemination, and have at least some blood from exotic breeds in their veins. Both trends are the result of Federal government research and services to the industry. Much of the pioneering work on freezing semen was done by Federal government scientists. The Federal government set up, and operates, the maximum quarantine stations which enable our breeders to introduce exotic cattle. Since the program started in 1966, we have imported 3,873 head of cattle. The import program is so popular that we have more than 3,000 applications to bring in more than 9,000 head of cattle this year. The quarantine stations can only handle 960 head.

A great deal of research is underway across Canada to determine exactly what merits and demerits each of the exotic breeds has to offer, and we are also testing some of the more popular crossbreeds. The Federal government also operates joint Federal-provincial Record of Performance testing programs, has brought in a new beef grading system, which we think is the best in the world, and has introduced a beef carcass appraisal program so producers can get results on their animals right through to the cutting floor of the packinghouse.

Looking to the future, we have plans for new policies and programs that are all aimed at further expansion of the beef industry. We fully intend to maintain our high health standards, we are working on a Federal-provincial livestock insurance program, we are developing price and income stabilization programs, we will be introducing legislation to improve the transportation of live cattle and to cut our losses in transit, and we are increasing our research and promotion work in market development.

In summary, we in Canada see a bright future ahead for an expanding beef industry. We have taken steps to support the industry in its efforts to step up production to serve that growing market, and we will continue to develop and refine our policies and programs so we can do an even better job in the future. As Minister of Agriculture, I believe we have a very vigorous, aggressive and sound beef industry in Canada, and I have a lot of faith in our ability to increase production and win markets with our top-quality beef. I think we produce the best beef in the world, and so far I haven't tasted beef from any other corner of the world that would make me change my mind.

That, in turn, is going to increase the importance of our forage, pasture and rangeland. As members of this society, you are going to find that your services will be very much in demand in the years immediately ahead.