

courage and vision. Though they did their best to protect their herds against prowling bands of Indians, cattle thieves and wild animals, at times they suffered great losses. But the pasture was good and they produced large quantities of beef.

Conditions have greatly changed since those days. There is no longer the open range with running streams and natural watering places. Ranching has lost much of its glamour and its romance. Grain farmers have come in to settle on the best areas, and the cattlemen have been forced back into territory where grass is not so plentiful and water cannot be easily found. Why is water scarce there? Largely because the streams, creeks and sloughs have dried up. Due to the sunshine and Chinook winds, the streams and lakes have been losing an average of thirty inches off their surface during a season by evaporation. Furthermore, the forests on the eastern slope of the Rockies are being destroyed. Mr. Robson Black, President of the Canadian Forestry Association, has this to say:

The east slope watershed forest of the Rockies is the most important single strip of forest treasure in the whole dominion. And the reason is that it governs the flow of virtually every river that waters the western plains . . . The dominion Government's record for the ten years 1930 to 1940 show an average debit of 30,000 acres of annual fire damage.

One consequence of this tremendous loss is that the forest covering is rapidly disappearing, and with it the valuable water supply for the Prairie provinces. The Dominion government has taken steps to save those forests, and it is to be hoped that in the near future the streams there will be gradually increasing instead of decreasing as in the past.

In the south of the two provinces I have mentioned there are about 30,000,000 acres of rough and hilly land, which is producing some cattle but could be made to produce many more. About 15,000,000 acres have been classified as unfit for cultivation, and about another 16,000,000 acres as marginal. In this area the rainfall is very light, averaging about 11.6 inches in a year. It has been as low as six inches, and in one year it was as high as twenty-five inches. The water problem is, therefore, a very serious one, because cattle must be watered within a short distance of where they are grazing; if they have to go more than a mile and a half they will not gain satisfactorily, and the loss to the cattle producers will be very substantial.

The cattlemen have met with other disasters. They find lately that costs are going up,—costs of lumber, labour, posts, wire and things of that kind. They have sustained heavy

losses from such pests as the warble fly; and from severe winters, such as the one we are going through at the present time.

Hon. Mr. HORNER: Would the honourable senator mind telling us what was the result in the year they engaged the rainmaker at Medicine Hat?

Hon. Mr. GERSHAW: I well remember that year. It was a great year for the people of Medicine Hat. They gave this gentleman a big banquet to start with, and he went out a few miles and erected a tower. At this banquet he disagreed entirely with the weather people in Ottawa and Washington. He said he could make the heavens rain; he had done it before and he could do it again. However, things did not work out according to his prediction, and he explained that the clouds which were flying by were all "empties."

Hon. Mr. QUINN: You gave him the wrong stuff at the banquet.

Hon. Mr. HORNER: How much did you pay him?

Hon. Mr. GERSHAW: He wanted \$8,000, but he let us off with \$4,000. We got off fairly easy.

Something has been done by the government. Right in the heart of that grass area, at Manyberries, Alberta, they have built an experimental ranching station. It was established when the late Mr. Motherwell was Minister of Agriculture, and it has done good work. It has carried out experiments regarding the best ranching practices, the carrying capacity of land, and the nutritional value of various grasses; indeed it has investigated all branches of ranching practice. Great work has also been done under the Prairie Farm Rehabilitation Act, which was begun by Mr. Bennett and expanded by the ministers who followed him. They have constructed thousands of dug-outs, of stock-watering reservoirs, of small irrigation schemes to prevent the water from flowing on, unused, to the Hudson Bay and the Arctic Ocean. What is needed and urgently needed at the present time is that this work be continued, that more reservoirs and irrigation projects be completed—not only the small ones but the large ones as well.

Cattle can be marketed as feeders or they can be finished. The marketing of cattle as feeders has not been very profitable. No longer can cattle be sent to the United States to be finished on the corn and other products there; and the Eastern feed lots are so far away that it is much better for them to be finished at home. Where there is irrigation the feed can be produced to fatten these cattle, so that they bring top price, and where large