

This year, in a general way, the crops in the west were good. Approximately 500,000,000 bushels of wheat will be harvested. The newspapers say that the farm income is at a fairly satisfactory level. Even this year, however, some of the land was so dry that the seed did not germinate. In some places frail little plants came up but they never developed and the crop was not worth cutting. In other places the farmers got only two or three bushels per acre where they should have got 15 or 20.

I attended a meeting of some 200 cattlemen and ranchers, and one after another said there was not enough grass on his ranch to feed his cattle, that he would have to get help from the Government to ship the breeding cattle north where there was pasture, and he would have to sell off his dry stock and thus deplete his herds.

This is not a new experience in the part of the country where I have lived so long. Away back in 1857, Captain Palliser was commissioned by the British Government to explore the land between the South Saskatchewan River and the international boundary line. He made a report in which he outlined an area triangular in shape consisting of 50 million acres of land, which he called the great central desert, and he said that it was not fit for agriculture. Since then, in every ten-year period there have been perhaps only two or three paying crops in a small part of that area. In other years one might almost say it was a "dust bowl," because black clouds of dust blew over the area, there was an absence of the subsoil mixture, and the rainfall did not come. Warnings were given of this.

Who were the first people in the territory? We do not know anything about the mound-builders, but we assume that in those days long gone by the Indians came from the heart of Asia, crossed the Bering Strait, came along the old North Trail, along the foothills of the Rockies and wandered over that country for 20 or 30 thousand years.

About 200 years ago, when explorers and Christian missionaries and early settlers went into that land they were warned of the conditions. The Indians told them that in many years the prairie burned up so that, although there was open range, the buffalo were forced by hunger to leave their feeding grounds, and the Indians had to follow them or die.

Irrigation will be a very great blessing in some of those districts. It is not a new device for bringing productivity to the land. There are pictures of Egypt 2,000 years before the time of Christ, portraying the people as they bailed water out of the river Nile to put on the land. The Greeks and the Romans in the heyday of their greatness had irrigation

schemes. Japan, North Africa and Australia have had their irrigation schemes. China has 90 million acres under irrigation; India and Pakistan 60 million, and the United States 26 million. In Canada we have about one million acres being irrigated, but we could irrigate another one and a half million.

Where does the water come from? About 10 per cent of it comes from the spring runoff, that is, the melting of the ice and snow. About 90 per cent comes from the streams flowing down the eastern slopes of the Rocky Mountains. It is important for us to take notice of that situation. Trees play a vital role in the holding of water. They shade the land, the leaves and the grass form a blanket over the soil so that the water is retained, and the moisture seeps down slowly and keeps up the water level on the adjacent land. Unfortunately, if the trees are depleted in number, if the forests are cut down, the water cascades down the hills and runs off into Hudson Bay without doing any good.

Of course, much has been done by way of irrigation, but it has cost money. Since 1930 the dominion Government has spent \$30 million on irrigation, the province of Alberta has spent \$29 million, and the farmers themselves have spent about \$15 million, for a total of approximately \$75 million. The expenditure has brought results, because today there is a demand for irrigated land, a demand which exceeds the supply available.

Those in the best position to know are convinced that irrigation pays. The projects which pay best are the small ones close to the source of supply of water. The most expensive projects are the large ones which at times have been undertaken for political purposes and without the advice of technical engineers who make this their particular business.

A dried-out farmer worries his head off every year, wondering where he will get enough crop to carry him through. On the other hand, the irrigated farmer knows he will have his garden, his vegetables, flowers, small fruits, poultry and other meat supplies for his family. Therefore, irrigation brings help to many people.

The name Gault is one familiar to Canadian people. One of the Gaults was finance minister in Sir John A. Macdonald's cabinet. The Gaults have always been an enterprising family. The very first irrigation scheme was constructed by one of them in 1880, because of the depression and drought. He irrigated 20,000 acres of land in the foothills.

Millions of dollars have been spent on irrigation by the C.P.R. In 1917, the Canada Land and Irrigation Company, with British capital, irrigated large areas. There is the