

Dr. HILL: That is right.

Senator TAYLOR: Is that what is commonly known as the Devil's Paint Brush?

Dr. HILL: I think that would be it. There is another one called King Devil. There is the Orange Hawkweed and the Devil's Paint Brush, and so on.

The CHAIRMAN: Would 2-4 D kill these weeds?

Dr. HILL: No. It would kill off daisies but hawkweeds are more resistant. All these weeds vary in susceptibility to chemicals. Mustard is the most susceptible of all weeds to 2-4 D. It works wonderfully for mustard and it will control many of these other weeds but, generally speaking, we need more research on weeds.

My comment as to irrigation will be very brief. I have reviewed the presentations which have been made by Mr. McKenzie of the P.F.R.A., and also commented on by George Spence of the International Joint Commission. I only want to say that the Department of Agriculture is interested in irrigation development, and through our soil surveys and various other agencies we are prepared to advise on the development of irrigation.

Irrigation is obviously an integral part of the development of western Canada and should be proceeded with in an orderly manner. We are now able to tell from past experience and the knowledge of our soil surveyors whether or not lands are suitable for irrigation. This information is being used at the present time. If it is always used it will forestall some sad experiences which have occurred in the past. In addition to that we know that crops can be grown successfully under irrigation. The problem is actually an over-production, almost, at the present time. For example, we produce in Alberta 40,000 acres of sugar beets, which supply about 10 per cent of Canada's requirements for sugar. We could double the acreage overnight, and the farmers would be happy to do so, if the sugar could be sold economically in Canada. This means that as lands are further developed for irrigation, one of the most serious problems that will have to be met will be to find suitable crops to grow on these lands. It has been amply proven that successful irrigation agriculture cannot be established by raising wheat. It will not work. One of the most promising uses, as I see it for future irrigation development in western Canada will probably be with respect to the production of grass land, pasture, and hay and livestock production. We do not have the surplus of beef in Canada that we have in wheat and other crops. I would only urge a word of warning that this matter be given very serious consideration. What are we going to grow on these lands when we get them developed? Our experience with irrigation—and I grew up on an irrigated farm—has been that without specialized crops like sugar beets and canning crops, high-value crops, an irrigation system will soon become uneconomic because of weed control difficulties, high cost of water and various other factors. I think this needs very serious consideration as Canada proceeds with irrigation, but I am all for orderly expansion in irrigation.

Senator McGRAND: Is there a possibility that the sugar beet will replace the sugar cane as a source of sugar?

Dr. HILL: Well, that is a question that perhaps I should not answer. I believe we could produce in Canada all the sugar we require, if it were in the wisdom of international trade and tariff structure, and so on, to do so. I am convinced we could quite readily produce our requirements at home.