

Dr. RIPLEY: Well of course the range pastures in western Canada are those areas where it requires 20 to 30 acres to carry one animal. Those of you who are from the west will be familiar with the ranges there. However, I cannot give you the exact figures of returns per acre which on a set up like that are very low.

Senator HAWKINS: That's what I was after.

Dr. RIPLEY: In eastern Canada our improved pastures can carry almost an animal to the acre, and the returns are pretty good from those pastures. You have to take into account of course stable feeding if you do stable feeding, but if you sell the beef cattle right off the improved pastures I think that you can net \$20 to \$30 an acre from those improved pastures.

Senator HAWKINS: Annually?

Dr. RIPLEY: Yes, annually.

Senator HAWKINS: That is the information that I wanted. Thank you.

Senator McDONALD: Could you increase the number of cattle on those 20 to 30 acres in western Canada pastures if you were to use fertilizers?

Dr. RIPLEY: I do not think so. I do not think you can do much about those range lands that require 30 acres per animal. It is limited by moisture; that is the area where there is only six inches or eight inches of rainfall per year.

Senator HORNER: In the dry areas, in the special areas they reckon 50 acres to the animal, but that is to carry the animal the year around. Unless moisture is obtained fertilizer will not help. Without irrigation that is all you can do in those special areas. However, down near the foothills of course there are pastures that carry many more stock, but that is because there is more moisture there.

Dr. RIPLEY: Now, Mr. Chairman, I would like to say a word or two as to how we think production in Canada can be increased. There are some 45 million to 50 million acres of land in Canada that have not been brought into use yet and that means additional production later on. We have in Canada 278 million acres of peat and muck soils, organic soils. I do not know whether they will ever be used for agricultural purposes, but that acreage is more actually than the potential mineral soil.

I told you there were 224 million acres of mineral soils including those 50 million that have as yet not been broken, but there are 278 million acres of these organic soils. We estimate that maybe 5 million or 6 million acres can be brought into fairly immediate production. We have been carrying on a lot of work in Newfoundland. That is a very important problem in that province. There they have only one half of one percent of their total land, or their potential agricultural land as far as the mineral soils are concerned. The organic soils number about 5 million acres and we are hoping that they may be brought into production and be useful.

Senator HORNER: They told us at a former meeting here of an experiment that was being carried on in Newfoundland and they had grown grain on peat and bog land. How is that experiment coming along?

Dr. RIPLEY: It is coming along very well. We have been greatly encouraged by the production, we have been able to get on that very raw peaty material in the way of grass.

Senator HORNER: Is there sufficient moisture?

Dr. RIPLEY: The trouble is that there is too much. One of the big problems, of course, is to get rid of that moisture.