

Out west we have a lot of sulphate, in the form of sodium sulphate, found in large deposits on the prairies. The market for this is in the east: it has to be brought to Ontario and Quebec and the maritimes.

I was in Germany two years ago, after the war, investigating various industries using non-metallic minerals, and I was greatly impressed with some of the expedients the Germans went to in the utilization of domestic raw materials. They seemed to be economic and worthy of some work being done on them in this country, particularly in regard to utilization of domestic sources of sulphur. They got much of their pyrites from Spain, but towards the end of the last war, and in the first war, a lot of these developments took place when they were worried about their supplies of sulphur; they turned to their local sulphur minerals, which are pyrites, anhydrite, and gypsum similar to what we have in Canada, and developed new fertilizers and new processes of making them, which seems to be going over very well. Probably Mr. Peart has further information on those products. There are great possibilities in this country of combining certain non-metallic minerals including pyrites, which we generally consider a non-metallic or industrial mineral, and making valuable products out of them for the fertilizer business.

As regards the liming materials, which are considered of basic importance—you have to have your soil well provided with calcium and in part with magnesium before the concentrated fertilizer will take full effect—we are well supplied with these materials right across Canada. There is no trouble about that. All of our limestone quarries producing crushed stone in the provinces of Quebec, Ontario, Manitoba and British Columbia have tremendous piles of waste limestone dust which can be used on the land. It is just a transportation problem.

I think that pretty well covers the field in a general way. I would be glad to answer any questions that I can.

Hon. Mr. DUFFUS: The fact that the supply seems to be readily available, is it economically sound to ship it to Ontario?

Mr. GOUDGE: Supplies of what?

Hon. Mr. DUFFUS: Lime.

Mr. GOUDGE: Ontario has been a relatively small user of liming materials. The maritime provinces and Quebec have been great users.

Hon. Mr. DUFFUS: I suppose a good deal of lime is used in concentrated fertilizer.

Hon. Mr. VAILLANCOURT: Lime is not a fertilizer.

Mr. GOUDGE: Properly speaking the term "lime" should be applied only to the oxide or the hydroxide and not to the unburnt limestone. There is very little lime used in the fertilizer business, but substantial quantities of pulverized limestone are incorporated into some mixed fertilizers as calcium is generally recognized as a necessary plant food.

The CHAIRMAN: It is very beneficial to heavy land.

Mr. GOUDGE: Yes. It lightens heavy land and improves its tilth and is essential to the proper growth of alfalfa, legumes and crops such as that.

The CHAIRMAN: It is of very great value as a fertilizer on certain soils.

Hon. Mr. CRERAR: Has any investigation been carried on to ascertain the possibilities that there may be suitable slag in mines like Noranda and Trail?

Mr. GOUDGE: Smelter slags are not of the type generally used in agriculture, as they contain little if any phosphorus. We have never made any thorough investigation of them, however.

The CHAIRMAN: Thank you very much, Mr. Goudge.