

692. It will be seen that the demand and the supply are nearly balanced. In these circumstances, only the most easily and cheaply provided phosphates have a living chance in the competition. There is, however, a great future for phosphates. The United States are using only one-quarter of the quantity of fertilizers which should be employed to keep pace with the annual extraction of plant food from the soil. The Canadian Minister of Agriculture, Hon. Mr. Angers, in his report for 1893, refers to this matter in the following terms :—

“I am informed that comparatively little or nothing has been done during the past year as regards the phosphate industry of this country, the low prices ruling in the home market and the cheap rate of production which has enabled the Florida supply of the raw material to be laid down in Europe materially tending to injure if not destroy the Canadian trade. In this connection there is a point deserving of much consideration and to which I desire to call marked attention, viz., the amount of phosphoric acid that is taken out of the soil by a cereal crop, the shipment of the greater part of which abroad takes this phosphoric acid with it out of the country instead of returning it to the soil whence it is taken. Professor H. W. Wiley points out the fact that 19 lbs. per acre of phosphoric acid are absorbed by grain, and 12½ lbs. per acre are absorbed annually by the grass crop. This constituent element of the proper plant food, one of the chief essentials to all vegetable and animal life, must be restored to the soil unless the latter is to become entirely exhausted ; and the agriculturist should understand that his farm is not a bank on which he can draw at pleasure, but a laboratory which will only do its work well when the needed supply of material is forthcoming. Exhaustion of this nature can only be remedied by reintroducing artificially the material that has been abstracted. If a thorough knowledge of the need of phosphate for the soil prevailed, and practical application of such knowledge were more general it would materially help to develop the phosphate industry of this country, and would lead to the manufacture of fertilizers on a large scale, while an extensive home market tending to a lower price for the manufactured article, instead of exportation of the raw material, would be the result. I am informed that the cereals and the grass crop of Canada extract from the soil annually an average of 235 million pounds of phosphoric acid, equal to 117,972 tons of 2,000 pounds each. Supposing one-half only of this to be returned to the soil in the stable manure, there is still left a deficit of 59,000 tons of phosphoric acid. The percentage of phosphoric acid in Canadian