

view of any particular analyst, so that it might be known exactly what the buyer was buying and paying for, irrespective of any personal views on the utilization of antique and obsolete methods of analysis?

36. Did the Minister of Inland Revenue make the following statement: 'The department cannot alter its system at the instance of any special manufacture, but it is ready to adopt the latest and best scientific methods approved by the Society of Public Analysts in England, or recommended by any such body as the Royal Agricultural Society of England. It is also prepared to adopt that system which the authorities of the Dominion Experimental Farm recognize as giving results corresponding most closely with those obtained in actual agricultural practice.'

37. Has there been any protest to the method of analysis adopted by the chief analyst for the determining the availability and total phosphoric acid in Thomas' phosphate powder? If so, when and by whom?

38. When such protest was made, were any steps taken to obtain the opinion of the Society of Public Analysts in England, the Royal Agricultural Society in England, or the authorities of the Dominion Experimental Farm, as to what method of analysis gave results corresponding most closely with those obtained in actual agricultural practice?

39. Will the government submit an explanation of the methods of analysis adopted by the Department of Inland Revenue, viz., 'the citrate of ammonia solution,' and forward a copy of the explanation of the method used in England and Europe, viz., 'a 2 per cent solution of citric acid,' to the chemist of the Dominion Experimental Farms, consulting chemist of the Royal Agricultural Society of England, and the director of the Agricultural Research Station, Darmstadt, Germany?

40. Will the government submit the following question to such authorities: 'Which method of analysis for determining the availability of the phosphoric acid in basic slag or Thomas' phosphate powder would, in your opinion, give results corresponding most closely with those obtained in actual agricultural practice?'

41. Will the government adopt the system recommended by those authorities as giving results corresponding most closely with those obtained in actual agricultural practice?

42. Has the Department of Inland Revenue received sample of Albert's Thomas phosphate powder during the month of April, 1900?

43. If any samples were received, have they been analysed by the chemist of the department, and what was the result of such analysis?

44. Who is the consulting chemist of the Royal Agricultural Society of England?

45. Were certificates of analysis of Albert's Thomas phosphate powder received by the department? If so, by whom were the certificates signed?

46. What was the result of the analysis of Albert's Thomas phosphate powder, as expressed in such certificates?

47. Upon what basis or analysis will the 'relative value per ton of 2,000 pounds,' as given in the bulletin of the Inland Revenue Department, be calculated or determined?

48. Does such relative value so calculated or determined give a fair and correct result of the agricultural value of Thomas' phosphate powder as a fertilizer?—make the following replies?

The MINISTER OF AGRICULTURE (Mr. Fisher). 1. Yes. 2. Yes. Experiments

were tried in the spring of 1895. First by applying the Thomas' phosphate powder in the proportion of 400 pounds per acre to half an acre of mixed clover and timothy in the second year's growth. The half acre on which the Thomas' phosphate powder was used gave 1 ton 740 pounds of cured hay, while the check plot adjoining, on which no fertilizer had been used, gave 1 ton 320 pounds, a difference in favour of the crop treated with the Thomas' phosphate powder of 840 pounds of hay per acre. Another half-acre plot of red clover was similarly treated, 400 pounds of the Thomas' phosphate powder being used per acre. In this instance the fertilized plot gave 1 ton 530 pounds per acre, while the untreated check plot alongside gave 1 ton 453 pounds, a difference in favour of the plot treated with the Thomas' phosphate powder of 154 pounds of clover hay per acre. In 1898 and 1899 the Thomas' phosphate powder was used on the Central Experimental Farm on thirty-eight plots, consisting of five each of wheat, barley, oats, Indian corn, carrots and potatoes and four each of turnips and mangels. Particulars of these tests are contained in the Experimental Farm Reports for 1898 and 1899. 3. The number of plots permanently devoted to experiments with fertilizers at the Ottawa Experimental Farm is 105, each measuring one-tenth of an acre. The following fertilizers are used either singly or in combination: Barn-yard manure, fresh and rotted; Thomas' phosphate powder; nitrate of soda; unleached wood ashes; mineral superphosphate; bone, finely ground; muriate of potash; sulphate of ammonia; sulphate of iron; common salt (sodium chloride); and land plaster, or gypsum. 4. The analysis of all commercial fertilizers sold in Canada being made and published annually by the Inland Revenue Department, only occasionally, as our experimental work makes it necessary, are analyses made of the fertilizers employed. 5. The bulletin issued on commercial fertilizers by the Inland Revenue Department is consulted. In certain cases analysis may be made in the farm laboratory. A record is kept of all analytical work done in the farm laboratory. 6. We have not as yet made any official analysis of Thomas' phosphate powder. 7. See answer to question 6. 8. See answer to question 6. 9. Yes. 10. The Wagner method is used solely in the analysis of basic slag or Thomas' phosphate powder. The neutral citrate method is used for superphosphate and other phosphatic fertilizers. The latter method would not show as much so-called available phosphoric acid in Thomas' phosphate powder as would be obtained by the Wagner method. The reason of this is that the basic slag or Thomas' phosphate powder contains some 15 per cent free lime, and the presence of this interferes with the solvent action of the neutral citrate of ammonia solution on the phosphate. The Wagner solution, con-