

The bee-keeping industry continues to progress, and is distinctly one of the most useful of the minor primary industries of the Dominion. Unfortunately, owing to seasonal conditions, last year's output was below normal. It is satisfactory to note that attention is given to ensuring a good standard of quality in honey exported, and the establishment of the Honey-export Control Board should aid in maintaining this quality, and also in still further improving it.

#### AGRICULTURAL CHEMISTRY.

The staff of the Chemical Laboratory has had its time fully occupied with the work entailed by examinations, analysis, &c., of material forwarded by the various Divisions; and the extent to which field officers of the Department utilize the laboratory in connection with their duties well illustrates its value as a necessary factor in the carrying-out of the general investigation and instruction work of the Department as a whole.

The Chemist, Mr. B. C. Aston, visited Great Britain and Denmark during the year and obtained much valuable information, as will be noted from his appended report. One point worthy of special notice is that at a meeting of the British Association for the Advancement of Science he read a paper on bush sickness in New Zealand, and was complimented upon it, his conclusions being not only accepted, but also adopted as a basis for further investigations into a somewhat similar trouble existing in part of the border district of England and Scotland. In order to facilitate the work now in hand, aimed at endeavouring to find practicable methods of soil-treatment to correct the deficiency responsible for bush sickness, an officer of the Chemical Laboratory staff has been stationed at Rotorua, whose time will be wholly occupied with this work.

While in the United Kingdom the Chemist inquired into the working of the fertilizer legislation there, and the information he obtained has enabled an amending Bill to be drafted for New Zealand, which should, if it becomes law, prove an improvement upon our present legislation.

#### STATE FARMS.

The Farm Training College at Ruakura has made satisfactory progress under the immediate direction of Mr. P. W. Smallfield, and the general scheme of instruction has shown itself to be what is needed in the Dominion for the purpose of training lads to become efficient farmers. During the year thirty-two students were in residence. Having regard to the coming establishment of an agricultural college in the North Island, which will provide a two-years diploma course as well as a degree course, consideration is now being given to the question of readjusting the instructional course entirely and making it a one-year course with an optional second year, instead of a complete two-years course as at present. This will remove any competitive element, while in no degree lessening the value of Ruakura as an educational centre. It is, in fact, anticipated that the number of students coming forward for instruction will be considerably increased under this proposed short-course system.

The farming operations at Ruakura are being carried on satisfactorily. During the year Mr. A. W. Green, who had for ten years acted as Manager, and who always had the interests of the farm very much at heart, decided to resign, and Mr. H. Munro, Principal Inspector for the Auckland Province, undertook the responsibility of the management. Mr. Munro is a capable and progressive farmer, and he is doing very good work. The expenditure for the year on both the Training College and the farm (not including salaries of permanent officers) was £10,455, while the revenue was £9,338.

The Weraroa Farm has been conducted principally on general-farming lines, and it is becoming increasingly evident that a decision needs to be made as to what shall be its function in the immediate future. It could, of course, be still used to a considerable extent for experimental and demonstration work, but experience has shown that this type of work (unless carried out on highly specialized lines by a resident scientific staff) can be made of much greater value, and give results capable of wider application, when conducted at different centres in rural districts, where the results attained can be made applicable to surrounding areas where similar, or approximately similar, soil and climate conditions exist. The very unfavourable weather conditions in spring and early summer had the effect of greatly curtailing the quantity of feed available at the Weraroa Farm, and the factory returns from the dairy herd have (in common with the surrounding district) fallen off considerably in consequence. Other grazing operations have also had to be curtailed by comparison with usual seasons. The actual expenditure, exclusive of salaries of permanent officers, was £5,779, while the revenue was £7,583. The farm has been well conducted by the Manager, Mr. J. F. Shepherd, and his staff,