

- (3) Mixed breeding and fattening of stock could more frequently be carried out profitably in the area in which the majority of the farms are now devoted to breeding exclusively.
- (4) The carrying-capacity of a substantial portion of the area devoted exclusively to breeding profitably could be increased considerably.

The first three of these facts point to the possibility of an increased proportion of fat lamb in our export trade. This would be especially valuable should any tonnage limitation be placed on our exports, in which case each pound of meat exported should be of the greatest possible value. The fourth fact listed above points to a source of the increased supply of breeding-ewes required for an increased fat-lamb production.

The importance of investigations relating to land-utilization is of such moment that it is proposed to extend the work to other districts in the Dominion.

ARTIFICIAL FERTILIZERS.

There has been a definite increase in the sales of fertilizers and lime during the year just ended, due no doubt to the known and assured income from dairy-produce and to the better prices received for most other forms of primary products. The practice of top-dressing pastures is a very commendable one, and all officers of the Division are fully alive to the value of bringing about this practice to a greater extent than has been the case in the past, even although an increase in the amount of fertilizer and lime used is being shown from year to year.

In the South Island a definite tendency has been taking place to use basic superphosphate instead of superphosphate for pasture top-dressing. The advocates of this change-over affirm the fact that the results obtained justify the procedure, but, apart from the rights or wrong, of this claim, it would definitely appear illogical to first produce a water-soluble phosphate which in the past has proved to be of the highest value for top-dressing purposes and then immediately convert it into a di-calcic form of less solubility. It has to be admitted that southern pastures in the main require liming, and, provided that top-dressing with superphosphate is preceded by liming where necessary, there would appear to be little reason in advocating basic superphosphate in place of superphosphate for top-dressing purposes. It is obvious, however, that the claims made for basic superphosphate in preference to superphosphate require the closest investigation, as does the place of basic slag and various citrate soluble phosphates, and investigations in this connection are taking place and will be extended in the coming season.

MEETINGS OF FIELD OFFICERS.

The practice has been adopted of arranging that once in each year each Fields Superintendent shall call a meeting of the instructional staff under his control. At these meetings various phases of the Department's work are discussed, and the free and frank discussions which take place are of the greatest value to all officers. I feel sure that all officers who have attended these meetings realize their value to the full, and although the conferences last for only two days each Instructor returns to his district better equipped to carry on his work as a result of his association with fellow-officers and through having taken an active part in all the discussions.

SEED CERTIFICATION.

The seed-certification operations have during the year proceeded along the usual channels quite smoothly. Considerable development has taken place with respect to those crops already under the certification scheme, but no new crops have been dealt with. In some instances the certification scheme has been amended, but all amendments have been only after very serious consideration and have been made in all cases towards simplification of certification process. The scheme inaugurated by the Division last year of growing on contract pedigree strains of perennial rye-grass and white clover has continued and has been extended. Unfavourable harvesting-conditions in 1936-37, unfortunately, were reflected in the yield of certified Government stock perennial rye-grass and white-clover seed, and the Department was not able to fulfill all orders coming to hand from and through merchants. In actual fact, orders were on hand for at least twice as much seed as was harvested and could be supplied. It is pleasing to note that the progressive farmer fully realizes the value of seed of pedigree and selected origin, and there does undoubtedly exist a wide scope for development in this respect. Divisional officers are fully aware of the advantages to be obtained by farmers sowing the best seed, and every effort will be made to increase the quantity of such seed available.

The certification operations of the Division are under the immediate control of the Certification Officer attached at headquarters, and his report dealing comprehensively with all aspects of certification is appended.

IRRIGATION.

During the year several schemes were reported upon for various purposes, the principal one being the projected scheme for the Maniototo district. This scheme, if gone on with by the Government, will irrigate 80,000 acres and will be by far the biggest single scheme in the Otago District. With respect to the irrigation schemes already in operation, it was found that owing to the wet season the number of times areas had to be irrigated were fewer than usual and in some instances the irrigations were actually not required. The staff of the Division has been arranged to cope with the large number of requests received for advice on irrigation matters, and it is pleasing to record that an excellent degree of co-operation exists between this Division's officers and officers of the Public Works Department. The fact that Divisional officers, who are experts as regards irrigation matters, are being consulted more and more by officers of the Public Works Department is all to the good, and this must enhance the results obtained in the future from irrigation practices.