

## LUCERNE AND TEMPORARY PASTURE: POINTS OF COMPARISON.

In making a comparison between a lucerne stand and a temporary pasture there are several points that must be kept in view. Firstly, there is the length of period of the usefulness of each of these crops. For instance, even on the class of land now referred to, the lucerne crop should continue to give fair returns for a considerable period after the temporary pasture has outlived its usefulness. Temporary pasture under many conditions, however, can be made to give splendid returns for five years or more by careful treatment, as will be shown. Secondly, it is important to bear in mind that hay crops from the lucerne stand represent the total usable product from that crop for the whole of the year, and especially so where grazing in the spring and late autumn cannot be carried out, or would be disastrous if attempted. On the other hand, the hay crops from the temporary pasture represent but part of the year's return. It may even be held that the hay crops are but four months' growth, while the remaining eight months represent a very considerable return through grazing. Thirdly, the cost of the year's operations in connection with each crop must be considered, and in this connection it will be seen that the annual cost per crop is about the same. Lucerne will require the same top-dressing, hence the manure bills will be equal. With regard to cost of harvesting, this should favour the temporary pasture, for with the latter there are at the most two hay crops a year to handle, whereas with lucerne there will be the cost of harvesting three or four crops.

## RECORDS OF FIVE SEASONS.

The lucerne stand at the Marton Area was put down in December, 1918, when 15 lb. of Marlborough seed was sown to the acre. The land was limed with carbonate of lime at the rate of  $1\frac{1}{2}$  tons, and manured with basic super at the rate of 3 cwt. per acre. In the same year—November, 1918—a temporary pasture consisting of 25 lb. Italian rye-grass and 5 lb. cow-grass per acre was sown. It will be noticed that this is a purely temporary mixture. Basic super was applied with the seed at the rate of 2 cwt. per acre. It is between these two crops that a comparison will be made. In connection with the weights recorded hereafter for both crops, the figures given are tons and hundredweights of green material. Hay crops at the Area are carefully weighed when cut, so that these weights are accurate and representative.

During the 1919-20 season, unfortunately, no record was kept of the yield from the lucerne stand, but the temporary pasture was closed for hay on 1st October. It was cut on 19th December, and yielded 7 tons 14 cwt. per acre. The material was mostly rye-grass. On 16th February it was again cut, yielding 7 tons 15 cwt. of first-class cow-grass, giving a total return of 15 tons 9 cwt. per acre for the period 1st October to 16th February. This field (5 acres in all) carried 135 sheep all through September, and was ready for grazing again at the end of February. In addition to this the field carried between two and three sheep to the acre for the remainder of the year.