

being explored at this College. In Australia, it is true, supplementary feeding of sheep under drought conditions with blood-meal (containing about 3 per cent. of cystine) has resulted in a slightly heavier fleece<sup>5</sup>. While this result is decidedly encouraging, the specific action of cystine in increasing the fleece weight was not proved owing to the presence in the supplementary feed of important food constituents other than cystine.

The work now in progress aims at tracing the effect of pure laevocystine upon the incidence of medulla, fleece weight, growth-rate, tensile strength, and fibre diameter. In the event of definite results being obtained, investigations will be undertaken into the most economical methods of providing regular and adequate supplies of cystine.

#### REFERENCES.

- (1) SIDNEY, *Jour. Textile Institute*, 1931, Vol. 22, p. 370.
- (2) AITKEN, *Biochem. Jour.* 1930, Vol. 24, p. 250.
- (3) SIMPSON, *Quart. Jour. Exper. Physiol.* 1924, Vol. 14, p. 185.
- (4) LIGHTBODY and LEWIS, *Jour. Biological Chem.* 1929, Vol. 82, p. 663.
- (5) *Pastoral Review*, 1930, Vol. 40, p. 983 (October).

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## PERENNIAL RYE-GRASS TRIALS IN CANTERBURY.

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CONSIDERABLE quantities of perennial rye-grass seed from certified areas are now available, and many Canterbury farmers have availed themselves of the opportunity to purchase such seed for sowing in fields where permanancy of pasture is desired.

In order to investigate the position further, and to demonstrate the difference in strain, seven Canterbury versus Hawke's Bay perennial rye-grass trials have been laid down in Canterbury by the Fields Division. These experiments extend to 3 acres of the two types of rye-grass, and in addition there is an area of approximately 3 acres laid down in strains from various parts of the Dominion. The complete experiment in each case is 9 acres, except in the case of the experiment on Mr. L. E. Meyers's farm at Oxford, where a special trial on a 5-acre block was laid down.

The first experiment was laid down on Mr. Meyers's farm at Oxford during October, 1929. This was a trial to ascertain the relative merits of Canterbury and Hawke's Bay rye-grass on a type of soil embracing a large part of the district.

Very dry weather was experienced after sowing, but good rains fell in December and the strike was satisfactory. The Canterbury rye-grass showed the most rapid growth and established with greater rapidity than was the case with the Hawke's Bay rye; but with a recurrence of very dry conditions after the middle of January the apparent superiority in growth of the Canterbury type was of short duration, and by the end of March it was practically dormant, and remained in this condition until September.