

with dense fleeces free from kemp, and the staple showing a good crimp with few cross-fibres. Some breeders are experimenting with Ryeland-Romney crosses for breeding purposes.

The Wools of New Zealand.

New Zealand wools generally possess good lustre and are light in condition. As previously noted, features in the history of wool-production have been the decrease in Merino, a subsequent decrease in half-breds, and later increases in Corriedales and Romneys with other longwools and cross-breds. Opportunities have been secured of examining wools of most of the New Zealand breeds on the sheep, and several defects or weaknesses which are of interest to the breeders may be discussed, together with aspects of their production of interest to the manufacturer.

In the Merino the development of a stronger constitution has been generally accompanied by a broader or stronger wool; the use of South Australian stock has aided this, and few Merino wools now show the old Tasmanian dark tip. Also, a very dense fleece is not in high favour in many of the wetter districts, owing to the difficulty in drying a dense fleece once it is thoroughly wet. The reduction in extent of wrinkling has perhaps assisted the breeders in the selection of the stock with fleeces showing little variations in fibre-diameter between the crests and troughs of the folds, but possibly more attention could be paid to this point. Owing to the severe weather conditions experienced in many districts the wools may appear "ill nourished," with weak tips, with little flow of yolk; in certain seasons following rains great discoloration in the fleece may follow. Also in certain districts—*e.g.*, in Canterbury—the fleeces, particularly the necks and backs, may contain a large amount of sand and shingle material blown into the fleece in windy weather in dry seasons when the sheep are camped in the river-beds. A defect which has been noted is a tendency, in many animals, for the fleece to become open, short in the staple, and tender on the top of the shoulder.

The Corriedale breed has many interesting features; its fleece characters have received particular attention from the breeders, who have striven to preserve the good qualities of the half-bred type of wool. The breed has, however, been called upon to occupy a variety of habitats, with the result that natural conditions, in cases unsuitable to the breed, have exerted an antagonistic effect. For instance, under hard conditions of high hill country the fleece tends to decrease appreciably in weight, to lose density, and to break down generally; again, on limestone country the wool tends to exhibit an undesirable harshness of fibre. Whether or not this is due entirely to the kind and supply of nutritional elements or is in large part due to breeding is a point to be investigated. Indeed, a criticism which may be made generally of Corriedale wool is that harshness, possibly associated with a lack of elasticity, exists. It would appear also that animals from the Lincoln-Merino foundations are more liable to this character than are those derived from Leicester-Merino ancestry. Further, though the leading breeders have selected for evenness in quality over the body, a great variation exists in this respect in many animals. It may be that the widespread occurrence of this is due in part to the rapid increase in numbers of the breed and its breeders. The successful establishment of a definite crimp in many flocks has not been extended to the majority; many cross-fibres exist, the fleece does not open freely, and there is a tendency for the fleece to break down along the lines of "short shed" separating "fleece wool" from "belly wool." A point to which attention may be drawn is the occurrence of a mosaic arrangement of coarse and fine fibres even in the finer regions of the fleece. Kemp is also of fairly frequent occurrence, even on the rump and back. It must be remembered that one