

SHEEP-BREEDING

Progeny-tested Romneys.—In the nucleus flock the lamb percentage was good, 223 lambs being tailed from 214 ewes mated, in spite of the fact that some 20 of the older ewes died prior to lambing.

Nine rams were progeny-tested during the year by paddock mating each with 50 flock ewes. To maintain an even, early spread of lambing, they were each given three and a half weeks' service, the ewes thereafter being boxed and run with Southdown rams. Lambing was fair, and sufficient lambs (15–42) were obtained from all fertile rams to permit a reasonable progeny test. One ram proved infertile. The rams so tested were purchased from four different breeders.

The cold dry spring and early drought retarded growth of lambs, as evidenced by the fact that of 400 Romney wether lambs only 80 could be sent for slaughter in January. Subsequently all lambs lost condition as the drought continued. Evaluation of carcass conformation had to be abandoned in consequence. Relevant data on birth weights, docking and weaning weights, fleece weight, count, and character were obtained. Comparison of the progeny on a sire group basis showed that there was no outstanding ram among the nine tested. Two rams were slightly above average in most characters, but not sufficiently so to make their more extensive use worth while. This result is disappointing; of the 20 rams so far tested—all stud rams from prominent breeders and ranging in price from 30 to 130 guineas—no worth-while individual has been located.

During the present season 8 two-tooth rams and 7 ram lambs of our own breeding have been mated for testing. Ram lambs this year have worked successfully.

Inheritance of "Count."—A three-year experiment to test the theory that "count" of wool in the Romney is a strongly inherited character has been designed. The first year's work has been on a small scale with two groups of 30 strong and fine woolled ewes respectively. The strong group included no animal with wool finer than 44's, and the fine group no ewes stronger than 50's. Half of each group were mated with a "strong"-woolled ram (40's) and half with a fine-woolled ram (48/50's). Results so far are extremely preliminary and available only on a basis of count of lamb's fleece, which, of course, cannot be compared yet with that of the ewe fleece.

Inheritance of Carcass Conformation.—Results for two years of an experiment designed to test the theory that carcass conformation in the sheep is weakly inherited are now available. The method was to select two groups of extreme-type ewes—good and poor conformation—from a large ewe population and to mate these to the same Southdown ram or rams. All the progeny were fattened as lambs and measured for carcass quality on the hooks. Measurements of width of gigots, depth of crutch, and leg length, while slightly in favour of the lambs from the better-type ewes, are too small for significance. Only in respect to length of cannon bone are the differences sufficiently large to be considered significant.

Over the two years a small number of the same ewes produced lambs (20 pairs). Comparison of these two groups of progeny shows the differences to be of slightly greater magnitude and to be statistically significant in each year in respect of the major characters. At the same time, the differences are such that the general theory that carcass conformation is so weakly inherited as not to be worth while considering in selection work may be taken as having been substantiated, though this result should be regarded as tentative until the data from similar work within Romneys alone come to hand.

Relationship of Strength of Wool to Quality of Carcass.—Inquiries from several stud breeders as to whether breeding for strong or fine wool in the Romney would affect adversely the quality of the carcass suggested that it would be worth while obtaining some factual information on the subject.

Two extreme groups of 100 ewes were selected from approximately 1,000 ewes on a basis of the wool count. The strong-woolled group were all stronger than 46's (40's–46's) and the fine-woolled group all finer than 48's (50's–54's). The ewes were