

to the Merino and its derivatives. There is, however, sufficient variation in climatic conditions to warrant the variations found within the area surveyed, although the method employed in obtaining a desired type may give rise to a good deal of undesirable variation, and instances occur where a run has fallen into the hands of men ignorant of the prevailing conditions who have introduced unsuitable types, with subsequent heavy mortality and disaster.

The following is a list of the types found, together with the number of flocks of each type :—

Breed or Type.	Number of Flocks.
Merino .. ..	7
Romney Marsh half-bred ..	14
English Leicester .. ..	6
Corriedale .. ..	2

Included in this list are four small grazing-runs which carry a few hundred ewes for eight months of the year and are grazed in conjunction with plain lands. These are situated between Mount Somers and the Rakaia River, close to the Alford Forest. The land is sour and wet, and Romney half-breds are carried on three of the runs.

In some instances a change of type is now in progress—*e.g.*, the Romney Marsh half-bred ram is being introduced into an English Leicester half-bred flock. Other instances are seen where the Merino ram is being mated to the half-bred ewe, which produces a come-back type of lamb. These in turn will be mated to the Merino ram, and so on. The production of a half-bred with certain desirable characteristics found in the Romney strain or the production of a Merino flock being the end in view. The mating of the coarsest-woolled half-bred ewes to the Merino ram, the progeny of which cross would be sufficiently fine in the wool to be mated back to a half-bred ram, is also a means whereby the breeder endeavours to obtain a type with the characteristics he considers suits his conditions yet gives him the maximum cash return. It is important to note, also, that in a very few cases does the farmer with the half-bred flock breed his own rams. He purchases them from a local breeder, who in turn has bred them from cast Merino ewes which he purchases from some Merino breeder.

Consideration of these breeding practices brings into prominence the variations which from genetic considerations must occur and in actual practice are known to appear, and which, by means of scientific methods, could be selected for and established in desirable types. The production of a polled type of Merino and the standardization of suitable types of half- and three-quarter breeds are examples of problems which will possibly be encompassed with the aid of scientific methods in the future.

Most of the stations have large areas of barren country, shingle, and rocky tops, &c. On this type of country it is desirable to select a type possessing a close fleece, which will prevent the ingress of sand. Here the half-bred is at a disadvantage compared with the Merino. The whole problem is, of course, bound up with the value of surplus stock for fat-lamb raising. The Merino ewe or wether lamb is not as valuable as