the early spring militated against the sheep, especially with regard to the condition of the wool, which was light compared with previous years. Cattle purchased for fattening brought more than double the price paid for them twelve months previously.

The Ayrshire dairy herd is rapidly gaining popularity. All bulls bred during the past year have been sold, some to breeders who had previously selected from this herd. Inquiries for purebred heifers are continually being received, but at present the demand for these cannot be met.

The Ryeland and Border Leicester flocks are rapidly springing into prominence, and at the recent Hawera and Wanganui shows some of their numbers gained premier honours.

Special attention is now being given to the Berkshire breed of pigs, and although the demand for these is not at present very large it is fairly regular. During the year numerous breeders have returned to make selections from this herd.

Owing to the lack of land horse-breeding is somewhat confined, nevertheless several useful horses are being raised on the farm, and some very promising foals are now being weaned.

Rotation of crops has been the means of increasing the fertility of the land at Moumahaki, which, owing to the light nature of the soil, would quickly deteriorate but for systematic cropping. This year's mangel crop is equal, if not superior, to any yet grown on the farm, and the same may be said of the potatoes and carrots. A larger area than usual was devoted to wheat-growing. Two varieties, Thew and Solid-straw Tuscan, were grown. The former, an early variety, will yield well on threshing, but unfortunately the latter was attacked by blight, and will consequently yield a poor crop. Gisborne, Bevans, and Black Russian barleys were grown. The area in oats was considerably curtailed, and the crop, a good one, will be used for chaff. Vetches were grown in the rotation of crops. Seed of this is eagerly sought for by dairymen, and a considerable quantity is sold them for use in the production of green fodder.

The lucerne crop has proved that this plant can be grown to economic advantage by all farmers. Experiments are now in progress to determine the carrying-capacity per acre of this plant. This season some fields were grazed five times, in addition to providing 3 tons per acre of hay.

During the winter 12 acres of new land was stumped and ploughed, and 12 acres of similar land broken up the previous year has been thoroughly cultivated and laid down in experimental plots of permanent grass.

A considerable amount of time was spent in preparing specimens of farm-produce for exhibition, and displays of same were made at five shows in various parts of the Dominion.

In the horticulture section the work has been chiefly of a maintenance character, due to the fact that the labour conditions have prevented sufficient help being obtained for carrying out experimental work. Good results have been obtained with tomatoes, and the interest taken and numerous inquiries asked regarding cultivation, merits of varieties, and the ability of these varieties to resist disease has been considerable. The outstanding merits of one variety, Danish Export, obtained by the Department from Denmark, have fully justified its importation. The same may be said of the culinary peas, the outstanding variety being Laxtonia. A number of varieties of squashes and pumpkins imported from America were given a trial, and the best of these will be distributed from time to time.

Plant-breeding operations have been to a large extent devoted to the improvement of grasses and forage plants by selection. Forty-five pots of twice-selected single plants of Italian rye-grass have recently been planted. New types giving greater stooling habits, thus producing more feed, and also freedom from rust, are under observation. About 1,000 plants of various strains of red clover are being tested, and attention is beng paid to selections of Scotch vetch, carrots, lucerne, and culinary peas. Work in connection with cross-fertilization of potatoes, providing seed for next year's work in raising new and improved breeds, and also hybridization of potatoes with Solanum Nigrum to get a disease-resisting potato, is in progress.

The number of visitors and inquiries answered by letter shows a large increase over the previous year.

Ashburton Experimental Area.

Operations on this area were commenced in May, 1915. Before that date the whole of the area was in very old pasture, composed almost entirely of couch-grass (*Poa pratensis*). As ground was urgently required for continuing the work of testing and selecting imported cereals, 45 acres were ploughed and worked up in the best way possible short of summer fallowing. This area was used for growing the cereals in question. Unfortunately the season proved to be quite extreme in character, there being a marked deficiency in rainfall throughout the whole growing period. The result was that, although an opportunity was afforded to mark down varieties adapted to dry conditions, the general result was far from being satisfactory. Sufficient crop was, however, harvested to provide seed for extended planting on this and on other areas next season.

In addition to the above area, 13 acres 1 rood 12 perches was broken up during winter and thoroughly worked up till November for the eradication of couch, and subsequently sown in turnips, which likewise suffered from the dry conditions, but made a good recovery in February, 1916, and turned out quite a satisfactory crop. This, however, was merely a preliminary crop for conditioning the land, and was not planted with any experimental object.

A further 16 acres has been entirely summer-fallowed for the eradication of couch, and there remains 18 acres to be similarly dealt with to complete the entire areas, which is to be devoted to experimental purposes.