

day, and was rolled two days later with the Cambridge roller. On 14th October the paddock was cultivated with the spring-toothed cultivator to kill weeds and loosen the surface. On 14th November, late in the afternoon, 3 cwt. of inoculated soil per acre was applied, and the area was immediately tine-harrowed twice. On 16th November it was rolled, and sown on the following day. Four acres were sown with 10 lb. per acre of Hunter River seed in 7 in. drills. The following manure-mixture was applied with the seed: Superphosphate, 2 cwt.; ground rock phosphate (Nauru-Ocean), 1 cwt.; sulphate of potash,  $\frac{1}{2}$  cwt. One acre was sown with 10 lb. per acre of Grimm lucerne.

The season proved very wet, and weeds grew strongly. Before the first cut was made on 1st February, 1922, the lucerne looked hopeless on account of weeds—mainly annuals. After the lucerne was cut and



MR. DOUGHERTY'S STAND OF LUCERNE.

Photo taken 26th January, 1923, just before cutting second crop of season. Lucerne not yet in flower.

stacked the area was tine-harrowed twice and was made much cleaner. On 10th April the second cut was made, and there was still more weed-growth than lucerne. It was again cultivated, using this time the tine cultivator. In May the tine harrows were used again. In early June dry dairy cows were put on, and the lucerne was grazed. This procedure left the area clean for the winter. From 8th to 24th August the tine cultivator was used to clean out weeds, and the area was top-dressed with a mixture of superphosphate and ground rock phosphate (Nauru-Ocean).

The first cut of the 1922-23 season was made on 14th December and stacked later. Though somewhat weedy, it made good hay. The area was again cultivated with the tine cultivator after the hay had been taken off. The second cut, made in the last week of January, was very