

of the steeper gullies. This was cut and burned, and grass-seed sown before the paddock was top-dressed. The fire got away in places, and an area of several acres on the ridges was also burnt off.

The paddock was top-dressed with 3 cwt. per acre of basic slag in August, 1925, and the carrying-capacity for the year worked out at nine-tenths of a sheep and one-fifth of a cattle beast per acre. The ground was again top-dressed at the rate of $1\frac{1}{2}$ cwt. of slag in June, 1926, and the carrying-capacity increased for the year ending 31st August, 1927, to two sheep per acre, while the number of cattle carried was reduced to only one-twenty-fourth of a beast. Here again shortage of cattle affected the good results, which would have been much better as far as the pasture was concerned had more cattle been used. Though the fern-growth was reduced to scattered patches during the winter of 1926, the reduction of the cattle carried allowed it to get away somewhat during the following spring, but the improvement in the grass sward prevented anything like the spring growth of previous seasons, and Mr. Ellis is confident that he can deal with it without detriment to the stock.

50-ACRE BLOCK.

The 50-acre block already mentioned was top-dressed in June, 1926, with $1\frac{1}{2}$ cwt. of fertilizer per acre, half being treated with superphosphate and half with basic slag. Little improvement was noted in the pasture until the following autumn, but the carrying-capacity was improved from one-third of a sheep and one-sixth of a cattle beast to $1\frac{1}{10}$ sheep and one-ninth of a cattle beast, while the stock dealt more effectively with the growth of fern than they had previously been able to.

GENERAL.

The cost of applying the fertilizer per acre in 1925, using 3 cwt., worked out at £1 4s. 10d. in the case of the superphosphate, and £1 4s. 6d. for the slag. With the reduction in freight on the railway, and a reduction in the cost in Auckland of £1 10s. per ton for super and of £1 per ton for slag, the top-dressing with $1\frac{1}{2}$ cwt. in 1926 cost 10s. 7d. and 11s. 2d. per acre respectively. This makes an average of between 17s. and 18s. per acre for the two seasons.

Though the foregoing results may not appear to be altogether encouraging, there is no doubt that considerable interest in the trials has been created in the district, and those farmers who have attended field-days on the area or visited it at different times are confident that top-dressing combined with better stocking is infinitely better than the old system of continually burning off or depending on cattle alone in the endeavour to get rid of or control the bracken fern.

Both the 20-acre paddocks have again been top-dressed at the rate of 3 cwt. per acre, making a total of $7\frac{1}{2}$ cwt. in three years, or an average top-dressing of $2\frac{1}{2}$ cwt. per year. The idea of this last dressing is to see if a still further increase in the carrying-capacity can be made; it is also an endeavour to clean up the paddocks so that they can be easily maintained in good order. Records will be kept of the stocking for the next two or three years—when probably no top-dressing will be done—in order to observe the after or residual effects of the fertilizers and the rate of deterioration in the two paddocks.