The Editor,
New Zealand Journal of Forestry.

Sir,

Mr. Harrison-Smith's letter deals in an interesting way with this important subject. In my opinion there can be no doubt that the bushman whom he quotes is quite right and cattle may, at certain times, be even beneficial in the bush if they are not too numerous. They can however, and too often do, if there are too many of them, set a limit to the life of the bush and a barrier to its regeneration.

Regeneration, whether cattle be present or not, is a function of the forest and to a certain extent self-controlled. In a beech forest we find very few seedlings established except at spots where a tree has fallen and light and air have been admitted. The same effect can be produced by scraping away the covering of leaves and twigs that is everywhere. In this covering are seeds that have been suspended clear of the earth for years. In some cases these seeds have been shed so long they will not germinate. The effect of removal has been to admit light and also to allow seeds to come in contact with the surface. The second effect can be brought about by trampling the surface without removing the leafage. If you have cleared a space of its dead leaves and other decaying matter you will find that within a year many seedlings appear. The leafy coating, Nature's compost factory and as such essential, can in time forbid regeneration.

Although this can be seen so strikingly in the beech forest it can be seen in any mixed forest also if its climax has been reached. In a small forest that I once saw at Otanamomo in Otago, the lower vegetation had all been destroyed as the result of heavy grazing. Subsequent soil erosion had removed all trace of the leafy carpet. The forest had now, however, been fenced. Very young seedlings of the dominant and sub-dominant members were present as first year seedlings. Evidently this was presenting regeneration in a very satisfactory fashion on account of the sturdiness of the seedlings that had sprung from seeds actually thrust into a well-worked seed-bed. Such a case suggests that the presence of stock, a thing that usually tends towards destruction of the forest may be even advantageous.

The effect of cattle, so far as they can safely be used, is to improve the texture and composition of the soil and where the leafy carpet is very thick to trample seeds down into the soil itself.

In my opinion it will be many years before adequate research enables us to understand what happens to the soil and its plant and animal population. It is a source of regret that the University is not now taking any direct share in forestry study or research. The enthusiasm and earnestness of forest officers is happily doing much in this direction.

I am, etc., H. B. KIRK.

It is hoped that the above correspondence will stimulate others to express their opinion and record their observations on the effect of browsing animals in the forest.—Ed.