
STOCK AND PASTURE MANAGEMENT FOR IMPROVED PRODUCTION ON A SHEEP AND CATTLE FARM

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The area I am going to speak to you about is exactly the same 12,991 acres as that referred to in my paper to the 1951 Grassland Conference at New Plymouth. This area, with the exception of one papa farm, consists of land which was taken over in bush from the Crown about 1906. After bushfelling, burning, and grassing, the area had reverted so badly that by the 1920s the farms were abandoned to the mortgagees, who in the main were stock and station agents or companies. They in turn endeavoured to farm these areas, but without success, and finally I bought them in 1928 and 1942 for less than £4 per acre. I may say that the companies lost heavily and for many years these areas were, and still are, "blacklisted" in regard to raising of finance. Access to them up to 1920 was by clay roads and bridle tracks. There were no schools and there was little incentive for anyone to stay on the land.

The stock carried over the winter on these farms (as at 30 June) was as follows:

	Sheep	Beef Cattle	Breeding Cows
1943	2,600	509	258
1951	5,311	921	280
1962	7,415	786	435

The above shows an increase since 1951 of 2,139 sheep, of which 1,661 are breeding ewes; cattle numbers are down 135, but cows are up 155. The surplus cattle in 1951-52 were held until after 30 June.

WOOL PRODUCTION

	Bales
1951	128
1962	194
1963	206

SURPLUS STOCK SOLD

		Sheep	Cattle
1950-51	(12 months)	1,595	91
1961-62	3,601	108

Annual, losses of sheep were $2\frac{1}{2}$ per cent and losses for cattle were up to 10 per cent. The objective now is to allow the cattle to increase as far as the elimination of ragwort will allow, say up to 1,000 head.

The cattle now have to live wholly on, grass and hay, as the roughage of 10 years or more ago is mainly gone. To winter about 1,000 a lot more than the 140 tons of hay now saved will have to be harvested.

As about 20 per cent of our land is ploughable, we grow each year approximately 1 acre of swedes for each 100 ewes. The swedes and ch \ddot{u} moellier usually winter the ewes (with a run-out at night) for about six weeks.

We drill in the swede and ch \ddot{u} moellier seed just before Christmas and start feeding off early in June (after crotching) before the grass gets short. The cattle have the run of the whole area of the farm until feeding out starts late in July, and the ewes are set grazed for lambing.

After the hay is finished the cattle live on "scenery" until the grass begins to grow, which is usually about the end of August.

Photographs of some of our country taken in 1951 and of the same areas taken this year are shown on pages 99 - 101.

The illustration on page 100 shows you how quickly this country reverts to scrub and fern if neglected.

Improvements

The improvements which have taken place since 1951 are due to:

1. Cutting any scrub, such as manuka, that comes up.
2. Concentration of breeding cows (mob stocking with cattle).
3. Manuring.
4. Fencing into suitable sized paddocks.
5. Rotational grazing-not rotational starvation-with both sheep and cattle.
6. Avoiding set grazing (except where bracken fern has to be controlled) from Christmas until lambing to give your good grasses a chance to survive.

If manuka is a problem, you must go over your farm and cut a quarter of it each year or it will win. If it is cut every four years, it will finally go.

Carpet fern, a plant that likes heavy rainfall, is a problem on our country, but, as it is surface rooted, heavy concentration of cattle, particularly when hay is being fed out, will very quickly destroy it. Some farms have about a third of their area in this fern and there it is a big job to get rid of all of it.

On our lighter volcanic soil, such as our terrace country, manuring plays a very important part. We use up to 130 tons of superphosphate per year and sometimes apply potash as well to increase carrying capacity. Potassic super. is applied at 3 cwt per acre for two years, after which maintenance dressings of 2 cwt. of super. every second year are used.

We tried 30 tons of potassic super plus extra clover seed on about 400 acres of steep but good blue papa country on which we carried each year 1,000 ewes. The application made no difference to the carrying capacity or health of the sheep or the 100 cows we ran with them each year. We, may try slag as an experiment on this area.

We now run all replacement lambs on this farm, which is all very steep, sunny, papa country. We shear our lambs with the ewes in November and again in March and put them straight away on the front papa country (before the autumn growth on our topdressed country upsets our lambs) and more or less forget about them until shearing time again in November.

Fencing at the rate of 1 chain to an acre is essential. The size of a paddock is immaterial, provided it faces either north, south, east or west, or as long as the paddock is' all sunny or all shady. Aspect is important and you must be able to concentrate two or three cattle and 10 sheep to an acre for, say, a week at a time between January and March and then for a shorter period until crotching in June, after which the cattle have the whole area, as the sheep (or rather the ewes) are then on swedes.

We sell our 5-year ewes and small lambs at fair time in January. We fatten some of our wether lambs. (by March) and nearly all our 2-tooth wethers (by April). Our store wether lambs are held over and fattened as 2-tooths.

COMMENTS

It takes eight years of continual grazing by cattle from October to March to kill bracken fern entirely.

An unused horse will cost you the profits of eight sheep, say £24, per year.,

Our grass mixture for both bush burns and ploughing is:

	lb
Perennial ryegrass . . .	20
Cocksfoot	8
Dogstail	4
White clover	3
Total	35

On new burns $\frac{1}{4}$ lb of *Lotus uliginosus* (major) is added and this is sown about the middle of March.

Ewes are flushed from 1 March; half the rams are put out on 17 March and the other half of the rams on 24 March.

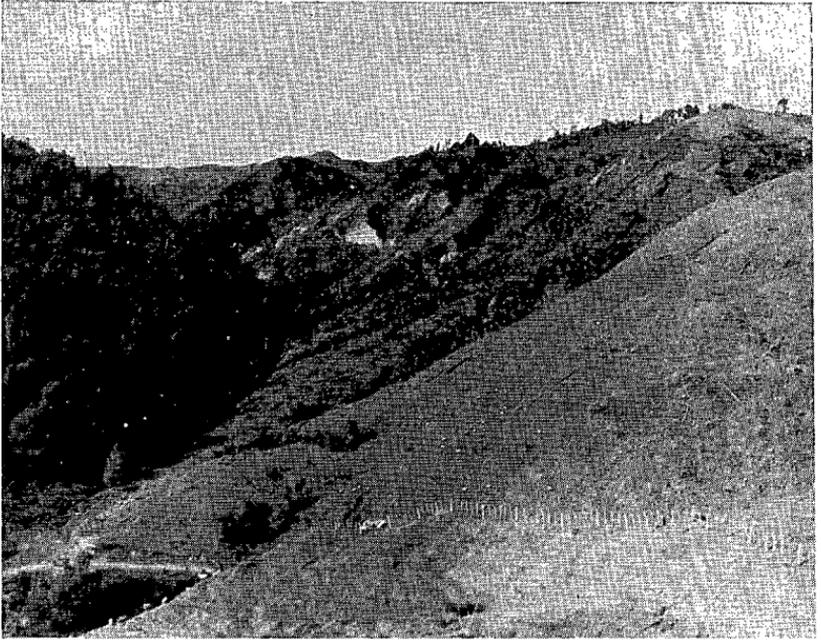
During tupping time ewes are never yarded overnight.

An autumn-shorn sheep will eat much more grass in winter than sheep with a good growth of wool.

Shorn sheep do not get cast, but you still get lambing problems with them such as wrong presentation, blood poisoning, and mis-mothering.



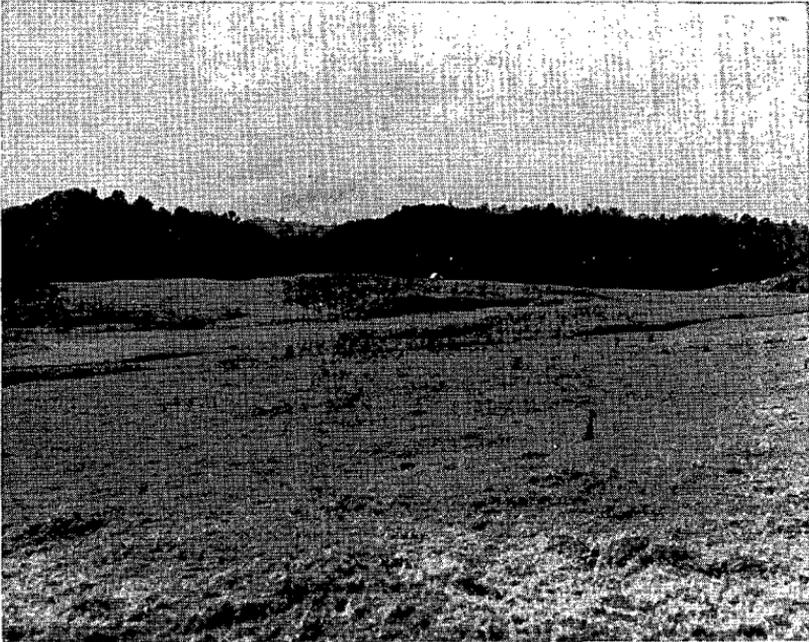
A boundary face showing 20 years neglect. The country on the left has been topdressed and rotationally grazed over the last 10 years. This paddock will now run 4 ewes to the acre.



Three phases in development-Left: Virgin bush. Background: Carpet fern stage and stumps 12 years after felling of bush. Foreground: Consolidated topdressed area after 50 years.



Close-up of area at carpet fern stage referred to above.



Terrace country of volcanic ash, responds to phosphate and potash. Valuable tupping and fattening country carries at least 5 ewes to the acre.



A general view of the backcountry of Northern Taranaki.