
IMPROVING PRODUCTION FROM SEMI DEVELOPED TARANAKI HILL COUNTRY

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INTRODUCTION

Our farm at Tarata illustrates most of the problems and short-comings of Taranaki Hill Country. I enjoy farming the hills and I am optimistic that, with the help of researchers, advisers and others we can rise to meet the challenges of the future. If we don't go forward we will go back. For instance; an enterprising and enthusiastic entrepreneur from Auckland is planting much of two recently acquired farms near us into pine trees. Unless we can meet the challenge the way is open for much more land to be planted in trees. We face a challenge too from developments on the better, traditional fattening country. Dairying and horticulture are taking much of this land out from fattening store stock produced in the hills and we will have to look to fattening much more of our stock at home. This can't be done on browntop Danthonia pastures.

The following is a brief summary of our farm enterprise, intended to illustrate some of the needs of hill country in general as I see them.

FARM STATISTICS

Our farm has a total area of 400 hectares. Of this approximately 50 hectares is in bush which will always remain and 50 hectares is in scrub which will be progressively cleared. During the last 4 years a further 40-50 hectares has been developed by cutting and burning and we now farm 300 effective hectares. On this we carry a total of 3000 stock units made up of 1950 Perendale ewes, 650 hoggets and other sheep (2400 s.u. in sheep), and 60 cows, plus heifers and winter the calves (650 s.u. in cattle).

The ewes are of very average quality. Improved breeding has increased the lambs dropped but wool weights are very low. The cows are Hereford-Angus calved very late (November-December), and the calves carried until August-September. The reason for this is that it seems to fit the grass growth curve to stock requirements better. In particular as we run the ewes and cows together for much of the time it brings their requirements more in step at crucial times.

DEVELOPMENT

When we bought the farm 5 years ago it was divided into five grazing areas with a few smaller paddocks near the house and shed. Fertilizer application had been sporadic and very light. The soils are developed from sandstone and

ash which is still covering the easier contour. Phosphate retention is as high as 97%.

The past policy of set stocking on low fertility provided the ideal environment for manuka, Danthonia, browntop and a good smattering of ring fern. These species were doing quite well.

FERTILIZER AND GRAZING MANAGEMENT

With this as a starting point we looked first to raising soil fertility. I assumed phosphate was the limited factor (proved by subsequent soil tests) and aimed at applying 100 tonnes superphosphate per year. This is showing results but with the rise in cost it is going to be hard to justify at present production levels.

Together with fertilizer application we were sure that extensive sub-division is necessary to utilise any extra grass grown and to improve quality by better grazing management. I am an advocate of mob-stocking and to achieve this I hung all my hopes on the success of electric fences. I have erected several miles for minimum cost in materials and have put them up myself and have found them to be successful. I now have 23 main grazing paddocks and try to maintain sufficient grazing pressure on at least part of the farm to control summer growth. Smaller paddocks make it possible to clean up any areas that do not get out of control, at a later stage. I am now finding that I have much better quality feed to offer young stock and ewes at tugging.

As sale ewes and wether lambs leave the farm we start rotational grazing with the ewes and calves with calves in one mob and ewe lambs in front, aiming for about a 50 day rotation.

Until now all wether lambs have been sold as stores, but it is now my intention to fatten at least some of them. This will keep more mouths on the farm at a time of good growth, and more importantly increase the returns.

RESULTS, POINTERS AND PROBLEMS

While the advantages of a successful mob grazing system have been well documented, I sometimes feel people have been advised to try rotational grazing without being properly prepared to carry it out in practice. It is important that a farm and farmer is well prepared to implement such a policy as it is easy to run into a few practical problems and become disillusioned with the whole scheme. The following are a few of the practical problems associated with intensive stock grazing on broken country.

The old skills of stockmanship have always been important but in many ways more so when confining stock in smaller areas. Stories of smothers and badly trampled gate-ways are common. I find it is important to get stock to move in, in their own time. I will often do a quick trip without the dogs just to open the gate, and return later to move through the stragglers. Siting of gates becomes more important than ever. A gate must go where it suits the stock, not necessarily where it is easy to drive a tractor or landrover.

While electric fences have been successful, I never run two mobs with only an electric fence between them as in these circumstances too any animals will

jump through to join their mates on the other side. Even when power has been off or at a low voltage I have never had a mob go through in large numbers.

A very valuable asset I have is a lane-way running 1/3 of the way across the farm. This enables stock to lead off and move from one area to another without being controlled in a mob all the way. It also allows me to go to the back of the farm quickly without disturbing the stock no matter what paddock they are in. Unnecessary stock disturbance can quickly off set the advantages of the scheme, especially in wet weather.

As mentioned earlier the areas in grass were predominantly browntop — Danthonia and it is proving very difficult to make rapid progress in changing this sward to one of more clover and better grasses. Areas that have been cut and burnt are establishing better species quite rapidly. Much of our hill country has this poor quality pasture and it is in changing it to a better type that is a major problem. No doubt if we could stock sufficiently heavily we would make progress but there are practical limits in this direction. Very heavy dressings of fertilizer perhaps is the only way but cost is blocking this avenue. Allan Gillingham's facts on fertility transfer off the steep slopes makes me wonder if we can ever make efficient use of fertilizer on steep country. Any research and information in this field would be well received.

In conclusion I would like to quote a football coach who I once played under. As he surveyed the talent or lack of it, that was available to him that year, he quoted this version of the old saying, "I can't make a silk purse out of a sow's ear but I can try and make a damn good leather one". The hills and gullies many of us farm cannot be made into "silk purses" but I believe we can and must make some "good leather ones". I also believe the knowledge and technology is available to achieve this end. The challenge seems to me to be more in applying known research rather than the lack of new ideas coming from the researcher.