

INTENSIVE DAIRYING ON THE CENTRAL PLATEAU

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Abstract

In the drought-prone district of Broadlands a system of dairying on **lucerne** has evolved. The history of such a farm from 1966 to 1979 is described. From 1970, farm area has increased by 70%, lucerne area by 400%, cow numbers by 108%, and milkfat production by 312%. Seasonal farm management is described, including bloat control, fertilizer treatments, and harvesting or growing of supplementary feeds. Comment is made that this farming system offers considerable scope for expansion of dairy production in the district.

INTRODUCTION

THE district we farm in is Broadlands, 56 km south of Rotorua. Earle Vaile, in his book *Pioneering the Pumice*, said that one day this would be a prosperous farming district. Many farmers in the past probably thought he was a super salesman as he was also a land agent. Vaile, who named our district "Broadlands", bought some 21 900 ha from an English estate and proceeded to start a large-scale land development and farming venture. After many trials he sold half his estate for forestry and much of the remainder to the Crown.

Because of many failures in the 1930s through cobalt and selenium deficiencies, "Broadlands" still had a bad reputation when we arrived in 1966. It was very difficult to arrange finance, and even the Reporoa residents felt sorry for us.

CLIMATE

The climate is very cold in winter, with many frosts which can occur in any month of the year, and usually hot, dry summers. The rainfall is unreliable, averaging 1000 mm/yr. The elevation is 305 m. Topsoils in the main are thin, overlying coarse infertile Tadpo ash which varies considerably over the farm.

FARM DEVELOPMENT

Lucerne has played a large part in the development of dairying on this property during the 13 years since we purchased it in 1966. At that time it consisted of 69 ha of browntop-dominant

pasture carrying 66 cows, 1 bull and 17 rising 1-year heifers, and producing 5900 kg milkfat. There was a walk-through milking shed and a small cottage of approximately 70 m².

Between 1966 and 1969 the milking shed was converted to a herringbone design, two-thirds of the farm cultivated and sown down in new pasture, water supply, races and fences upgraded, and ragwort, barley grass and nodding thistle brought under control. Then came the big drought of 1969-70 when thousands of cattle and sheep from the Rotorua and Taupo areas were trucked to Wairoa and Gisborne for grazing. An assessment of our pastures following the drought left us no alternative but to commence an intensive programme of lucerne establishment. Daily drenching against bloat was not the accepted practice it is today. The risks were huge, but the soil type and seasons left us no alternative.

In 1971 we purchased 25 ha of a neighbouring farm and, with increased lucerne on the original block, obtained a large increase in milkfat production to 22 880 kg from 150 cows off 88 ha.

As is shown in Fig. 1, the following six seasons brought a gradual increase in milkfat production to 30 000 kg in 1977-8 as lucerne increased to 53 ha and cow numbers increased to 178.

With the advent of lucerne bacterial wilt in 1975, and more recently the blue-green lucerne aphid, a considerable area of lucerne which had been sown at about the same time deteriorated very quickly, requiring long tractor hours to re-establish these stands. A recent trend that alarms me is that, now the lucerne subsidy has been removed, many dairy farmers are not renewing their stands fast enough, and I feel there will be a decline in production to their own and also the country's detriment.

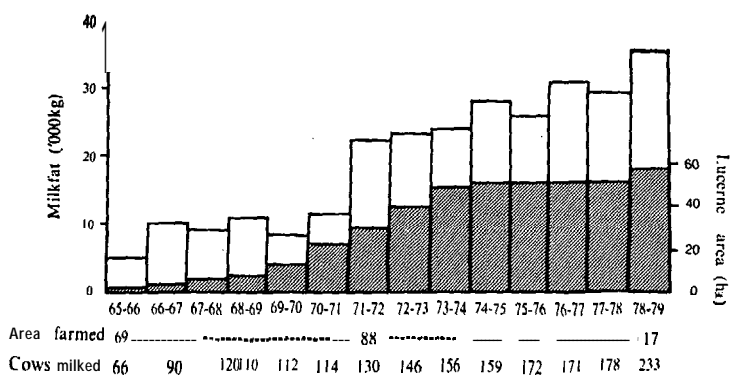


FIG. 1: Dairy farming progress.

In May 1978 we purchased a further 29 ha and increased cow numbers to 233 on 117 ha. We formed a family trust and split the farm into two separate dairying units of 63 and 54 ha. My wife and I run these with the help of two labour units. The fact that the new property had an elderly, though sound milking shed and cottage made it logical to split the total farm into two separate units. This has caused many changes to our farming policy.

It also demanded an intensive programme of development to prepare it for the start of the 1978-9 season. First, the water supply, races and fences had to be shifted, renovated or extended, and then the milking shed and cottage had to be extended and repaired, etc. Since then, tree stumps and banks have been bulldozed, and 5.3 ha of new lucerne established on this new area. Ragwort, nodding thistle, barley grass and stinging nettle have also received a lot of attention.

SEASONAL MANAGEMENT PROGRAMME

AUGUST - SEPTEMBER

All lucerne areas are topdressed with 500 kg/ha 30% potassic serpentine superphosphate and 5 kg/ha borax, and all grass areas with 375 kg/ha 30% potassic cobalt superphosphate.

Calving commences on August 17 for the heifers and August 22 for the cows. Early calvers are milked on winter-saved pasture, with silage if needed. About September 15, lucerne is brought into the rotation, being grazed by day, with grass at night, and daily drenching against bloat and staggers commences. Lucerne is rotationally grazed on a daily shift basis and about a 45-day rotation. Weed and aphid spraying, and also cultivation, commence.

OCTOBER - NOVEMBER

Normally, 8 ha lucerne, 4 ha kale, and 4 ha swedes are sown, and as much area as possible is closed for silage, made with our own equipment and labour.

DECEMBER - JANUARY

By this time lucerne is being grazed on about a 35-day rotation, More silage and hay are made. Normally, 35 ha silage and 1500 bales of hay are made in total. Spraying for aphid and weed control continues as required.

FEBRUARY - MARCH

If the season turns dry, kale is fed after evening milking, with lucerne being fed by day. If the season is wet, Tama at 8 kg/ha

is drilled into lucerne. All grass areas are topdressed with 375 kg/ha 15 % potassic superphosphate.

APRIL-MAY

In a dry season the lighter cows are dried off early; otherwise all cows are dried off about May 20, and both herds split into two mobs. Older and heavier cows are fed swedes, grass and silage; lighter cows and rising 2-year-olds kale, grass and silage; and rising 1-year-old heifers grass and hay.

JUNE-JULY

A continuation of this feed pattern, with increasing intake through July, until calving commences.

SUMMARY

It has been a great 13 years — better than we hoped for in the beginning — and by using the above management policies we should be able to achieve the 46 000 kg (100 000 lb) of milkfat in the next year or two.

Just recently we have leased a 40 ha runoff for 30 years. This will require some effort and capital but will be good value in the future. During the past 2 years I have also managed a small sheep farm and have seen it grow from 150 to 1150 ewes in that time.

Finally, with improved stock, lucerne and pasture management, aphid and weed control, and with good keen young men arriving every season, there will be much progress in dairying on the pumice plateau in the next few years. Government and all relevant departments must be involved to encourage and direct public funds to the areas required. This is a rapidly developing area where keen young men with limited finance can still make it, given the *incentive* to have a go.

ACKNOWLEDGEMENTS

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