

OBSERVATIONS ON THE DEVELOPMENT OF PRIVATE DAIRY FARMS IN NORTHLAND

1. The Dairy Farmer's Viewpoint

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ELEVEN YEARS AGO, I purchased land on the west coast 10 miles south-east of Dargaville. It is rolling country with sandy soils of two types, one of good quality, and known as Red Hill sand, and the other, Te Kopuru sand, a sandy gumland with a pan beneath. The climate is generally mild, but very strong westerly winds carrying sea spray are a feature of the area, and the effects of dry summers are felt very quickly. The farm comprises 131 acres, and was purchased in two blocks, one of 85 acres and one of 46 acres. In 1956, I went on to the farm with 44 heifers of my own, and 5 cows and 20 yearlings I had purchased. The only other things I owned were a truck, a tractor 20 years old, and a mower.

INITIAL DEVELOPMENT

The farm, like so many others in the north, was in a badly rundown condition following years of low production. This backlog of deferred maintenance makes farm development costly. The house was in only fair condition. Fences were down, races were negotiable only by four-legged animals, preferably with webbed feet. The pastures were a mass of flat weeds, fescue, and kikuyu in a long, tangled state which seemed to be permanently brown and unthrifty looking. Dozens of pine trees were lying where they had been felled. The old, dilapidated cowshed was the worst feature of the farm, but, in the third season, it was demolished by a hurricane and I had a very good case when raising finances for a new three-cow doubled-up internal shed.

In the first season my scratch herd of 49 cows averaged only 177 lb butterfat to produce a total of 8,671 lb. At this stage, I had to decide how best to utilize the meagre finance available to me. After considerable thought, priority was given to fencing, increased fertilizer, pasture improvement,

more stock and the provision of a piggery on a broad front. A start was made by making the original eight paddocks stock proof, and erecting a road boundary. One electric barbed wire and macrocarpa battens were used to give further subdivision. The small length of central race was a series of mud holes and these were filled with 1,400 yd of sandstone costing \$480, and \$200 worth of crushed metal, to make the race accessible to stock. Previously, water had been pumped to only four troughs on the 131 acres, so this was another priority to be reckoned with. In the first few years, 2,400 ft of alkathene and eight large troughs were installed.

Until this stage, expenditure had been on items which were essential to the farm but had no real effect on production. Pasture improvement was begun by undersowing the best paddocks with ryegrass and white clover. Quite a reasonable response was obtained, but there appeared to be just as good a response from manure in the poorer paddocks, which indicated that the basic problem was one of fertility rather than species. Neither undersowing nor oversowing has been carried out since that time. Topdressing began with 3 cwt in the first year. When finance became available in the third year, this was increased to 4 cwt, and to 5 cwt the following year. Currently, 8 cwt, in split dressings, is applied in May and November.

The felled pine trees, which interfered with stock movement and the mowing of paddocks, were heaped up and burnt. The burned areas, and other patches which were covered in small manuka, were disced and sown in turnips. These were break-fed to the milking cows in February. In the early years, when dry summers had greater effect on pastures because of low fertility, these areas in turnips were invaluable. Approximately 5 acres of rough corners were worked each year for three years until they were all in grass.

STOCK

Throughout the initial years of development, I was short of stock. There were times when I would have liked to put on more fertilizer to achieve a better response but there was insufficient stock on hand to do this. Artificial breeding has been used since the first year but the desired stock increases have not always eventuated as bull calves have always outnumbered heifers. Heifer calves from inferior bulls have had to be retained and it is felt that these have lowered the per-cow average. The herd was tested for the

first five years, but as there was insufficient stock on hand to allow culling of low producers, the money used for herd testing at that stage could presumably have been put to better use. Calving began in mid-June for the first three years, but as cow numbers increased this was worked back to the beginning of July. With later calving, it has been possible to reach a peak of 1.5 lb butterfat per cow per day by mid-September, which is necessary if a 300 lb per-cow average is to be reached.

Over the years, production and stock numbers have increased as follows. The 8,671 lb butterfat from 49 cows in the first season was doubled, four years later, from 64 cows. For various reasons, production did not increase much in the second four-year period, but in the past four years it has risen quickly to 37,292 lb from 123 cows, which is 304 lb per cow, or 284 lb per acre.

During the development programme, like any other farmer, I have had my setbacks. In the third season, a severe outbreak of leptospirosis lowered production. In the fifth season, the herd was T.B. tested and a third of the milking cows had to be culled. In addition, that year saw the worst drought in the area for 20 years. For several seasons, production was affected and it was three years before it climbed back to 20,000 lb butterfat per year. About that time, also, a change was made to wholemilk supply, and, while the milk room and tanker road were financed by the sale of pigs, the loss of the monthly pig cheques in the first season was severely felt. Since then, I have never regretted going out of pigs.

Once production reached 20,000 lb butterfat, my development programme accelerated, and, from increased income, it has been possible to build a new 14-a-side herringbone shed. There are 32 grazing paddocks, and a central race which will stand up to wear in all weather. The pastures are of good quality and, judging by their growth for normally difficult times of the year, the land seems to be of reasonable fertility. This year, 43 additional cows are being milked with the hope of achieving 48,000 lb of butterfat. I have every confidence in the ability of the farm to produce.

MANAGEMENT POLICY

Looking back on the past eleven years of development, I can see things I would improve upon if I were to do the job again. During those early years, I relied heavily on advice. At that time, information on the types and quanti-

ties of fertilizer to use, on grazing management, on the amount of subdivision required, and many other factors, did not seem to be available. Many of my own ideas were contrary to those of fellow farmers.

Early on, I sought the advice of H. R. Kirton, Dairy Board Consulting Officer at Warkworth, and looked to him for guidance. Besides advice, he gave me a great deal of confidence both in myself and in the farm and gradually helped me to overcome the general tendency to underestimate the carrying capacity of the land. From then on, many of the things I seemed to do were contrary to what my neighbours were doing. I abandoned the traditional night paddock system and began rotational grazing—first, 24 hours in each paddock, and now 12 hours in each paddock. Potassic superphosphate was applied, rather than straight superphosphate, and in heavier amounts than was usual. I adopted a totally different wintering system. Whereas my neighbours grazed their stock off the farm in the winter, I used paddocks of low fertility. These paddocks, closed in March, were break-fed with the electric fence and hay was fed at the rate of one bale to nine cows on the breaks. By doing this, I retained all the dung and urine which my neighbours were losing and improved pastures more rapidly.

Kikuyu is a controversial grass, and where once I used to envy farmers who had none, I no longer do so. Kikuyu, which was once brown and unthrifty, is now thriving, and, with a stocking rate of one cow and replacements per acre, I am having trouble keeping up with its growing capacity. I have realized what a valuable grass it can be when it is topdressed and stocked.

In retrospect, I feel that the advice and support I received made a vital and positive contribution to the development programme.

The attention paid to priorities of fencing, fertilizer, water and more stock has paid dividends over the years. Perhaps, though, attempting all these on a broad front has been a mistake as there have been too many jobs left incomplete over the years.

FINANCE

Shortage of finance has been a consistent stumbling block. I made the initial mistake of putting all my capital into the purchase of the farm, leaving nothing for development. The two blocks cost \$16,000, of which I paid \$10,600. In the first season, I had to have bank assistance for my

living expenses and for improvement work. Within twelve months, I had an overdraft of \$2,000 and owed \$1,000 in sundry debts. With only 8,600 lb of butterfat as income, this was a bad start. For five years, my overdraft was at the top of its limit and I had many worrying times trying to balance accounts at the end of each month. Once butterfat yield reached 20,000 lb, there was some degree of relief as there was a little more money from income to spend on development and so accelerate progress. The bank overdraft was still being used, but there was now sufficient income coming in to avoid working to the overdraft limit, and a little money was available to spend in the home to make living conditions more comfortable.

Bank credit has made most of my development possible. I was fortunate, in the early years, to gain the then bank manager's confidence, but the degree of confidence has varied a great deal with succeeding managers. The priorities in my development programme are not much different from those of farms in districts further south, but mortgage and seasonal finance availability differs considerably. It is hoped that banks will realize the enormous potential of Northland farms and make sufficient seasonal finance available to young farmers starting to improve their farms and retain young stock. At the moment, too many of them are having to sell young stock to meet expenses, and the rate of progress slows down.

THE FUTURE

This season, I am leasing an adjoining 4.5 acres and with this added to my 131 acres I have every confidence that 200 cows producing about 300 lb butterfat per cow will be possible within the next few seasons. It may be possible to accomplish more than this if the land is capable, and I have a feeling that it is.

The method of achieving this higher production, however, presents another set of problems. The increase in stock numbers will not create many difficulties in management, but one problem which does loom large, and which I am already encountering, is that of labour. I have passed my physical capacity to milk the herd on my own, and now employ an 18-year-old farm cadet. I cannot yet afford a married man, which would be preferable, and, in any case, there is the problem of providing him with a house. Single labour has its drawbacks. Employer and employee work together all day, and live together at night.

Because of his age and general lack of experience, the level or degree of responsibility one can give a youth is limited. This necessitates working with him on most jobs. There is the further problem of increased work in the home, and a certain amount of restriction on one's private life. The single boy needs adequate time off to be kept happy, and one finds oneself working for the boy to make this time off possible. This problem of the single man is a difficult one to solve, yet it is a stage of development which must be accepted for the step from a one-man unit to a full two-man unit is a long one.

As has been mentioned, finance has always been a problem. Suddenly, this year, for the first time, I was in credit throughout the winter and it was the first year that I paid a substantial amount of tax. Fortunately, I was not unprepared, and have done what I can about it by paying my family wages, which are long overdue, and increasing stock values until they eventually reach £25 per head. But, from now on, every **step** ahead, every increase in butterfat and stock numbers will be more difficult and expensive. Development projects are almost exhausted, and I cannot put the amount of money I would like to back into the farm in the form of maintenance. In the future, I will have to look toward income sharing and short-term life insurance as possible outlets.

The answers to technical problems have sometimes in the past been lacking but this has not really created difficulties. But one problem which has reared its head of late is that of black beetle attack. On **coastal** country, the ravages of this pest are feared for they can have a very damaging effect on production within a few months. As there is no means of controlling this pest, it could place a limit on the productive capacity of my farm, and others like it.

I have always watched with interest the success of a very good friend who has recently retired from business. On the eve of his departure for a trip around the world I asked him if he did not think he was too young to retire. He replied: "You're never too young to die, so you're never too young to retire".

If the successful development of the past is any indication of what the future has in store, I am confident that my retirement, partial anyway, is not too far away.

DISCUSSION

Does Mr Vallance consider he is getting good value for the high rates of fertilizer used?

Yes. The rate must be kept high to increase production and number of milking stock.

What proportion of Mr Valiance's farm is in kikuyu? Does it make wet soils wetter?

One-third to half of the farm. Only when in a mat does it make soils wetter.

Would it be feasible for married labour to live in the nearest town or village and come to the farm each day?

Yes, provided the man was prepared to start work in time for morning milking.

How does Mr Vallance decide on topdressing rates?

By using my own ideas, and with the assistance of a Dairy Board consulting officer and other farm advisers.

To what extent is clover growth affected by kikuyu?

Close grazing of kikuyu allows the clover to grow without smothering taking place.
