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ADJUSTMENTS TO RESOURCES FORMERLY USED FOR DAIRYING ON THE FAR NORTH COAST OF N.S.W.

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This paper examines the present use of resources which have left the dairy industry on the Far North Coast of New South Wales in recent years. The number of suppliers to dairy factories in the Richmond-Tweed area has declined by approximately 9 per cent per annum over the last four years. This decline is not simply a result of the economic position of the small dairyfarmer; many other factors are also involved. Beef production is the dominant land use replacing dairying, and there is an associated decline in the intensity of labour use on farms. Many former dairyfarmers have accepted a lower income as a result of leaving the industry. Non-farm employment has played a part in most increases in income which have occurred.

1 INTRODUCTION

The rate of decline in the number of dairies operating on the Far North Coast of N.S.W. has been particularly rapid over the last four or five years. Recent evidence suggests that this trend is continuing and intensifying (table 1). The number of suppliers to dairy factories in the Richmond-Tweed area declined by approximately 35 per cent over

TABLE 1

Number of Suppliers to Dairy Factories at Centres in the Richmond and Tweed River Valleys (1966-1970)

Centre	Lismore		Byron Bay and Murwillumbah		Casino		Kyogle and Bonalbo	
	No.	Yearly Percentage Decline	No.	Yearly Percentage Decline	No.	Yearly Percentage Decline	No.	Yearly Percentage Decline
1970	1106	8.1	630	12.6	370	8.4	417	8.3
1969	1199	8.2	715	16.1	406	9.8	453	8.5
1968	1301	4.4	840	8.1	448	11.4	493	7.1
1967	1359	7.2	911	16.0	502	11.8	529	5.3
1966	1468		1069		565		558	

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the four years from 1966 to 1970. At Lismore the reduction in numbers has been approximately 25 per cent, while at Byron Bay and Murwillumbah it has been in the order of 40 per cent.

This paper examines the present use of resources which have left the dairy industry in recent years. A number of questions are posed. What are former dairyfarmers doing and how does their income compare with their income while dairying? What has happened to non-labour resources formerly used for dairying? What changes are occurring in the size of holdings and the nature of improvements on farms that are leaving the industry?

2 SOURCES OF DATA

In order to obtain data, a list of producers who had stopped supplying Norco Co-op. Ltd, at its Lismore factory, in the years 1966-67 and 1967-68 was obtained. By selecting these two years, each farmer interviewed during 1970 had spent at least two years out of dairying. It was felt that these people would be better able to compare their present occupation with dairying than would farmers who had left the industry more recently. From the list of dairy suppliers, changes in ownership of farms still in dairying, farms being sold for amalgamation and farms going out of dairying were identified (table 2).

TABLE 2
Suppliers Leaving Norco, Lismore During 1966-67 and 1967-68

Type of change	No.
Sold for dairying as single unit	102
Sold for amalgamation with existing dairy	25
Left dairy industry	134

It can be seen that over the two years 4.8 per cent of dairy farmers left the industry per annum, 0.9 per cent per annum were amalgamated with existing dairies and 3.7 per cent per annum were sold as dairy units.

From the farms which went out of dairying a sample of thirty-three was selected at random, of which thirty were available for survey. All farms were visited and the current operator was interviewed. In most cases this was the farmer who owned the farm when it went out of dairying. In cases where the farm had changed hands, the former owner was interviewed as well as the existing owner, where possible.

3 CHARACTERISTICS OF LEAVERS

Farms leaving the dairy industry vary widely in size and productivity. There is however some evidence to suggest that a greater proportion of the small producers than large producers are leaving (table 3). The

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TABLE 3

Number of Farms Leaving According to Butterfat Production

Butterfat production (lb)	No. of suppliers as at 1-7-69	No. leaving during two year period	Percentage of leavers to original number
0- 3,999	223	51	22.9
4,000- 7,999	553	50	9.0
8,000-11,999	396	25	6.3
> 12,000	217	8	3.7

prima facie evidence of small producers leaving is very strong, but there may be a hidden bias in these figures. The vast majority of producers leaving dairying moved into beef production. As this was usually a gradual process, production for the two or three years preceding their departure was likely to be less than their previous production. In some cases during the interview it became obvious that the decision to leave dairying had resulted in a substantial reduction in butterfat production in the years immediately preceding the final departure. Where this was the case, earlier production figures were investigated and the original estimate modified. However small reductions in butterfat production were likely to remain undetected. Despite the probable bias in the butterfat production figures, there is a high proportion of the under 4,000 lb producers leaving the industry and only a small proportion of over 12,000 lb producers.

(a) Subsidiary Enterprise While Dairying

Seventy per cent of the farms surveyed had subsidiary enterprises, ranging from small vegetable enterprises to sizeable banana and cane enterprises. In many cases the sideline enterprise was pigs, which played an important role in utilizing skim milk. However, in the other cases, the skim milk was utilized within the dairy enterprise for raising calves. Very few farms sent whole milk to the factory. Excluding pig and calf rearing, 43 per cent had sidelines not directly connected with the dairy and 23 per cent had cropping sidelines.

(b) Changes in Land Use

Beef production is the predominant land use on farms which have gone out of dairying. Ninety per cent of farms surveyed now have beef as a major enterprise. Table 5 shows the current use of ex-dairy farm land. The population and the sample of leavers classified according to butterfat are given in table 4. In all but one case, the beef enterprise was geared to producing vealers. This is perhaps to be expected as vealer production has a similar twelve month production period to dairying. Also the ease of supervision of stock on ex-dairy farms, due to their relatively small size, tends to make vealer production a logical alternative.

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TABLE 4
Population and Sample of Farms Leaving the Dairy Industry

Butterfat production lb	Population		Sample	
	No.	Percentage	No.	Percentage
0- 3,999	51	38.0	11	35.5
4,000- 7,999	50	37.4	11	35.5
8,000-11,999	25	18.7	6	19.4
> 12,000	8	5.9	3	9.6
Total	134	100%	31	100%

TABLE 5
Present Major Enterprise on Former Dairy Farms

Land use	Number of Farms	Percentage
Beef (same area)	19	61.3
Beef (amalgamated)	7	22.6
Sugar and beef	2	6.4
Dairy heifers	3	9.7

(c) *Present Subsidiary Enterprises*

Where sugar and beef were produced on the farm it was difficult to determine the major enterprise. Although they use different amounts of land and labour, the net income from each was approximately equal. Regarding the sugar-beet combination as non-subsidiary enterprises, 23 per cent already had cash cropping at the same time as giving up milking and only one had given up single enterprise dairying in favour of beef and a subsidiary enterprise. In all other cases the sideline was the same as while dairying, but in a few cases more emphasis was now put on the subsidiary enterprise.

(d) *Amalgamation of Farms Leaving Dairying*

A significant number of amalgamations had taken place among the farms leaving the dairy industry. In the survey group 23 per cent of the farms had been amalgamated with another property (or properties) at the time of leaving dairying. In some cases acquiring more land for amalgamation was the main reason for quitting dairying. In all cases where amalgamations took place, the major enterprise on the resulting farm was beef cattle production. In absolute terms only a small number of farms involved in amalgamation were surveyed. Projection of changes occurring on these farms to the whole population will be subject to wide variability.

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Where amalgamation took place, the size of the holding increased by approximately 90 per cent and the number of breeding cows increased by 70 per cent over the number of milking cows. Another study has shown that approximately 150 to 180 breeders are needed in this area to generate sufficient income for the operator plus a reasonable return on capital from breeding vealers¹. Table 6 shows that only farms producing more than 8,000 lb butterfat carried this number of breeders when amalgamated.

TABLE 6
Farm Size Before and After Amalgamation

Butterfat production	No.	Average acreage		Average stock run	
		Before	After	Before (milkers)	After (breeders)
0- 4	2	110	229	45	55
4- 8	2	140	230	62	85
8-12	3	185	368	70	153

Most cases of amalgamation involved the inheritance of additional land rather than purchase. This suggests that many small dairy farms on the Far North Coast are not producing sufficient to generate the capital needed for the purchase of additional land.

(e) *Farm Buildings*

Many farm buildings on the sample farms are now idle. The bails and dairy on most farms are not readily adaptable for use in other forms of livestock production. Milking machines, separators and vats do not appear to be easily saleable. The fact that many dairies are intact with little or no machinery sold does not necessarily indicate that the owner is contemplating returning to dairying (table 7).

TABLE 7
Present Use of Bails and Dairies on Former Dairy Farms

Current use	No.	Percentage
Idle	19	61.3
Idle and equipment sold	8	25.8
Used as shed or otherwise usefully employed	3	9.7
Destroyed	1	3.2

¹ T. J. Christiansen. "Economic Consequences of Changing from Dairying to Beef Production". Paper presented to "Staying in Dairying?" Symposium, Murwillumbah, September, 1970.

TABLE 8

Use of Buildings on Second Farm in Amalgamations

Use	House		Bails and dairy	
	No.	Percentage	No.	Percentage
Idle	2	33.3	5	71.4
Rented	2	33.3
Sold	1	16.7	1	14.3
Used as shed	1	14.3
Destroyed	1	16.7
Total	6	100.0	7	100.0

On the farms which had been amalgamated, a house and a second set of bails were involved in the readjustment of resources. There were seven amalgamations involving six second houses and seven second dairies. The current use of these varied, with renting playing a large part in the use of the second house (table 8). It appears that, at least in the area covered by the survey, there is some demand for old farm houses by non-farmers. It would, however, be risky to draw any general conclusion from these results as the number of houses involved is very small. The particular area studied also has several features which may not apply elsewhere, e.g., favourable climate, proximity to coast and to a large town.

(f) Changes in Capital Employed

In changing from dairying, only a small number of farmers had carried out improvements to buildings, pastures or land which were likely to increase the earning ability of the property. Including amalgamations as improvements, 35 per cent of farms leaving the industry had carried out such improvements. However, excluding amalgamations, only 13 per cent of the farms had done so. It seems that improvement of land is not an important factor in changing land use, despite the fact that many dairy farms leaving the industry have a low level of pasture development. Also many of the capital assets such as buildings, fences and watering facilities are "run down".

4 LABOUR

The type of adjustment made to labour on farms leaving the industry varied greatly (table 9). However, the intensity of labour use declined substantially on most of the farms surveyed. The two main types of adjustments were that the same labour was spread over a larger area or that less labour was applied to the same land.

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TABLE 9
Adjustments to Labour on Surveyed Property

	Number	Percentage
<i>Change in operator:</i>		
Full-time	3	9.7
Part-time (operating amalgamated or more than 1 property)	3	9.7
Part-time (non-farm job)	4	12.9
<i>Same operator:</i>		
Retired	5	16.1
Full-time*	4	12.9
Part-time (operating amalgamated or more than 1 property)	5	16.1
Part-time (non-farm job)†	7	22.6
Total	31	100.0

* Operators who had carried out substantial improvements.

† Two operators were running amalgamated or more than one farm and holding a non-farm job. These were classified as part-time farmers with non-farm jobs.

In 60 per cent of cases there was simply a switch in the main enterprise from dairying to beef production. As beef production is less labour intensive than dairying, such a change releases a substantial amount of labour. If no adjustments were made to utilize this labour, the operator was assumed to be semiretired, but in all cases where this applied the operator was over the age of sixty-five.

Of the seven farmers with non-farm jobs and still operating their property as a single unit, five had taken non-farm jobs for the first time after ceasing dairying. Of the five cases where the same operator was on the farm but operating it in conjunction with other land, three had acquired more land at the time of leaving the dairy industry. The remaining two had operated more than one property while dairying. The extent of part-time farming is shown by the fact that 35 per cent of all operators had non-farm jobs.

Where the farm had changed hands the new operator had usually been a farmer previously. Only 30 per cent of new operators had come from non-farm employment and only 10 per cent from non-farm employment into full-time farming. Those who left farming usually left for non-pecuniary reasons. Seventy per cent were deceased or retired and twenty per cent were now in non-farm jobs.

5 REASONS FOR LEAVING DAIRYING

When deciding whether or not to cease dairying the farmer is often faced with a number of considerations. Usually the decision is based on a combination of circumstances rather than on any single reason. In some

cases a single event, such as the condemnation of the dairy, brings about the decision that it is time to cease dairying. However this single event may not be the most important factor involved. An attempt was made in this study to find out what was the most important factor responsible for the farmer's decision to leave dairying.

Over a quarter of former dairy farmers who were still operating their properties gave age as the primary reason for leaving dairying. Of the properties which had been sold, the predominant reasons for the decision on the seller's part were age, illness or death of the previous operator (table 10).

TABLE 10
Reasons Given for Ceasing Dairying on the Sample of Former Dairy Farms

Reason	Number	Percentage
<i>Same operator:</i>		
Age	6	19.4
Loss of labour	5	16.1
Returns too low	4	12.9
Buildings condemned	3	9.7
Floods	1	3.2
Inherited more land	2	6.4
<i>Sales:</i>		
Physical reasons	7	22.6
Returns too low	3	9.7

While only 13 per cent of respondents gave a purely financial reason, that is, returns too low, as the major factor influencing their decision, other factors such as loss of labour and condemnation of buildings had an economic basis. Those who claimed that loss of labour was the reason for their leaving the industry had generally been relying heavily on family labour, usually the son's. The fact that this family labour had left was often a function both of opportunities available off the farm and the age of the family. In effect this means that the dairy farm could only operate with the aid of this "cheap" family labour. It could not compete with off-farm employment for labour.

Although condemnation of buildings was given as a reason for ceasing dairying, it implies in fact that the operator could not see himself making a sufficiently high return to cover the investment in repairs or new structures. Hence unprofitability of the dairy enterprise was still the basic cause.

Other reasons put forward were the inheritance of more land and flood damage. These may have an economic basis but this is not necessarily the case. Many factors may enter into decisions as to how to use the inherited land. The case of flooding simply implied that the frequent disruption from floods made the land basically unsuitable for dairying.

6 RELATIVE WELFARE OF FORMER DAIRYFARMERS

It would seem that aspects of welfare other than income play a large part in the farmer's decisions. In cases where the same operator was on the farm he was asked firstly how his present income, and secondly, how his present overall situation, compared with that which existed while he was dairying. In answering the second question the farmers were asked to take anything into account they felt was important such as working hours, satisfaction from their work or freedom. While answers to questions on incomes may not be without bias, they did tally closely with changes which could be expected from the changes in farm enterprises and off-farm employment which took place.

TABLE 11
Relative Income and "Welfare" of Former Dairy Farmers

Current compared with previous position	Net income		"Welfare"	
	No.	Percentage	No.	Percentage
Better	7	33.3	12	57.1
Same	4	19.1	4	19.1
Worse	10	47.6	5	23.8
Total	21	100.0	21	100.0

One third of the farmers said their income had increased since leaving dairying (table 11). In all these cases farmers had either carried out major improvements to land, purchased more land, switched to sugar production or taken a non-farm job. On the 19 per cent of farms where income remained unchanged the farmers had either taken non-farm jobs or changed to sugar production. In only one case did a farmer taking an off-farm job suffer a drop in net income.

With almost half of the farmers accepting a lower income as a result of ceasing dairying, the answers to the question on relative welfare indicate the importance of non-income aspects of welfare. Admittedly there may again be some bias in answers to this question. If the decision to leave dairying was originally made in the expectation of increased or equal returns, and later this proved to be wrong, other justification may be sought rather than admitting the original mistake. On the other hand, when questioned on intentions, the answer seemed to be fairly consistent with answers to the welfare question. While only 30 per cent of farmers said their income had risen, almost 60 per cent felt they were better off now than while dairying; and, while almost 50 per cent had suffered a drop in income, less than 25 per cent felt they were worse off.

By far the most common explanation for an increase in welfare, although income had fallen or remained constant, was that the operator now had a freer life. This more than offset any drop in income. Another common explanation was requirements for money were now less because of fewer family obligations or the fact that the farm was "paid-off". Thus the

same standard of living could be achieved with less work. Where farmers said they were "worse-off" they invariably felt they had been "forced" into the change from dairying by such factors as age or the condemning of their dairy.

None of the respondents intended to go back into dairying. Over 80 per cent intended to carry on as they were, the others intending to sell the farm or carry out a major re-organization of enterprises. Of the five who felt that they were worse off, only two intended to sell their farms. The others felt that, while they were worse off now, they had no alternative but to continue as they were.

7 CONCLUSIONS

There has been a rapid decline in the number of dairies operating on the Far North Coast of N.S.W. While this decline is no doubt a result of the adverse economic position of the dairy industry, the factors affecting individual farmers are often only indirectly, if at all, related to the economic situation of the industry. The study showed that usually a complex set of interrelated factors, personal and economic, influenced the decision to leave. Personal factors were predominant in the decisions of when to leave and what to do. Age of operators was one of the main reasons for the decline in the number of dairies. Loss of labour, while often having an economic basis, was also related to age and played an important part in influencing decisions of whether to continue dairying. A direct economic squeeze on operators was relatively insignificant in reasons given for leaving the industry. Where "low returns" was given as the major reason it was usually not the absolute amount of income but the return to effort which weighed against dairying. In many cases a lower income earned with less effort was accepted after leaving.

The predominant present use of former dairying land was beef production. Generally little capital was added to the farm and some existing assets were written off. However many of these assets were of little value when written off. Thus few dairyfarmers were involved in a capital loss. With the establishment of the N.S.W. Dairy Industry Authority and the introduction of a rigid system of dairy registration the possibilities of new dairies commencing operation are limited. Whether a dairy registration will obtain a capital value in the future remains to be seen. It could well be that dairy farmers leaving the industry in future, thus giving up their registration, will suffer a capital loss. This however has only recently become a consideration.

With properties going out of dairying, a significant number of amalgamations occurred. One of the most striking results of the decline in the dairy industry has been the change in intensity of on-farm labour use. Due to substantial number of farmers taking off-farm jobs, "retiring" on farms or applying their labour to more land, the overall intensity of labour use has fallen considerably. Finally it was found that a large number of dairyfarmers accepted a lower net income after leaving the industry than they had while dairying. Despite this, most farmers considered themselves "better-off" than they were previously.