

**FIELD MEETING AT WINDERA ON OCTOBER 23, 1974  
PASTURES AND RURAL RECONSTRUCTION IN THE WINDERA AREA,  
SOUTH BURNETT**

Windera is an area of small pastoral holdings which were pioneered as dairy farms. However, on many properties the Dairy Pasture Subsidy Scheme has made possible expansion and diversification of production. The properties of Mr. Bruce Bishop, of the Windera West Pastoral Co., of Mr. George Kratzmann and of Mr. Tom McAntee, Jnr. were inspected and some of the successes and problems of rural reconstruction were discussed.

**WINDERA—GEOLOGY, LAND FORMS AND SOILS**

E. C. GILCHRIST

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The South Burnett region in general was the subject of intense volcanic activity in the past. Nowhere is the picture more interesting than in the Murgon/Windera area, where more recent (geologically) activity has given rise to a wide variety of soils ranging from very fertile scrub soils to low fertility forest soils.

Windera is situated in a valley which is bounded on the east by high fertility wattle and vine scrub and by medium low fertility ironbark forest and on the west by low fertility gum forests. There are some medium-high fertility alluvials along Windera Creek but the most interesting feature of Windera is the string of "agate blowouts" which occur down the centre of the valley. These are geologically younger than the alluvials and occur interspersed with areas of brigalow and of poplar box country.

Because of the complex geology and soils, conflicting and variable results were obtained when fertilizers were first used in the area. Faced with this problem in 1965, I decided to use soil tests to establish where deficiencies occurred and I tried to relate the results to established timber types. Over 100 soil samples from the Windera area were analysed, and from the results a pattern emerged which I confirmed by some small demonstration plots.

The Windera soils were found to comprise a full range of textures with clay soils predominating. They are normally neutral to slightly acid (pH 6.0–7.0). The agate blowout soils have medium to high P levels, and both the alluvial and the brigalow soils also have adequate phosphorus status. The remaining forest soils however are phosphorus deficient and nitrogen is low on all the forest soils. An area of low potassium levels was found on a poplar box flat, which together with very low phosphorus levels, explained the ill thrift of lucerne growing there. On the basis of other evidence from the Murgon area, molybdenum deficiency was expected on low-fertility eucalypt soils. Some low zinc and copper levels were recorded in soil tests but to date there is no known evidence of deficiency.

In conclusion, I wish to emphasise the importance of the work of the D.P.I. Agricultural Chemical Laboratory and other soil testing laboratories. Criticism is often levelled at soil testing and its value has been often challenged by those who say that soil testing has little value unless it can be correlated with properly conducted field trials. This is certainly a wonderful goal but it cannot be done now, or in the foreseeable future. Inevitably then the practising agriculturalist must start from the results of soil tests tempered with field experience.

Vegetation types are certainly a useful guide, but apart from the work of Teitzel and Bruce from South Johnstone Research Station, I know of little that has been done in Queensland to relate vegetation types with soil nutrient status. However, I believe the relationship could be a very close one if we ever learn to interpret it and if we have any trees left when we do.

**WINDERA—PAST, PRESENT AND FUTURE**

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Windera is situated approximately 30 km north-west of Murgon in the South Burnett district of Queensland. The climate is typical of the subcoastal region with an average rainfall of about 780 mm.

From an agriculturalist's viewpoint, the area has a number of interesting features.

1. Its development is typical of much of the land development which has taken place in Queensland since the turn of the century.

2. The different approaches to the problems of change adopted by the farmers are seen in the general movement from mixed enterprises of crop farming together with dairying and pig production through to today's more specialised farms: those supplying whole milk, those with intensive piggeries, and those concentrating on grain growing and beef production.

3. The successful commercial establishment of dryland improved pasture on farms, subsidised by the Dairy Pasture Subsidy Scheme, led to their general adoption throughout the district during the mid 1960's.

4. The geology of the area is complex and there is therefore a wide variety of soils and vegetation types. However, improved pastures have been successfully established throughout the area.

5. The rural community of Windera epitomises all the best features of second- and third-generation farmers, mainly of immigrant stock. From an unpromising beginning, it is now a thriving, though not necessarily wealthy, rural community with an assured future.

6. Numerous Queensland and Commonwealth government land and rural policies have influenced and are continuing to influence the area. This poses two questions about the merit of Government involvement in land and rural matters.

Were all the various rural subsidies, services, and assistance schemes that influenced the area over the past sixty years sound investments in terms of the wider Australian community?

Is the present independent hard working rural community now making a very profitable contribution to the national estate or is it not? I address these questions particularly to those people who insist on evaluating such policies in terms of short term gains. I believe the answer to both these questions is "Yes".

7. To those interested in the principles of agricultural extension and in the processes which lead farmers to adopt progressive farming practices, Windera represents a study in itself. Here are intelligent farmers who have experienced difficult times, who now comprise a stable rural community, who respect each other's strengths and weaknesses, and each of whom contributes to the common good.

*Past*

The area was originally taken up in the late 1890's as the grazing selections of Windera and Marshlands Stations. Later, about 1908, German and British farmers selected some of the better parts of these holdings for farms. A pattern of mixed farming comprising dairying, pig production and cropping developed with the Murgon Butter Factory, which in 1913 amalgamated with the Tiaro Butter Factory, playing a key role. The next important development took place in 1922 when blocks for soldier settlement were opened. These blocks were typical of the ill-fated schemes of the period: they were too small, lacked capital, were without water, and were infested with prickly pear, were isolated and transport facilities were poor. The soldier settlers quickly sold out or walked off.

In 1926 the branch railway, connecting Windera to Murgon, was opened, and brought with it some industry: sleeper-cutters, and prickly pear gangs. Access was greatly improved especially for movement of sale stock, for example pigs to the bacon factories. In a further effort to stimulate development, the State government offered "Prickly Pear Leases" at low rental: one 180 ha property was leased in 1929 for £12 p.a. for 44 years, at the end of which it was freeholded automatically at no additional cost. In 1929 there came *Cactoblastis*, the Depression, and lower butter prices, but some development continued with ringbarking and water improvement.

Periodically drought occurred and farmers learned early the value of hay storage. Cattle losses were heavy at times (up to 50 and 80 head died on individual farms). However cane tops were railed from the coast, 160 km away and the farmers survived with Drought Assistance loans, which were repaid in better times later. In the post war years, further farm amalgamations took place and dairying declined as an industry. The faint-of-heart and those on poorer farms moved out. In 1964 the Windera railway was closed following the development of sealed roads. I believe that it served a valuable purpose during its short life.

In the mixed farming stage, the main enterprise of dairying was based on dry-land lucerne with very little irrigation. Pioneer cash crops were maize, potatoes, pumpkins etc. which later gave way to grain sorghum together with wheat, barley and oats. However, the holdings were not large enough to engage in specialised grain growing, or beef cattle. Pasture development was restricted to pure lucerne stands, which in good seasons caused troubles with bloat and which, with recurring droughts, thinned out and became unproductive. In order to give sufficient energy for good dairy production lucerne needed supplementing with grain and phosphorus. Rhodes grass grew well in the scrub soils but the forest soils were not fertile enough to grow good rhodes grass and it was also decimated by drought. Green panic was tried but with variable success. Mr. Bill Trevor of Glenrock experimented with row-planted lucerne.

Both Siratro and Jemalong medic were observed to do well on dry forest soils and were suggested for further planting in the area. Furthermore, by 1960 sound germinating seed of green panic and Sabi panic was available, soil testing had revealed the pattern of phosphorus status in the area, and small demonstration plots of improved pastures were established.

In 1965 the Dairy Pasture Subsidy Scheme was implemented. Three of the earliest participants were Messrs. Robert Solomon, Stan Brockhurst, and Ken Beutel who planted pastures containing green panic and Sabi panic, Kazungula setaria, Biloela buffel, Siratro, lucerne, lotononis, Jemalong and Harbinger medic. Using proven planting methods and superphosphate as recommended, successful pastures were established. From these early pastures, many others followed until today, dry-land improved pastures have a place on most if not all farms. In 1967, urea feeding to livestock gave the key to prevention of stock losses in drought—a most important event.

No history of Windera would be complete without mention of the great dairy and pig studmasters of the South Burnett. These men—the Sheltons, Phillips, Crawfords, Marquardts, Headings and others, with their nationally recognised Jerseys and A.I.S. cattle, and Large White pig studs provided high quality breeding stock for the nearby Windera area and powerfully influenced the course of later events in livestock production. Similarly, the role of the co-operatives deserve mention. South Burnett Co-op Dairy Assn. established in 1906 at Murgon, the Darling Downs Co-op Bacon Assn., the Queensland Co-op Bacon Assn. and later the South Burnett Meatworks Co-op, South Burnett Stores, and South Burnett Artificial Breeders Co-op have influenced, and continue heavily to influence, marketing and rural services in the area.

*Present*

Today Windera is a rural community of mostly specialised farms, all of which have a livestock component: milk supply dairies, intensive piggeries, and beef cattle with pastures and a wide range of cultivated crops.

Social interchange occurs regularly and freely, and discussion on rural progress is continuous, searching and serious. A successful practice is adopted quickly, but a bad one is as quickly condemned.

*Future*

I believe the future lies with further development of the limited water resources for irrigation. If or when the proposed Barkers Creek Dam is built near Murgon, the Windera rural community has lodged its claim to have water lifted over a small saddle from Barambah Creek into Windera Creek. This will usher in a whole new era for Windera.

**WINDERA—RURAL RECONSTRUCTION**

A. P. JOHNSTON

Department of Primary Industries, Kingaroy

In 1969 (June 30) the rural holdings in Murgon Shire were classified as follows.

Total number of holdings	286	
number less than 160 ha	158	55%
number less than 200 ha	189	66%
number less than 240 ha	222	78%

Speaking very broadly I consider that the minimum area required for viable production is as follows—

Milk production	200 ha
Beef production	400–480 ha
Cropping	120–160 ha

These are obviously only very broad guidelines because soil types, level of development, and so on will alter the figures. Probably most properties in this district have some combination of these enterprises, but if we accept these estimates it is fair to say that many of the properties in the under 160 ha category (55%) or even under 200 ha (66%) are too small.

Against this background I think that there was and still is scope for property amalgamation. A number of schemes have operated to provide low-cost finance for this intensification of production and for amalgamation of holdings.

*Marginal Dairy Farm Amalgamation Scheme*

In 1970 \$25 m. was made available by the Commonwealth government to the States for the period 1970–74 to allow low-income dairy farmers wishing to leave the industry to sell their farm for a fair price and to assist those wanting to stay in the industry to expand their existing properties. The scheme expired in July, 1974.

	<i>Murgon Shire</i>	<i>South Burnett</i>	<i>Queensland</i>	<i>Australia</i>
Applications received	38	186	753	1136
Applications approved	23	130	426	576

- Notes (i) Average purchase price about \$27,000  
(ii) Average write down on resale 11.6%  
(iii) Approval rate about 2 out of 3  
(iv) Out of a total of \$15 m. committed to scheme throughout Australia, Queensland received \$11 m., the South Burnett \$3.25 m and Murgon Shire \$600,000.

The new Marginal Dairy Farmers Agreement Act will be discussed later.

#### *Rural Reconstruction Scheme*

The purchase of land other than dairy land has been possible through the Rural Reconstruction Scheme (R.R.S.). Finance is made available to the owner of a farm judged to be an uneconomic unit, and who is unable to obtain finance from any other source, to purchase an adjoining holding. The combined properties must be of sufficient size to offer sound prospects of long-term viability.

No statistics are available on the part that the R.R.S. has played locally. Up to January, 1974, 1,179 applications were approved in Queensland totalling \$29 m. of which \$9.3 m. was for farm build up.

#### *Dairy Pasture Subsidy Scheme*

The scheme started in 1966 and has probably had two main influences—

- (i) It has assisted in improving farm profitability through increased stock numbers following improved pasture development.
- (ii) It has shown that pasture development is beneficial in milk production and meat production.

Statistics for Murgon Shire:

Applications	913
Total area planted	14,900 ac. (6,033 ha)
Value of subsidy	\$180,000
Value of subsidy to South Burnett	\$427,000
Value of subsidy to Queensland	\$3.9 m.

Eight applicants in Murgon Shire have received the maximum allocation of \$2,000.

#### *Proposed New Marginal Dairy Farm Agreement Act*

Final agreement has not been reached regarding this scheme but many of the more important items in the legislation have been released. Some of these are—

- (i) Assistance will be extended to any dairy farmer, including whole milk suppliers, whose property is considered not to be viable, provided there is a reasonable prospect of successful co-operation with the assistance available and finance is not available elsewhere.
- (ii) Assistance is only available to *bona fide* dairy farmers i.e. those who have been engaged in the industry and have 20 lactating cows and 50% of their gross income from dairying. In general people who have given up dairying will not be eligible.
- (iii) A marginal dairy farmer may be assisted to buy more land to improve his existing property. As well as credit for property development, finance will be available for livestock purchases and for continuing capital needs.
- (iv) Assistance will be provided for the purchase of a new refrigerated vat or good second-hand ones and for such on-farm changes as are necessary to effect the alteration to bulk milk supply.
- (v) Loans to producers for conversion will be interest free and repayment periods will be flexible.
- (vi) The scheme is retrospective to July 23, 1973.
- (vii) A loan of up to \$3,000 will be available for relocation assistance for those who leave the industry.

**WINDERA—SOIL CONSERVATION PROBLEMS**

BARRY STONE

Department of Primary Industries, Kingaroy

Soil erosion is a natural process, which, in conjunction with the complex rock weathering processes, has resulted in the formation of the soils we see around us today. This continuing process has also created most of the topographical features we can see including the fertile alluvial flats. Natural (or *geological*) erosion can occur even when the soil is protected by natural vegetation.

Another form of soil erosion, called *accelerated erosion*, is the soil loss in excess of geological erosion and usually exceeds the soil forming processes. It proceeds more rapidly than geological erosion and occurs following changes in the natural cover or soil conditions.

Some changes are brought about, of necessity, by the farmer, who, in order to produce beef, crops or dairy products must change the environment. The Windera farmers, of course, are no exception. They introduced cattle, subdivided the land into paddocks, formed roadways and cultivated the soil and in doing so have helped to start the accelerated erosion process. Therefore, to maintain stable production from the land the landholder must recognise the factors which cause soil erosion and be prepared to apply the necessary limits by introducing various erosion control measures into his farming system.

There are several causes of soil erosion, but in the Windera district water erosion is the most important. The erosion story in this district starts with the falling raindrop, which on unprotected soil, pulverises the soil surface and detaches soil particles. On sloping land most of these particles will fall lower down the slope, and on a 10% slope, up to 75% of the splashed soil may land downslope of the impact point. These fine detached particles block the pore spaces of the surface and reduce the rate of water infiltration, which increases the amount of run-off and which in turn carries off further soil particles as they are detached by raindrops.

In the Windera district the incidence of soil erosion is high but is not always spectacular. For this reason it can often go unnoticed. Intensive cultivation (particularly with row crops) can leave the surface soil vulnerable to the effects of raindrops. The same effect occurs in pasture land where over-grazing, removal of the timber, drought and burning of the pasture can lead to problems of surface sealing following heavy rainfall.

Land in either state is vulnerable because the Windera district receives most of its rainfall in the summer months, normally as storm rains of relatively high intensity. Furthermore this rainfall is unevenly distributed which leads to variable amounts of vegetative growth, and some overgrazing can be difficult to avoid. It is important that farmers ensure that a good vegetative cover is maintained wherever practicable to control raindrop splash. By maintaining soil fertility, a high level of organic matter, and some pasture or crop stubble on the soil surface, the problems can be minimised on grazing and on arable land.

On arable land adequate levels of fertilizer, together with stubble mulching and crop rotation, possibly with a pasture ley, should be included in the system. On pasture lands use of adequate fertilizer levels, improved pasture species, and adequate sub-division of paddocks with sufficient watering points are necessary so that an efficient rotational grazing system can be used. All contribute to maintaining cover of the soil. Because most of the land in the district is on slopes, it is usually necessary to supplement the sound management used to prevent raindrop damage with some mechanical control measures to prevent sheet and rill erosion. Both sheet and rill erosion can occur in either pasture and arable land when run-off moves uncontrolled

down the slope. In this area slopes in excess of 2% are susceptible to this form of erosion if protective measures are not carried out. Similarly, on the alluvial flats, slopes in excess of 0.2% can erode during flooding.

In pasture land, diversion structures, pondage banks, pasture furrows, chisel ploughing, contour ripping and so on may be used. In cultivation land, waterways, diversion banks, contour graded- or level-banks, contour ploughing and strip cropping, are effective controls. These mechanical measures are all specialized forms of erosion control which generally impede and collect surface run-off water and carry the excess off the slope at safe velocities. The design and layout of these structures is specialized work and normally carried out by the District Soil Conservation Officer. This officer has access to detailed aerial photography, soil and rainfall data to assist him to prepare a composite soil conservation plan for each particular property.

However, there are many techniques which the conservation-minded farmer can incorporate into his farming system, even though in this district there have been many problems, which have prevented the landholders from employing some of them. The small pastoral properties forced the landholders to over-exploit the natural resources of soil and pasture. I hope that the rural reconstruction schemes will allow these properties to become economic units and so reduce this over-exploitation. I think that the grazier should base his carrying capacity on the poorest seasonal pasture growth and not on the best one. I believe the farmer should have sufficient cultivation land to allow him to rotate his crops economically and include pastures if necessary. In mixed farming enterprises there must be a realistic balance between arable land and pasture land. Each parcel of land has different capabilities and therefore requires different treatments. The development and maintenance of soil conservation schemes is a continual part of the farming system.

In the Windera District the various pasture improvement schemes have been beneficial from various viewpoints. The pasture species used exhibit more vigorous growth and provide better feed value than the native species. They also provide better soil protection against heavy storms in the spring and summer months. They have allowed some of the less suitable cultivation land to be sown to pasture which, in addition to the direct soil protection it provides, should also reduce the stocking intensities on the native pastures.

In conclusion I would suggest that the introduction of rural reconstruction in conjunction with improved pasture development has been beneficial to the Windera District. However, to maintain this benefit, wise land use must be practiced and this must be accompanied by continued research into pasture establishment and management techniques.

## WINDERA—THE PASTURE IN PERSPECTIVE

N. DELANEY

Department of Primary Industries, Kingaroy

Improved pastures can be a good investment when looking for ways to improve viability. In the past it was cheaper in Queensland to buy extra land instead of improving the productivity of existing pastures. This may still be true in some areas, but we are now certainly past that stage in this district.

As land becomes dearer, the first stage of development is fully to utilize native pastures by means of better fencing, watering facilities, non-protein nitrogen supplements and so on. Although there is no point in boosting carrying capacity by planting improved pastures until one reaches the stage of development where such pasture can be effectively utilized, they may be used to a limited extent in the earlier stages of development to provide better quality feed for specific purposes. However, their value depends on the type of enterprise and whether one has sufficient stock adequately to utilize them, but used effectively they are a source of cheap feed.

Looking at costs one frequently thinks of costs of establishing a pasture as running costs, but I prefer to think of them as capital costs. If a pasture is properly maintained there should be little or no depreciation and in such cases I think my attitude is well justified. Of course, the costs of establishment cannot be ignored when considering the cash-flow budget and also one must allow for the purchase of additional stock necessary to make effective use of the pasture.

In recent years in this area, the operation of the Dairy Pasture Subsidy Scheme has led to the establishment of a lot of sown pastures. Unfortunately, however, we have now reached the stage where many of these pastures are deteriorating because of a lack of adequate maintenance. It is important that a pasture is given reasonable grazing management in order to give satisfactory production. I should like however to discuss the requirements of sown pasture for maintenance dressings of fertilizer. Maintenance dressings cannot be neglected even though fertilizer is getting dearer. If one has a sown pasture, and if one needs it, one cannot really afford not to fertilize it. If one is not prepared to supply the fertilizer necessary to maintain a pasture, it would be better if one did not plant it in the first place.

Generally speaking September is the best time for application of maintenance fertilizer in this area. It is a convenient time to do the work and it often encourages a little extra growth at a period when it is probably most useful.

The most important elements to consider are nitrogen, phosphorus and sulphur, although in particular situations there are also other elements to be considered such as potassium and molybdenum.

In pastures with no legume component (in older stands of lucerne, for example, where the lucerne has died out) I suggest the application of 40 kg ha<sup>-1</sup> nitrogen each year, with smaller amounts being needed if there is some legume in the sward. Where there is an adequate legume component no nitrogen will be needed.

The maintenance requirement for phosphorus can be as much as 125 kg ha<sup>-1</sup> superphosphate (or its equivalent). There is no point in using superphosphate on areas with adequate phosphorus, but these soils are not too common here. I usually recommend superphosphate where phosphorus is required because this fertilizer also contains a considerable amount of sulphur which is also frequently needed by pastures. Where phosphorus is not required, however, sulphur can be obtained more cheaply from dump gypsum. Some 25 to 30 kg ha<sup>-1</sup> of sulphur per year may be required to maintain a healthy pasture.

Where both sulphur and nitrogen are required, sulphate of ammonia is an economical fertilizer despite recent cost increases. Where nitrogen alone is required for a pasture, I suggest that, at current prices, urea is a better buy than Nitram. (When buying fertilizers the most important point to consider is the cost per unit of element that is required.)

Fertilizer can also be used to stimulate extra growth from pastures at times when it is needed. Again the main elements involved will be nitrogen, phosphorus and sulphur but especially nitrogen. While this can be quite economical it would not be justified of course unless the feed can be effectively utilized.

To summarise then, I believe that sown pastures can be a good investment, and they can be a cheap source of valuable fodder after establishment, but you must maintain them to retain them.

## WINDERA—COMPARISON OF FOUR PROPERTIES

A. P. JOHNSTON

Department of Primary Industries, Kingaroy

I shall discuss the four properties, each of which illustrates different approaches to overcoming the problem of small farms and look at the effect that these have had on farm viability. I shall also point out some of the problems of capital and labour which must be considered when property expansion is being undertaken.



*Mr. Bruce Bishop's Property*

This farm does not really fall into the "small farm" category because it is a dairy enterprise being operated on 320 ha. However it does provide a good example of the role pasture development can play in improving productivity.

In 1969 Mr. Bishop was running 75 cows on the property. Now he is running 140 because of a spectacular increase in the area of improved pasture.

*Winderera West Pastoral Company (Mr. Bruce Boneham)*

In 1968 Mr. Boneham purchased a property of 380 ha. After trying cattle fattening and feedlotting he settled on a combination of breeding and cropping. However with 70 ha of cultivation and only 50 breeders the property was not a viable unit and he therefore purchased two additional properties in 1972 which brought the total area to 560 ha.

Whilst undertaking this expansion Mr. Boneham found two of the problems which confront many small farms in the efficient use of labour and of capital. These problems are not confined to small farms, of course.

(i) Mr. Boneham was overcapitalised with machinery because the overhead costs were being spread over the relatively small area of 70 ha. The costs per unit area were therefore higher than they should or could be. As an illustration the header was bought to harvest 70 ha but it is capable of handling the 160 ha now being cropped:

Initial cost	\$13,000
Annual charge for depreciation and interest on capital	= 13.5%
Annual cost	\$ 1,750
Overhead cost ha <sup>-1</sup> for 70 ha	= \$25.00
" " " " 160 ha	= \$10.90

While this is obviously a very simple example it illustrates a principle which many farmers do not grasp—capital equipment must be fully utilized if returns are to be maximized.

(ii) In 1972 Mr. Boneham owned 440 ha which were operated by Mr. Boneham part-time with the help of 1 man full-time. While more labour was required the situation did not warrant one complete additional labour unit. This problem was overcome by purchasing an additional property with a 30-sow piggery. The idea behind this (and it has worked quite well in practice) was that the piggery would cover the man's wages and he would be available for at least half-time for other farm work.

Some of the questions each farmer should ask himself are—Is the machinery on my property being efficiently utilized, or could I make do with a smaller plant or further utilize it by contracting or sharefarming?

—If I purchase more land will extra labour be required and will the cost of it be more than compensated for by the additional income?

*Mr. George Kratzmann's Property*

This property is the smallest of the four (100 ha). In 1967 it was running 45 dairy cows with a 30-sow piggery and after attempting various combinations of different enterprises, Mr. Kratzmann has now settled on a large intensive piggery (100 sows) with beef breeding as a sideline (65 breeders). He has therefore adopted intensive production to overcome the restrictions imposed on him by the limited area of this property. In many cases it is probably the best approach to overcoming the small farm problem and it is one which is widely used in this district.

Another approach to improving farm income on a small property is to produce high return crops such as potatoes, onions, beans, etc. These are now being given more thought in the South Burnett and I think will become more important in the future. However, because these crops are fairly labour-intensive and require irrigation the number of farms which can do so will unfortunately be limited.

*Mr. Tom McAntee's Property*

This farm provides a good example of the success of the Marginal Dairy Farm Amalgamation Scheme. In 1970 Mr. McAntee had a 180 ha farm running 50 cows which produced 3600 kg butterfat. Through the Amalgamation Scheme he was able to purchase another farm and today has 360 ha with 140 cows and in 1973-74 produced 14,500 kg butterfat. Mr. McAntee also increased the area of improved pasture from 6 ha in 1970 to 40 ha in 1974, and has plans for more improved pastures through the Dairy Pasture Subsidy Scheme which will enable him to increase his cow numbers further.

In this case both the Marginal Dairy Farm Scheme and the D.P.S.S. have enabled a non-viable dairy enterprise to develop into a thriving unit.