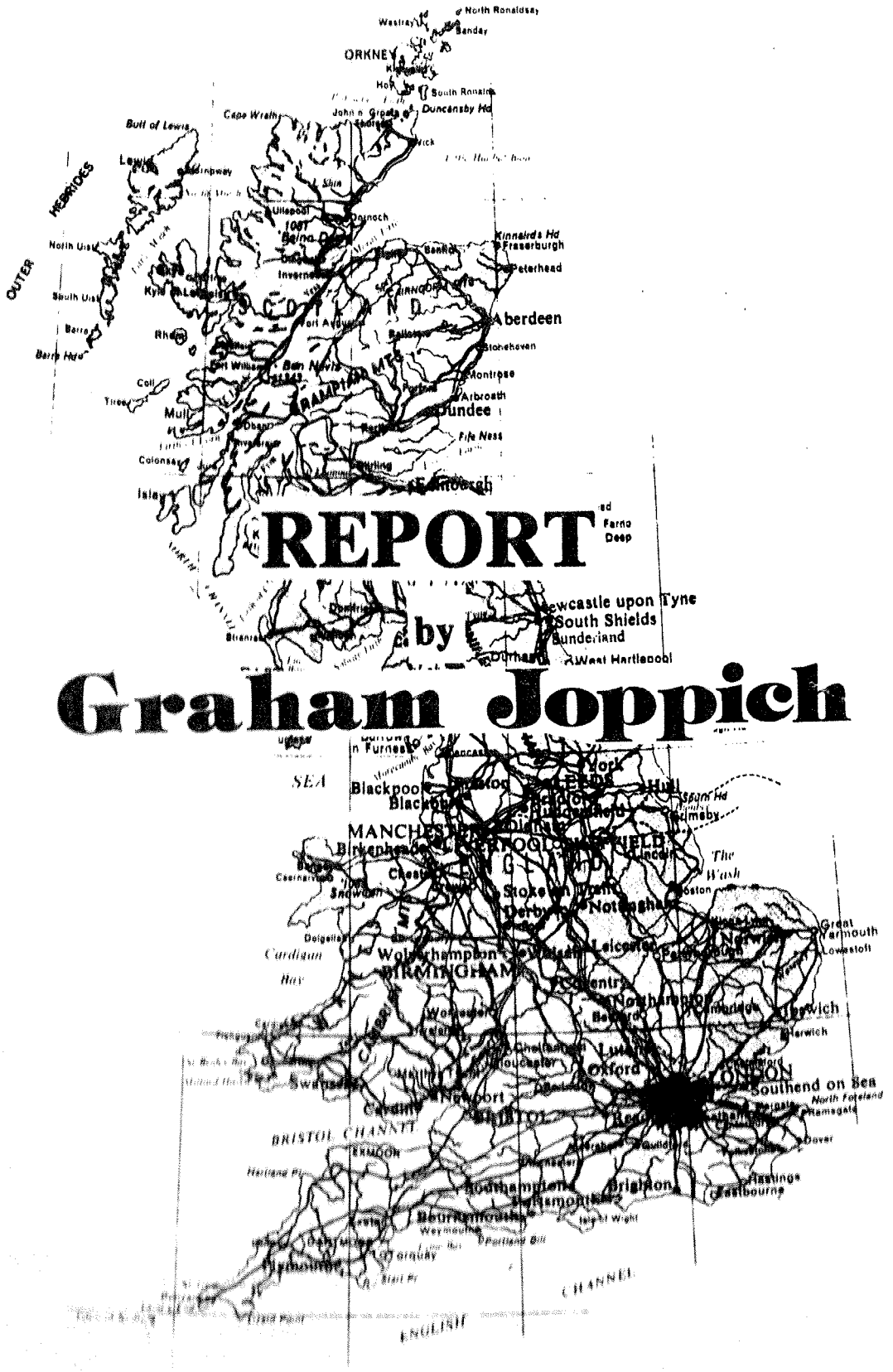
# AUSTRALIAN NUFFIELD FARMING SCHOLARSHIPS




# REPORT

by

# Graham Joppich

## of a visit to the United Kingdom
## 21st February 1977 to 19th August 1977

AUSTRALIAN NUFFIELD FARMING SCHOLARS ASSOCIATION

# R E P O R T

by

GRAHAM JOPPICH

On a study tour of the United Kingdom from the 21st February 1977, to the 19th August 1977 to study Cereal Production.

"Strathane"
Clifton Qld. 4361
Australia

SEPTEMBER 1978

## ACKNOWLEDGEMENTS

I wish to pay tribute to all sponsors whose generous grants made my trip to the United Kingdom possible. To you I say thank you. In particular, I wish to thank the following:-

QANTAS for providing my return air fare to the United Kingdom.
THE AGRICULTURAL BANK for its generous contribution to my scholarship.
THE BRITISH MILK MARKETING BOARD for providing me with a car.

The support given by these firms to myself and agriculture generally, is greatly appreciated and we look forward to their continuing support in the future.

I also wish to thank the people involved in making my scholarship such a success.

The Australian Nuffield Farming Scholars Association was treading new ground in 1977 in that the scholars were the first to be funded from within Australia. However, this proved not to be any obstacle to Mr. George Wilson, President of the Australian Association whose enthusiasm and hard work ensured a successful visit. My thanks to you George, for your invaluable help.

.. To Captain John Stewart and Mr. John Cyster of the United Kingdom Scholars Association, for their guidance and assistance during my stay.

.. To Mr. John Maddox, Director of the Nuffield Foundation in the U.K., and Mr. David Yonge, Fellowship Advisor of the Nuffield Foundation for their assistance and hospitality.

.. To the National Farmers' Union.

.. To my host family, Bill and Sue Darling at "Greys" Royston, Herts., who welcomed me into their home and provided me with an invaluable introduction to U.K. Agriculture.

.. To the many farmers, past Nuffield Scholars, companies, organisations, and friends whose ever willingness to assist made my stay such a rewarding one.

.. To my fellow Commonwealth Scholars for their companionship and stimulating dis cussions which led to a greater understanding of agriculture in our respective countries.

Finally, to my wife and my parents, whose encouragement and sacrifice allowed me to leave my farm for 6 months so that I could benefit from such a rewarding trip, I give my greatest thanks.

I trust I have fulfilled the expectations and desires of my scholarship, and to all of these people I say - THANK YOU.

# INTRODUCTION

Nuffield Scholarships are awarded annually in Australia to practicising farmers, to enable them to study practical farming in the United Kingdom.

During the course of my scholarship I met practicising farmers, research workers, commercial organisations, marketing groups and grower organisations.

I spent the greater part of my stay in the East Anglia region of England, with several trips to Wales and Scotland.

The principal course of study was Cereal Production and Marketing.

# U.K. AGRICULTURE

The first impression of U.K. agriculture is the high production per unit compared to that in Australia. In 1975-76, 1,035,000 ha of wheat produced 4,438,000 tonnes at an average of 4.29 tonnes/ha. Compare that with Australian production from 8,643,000 ha of of 12,020,000 tonnes at an average of 1.39 tonnes/ha. Other enterprises show similar comparisons.

It is difficult for a visitor to realise that a country approximately the size of Victoria and with 56 million people is about 65% self-sufficient in food production. It is even more remarkable when we consider that 75% of the U.K. is grassland and just under 50% of that area is classified as rough grazing.

Government policy is for a continuing expansion of production at about 2½% per year on average. Whether they will achieve this is another matter, but it does indicate the Government awareness of the part agriculture plays in the National economy.

The fact that the U.K. needs to import just on one-third of its food requirements, and considerations of National Security were the main reasons for Britain's entry into the E.E.C. in 1972.

When this occurred, farming generally changed from a low cost industry (prices although supported were related to world parity) to a high cost industry (most commodity prices now bear no relationship to world parity.) Generous prices support schemes, import levies, capital grants and attractive taxation allowances all ensure that farmers are enjoying a higher standard of living than ever before. In fact farming has been doing better in the profit stakes in recent years than has industry.

However, despite higher profits and efforts to modernise farming and make the industry more attractive for people to enter, the average age of farmers is increasing and is now higher than the average age of the working population.

Each year Government funded and privately supported research spends many millions of dollars for the advancement of agriculture. Government expenditure on agricultural, horticultural and food research and development is currently in the region of $100 million a year and most is spent on the work carried out at 40 institutes and research units. As well as these, there are 13 Experimental Husbandry Farms run by the Agricultural Development Advisory Service.

Farms are highly mechanised and labour intensive. This situation has continued much longer than market forces in other western countries (outside the E.E.C.) would indicate it should have done. Wages are low (in comparison) while commodity prices are much higher.

As with farmers throughout the world, increasing costs are of major concern to farmers in the U.K. While commodity prices are kept relatively high to ensure a high level of production, farmers are being pressured to spend more and more capital in producing a crop, at times unnecessarily. There are signs that a reaction is setting in amongst some farmers in particular sections of agriculture. Instead of using more capital, more labour and more machinery, they are examining methods to reduce some of these inputs. Plant and equipment is getting larger, traditional methods of farming are being replaced by new techniques, and labour is being reduced.

# CEREAL PRODUCTION IN THE U.K.

Cereal production has been subjected to many changes over the last 10 years, so that today it is a highly sophisticated business and is likely to become even more so in the future. The days of planting a field and shutting the gate have gone for good.

Growers now need to draw up a well planned, comprehensive and balanced cereal production programme long before the seed is actually sown. Paying particular attention to only one or two of the many facets which make up the whole of the growing of a satisfactory crop is not going to be good enough in the future.

Over the past twenty years, U.K. agriculture has seen:-

.. Plant breeders increasing the potential yields of winter wheat by 50%

.. Fertilizer manufacturers improving their products

.. Spreaders and sprayers becoming more accurate

.. Agrochemical manufacturers improving products for control of weeds and disease

## PRODUCTION SYSTEMS

Various systems of cereal growing have emerged in recent years and received a great deal of attention. Several factors are common to all systems but the basic common factor is that all are aimed at maximising yields. The systems receiving the greatest attention are:-

1. Laloux
2. ADAS
3. Schleswig-Holstein

## 1. LALOUX

This system has been developed by Professor Laloux at the University of Gembloux near Brussels.

In order to understand the reasons behind this method of growing cereals for maximum yield it is important to be able to recognise in the field the key growth stages and be able to place them in the context of farming policy and practice. See Fig. I

### Seeding Rate

Trials over four years have established that where a crop is managed by this method there is no advantage to be gained from the higher seeding rates commonly used. In fact a sowing rate of 100-110 kg/ha has given the optimum plant population of 200-220 plants/sq metre. However, near maximum yields have been obtained with rates as low as 48 kg/ha. The conclusions are that low density plantings are always preferred.

Nitrogen during Tilling

Nitrogen requirements throughout the vegetative period are low; dressings should be equally low but starvation avoided. 30 kg/ha is considered to be the maximum at this phase.

Nitrogen at start of stem extension

Crops are starting to require this nitrogen. Dressings are large so that, as roots develop, the nitrogen uptake will be progressively increasing. The maximum amount to be applied is about 80 kg/ha.

Lodging

Professor Laloux recommends the use of Cycocel in practice as an insurance against the danger of lodging inherent in fertilizing crops for maximum yields.

Leaf disease control

Leaf disease control cannot be divorced from quality of crop management. Protective fungicides cannot compensate for poor structure of vegetation. Too dense a crop is prone to disease and crops treated for leaf disease during the vegetative or at the start of the reproductive period will be healthy but will have too dense a vegetation and yields will suffer.

2. ADAS

The ADAS approach to high yields has been to gradually modify conventional cereal growing methods. The first decision is to select the best soil types which should be deep moisture-retentive soil, well structured and free from compaction. Efficient field drainage is essential.

Crop Rotation

On most soils rotational cropping is necessary to maintain high yields. Alternative crops reduce the build up of cereal root diseases, assist in the control of weeds, leave beneficial nitrogen residue.

Time of Planting

Timeliness is most important in achieving high yields. Where wheat follows wheat it is important to dispose of crop residues.

Plant Population

Seeding rates of 130-160 kg/ha are most favoured. However, of more importance is the number of plants surviving per sq. metre, the suggested target being 200/sq metre. This is the same as Laloux despite a higher suggested seeding rate.

Seed must not be planted too deep as it produces weak plants susceptible to other stress factors.

Weed competition

Weeds must be removed early using pre-emergence and/or post-emergence herbicides.

Nitrogen

The most important stage for top dressing is stem extension. This increases both yield and grain content. Up to four top dressings are recommended with about 125 kg/ha being the maximum level necessary. It is stressed that after a dry period the rate should be reduced as TOO MUCH NITROGEN WILL REDUCE YIELD.

Lodging

The application of Cycocel on soils susceptible to lodging is recommended.

Diseases

Attention must be paid to the level of disease and strategic sprayings carried out. Diseases which are most likely to need controlling are

True Eyespot
Mildew
Yellow Rust
Septoria

Insects

The most common insect on cereals is the grain aphid. Infestations can reduce

Grain size
The number of grains per head
Grain protein content

3. SCHLESWIG-HOLSTEIN

Where Dr. Effland from Schleswig-Holstein differs most from the above methods is in his recommended planting rates. His recommendations are for 250 kg/ha.

The 15 tonnes/ha crop

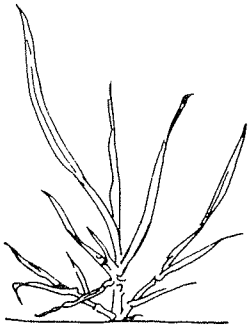
The preceding methods have all been aimed at producing a 10 tonne/ha wheat crop which is now more than just an isolated result.

Although there is a divergence of opinion as to how to get the best out of a crop the work that is being carried out must indicate that progress is being made nearer to what is regarded as the potential for wheat i.e. 12-15 tonnes/ha.

FIG. I

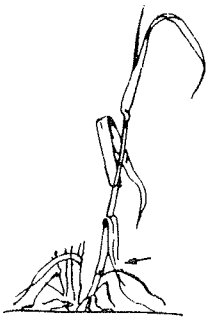
E. Start of tillering

F. Full tillering

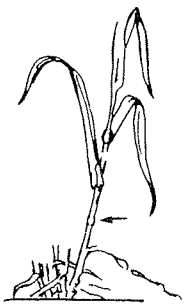


G. End of tillering

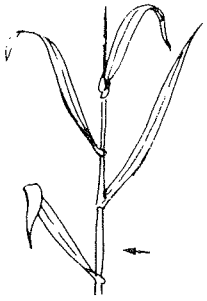
H. Leaf sheath erect



I. First node

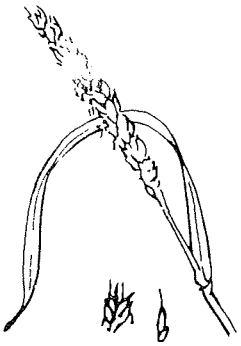


J. Second node



K. Appearance of flag leaf

N. Ear emerges



P. Start of flowering

## CULTIVATIONS FOR CEREALS

Three types of tillage systems are practiced in the U.K. for Cereal production. They are

(a) Deep Ploughing
(b) Reduced cultivations
(c) Direct Drilling (Zero Tillage)

In general deep ploughing has little application in Australian Cereal production and reduced cultivation is in some respects similar to the techniques used in Australia. Therefore most of this section will be devoted to Zero Tillage techniques and its associated advantages and disadvantages.

Rothamstead experiments earlier this century showed that the only reason for ploughing was that it gave better control of weeds and buried trash. The development of effective herbicides has therefore weakened the argument for ploughing.

Most of the trial results so far indicate that direct drilling may be reasonably satisfactory for a few years on a short term opportunist basis and on particular soil types.

In early experiments before 1970, average yields of winter wheat and spring barley after Zero Tillage or shallow cultivation were less than after ploughing, but in later experiments there was little yield difference compared with ploughing.

The low yields after Zero Tillage in the early years were dur to several causes, the most important being competition from grass weeds, slug damage, water logged surface soil, smeared drill slits, and in dry conditions failure of the drill to penetrate.

### Suitability of Soils

At present the Zero Tillage guidelines are that soils to be planted by this means should:-

1. Be fee draining.
2. Have a friable surface into which to plant.
3. Have a porous open structure.

And the following soil conditions should be avoided.

1. Poor drainage.
2. A wet wticky soil surface.
3. Over compact with dense massive structures.

The following characteristics are found in soils suitable for Zero Tillage.

1. Possessing stable soil aggregates, particularly in the top 5 cm which do not slake or collapse in wet conditions.
2. Have sufficient mechanical strength to resist damage by over compaction.

3. Have an active earthworm population to maintain and generate large pores in the soil.
4. Have grown previous crops with good root growth throughout the soil.
5. Have the ability to respond well to alternate drying and wetting.

SOIL STRUCTURE

It has become quite apparent that after 10 years continuous Zero Tillage, with very few exceptions, the conditions and structure of soils has not only been maintained, but improved.

According to I.C.I. Plant Protection soils in this situation are normally characterised by a marked variation in soil colour down the profile with the darkest soil being at and near the surface. This is caused by a concentration of organic matter in the surface horizon. Minimum or no cultivation cannot bring about an excessive breakdown (oxidation) or organic matter sometimes associated with conventional seedbed preparation.

The accumulation of much of the organic matter in the vital top centimetres of the soil is important. It is here that most root and soil activity takes place.

Organic matter is also, of course, important in that it increases the water holding capacity of the soil. For example, on a light sandy soil, an increase of 1% in organic matter usually doubles the amount of plant available water stored in the soil.

But perhaps the most significant feature of Zero Tillage from the point of view of organic matter is that, organic matter that has built up when a paddock has been under pasture, is not lost when it is subjected to continuous cereal growing.

Research over several years by the Letcombe Laboratory in Oxfordshire has shown that with Zero Tillage farming the soil has achieved greater consolidation or compaction. This would appear to be an undesirable property as it would tend to reduce the movement of water through the soil, restrict root penetration and decrease aeration.

However, these effects are not always observed. This unexpected situation has been attributed to the much greater abundance of channels created by deeply burrowing earthworms when the land had been undistrubed for a number of years. However, they do not necessarily provide the only reason why the movement of water and the aeration of the soil are not restricted to the extent which its greater bulk density would suggest. If the soil is undisturbed and especially if it shrinks on drying, vertical planes of weakness may develop and be preserved. See Fig. II

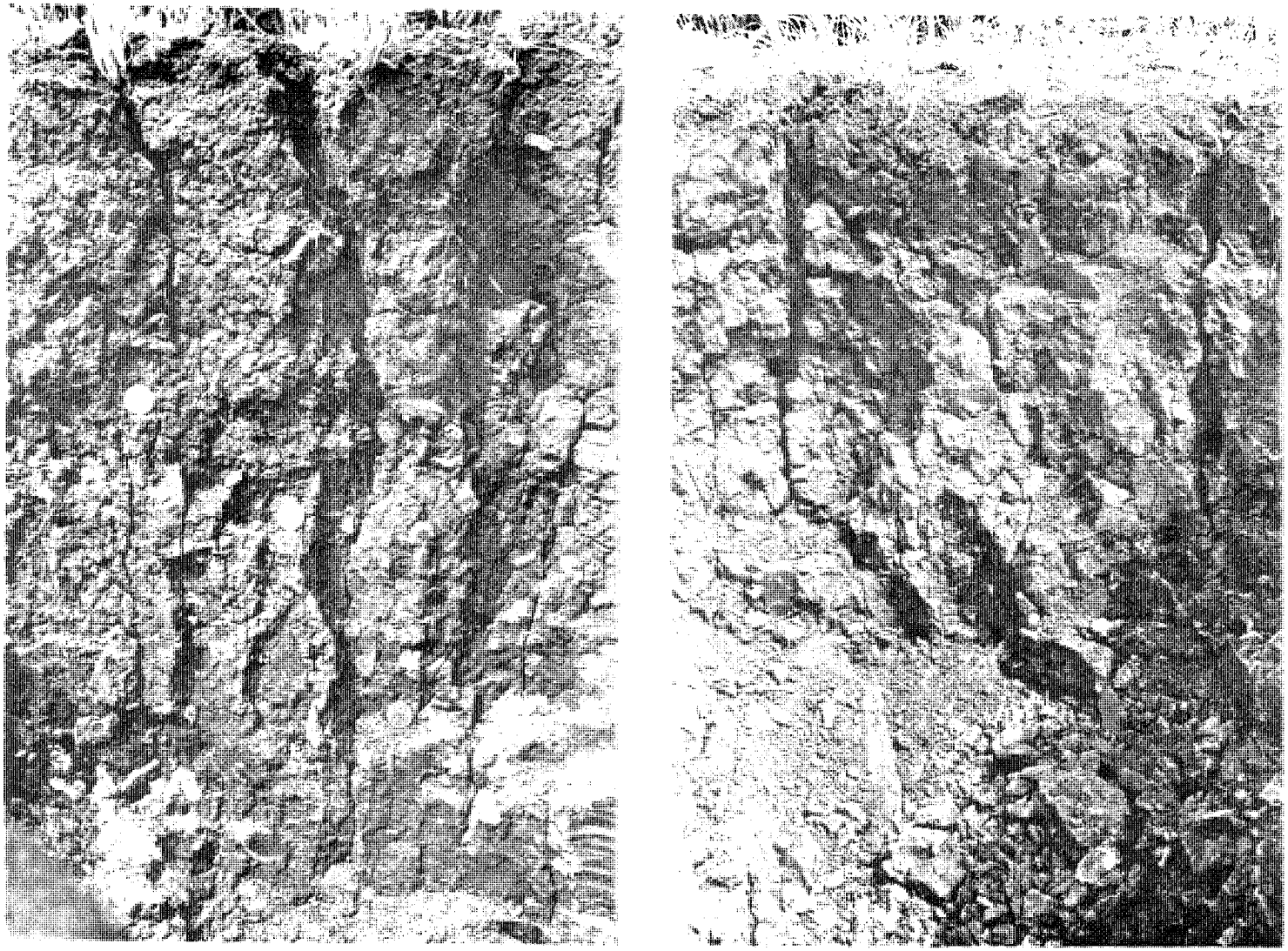


*Plate 1. Effect of cultivation on depth of cracking in a clay loam soil*

The photographs, which were taken in July, show profiles to a depth of approximately 0·8 m.
Left: Continuous cracks extended more than 1 m from the surface in soil on which cereals had been direct-drilled for 3 years.
Right: After ploughing, continuous cracks did not penetrate to the same extent.

## Nutrient Requirements

There is some evidence that Zero Tillage crops may require more nitrogen fertilizer particularly in the initial period of Zero Tillage to reach their maximum yields. This may be particularly so on soils with slow natural drainage where conditions are more condusive to denitrification.

In Zero Tilled land organic matter slowly accumulates compared with the level in cultivated land. A major source of nitrogen for crops is from the breakdown of soil organic matter and consequently the nitrogen requirement for Zero tilled crops may fall after a number of years as the contribution from the extra organic matter increases.

Ploughing and deep cultivation delay the development of acidity by dilution with non acid soil, but in Zero tilled land surface acidity can develop rapidly. Lime should be applied more frequently in smaller quantities than would normally apply.

To date there is no evidence that Zero tilled crops should receive different levels of phosphate and potash from normally cultivated crops.

## Weed Control

Chemical weed control is necessary to maintain a weed free seed bed. During the early development of Zero Tillage weeds were found to be a major limiting factor on yields. The introduction of new and more flexible post emergent herbicides have made wild oat control much easier. The introduction of Glyphosate is certainly going to be of great importance to Zero Tillage especially for some of the harder to control weeds. As research on application rates and the use of additives become more conclusive, then the use of this chemical will become greater.

## Cereal Diseases

The adoption of non-plough practices has had less effect on disease incidence than plant pathologists originally feared. Rhynchorporium and septoria in wheat are aggravated by non plough techniques which have infected drbris on the surface. Removal of the straw and more particularly, straw burning, reduce the risk of severe infection.

## Where the benefits lie

In trials at Boxworth comparing different cultivation systems and Zero Tillage, National Institute of Agricultural Engineering data (See Table) clearly shows that Zero Tillage and other minimum tillage techniques can result in savings of costs, labour, and energy inputs.

Of greater interest are the energy savings which will assume more importance in the future. Also of interest is the increased acreage capability of these systems.

| | Plough (22cm) Cultivation Drill | Shallow Plough (11 cm) | Zero Tillage |
|---|---|---|---|
| Cost of cultivation $/ha | 21 | 12 | 10.50 |
| Spray Cost $/ha | - | - | 7.50 |
| Labour Man hors/ha | 3.39 | 1.61 | 0.53 |
| Energy input MJ/ha | 314 | 181 | 27 |
| Acreage capability (ha) compared with plough | 141 | 288 | 673 |
| Yield tonnes/ha | | | |
| 1973 | 6.24 | 6.12 | 5.96 |
| 1974 | 7.46 | 6.64 | 6.92 |
| 1975 | 5.24 | 5.25 | 5.17 |
| 1976 | 3.81 | 3.94 | 4.78 |

## CONCLUSIONS

The greatest drawback to the expansion of Zero Tillage in Australia appears to be the lack of suitable machinery. As this machinery becomes available there will no doubt be an upsurge in the practice.

Possibly one of the most readily adaptable areas for Zero Tillage is on land which is prone to erosion. This is one area where Australia differs from the U.K. in that farmers need to retain all stubble for as long as possible as an aid to combating erosion.

Recent works indicates that Glyphosate at very low rates is effective for the control of wild oats. This work could remove another obstacle to the greater use of Zero Tillage, i.e., of cheap and effective weed control during the fallow period. Used correctly, some pre-emergent weedicides may also find applications.

# PROVEN VIGOUR CEREAL SEED

Vigour was first observed as a property of seed in 1773 when Jethro Tull, in his book "Horse Hoeing Husbandry" noted that flax seed imported from Holland always performed better than seed multiplied in England.

A good deal of vigour work was done from 1950 onwards on precision drilled crops such as maize, soyabean and cotton, but the work on cereals is very recent. It has taken place since 1970.

## What is Seed Vigour?

The simplest definition is "that property of a seed which allows it to germinate and establish satisfactorily, not only under the optimum laboratory conditions of the germination test, but also in the adverse conditions often found in practice in the field.

## What is Vigour Testing?

Vigour testing is a means of determining whether seed which has passed the standard germination test under laboratory conditions has the ability to germinate and establish a healthy productive plant under practical field conditions.

The key to the phenomenon of seed vigour seems to be the seeds ability to mobilize its reserves once growth is triggered. The efficiency of the transfer of the reserves from the endosperm into the actual embryo determines the seeds chances of establishing. Where the transfer mechanism has been slowed down or suppressed, the seeds chances of growing are reduced. In poor seedbed conditions these seeds are doomed and a patchy establishment results. Seeds of a higher vigour, though of the same germination percentage, would stand a far better chance of establishing a good plant.

Successful cereal growing in the U.K. revolves around the initial attainment of the correct plant population for the area of land being cropped. This is becoming more important with the advent of the Laloux system of cereal growing.

Normal cereal seeds under typical United Kingdom farming conditions will give establishment levels of about 70%. Seeds lacking in vigour often exhibit establishment levels as low as 40% even though their official germination levels are satisfactory. The resulting plant populations fall well below the target populations necessary for the production of high yields.

The use of germination and vigour testing procedures allows therefore the elimination of two types of seed lots.

(a) Those which fail to reach the minimum statutory germination levels, and

(b) Those which although their germinating capacity is acceptable, demonstrate a physiological conditions considered to be unacceptable.

## The role of the Germination Test

The laboratory germination test has a vital role to play in the seed industry. The methods used must be accurate and reproducable. The tests enable seed lots of inferior standard to be eliminated.

## The role of the Vigour Test

Vigour tests can be considered to be a quality control procedure to supplement the germination test. They will never replace germination tests as each have a different well defined and essential part to play in seed testing.

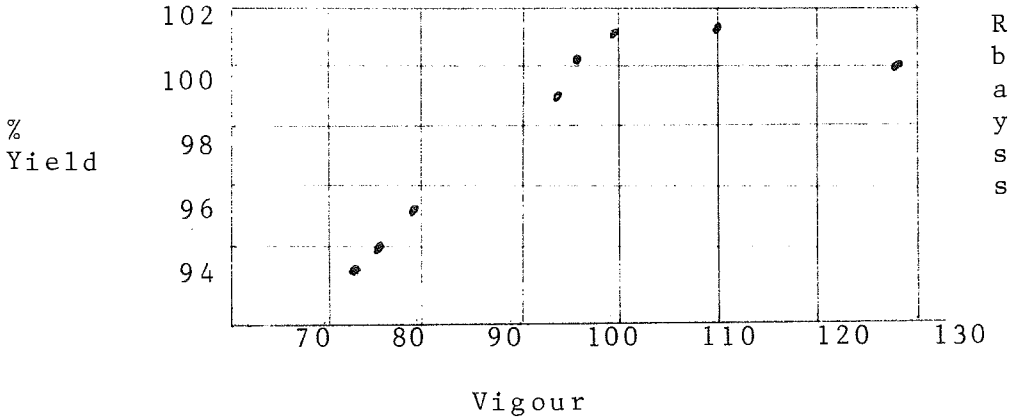
The two companies presently vigour testing in the U.K. have come up with their tests by different means. One method involves growing the seed under predetermined conditions at 20 degrees Cel. and 95% humidity and the amount of growth each seed lot produces is measured. In the development stages this growth was related to the seed lots subsequent performance in the field. It was found to be extremely accurate and now forms the basis of the (Rothwell) vigour testing procedures.

The method used by (R.H.M.) involved inducing seeds to grow under stress, (subjecting the seed to several stress factors including temperature and moisture.) It probably is best described as an accelerated ageing test which was originally designed to predict storability of seed lots. The seeds are stored for a short period of time under extremely adverse conditions and then removed and their germination capacity assessed. Low vigour seeds have been shown to lose their germinating capacity rapidly following accelerated ageing treatments.

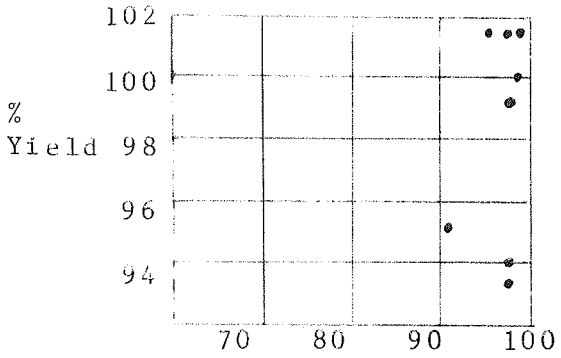
Thus the introduction of vigour tested seed adds a new dimension to cereal seed quality in that it means a greater reliability factor for farmers. How can this factor be applied to Australian cereal production? There are two areas where I see vigour tested seed being of benefit.

(1) Where seedlings suffer stress because of low soil moisture levels, and

(2) Where farmers are looking at techniques such as stubble mulching minimum tillage and no till.

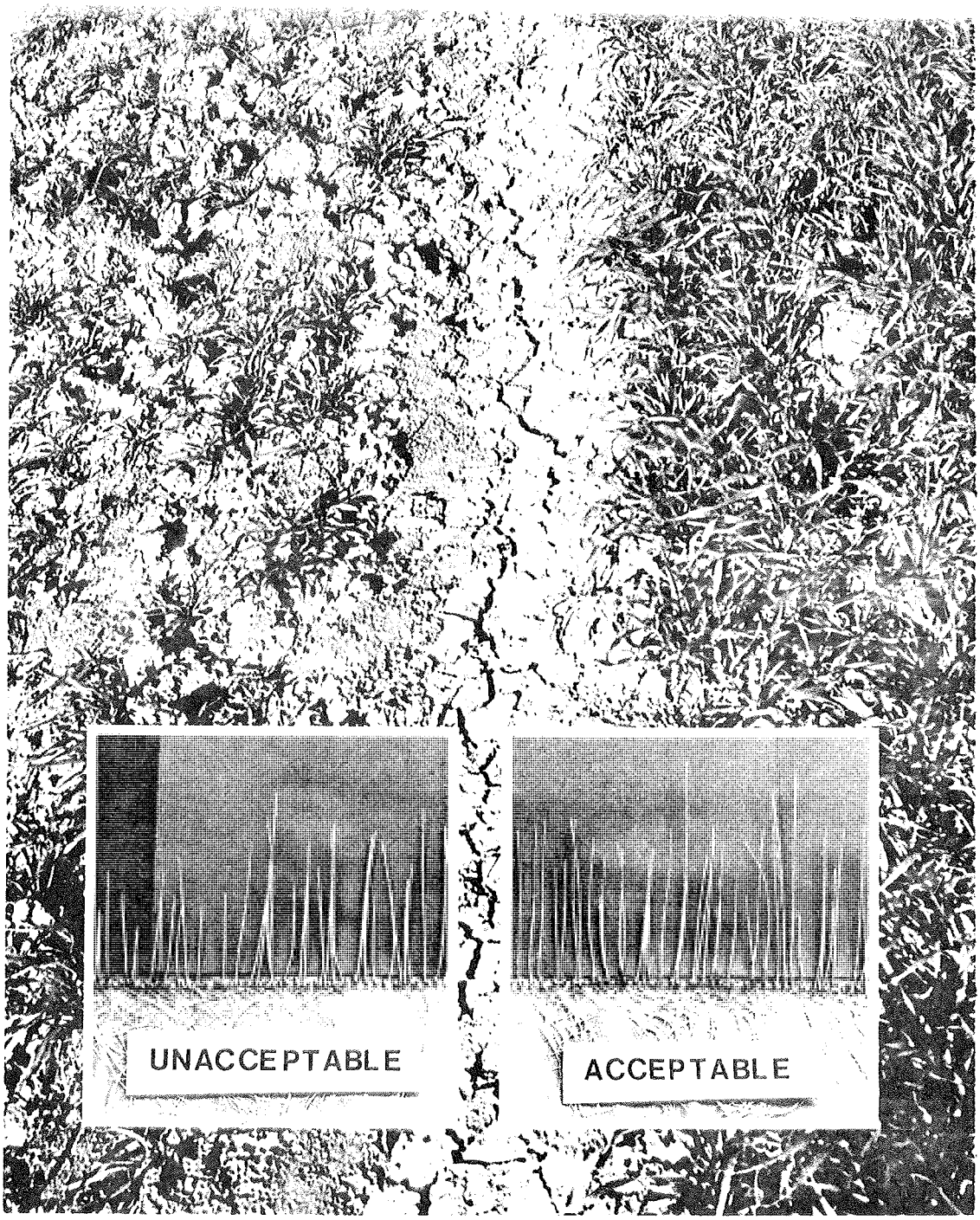



Relationship between vigour and subsequent yield of 8 seed lots of spring barley.




Relationship between laboratory and subsequent yield of 8 lots of spring barley.

FIG. III



## STRAW UTILIZATION

U.K. farmers value their crop residues very highly. In fact, approximately 80% of wheat and barley straw is baled.

Because of the long winters, livestock are housed for 6 months or more. Much of the baled straw is used as bedding, but it is also recognised as a valuable source of fodder. Much of it is incorporated in proprietory feed mixes, quite often in the form of pellets.

Researchers are continually seeking ways to improve the digestibility of straw and results from work done at the Rowett Research Institute indicate that treatment with caustic soda is quite encouraging.

Alkali treatment of straw began as the Beckmann process in Germany during the First World War and was used in Britain during the 1939-45 War. This included soaking long straw in dilute NaOH, then washing it free of excess alkali. It has been largely superceded by spray processes, in which milled or chopped straw is sprayed with a small volume of concentrated NaOH (16 or 30%).

### Summary of Method Used at Rowett

1. Barley straw has mainly been used, but wheat straw is similiarly improved by alkali treatment.

2. For maximum improvement in digestibility, the application rate if 80kg dry NaOh per tonne of straw dry matter. When applied as a 16% solution the application rate is 360 litres per tonne of straw/

3. Milled or chopped straw is loaded into a mixer trailer and turned over by the augers during spraying.

4. Once the alkali has been applied, concentrates may be added immediately, and mixed with the straw. If the complete diet is to be used within 10-14 days, no preservative is required. If the storage period is longer, the concentrates must be treated before mixing with the straw, with 3% propionic acid.

## TRAMLINES

Tramlines are tractor lanes formed in the crop at drilling by means of appropriately blocked combine runs to facilitate subsequent crop spraying and top dressing operations. Various methods exist for preventing the seed flowing, but essentially they consist of a counting mechanism in the cab of the tractor and a mechanical device for blocking off the appropriate combine runs.

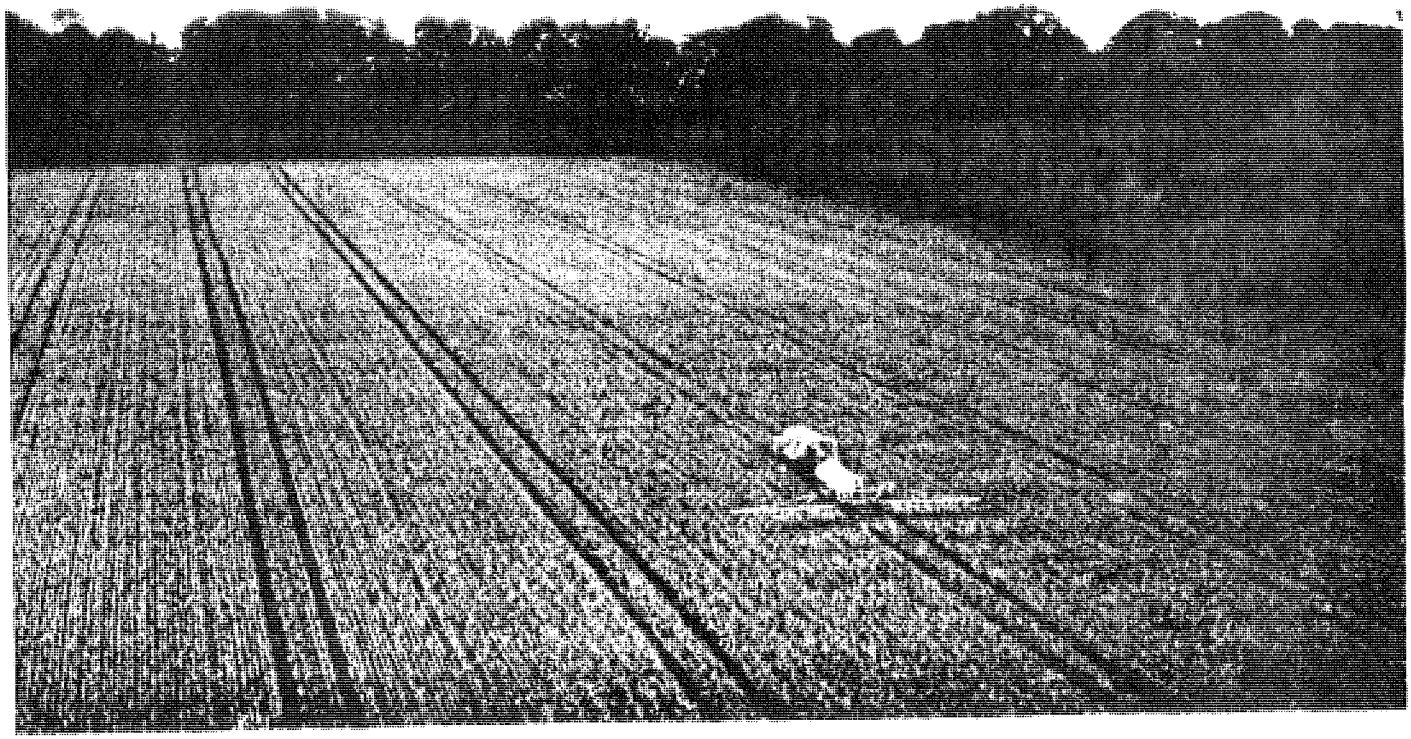
The attractiveness of the system is that the crop then has an accurate and clearly defined mark for subsequent spraying and top dressing.

Advantages of the system are:-

1. Accuracy and speed of applications can be improved.
2. Compensatory growth of plants adjacent to a tramline can result in little adverse effect on yield resulting from the missing row.
3. Less crop contamination from green grains in sample.

There are problems if the combine is lifted out in mid-field or something else upsets the normal pattern of operations.

FIG. IV



## CO-OPERATIVES

Farm Co-operatives in the U.K. are gradually gaining ground. They almost doubled their turnover from 1970 to 1974. Requisite co-operatives now supply about 25% of total farm inputs, while marketing co-operatives now handle 15% of U.K. agricultural output.

What is more significant however, is the Government involvement in the operations of co-operatives. The Central Council for Agricultural and Horticultural Co-operation was set up to help farmers and growers throughout the United Kingdom to cut costs, to increase profits, and to create market opportunities through working more closely together on one or more parts of their farming business.

More organised forms of co-operation among producers are also encouraged by the Central Council. The promotion, development, and co-ordination of co-operation and mutual assistance in production, storage, preparation for market, marketing, transport and the provision of buildings, equipment and services for farmers and other producers are among the functions of the Council.

Other help extended to co-operatives can cover such matters as:-

Finance, taxation and management accounting.
Training and Education
Examination of market opportunities
Product promotion and presentation

The Council also provides a wide range of grants to help the formation of new co-operative associations and the expansion of existing ones. When granting aid the first consideration is that the Council aids schemes which show greater profit and efficiency through farmers working together than could be achieved by their working as individuals.

There is no doubt that the very poor record of co-operatives in Australia can be attributed to poor business management on the part of the members. By trying to keep margins as low as possible many co-operatives have not been in a strong enough financial position to carry them through a downturn in business. If some sound management advice had been available many more would still be in business.

Serving farmers in a different way is A.C.M.S. - Agricultural Co-operative Marketing Services. This is an organisation set up by the Co-operatives, and the National Farmers Union to strengthen, speak for, and service all forms of producer co-operatives in England.

The objective of A.C.M.S. is to improve the return to the producer by making him a more effective seller of his produce and buyer of his requirements whilst retaining control of his own business.

## CONCLUSIONS

The U.K. Farmer possesses a very high degree of technical and managerial skill. Intensive research ensures that improved varieties and new techniques are continually at the farmer's service.

The U.K. Farmer does have the ear of government, despite popular opinion to the opposite. The National Farmers Union of England and Wales represents 135,000 farmers from all sections of agriculture and it is noteworthy that it is probably the most influential political lobby in the U.K.

Relatively stable yields and guaranteed prices ensures that U.K. farmers do not experience the wild fluctuations of incomes of his Australian counterpart.

Investigations show that the major (and even some minor) food producing nations throughout the world place far more importance on agriculture than does Australia. Assistance is provided to ensure that agriculture remains viable. In the present day world of intense market competition, Government assistance to agriculture is provided in one form or another in an attempt to gain a share of world markets. Sadly, successive Australian Governments have not faced up to their responsibilities in this regard. Gone are the days when agriculture can flourish in the face of competition from heavily assisted exporting nations.