

2006/0731
S1020

Student **70**



AGRICULTURAL COLLEGE

THE HON. MINISTER OF AGRICULTURE (T. M. CASEY, M.L.C.)

ADVISORY COUNCIL:

Sir Richard Hawker, Professor C. M. Donald, Dr. S. I. Evans, Mr. A. W. Jones,
Mr. M. R. Irving, Mr. T. W. Hardy, Mr. J. W. Reddin

ADMINISTRATIVE STAFF:

Principal: R. I. HERRIOT, B.Ag.Sc., F.A.I.A.S.
Vice-Principal: M. R. KRAUSE, M.Sc. (Agron.), B.Ag.Sc., R.D.A.
Administrative Officer: A. T. FOOTER, Dip.Acct. (S.A.I.T.)
Housemaster: J. V. FOOT, J.P.

OFFICE STAFF:

S. R. Jones R. H. Back B. W. Attwood
Miss S. J. Perry Mrs. P. J. Ballard

INSTRUCTIONAL STAFF:

AGRICULTURE:

Lecturer in Agriculture: H. A. REIMERS, B.Ag.Sc., Dip.Ed.
Farm Superintendent: R. S. NORTON, R.D.A.
Assistant Farm Superintendent: R. C. HUTCHINSON, R.D.A.

ANIMAL HUSBANDRY:

Senior Lecturer in Animal Husbandry: D. TAPLIN, Ph.D., B.Ag.Sc.
Lecturer in Veterinary Science: F. B. HARDY, M.R.C.V.S.
Research Officer Sheep and Wool Biology: D. W. ROUNSEVELL, B.Sc. (Hons.)
Instructor in Sheep Husbandry: C. W. HOOPER, R.D.A.
Field Officer: VACANT
Instructor in Dairying: A. H. CHARTIER, R.D.D.
Assistant Instructor in Dairying: P. J. RYAN, R.D.A., R.D.A.T.
Lecturer in Animal Husbandry (Poultry): N. S. MINA, M.Ag.Sc.
Senior Laboratory Technician: R. E. BRADY
Technical Officer: VACANT
Laboratory Assistant: VACANT

ECONOMICS:

Senior Lecturer in Farm Management: K. B. LESKE, B.Ag.Sc., F.S.A.I.T.
Lecturer in Farm Management: A. J. NANKERVIS, B.Ag.Ec.

AGRICULTURAL ENGINEERING:

Senior Lecturer in Agricultural Engineering: VACANT
Instructor in Agricultural Engineering: J. R. BURRELL, A.M.I.E.T.
Workshop Superintendent and Instructor in Agricultural Engineering:
D. SUTCLIFFE, M.S.A.E. (Aust.), M.I.M.I.

HORTICULTURE:

Horticulturalist: VACANT
Assistant Horticulturalist: J. A. JONES, R.D.A., R.D.A.T.

PLANT BREEDING:

Plant Breeder: M. R. KRAUSE, M.Sc. (Agron.), B.Ag.Sc., R.D.A.
Plant Breeder: G. J. HOLLAMBY, B.Ag.Sc.
Pure Seed Officer: D. D. CURTIS
Laboratory Assistant: Miss P. A. HEGGIE
Field Assistant: J. S. LOLLER

SCIENCE:

Senior Lecturer in Chemistry: A. J. NICOLSON, Ph.D., B.Ag.Sc.
Oenologist: R. J. BAKER, R.D.Oen.
Lecturer in Biology: P. C. O'BRIEN, B.Ag.Sc.
Lecturer in Biochemistry: C. WEEKS, B.Ag.Sc., Dip.Ed.
Assistant Lecturer: R. A. FAIRFAX, B.Sc. (Hons.), F.I.A.T., A.I.S.T., L.I. Biol. (UK)
Laboratory Assistants: Miss G. J. CROOK, Mrs. P. LLOYD

EXTENSION:

Senior Lecturer in Extension: M. V. BURTON, M.Ag.Sc.

EDITORIAL

It has been traditional it seems, on reviewing "Student" Editorials, to deliver a lengthy discourse on how much better the present students are than those who have gone before. This is, of course, a fallacy, for although there is always a natural progression in standards of a course, as must be, a similar cross-section of students enter each year, with the same aspirations, abilities and intellect. The only aspect of any course which differs is the level of understanding a student can reach while still in training, compared with fellows of a previous era, due only to a generally up-graded educational system. This magazine has for its title "The Student", and it is the student of this College on whom I would like to dwell for a moment.

Roseworthy offers those who enter a unique environment in which to live, study and, more importantly, to develop as citizens. Here the student develops an intimate relationship with fellow student, staff and subject matter. He is completely involved! The very nature of the course leaves no one "on the outer" or able to remain superficially interested in either the course or college community life, which offers many pursuits for varying interests. As everywhere, sport is the first extra-curricula outlet, but with Roseworthy this is only just one facet. Special activities of debating, Rural Youth, the production of this magazine, allows for formal student self-expression yet every day, through constant contact and developing acquaintance with lecturing staff and fellow students, self-expression at varying levels is developed.

The broad course gives a student knowledge in many aspects of Agriculture and its associated fields, developing in him sufficient understanding to assimilate and interpret a wide range of technical literature. "Living in" also educates, for experiences within the college in many shades of activity become mutual experiences through endless student discussion.

Character building is part of this course which is not written into the curriculum yet which is an integral and inescapable part of it. Individuality is not depressed, initiative is encouraged, the introvert develops unwittingly, while the self-opinionated learns to tolerate the other's point of view.

To me, this College and its environment offer a young man opportunity to gain a wealth of knowledge, to develop in character, and on completion of his course, to look back with a sense of achievement which reaches beyond the normally accepted boundaries of academic attainment.

D. SPENCER.

	MAGAZINE COMMITTEE
MANAGER:	R. S. NORTON
COMMITTEE:	D. C. SPENCER
	A. J. BARNES
	D. R. CHAMBERS
	A. H. RICHARDSON
	R. S. StJ. SWEETING

GRADUATION DAY 70

Opening his address Mr. Herriot spoke of the Student Representative Council and its function in the running of Roseworthy. He pointed out how students are accepting their responsibilities, as indicated by the whole-hearted manner in which they conducted Open Day, without staff assistance, drawing over 5,000 people to view the College as it functions.

Referring to student numbers, it was pointed out to visitors that the intake for Agriculture was 55 in 1970 with 65 expected in 1971 and Oenology intake this year was 19, resulting 143 students at College. To match this intake improvements are required and as Roseworthy now has the status of a College of Advanced Education, a change in financial arrangements has resulted in great benefits to Roseworthy.

A new Wine Cellar was started at the beginning of the year, another 188 acres of land is being purchased while a new kitchen and accommodation block for 70 is planned. In mentioning the change in approach to the course, Mr. Herriot pointed out that in 1970 a student will spend only one-third of his time in practical work with a reduction to 22% envisaged when numbers increase to the ultimate 190.

The most outstanding feature agriculturally, he felt, was the remarkable performance of the new wheat Halberd and Clipper barley which outyielded other varieties by 10 and 12 bushels respectively. In trials around the State Halberd was 28% better than Heron.

The most outstanding sporting achievements were noted by the Principal who pointed out that Roseworthy won the Inter-collegiate rifles and tennis, also playing in both A and B grade Football Grand Finals.

In paying a tribute to the staff Mr. Herriot mentioned Mr. M. V. Burton who won a Wheat Industry Fund Scholarship to study Agricultural Extension at the Melbourne University. Mr. Burton will be appointed Senior Lecturer in Extension Principles and Practice on his return.

In conclusion, the Principal read a message from the Minister, Mr. R. Story, apologising for his absence, assuring students of the recognition throughout Australia of their qualifications and offering all graduating his personal good wishes.

BRIAN FALKENBURG

Brian commenced the Oenology course in 1968, coming direct into it after gaining experience on the family vineyard at Nuriootpa as well as in the winery of the Barossa Co-op. He showed an aptitude for the course in his first year, gaining top place.

During his course he worked in a winery at Griffith (Savage Bros.) and later again in the Barossa Co-op. Winery to widen his experience, graduating in 1969 as Dux of Oenology.

While at college, Brian was a popular student and Captain of the cricket team. Since graduation he has commenced work back at the Barossa Co-op. and is reported to be making a good brew of bubbly for his coming wedding. Congratulations Brian on your results in the Championship Wine Show.

KEITH McCALLUM

In March, 1969, Keith McCallum graduated with a Diploma of Agriculture; Second Class Honours, while gaining Distinctions in Agricultural Engineering, Veterinary Hygiene and General Husbandry. For the remainder of that year "Barney" applied himself just as diligently to become Dux of the Agricultural Technology course of Fourth Year.

Always interested in any activities, Keith contributed much to the college while here. We wonder if he is working on the same scale in the Army while he serves out his two years of National Service.

GRAHAM PEARCE

Between Keith and Tintinara is the Coombe siding. This is the busy metropolis from whence came Graham Pearce, the Dux of Agriculture for 1969. He attended the Keith Area School in his early years of secondary education, completing it with Matriculation from the Brighton High School.

While at Roseworthy Graham was not only an industrious student, but took part in all phases of college activity. He became the Treasurer and a Third Year nominee on the Student Representative Council. His sporting activity included B grade Football, Weight-lifting for which he was awarded a Badge and barracking for any other event in which he was not able to take part.

Since Graduation Graham has been applying himself just as assiduously to his studies at the Adelaide Teachers' College and we would imagine taking his part just as actively in college life. Many youngsters will benefit from their association in years to come with "Perc" Pearce.

DUX OF OENOLOGY



DUX OF AGRICULTURAL TECHNOLOGY



DUX OF AGRICULTURE



DIPLOMA LIST—GRADUATION DAY 1970

1. ROSEWORTHY DIPLOMA OF AGRICULTURAL TECHNOLOGY

Passed (in alphabetical order)—
Keith Arnold McCallum
Christopher John McGowan

2. ROSEWORTHY DIPLOMA OF OENOLOGY

Honours (in order of Merit)—
Brian Andrew Falkenberg—Second Class Honours
Passed (in alphabetical order)—
Mark Hansford Babidge, Albert Lindsay Chan,
John Charles Glaetzer, Ian Robert Scarborough,
Philip Leslie Shaw.

3. ROSEWORTHY DIPLOMA IN AGRICULTURE

Honours—
Graham John Pearce (Second Class Honours, Distinction in Agricultural Engineering).
Passed (in alphabetical order)—
Anthony William Bass, Graham Thomas Brookman,
Peter Michael Burne, Rodney Kent Dorman,
John Scott Ellis, Peter Friedrichs, Darryl John Fromm,
Anthony Gerlach, Charles Benjamin Goode,
Denis Edward Hansen, Wayne Robert Hein,
John Gordon Hill, Peter John Hodgson,
Grant Ronald Inverarity, Francis Edward Kaesler,
William John Liebelt, Brian Kenneth Luck,
Robert Ian Maczkowiack, Robert Charles Miller,
Andrew Thomas Oliver, Anthony Walter Pick,
Brian Trevor Polkinghorne, Philip Francis Redden,
Richard James Stewart, Mark David Ulbrich,
Michael Ainslie Wood, Christopher Donald Wurst.

GRAMP, HARDY, SMITH MEMORIAL PRIZE

Awarded annually to the student showing the best all-round character and ability, taking into specific consideration his manliness, his leadership, his sportsmanship and his scholarship—
Graham John Pearce

GENERAL PRIZE LIST —

ROSEWORTHY DIPLOMA OF AGRICULTURAL TECHNOLOGY

The Royal Agricultural & Horticultural Society of South Australia prize for the Dux of the Course—
Keith A. McCallum

The Commonwealth Development Bank of Australia prize for Farm Management—
Keith A. McCallum, Christopher J. McGowan (equal)

The Adelaide & Wallaroo Fertilizers Ltd. prize for Extension Principles and Practices—
Keith A. McCallum

ROSEWORTHY DIPLOMA OF OENOLOGY

Gold Medal (presented by the late Mr. Leo Buring for the highest aggregate in all diploma subjects)—
Brian A. Falkenberg

Tasting (presented by Adelaide Motors Ltd. in memory of the late Mr. R. H. Martin)—
Brian A. Falkenberg

Practical Examinations (presented by the Wine and Brandy Producers Association of S.A. Inc.)—
Brian A. Falkenberg

The Australian Wine Consumers Co-operative Society Limited prize for Viticulture—
Mark H. Babidge

ROSEWORTHY DIPLOMA IN AGRICULTURE

THIRD YEAR STUDENTS

Gold Medal (presented by the Royal Agricultural and Horticultural Society of S.A. for the highest aggregate in all Diploma subjects)—
Graham J. Pearce

Old Students Cup and Prize (presented by the Roseworthy Old Collegians Association for the second aggregate in all diploma subjects)—
John S. Ellis

Outside Work (presented by the Albert Molineux Memorial Trust)—
Graham J. Pearce

Morphett Prize for Dairying (bequeathed by the Late Mr. B. Morphett)—
John S. Ellis

Practical Farm Engineering (presented by Caltex Oil (Aust.) Pty. Ltd.)—
Graham J. Pearce

Sheep Husbandry (established by Mr. W. L. Kelly and perpetuated by Mr. C. R. Kelly, MHR)—
Anthony W. Pick

Farm Management (presented by Commonwealth Development Bank of Aust. Ltd.)—
John S. Ellis

Animal Nutrition and Veterinary Hygiene (presented by Noske Bros. (S.A.) Pty. Ltd.)—
Grant Ronald Inverarity

The Haselgrove Prize for Horticulture (bequeathed by the Late Mr. C. T. Haselgrove)—
Brian Trevor Polkinghorne

Practical Horticulture (bequeathed by estate of the Late Rudi Buring)—
Brian Trevor Polkinghorne

Practical Examinations (presented by members of the Advisory Board of Agriculture)—
Graham J. Pearce

The Richard Maxwell Memorial Prize (presented by Trust established by fellow students of the Late Richard Maxwell for the Best Stockman)—
Philip Redden

SECOND YEAR STUDENTS

Dux of Year—Silver Medal (presented by Gawler Agricultural, Horticultural and Floricultural Society)—
Noel Christophersen

The W. J. Colebatch Memorial Prize (Awarded to the student in the Second Year of his course who has shown the greatest all-round promise, having regard to scholastic ability, industry, practical work, leadership and sportsmanship)—
Colin Edwin Hopkins

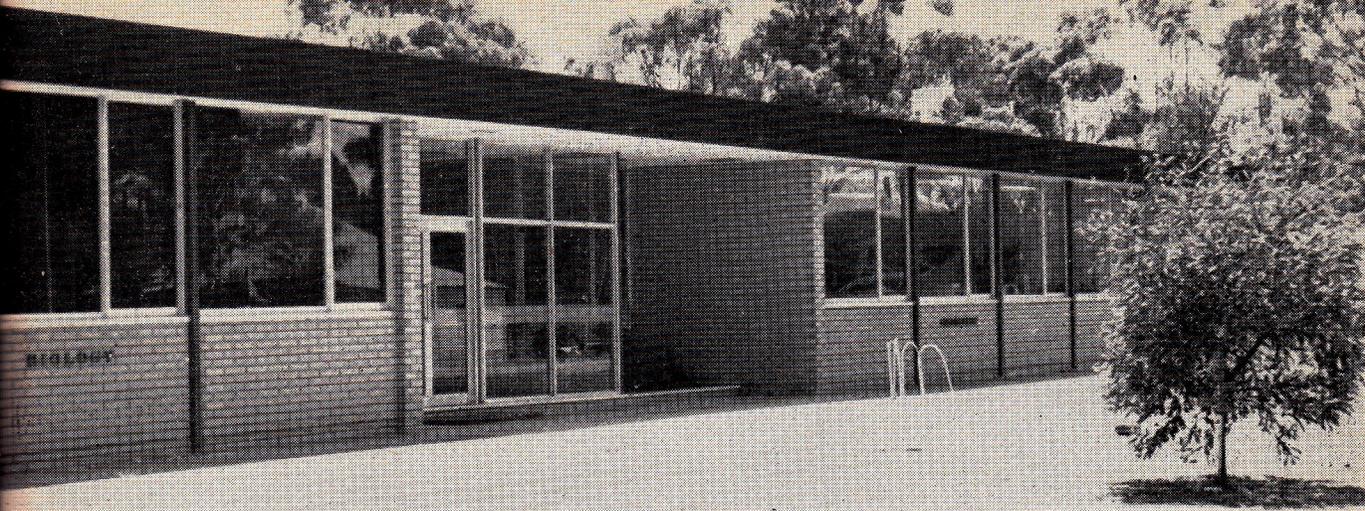
Horticulture (presented by Trust established by the estate of the Late F. G. H. Buring)—
Timothy Prance

The Shell Prize (presented by the Shell Coy. of Aust. Ltd. to the most promising student at the end of the second academic year who displays the most promise of developing leadership in his field of work and as a citizen)—
Colin Hopkins

The H. Wyndham Brown Prize (presented by Trust established by the late Mr. H. Wyndham Brown for the highest aggregate in basic science subjects)—
Timothy Prance

FIRST YEAR STUDENTS

Dux of Year—Bronze Medal (presented by the College)—
Alan Richardson



THE NEW SCIENCE LABS.

BASIC SCIENCES AT R.A.C.

1 CHEMISTRY

On Friday, 18th October, 1968, Mr. Ross Story, M.P., then Minister for Agriculture, opened the new science block at Roseworthy College. Like the engineering centre before it, the building set new standards in student facilities. The science block was the first building in the College to have an all-weather air-conditioning system. Spacious laboratories with large windows and bright interiors contrasted sharply with those of the "old chemistry building", but this, too, is shortly to be remodelled.

Financed partly by the Commonwealth and partly by the State Governments, the science block, plant-breeding centre and glasshouses cost nearly half a million dollars. It was constructed as part of the programme to bring the College to the status of a College of advanced education. During this programme increasing emphasis has been placed on giving students a sound training in basic sciences complementary to Agriculture.

The science block is arranged in the shape of a "T", and houses laboratories for chemistry, biology and anatomy.

Centrally placed are a balance room for use by all three laboratories, a lecture room to seat 48, and an air-conditioning plant room. Offices, small research laboratories, preparation and store rooms have been provided for each section. Beneath the building is a service tunnel containing hot and cold water pipes, electrical conduits, drains and air-conditioning ducts. This allows servicing or modifications to be easily carried out with no delay to work inside the building.

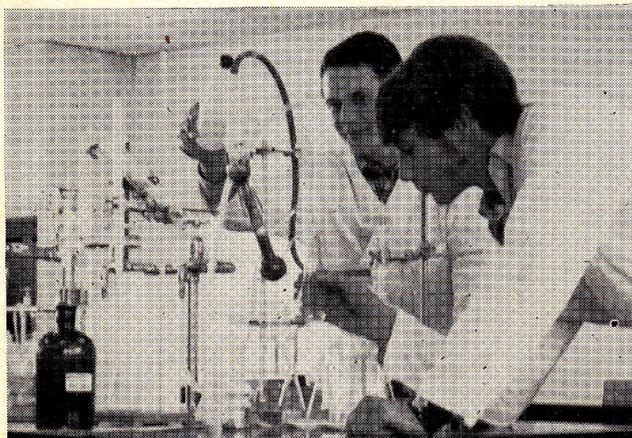
THE CHEMISTRY COURSE

All basic science courses have been revised to make use of the new facilities, but the remainder of this article will only consider chemistry.

Topics covered in first year provide a basis for subsequent years of the course. Basic physical and inorganic chemistry, organic chemistry, soil chemistry and plant nutrition occupy the whole year. About half of first year is spent bringing non-matriculation entrants to matriculation standard in fields of chemistry relevant to agriculture.

Entrants need training in the use of instruments such as pH meters, spectro-photometers, and conductivity meters. This training is achieved by practical exercises using agricultural materials including soils, fertilizers, plant materials and water samples. In this way the students attempt to examine topical problems while learning to use modern instruments. Most practical classes are complementary to lectures, but it is not always possible to run them at the same time as the lectures are presented. At any one time a series of at least four different experiments is run. Students change experiments from week to week until a series is completed. This system prevents the need for duplicating costly equipment that might otherwise be used only once or twice in a year.

Experiments carried out by first year students commence with a field trip where practical instruction on soil sampling is given. College soils are sampled and provide material for subsequent analytical tests. Tests carried out include total phosphorus, available phosphorus, total nitrogen, calcium, carbonate pH and total soluble salt determinations. These tests are done by methods



similar to those used by the Department of Agriculture and other soil testing laboratories. Students gain a clearer understanding of the interpretation advantages and disadvantages of the tests and the knowledge should be of value to them in teaching or advisory work.

Second year chemistry is entirely biochemistry and is complimentary to animal and plant physiology, and to microbiology.

The course provides a brief summary of the chemistry of life. It covers the build-up of foodstuffs in plants through photosynthesis, their subsequent utilization by animals and plants and breakdown and excretion. During this stage students find out why various foodstuffs vary in nutritional value, and why some foodstuffs are interchangeable in animal diets.

Experiments are designed to illustrate points from the lectures and are divided into two stages. The first, occupying the first half of the year, is centred around fats, carbohydrates and proteins. Materials used in the practical classes include butter, margarine, vegetable oils, animal fats, milk, milk protein, amino acids and sugars. During this period students try their hands at basic biochemical techniques. In one experiment the students determine their own blood glucose content, in another they find out why milk curdles when it sours, and at the same time learn about some important properties of proteins.

The second stage of the Chemistry II practical course makes use of techniques learned earlier. In this phase students examine the effect of hormones on animal metabolism, factors affecting enzymic breakdown of foodstuffs and some features of ruminant nutrition.

After completing second year students may pass to either the R.D.A. third year course or to the Oenology course. Oenology students undergo a further two years of training and biochemistry.

Chemistry for third year R.D.A. students deals mainly with pesticides. It includes a course of lectures on mechanisms of selective toxicity, and on the different chemical groupings of herbicides, insecticides and fungicides. Safety precautions are stressed, and control of the sale of agricultural chemicals is also discussed.

A recent innovation for third year students has been the use of a special type of assignment. In this assignment a student must choose a recently published scientific paper about pesticide chemistry. He then has to interpret this paper and write a review of it in practical terms. If time permits he is given the opportunity to talk to the rest of the class about the research report. This exercise is to train students to interpret the latest scientific findings in practical terms, and to evaluate research reports. Increasing emphasis is to be placed on this type of training for third year students.

Until now, no third year practical classes have been conducted, but some pesticide experiments are to be introduced when the opportunity arises.

New emphasis has been added to science subjects including chemistry at Roseworthy, and this is essential if diplomates are to compete for employment in this technological age.

J. NICHOLSON,
Senior Lecturer, Chemistry.

SECTION REPORTS

FARM

The 1969 season produced an even more spectacular grain yield than 1968.

Although faced with a wheat quota, with consequentially a restricted acreage, a total of 16,919 bushels of wheat were produced with an average of 37.9 bushels per acre (Halberd 51.9 bushels) 21,167 bushels of barley averaging 31.8 bushels per acre (Clipper 56.6 bushels) and 2,216 bushels of oats averaging 35.7 bushels.

As fodder reserves were high, only 106 tons of excellent medic hay was made and 300 tons of cereal silage, for the use of the dairy herd.

Rainfall in 1970, although approximately 2½ inches below average in July, has picked up with especially good falls in late August and September and an excellent harvest is almost assured, given an average October rainfall. At mid-October, however, only 12 points for the month had fallen and cereal crops need rain. At this period we have 23,000 bales of excellent quality medic hay made and still in the paddock. It is the old story of the rain that saves the crops will spoil the hay.

The purchase of new machinery to "up grade" our plant has been possible in latter years and was continued in 1970 with replacement tractors, harrows, a new 20 row combine-trash seeder and utility. In the latter part of 1969 a clover seed harvester was purchased and, using it on self sown pastures in March, we reaped 17½ tons of cleaned Jemalong medic seed.

This year Certified seed has been sown on 50 acres aimed at both selling and seeding back only pure seed.

With a reduction in wheat acreage and alternative land use considered, only barley, oats and medic seed harvesting have been used in addition to extra sheep, cattle and pigs. The grouping of crops in the rotation and some pasture weed control by heavy grazing early or spraying has resulted in good control of weed population which could lead to a reduction in cereal production costs and an overall increase in production.

R. S. NORTON

SHEEP

SHEEP Nos. 30/9/70

Merino Ewes	....	....	....	....	....	....	948
Merino Rams	....	....	....	....	....	....	74
Merino Hogget Rams	....	....	....	....	....	....	175
Merino Hogget Ewes	....	....	....	....	....	....	218
Merino Weaners	....	....	....	....	....	....	631
Dorset Ewes	....	....	....	....	....	....	128
Dorset Rams	....	....	....	....	....	....	24
Dorset Weaners	....	....	....	....	....	....	81
Rations	....	....	....	....	....	....	625
							<hr/>
							2,904

The season has varied considerably being rather hard on stock early in the year but fortunately the College was a lucky part of the State late in the season. Because of this, several firsts were established:

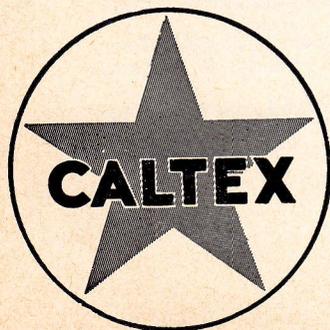
Sheep numbers went to over 3,000; 648 rations were purchased at Jamestown; 298 S.M. Ewes purchased at Jamestown for breeding prime lambs; 690 Ewes averaged 94.5% at tailing; 67 bales of wool at shearing.

Also, 1970 has seen the employment of a Slaughterman to handle the increased killing; Professional Shearers to complete the shearing.

FARMER WITHOUT LAND



He may never plant a crop, this good neighbour of yours. But he knows the land and the people on it. He knows their needs - and the needs of their machines. He's your Caltex Distributor - selected for his knowledge, his enterprise and his readiness to be of service to the community in which he lives. Look to him for high quality fuels, lubricants and specialised products. Look to him for speedy, dependable deliveries in your busiest season.



**A GOOD NEIGHBOUR —
YOUR CALTEX DISTRIBUTOR**

The champagne
of champagnes
is
Great Western



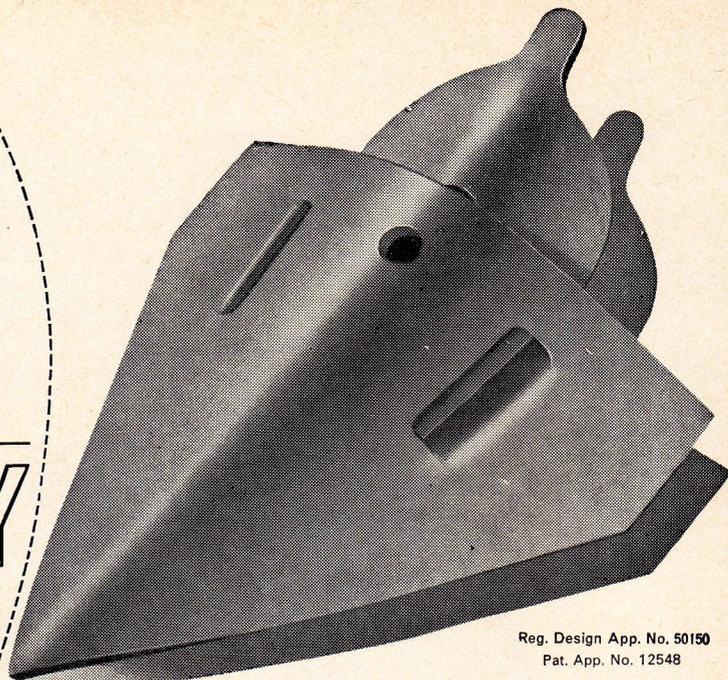
*A product of the
House of Seppelt
... wine makers for 117 years*

Another first
for
McKay

30 years ago
first with...
Slip-on-Points
(The famous Marlow)

TODAY

first with...

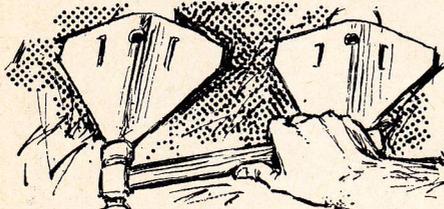


Reg. Design App. No. 50150
Pat. App. No. 12548

'NOK-ON' POINTS



Tap with a hammer—It's off.



Tap with a hammer—It's on.



leaders in the field!

- Fits all popular Cultivators and Scarifiers
- Bolt head wear completely eliminated.
- Faster, easier share changeover—no frayed tempers or skinned knuckles.
- Practical tests prove 30% more wear.
- Square cut, to retain point and cutting width for the life of the share. Semi-burster shape.
- Manufactured from top-quality steel.
- Heat treated for toughness, tempered for performance.
- Sizes 4" 5" 6" 7" 8" 9" 10"

Manufactured by Ralph McKay Limited

PORT IMPLEMENTS Division

Port Wakefield Road, Gepps Cross, S.A. 5094. Telephone 62 3201

Down to earth service for the man on the land...



Scholz

CHEMICALS PTY. LTD.

*Specialising in Vitamin & Mineral premixes
for the man on the land & industry.*

- Home of Scholz Veterinary Products
- Travellers farm calling throughout the State, write in and ask for a Scholz man to call.
- Distributors for
Monsanto Chemicals, Merk Sharp & Dohme
Bayer, Websters, etc.
- Stockists of
Pridhams Meat Meal, Fish Meal
Whale Solubles, Soya Meal
Fork lift loading available

Now at new premises —
**SCHOLZ BUILDING, Cnr. Murray Street, Carlton Road
and High Street, Gawler. Phone Gawler 22 1521, 22 1688**
SCHOLZ CHEMICALS PTY. LTD.
(DIVISION OF DUNCAN & FEIST)

BEEF

BEEF CATTLE Nos. 30/9/70

Bulls	....	....	....	....	....	....	....	2
Yearling Bulls	....	....	....	....	....	....	....	5
Cows	....	....	....	....	....	....	....	44
Calves	....	....	....	....	....	....	....	29
								<hr/>
								80

Except for an increase in cows mated there is very little to report from this section. Total cattle is probably at an all time high.

C. HOOPER

DAIRY

What is the future of the Australian Dairy Industry as we move into the last third of the twentieth century?

It doesn't look too bright with the possibility of the U.K. joining the E.E.C. and the announcement that the U.K. has recently increased the subsidy to their dairy industry substantially, and the continued dumping of highly subsidised dairy produce on the U.K. and Asian markets by the European countries with surpluses.

The trend in the Australian Dairy Industry could be summed up by investigating the following factors which are the latest available and making a prediction for the future if you are game.

1. In the three year period 1966/69 the number of dairy farms dropped by 16.7%, the number of cows milked fell by 7.2% and production remained relatively static in Australia.
2. Per capita, consumption of dairy produce in Australia is still dropping.

There is no doubt about our affluent society in which we live. It is prepared to pay for mental and physical enjoyment at the expense of our primary industries.

They pay 40 cents or more for a 26 oz bottle of amber fluid without a worry, but a 20 oz bottle of highly nutritive milk is too expensive at 10 cents a bottle; our primary industries produce the overseas credit balance to allow importation of the copious quantities of films, TV programmes, literature on sex and other lesser topics and other luxury items and entertainment.

When we ask for consideration, which does our consuming public demand? More efficiency and more economic production in our primary industries.

Well, enough of that thinking. What happened to the 32,778 gallons of milk that the College herd produced during the 1969/70 season.

6,490 gallons of milk, 1,811 lbs of fresh cream and 5,620 lbs of butter were delivered to the College kitchen.

3,958 gallons of milk, 658 lbs of fresh cream and 3,519 lbs of butter was sold to the staff.

4,016 gallons of milk was used for feeding calves and 15,450 gallons of surplus skim milk was disposed of at the piggery whilst 3,317 lbs of surplus butter fat was sold to Southern Farmers Butter Factory at Gawler.

Cow production was only average; the 45 cows completing their lactation during the 1969/70 herd recording season averaged 6,570 lbs milk testing 5.3% to give 346 lbs butter fat per cow.

This can be closely associated to seasonal conditions which were accentuated by out-of-season calving due to the timing of the academic year peak consumption early in March and our temporary infertility problem which appears to be associated with medic growth during winter.

There have been no major additions or alterations to the dairy section during the past year, except by natural increase.

In that at the end of September stock numbers were at or near an all time record high.

Milkers	....	....	....	....	....	....	....	49
Dry over 12 months old	....	....	....	....	....	....	....	41
Bulls	....	....	....	....	....	....	....	3
Calves under 12 months old	....	....	....	....	....	....	....	44
Total	....	....	....	....	....	....	....	137

An increase of 28 on last year.

A. H. CHARTIER

HORTICULTURE

Points of interest happening on the section are drip irrigation and a new variety vineyard which is completely separate from the old variety vineyard at V. & O. Home. It will contain almost all of the 90 varieties at present in commercial use in South Australia. At present we have 54 — ranging from drying, wine and table grapes with rootstocks such as (1613, Dogridge, Salt Creek), Clone selected material (sultana), and many of the recently introduced such as Gwertz Traminer. These cuttings are at present in the nursery and will be ready for planting out next year.

The vineyard will be situated east of the new winery and will provide excellent material for ampelography work (vine description) which the oenology students study. It will also provide a source of cutting material of known origin; and, lastly, will provide information on how the varieties will compare in yield and vigor of growth. Incorporated in this vineyard will be other teaching aids such as different trellis designs, grafted vines into rootstocks and their response to each other. This vineyard will be under drip irrigation to provide a saving in water and to show different drip irrigation methods.

At present the old vineyard has not been completely installed, but it is hoped to be working in the near future.

Drip irrigation has now also been installed in the glasshouse as well as on a half acre of cucurbits, the old variety vineyard, and three rows of seven-year-old pears. The glasshouse drip irrigation has been working since July this year with both tomatoes and dwarf beans achieving good results.

WHAT IS DRIP IRRIGATION?

It is a completely different method of applying irrigation, compared to sprinkler or flood irrigation. With drip irrigation we are providing a daily maintenance of an adequate section of the root zone of a plant at, or close to, field capacity for the duration of the growing season. There is evidence that better yields can be obtained by a more even water regime provided by drip irrigation.

Basic development of the concept began in England in early 1950, but one of the two men responsible, Dr. Blass, later moved to Israel to continue his work. From here a lot of information is now available. Work has not been confined only to Israel, but England, Italy, Denmark, U.S.A., Hawaii, Japan and now Australia. From information received and what has been published in the press, this concept of drip irrigation sounds very exciting and promising, but caution should be taken in Australia until it is proved to be satisfactory in our particular conditions of soil and environment. Basic need for efficient operation of the system is information concerning:—

1. The wetting zone of the different soil types for flow rates from $\frac{1}{4}$ gallon per hour up to 2 gallons per hour. Without this data it is very difficult to advise farmers in the different areas (soil types and environments) on

- how much water to apply (i.e., $\frac{1}{4}$ g.p.h. or 2 g.p.h.);

- at what spacings he should put his drippers so that he can wet a large enough area of the root zone;

- how often and for how long he should run his system, i.e., should it be run for 24 hours every four days, or should he run it for 14 hours every three days.

The fact is that a heavy soil type will require a different watering regime from that of a very deep sandy soil.

2. Highly efficient filtration is required — due to the very fine capillary tube used to obtain the dripping effect. It is necessary to have a filtration plant that will remove particles larger than 0.02 inches in diameter (size of micro tube) and one that will work for the time period of dripping without becoming blocked and necessitating cleaning too regularly.

3. Effects of saline water and/or saline soils must be investigated.

In a situation of no rainfall the salt moves ahead of the water to the perimeter of the wetted zone, but will this built up salt on the perimeter be washed back into the root zone by rain and so killing the plant, or will we need to drip irrigate immediately after a heavy rain to wash the salt back to the perimeter of the wetted root zone.

4. Extensive trials are needed to assess fertilizer levels and to determine the correct types, the proportions of each, and the number of applications needed to keep the plant growing and cropping without causing an upset in the balance of nutrients or excessive growth.

The above points cover the areas that should be investigated because at the present in Australia all the answers for drip irrigation are not immediately available.

J. A. JONES,

POULTRY

A PROMISING PILOT EXPERIMENTAL ANIMAL

Research work in poultry is often handicapped by limits in budget, time and space. Workers in this field have always looked forward to a suitable pilot animal to solve some of these problems.

Fruit flies (*Drosophila*) and flour beetles (*Tribolium*) have been used in genetic studies, controlled selection experiments, and even for nutrition studies for many years. These insects differ from the fowl in many important features, none having a close physiological resemblance to fowls. In addition, certain types of studies are not possible with insects.

Bantam chickens have been advocated for pilot study by some, but they were found to lack several important characteristics of a successful pilot animal. They grow more slowly and lay at a lower rate than chickens. A pilot animal should be hardy, easy to handle, and, for genetic studies, it should have a rapid generation turnover.

Early in 1958 a group of research workers at the University of California, U.S.A., started a series of experiments to produce quantitative information on the suitability of *Coturnix* (Japanese quail) as a laboratory animal.

Incubation: It was found that 99° F. and 85-87% relative humidity are satisfactory conditions for incubation. During the incubation period, which is 16 days, embryonic mortality occurs mostly at 1-2 days and just prior to hatching, closely resembling chickens.

Brooding: Several types of chicken battery brooders were found to be adaptable to the *Coturnix* chicken requirements. Sex determination is possible as early as two weeks. Males have brown or rusty plumage on the front part of the neck, with few gray or black speckles on the breast. Females have tan feathers and circular black spots in these areas.

Growth: Using a turkey starter diet, feed consumption averaged about 80 grams/week/bird. Body weight of a hatched chicken is about 6 gm., reaching about 120 gm. at 5 weeks of age. Females grow more rapidly and weigh more at adult age (150 gm.).

Egg Production: Production curves recorded, using small single wire cages adapted for this purpose, reached more than 80% by 13 weeks of age and remained there for 15 weeks, then receded slightly.

On the average feed consumption, females required three pounds of food per pound of eggs, a figure comparable to the feed efficiency of production-bred chickens at their best. However, they appeared to be very sensitive to disturbances in management.

Egg weight averaged 9.1 gm. (7% of total body weight). Relatively to the body size, this is more than double the secretory work performed by a Leghorn chicken at its best rate of lay.

At the end of a paper published in 1960, the group of workers of California University concluded . . . "from our experiences it appears that *Coturnix* may prove a valuable laboratory animal. Its close resemblance to chickens and even turkeys suggests its use in pilot experiments for these species."

Reference: W. O. Wilson, et al, 1960; *Poult. Sci.*, 40:651-657.

N. S. MINA.

AGRICULTURAL ENGINEERING

After being with us for three years, Mr. C. P. Atkins vacated the Senior Lecturer's chair, thus creating the opportunity for yet another change of emphasis on the engineering subject. The Agricultural Engineering course experienced further development in content and organisation under the direction of Mr. Atkins who, throughout his period as head of the engineering section, endeavoured to promote more Agricultural Engineering interest in the minds of College students and a general acceptance of engineering as an integral part of agriculture.

The ideal level both in quantity and quality of engineering training necessary to give balance to an agricultural diploma is a question that requires a great deal of serious thought. The lack of extension services in the engineering facet of agriculture seems to indicate that greater emphasis on this subject is required. The South Australian Agricultural Industry has the services of advisers for stock, weeds, etc., but who gives advice on matters of power and machinery, stock housing and farm structures, etc. A Roseworthy graduate with a little specialization in this area would surely provide a valuable extension service to the industry if such a position existed.

The extra-curricular activities of the section have been mainly centred around the piggery as far as the structural department is concerned. The progeny testing building, which appears to be operating successfully, was a very time-consuming project. A complete re-design of stock handling and weighing yards has simplified this area of management. The project that created the greatest interest was perhaps

the site preparation and construction of new tennis courts. Students were beginning to doubt the ability of the engineering section to complete the job in time for Intercol.

A number of replacement vehicles and tractors were put into service during the year, these included one David Brown 780 tractor, a Massey Ferguson 165, and four new motor vehicles. Illustrating the degree to which modern agriculture depends on the internal combustion engine is the fact that our vehicle mileage for the year was in excess of 90,000 miles, while tractor hours were approximately 8,500.

The workshop was kept busy as usual preparing machinery for the various seasonal operations and repairing mechanical failures which are usually abundant during the periods of high pressure which are a feature of seasonal operation.

J. BURRELL.

OENOLOGY

During recent years the Wine Industry has experienced considerable prosperity, and there has been a remarkable increase in the tonnages processed. Coupled with this there has been many acreages of high quality grapes for wine making planted, both in South Australia and the Eastern States, particularly in the upper reaches of the Hunter River. The fortunes of this industry have always expressed themselves in the number of students wishing to gain entrance to the Oenology course, and during the last decade we have seen the number increase from a few to nineteen in 1970. Originally the course was designed along with the laboratory facilities to teach twelve students. Recently the official quota was extended to sixteen. At present, although teaching facilities are somewhat over-taxed, steady progress has been made during the year and the Wine Industry can confidently look forward to receiving another group of trained Oenologists at the end of 1971 to fill the many vacancies now offering. The erection of the new winery is proceeding, and according to the latest information from Public Buildings Department, it will be ready for occupation early in 1971. The equipment being installed has been collected from Europe and Australia.

The 1971 vintage will see wines made by the most modern techniques. Included in the equipment is a small bottling line which will be used to provide instruction in presentation and packaging of wine.

This is an aspect of Oenology which has been considered essential in this age where quality control is an essential in merchandising.

Wine shows are the very life of the Wine Industry, and it is encouraging to see the students of recent years vigorously competing for the line honours. It is indeed interesting to note that Phil Waldeck, from W.A., is forging ahead and giving his class mates great competition for the show prizes. Hot as the climate may be, he has proved the musts can be selected to produce wines worthy of the praise of the best wine judges in Australia.

R. J. BAKER.

ANIMAL PRODUCTION LABORATORY

During the past year the major work of the Laboratory has been in the 2 Merino Selection Experiments. The Generation Interval experiment is being conducted to examine the contribution made by selection to the annual increases in clean wool weight as distinct from other factors such as animal nutrition and health. The Fecundity Selection experiment is designed to determine the inheritance of multiple births in The South Australian Strong-wool Merino, and will, in the future, provide 2 sub-flocks of different lambing percentages for the examination of husbandry methods needed under conditions of high fecundity.

Lambing this year was confounded by the "good performance" of a vasectomised ram. This problem of fertile teasers is apparently not as rare as one would like it to be, and an investigation is planned to examine the frequency and nature of the breakdown which occurs.

On Farmers' Day this year the staff of the Laboratory spoke on, and showed the techniques used in, fleece measurement and selection of sheep for wool production. The response was surprisingly good considering that fleece testing has been advocated since the early fifties. Perhaps the incentive to raise the weight of wool cut per head is now great enough to force graziers to consider this avenue, as well as others, in increasing productivity. However, as yet in South Australia (if not Australia), the buying and selling of Merino rams is not based on records of performance, but rather on visual appraisal. This situation may be changed in the future by demands from ram buyers.

D. TAPLIN, Ph.D., B.Ag.Sc.

PLAN

The
dation o
its quali
recomm
primary
recomm
The
most wi

1968-69

1969-70

All tests,

The
Bread R
results a

Halberd
Heron
Raven

Halb
flour with
tested w

In b
Insignia,
under me

Progress

At F
of introd
of which
been ach
in drylan

Never
overseas
dryland o
desired, I

The
group co

F₅R68 (Sa

F₅R70 (Sa

F₅R66 (Me

F₅R23 (Me

F₅R13 (Ga

F₅R21 (Me

Altho

approach

more than

Being

of interest

dwarf par

than Hero

ductive, w

PLANT BREEDING

The most notable achievement in this section for many years has been the release and recommendation of the new wheat variety **Halberd** (Scimitar x Kenya x Bobin). Officially registered in April, 1969, its quality was carefully examined by the Advisory Committee on Wheat Quality and the variety was finally recommended as an F.A.Q. wheat for trial sowing in all zones of the State in 1970. For 1971 it is the primary and only variety recommended in the new medium protein zones 3 and 4 and is the secondary recommendation under certain conditions in the new zones 1, 2, 5, 6 and 7.

The following is a complete summary of the yields of Halberd in comparison to Heron, hitherto our most widely grown and best yielding variety.

		Number of Comparisons	Mean Yield b.p.a.	Advantage b.p.a.	For Halberd %
1968-69	Halberd	19	42.3	4.3	11.3%
	Heron		38.0		
1969-70	Halberd	29	46.4	10.2	28.1%
	Heron		36.2		
All tests, 6 years 1964-69	Halberd	78	35.8	5.4	17.8%
	Heron		30.4		

The milling quality of Halberd, as distinct from its baking quality, was recently investigated at the Bread Research Institute in Sydney on samples from the 1969/70 Roseworthy variety trials. The main results are tabulated hereunder —

	Bushel Weight	Wheat Protein	Bran %	Total Flour %
Halberd	66.0	11.2%	20.7	74.3
Heron	64.0	11.0%	23.9	68.9
Raven	62.0	12.3%	23.0	72.7

Halberd was described as a variety giving a huge release of first reduction flour, a high yield of total flour with low ash and low colour grade, and classed as the best **milling wheat** of all eight varieties tested which included S.A.'s best hard wheats.

In baking quality Halberd is not inferior to the varieties it is recommended to replace, viz., Heron and Insignia, and while it is lacking somewhat in extensibility at low protein (i.e. < 10%) it is satisfactory under medium protein (10-11.5%) and good under high protein (> 11.5%).

Progress with Semidwarfs and their possible impact on the varietal scene in S.A.

At Roseworthy, considerable work has been in progress over the last 5 years, both testing a group of introduced semidwarfs and using many in crosses with Australian varieties, the most advanced lines of which are now being extensively tested. The spectacular success of the semidwarfs overseas has been achieved largely under irrigation or at least where moisture is not a limiting factor. Their success in dryland wheat growing, as we know it in Australia, has been very limited.

Nevertheless, where yield only has been considered, the best of the semidwarf lines introduced from overseas have out-yielded Heron by nearly 50% and several have exceeded Heron by over 30% under dryland conditions at Roseworthy. The quality and some other features of these lines leave much to be desired, but their genetic potential for yield is obvious.

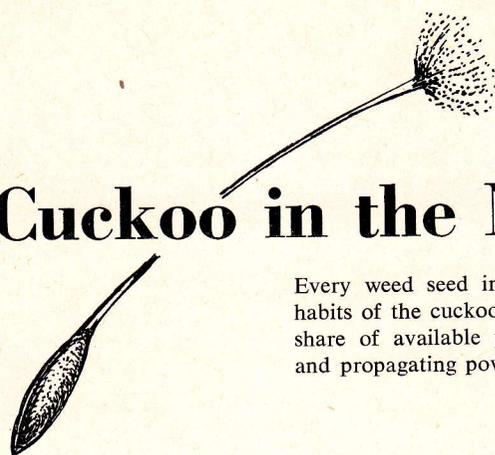
The most advanced lines with semidwarf parentage were F₅'s in 1969-70. The top-yielders in this group compared to Heron and Halberd were —

	Yield (as % of Heron)	Yield (as % of Halberd)
F ₅ R68 (Sabre x Mexico C3)	134%	115% At Roseworthy
F ₅ R70 (Sabre x Mexico C3)	130%	109% At Roseworthy
F ₅ R66 (Mexico C1 x Raven)	123%	107% At Farrell Flat
F ₅ R23 (Mexico C3 x Gamenya)	124%	108% At Farrell Flat
F ₅ R13 (Gamenya x Mexico C1)	136%	108% At Palmer
F ₅ R21 (Mexico C3 x Gamenya)	131%	104% At Palmer

Although promising, the new yield plateau created by Halberd is apparent here. Yield increases approaching 30% over Heron seem possible, but it may be difficult to improve on the yields of Halberd by more than 10%.

Being aware of the short straw and awned heads associated with the high yielding semidwarfs, it is of interest to note the agronomic features of the best lines from this first wave of cross breeds with semidwarf parents at Roseworthy. There is a decided advantage for the early maturing lines (equal to or earlier than Heron); there is an indication that a height level slightly shorter than Heron will be the most productive, whilst there is a very slight indication only that awns will be an advantage under S.A. conditions.

M. R. KRAUSE



Cuckoo in the Nest

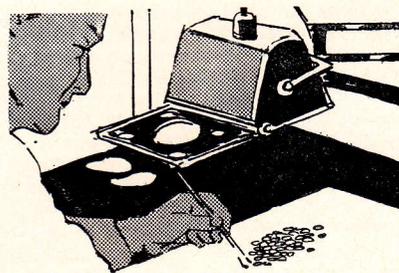
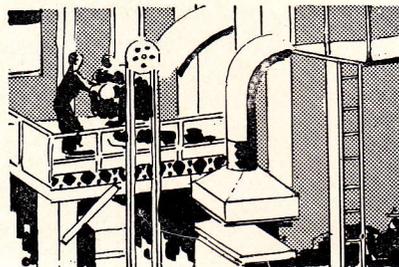
Every weed seed in a load of pasture seed has all the bad habits of the cuckoo. Once it germinates, it will take the lion's share of available plant nourishment; and it has the vigour and propagating power to take over the whole area.

PREVENTION LIES IN SOWING ONLY TRIPLE-CLEANED PASTURE SEED

At Hodge's, one of the largest, most elaborate installations in the country is used to ensure the purity of all the seed they bag for sale. The three-stage operation incorporates an air-blast to winnow out all chaff and light debris, a vacuum process to suck out heavier dust and grit, and a four-screen vibrator to sift out stones and weed seeds.



The result is pasture seed that ensures maximum growth of the selected crop, free of useless—and sometimes dangerous—weeds.



Hodge pasture seeds are constantly laboratory-checked for germination potential and to make sure that no weed seeds are present. Hodge's extend a cordial invitation to students to call at their premises to inspect the modern plant and methods there.

ALWAYS
ORDER ALL
YOUR SEEDS
FROM

M.F. HODGE & SONS Pty. Ltd.

128-134 GILBERT ST., ADELAIDE 5000. TEL. 518600

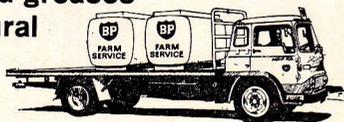
**BP farm
service** 
offers you more

CONTACT YOUR LOCAL AGENT
for

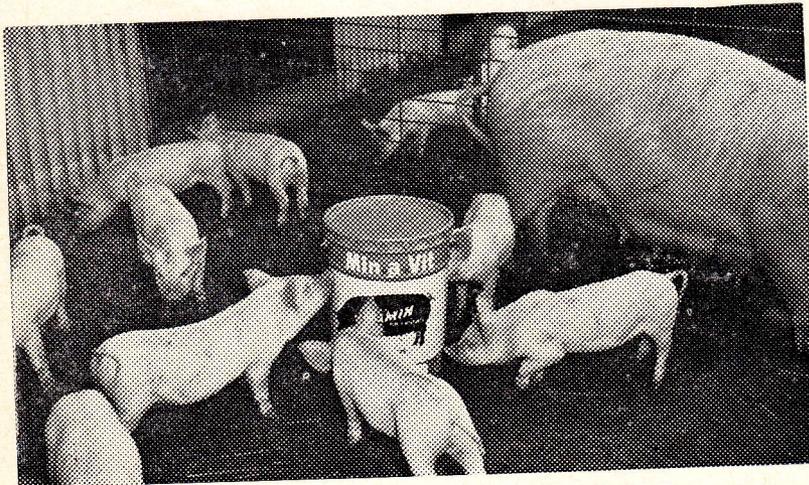
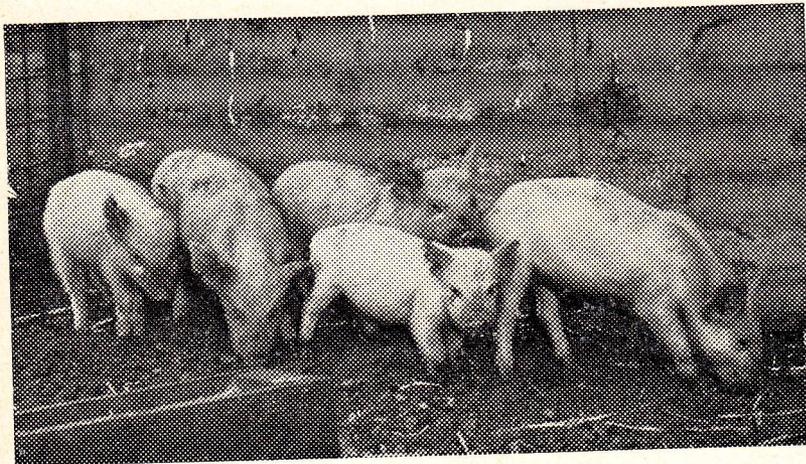
BP TRACTOR FUELS
BP LUBRICANTS
BP TRACTOR OIL UNIVERSAL
BP CORALITE Kerosine
BP COMPROX DETERGENT
BP PASTURE SPRAY
BP SUMMER SPRAY OIL
BP ANTI-BLOAT OIL T6
BP CARROT SPRAY
BP WINTER SPRAY OIL

**BP farm
service** 

A complete range of
modern oils and greases
for all agricultural
requirements



“More profit from pigs”...



These poor little runts could have earned more for their owners but they just didn't grow. Anyone who has ever reared pigs knows that there is always a percentage of "poor doers". This problem can be minimised by good feeding and management. Are your pigs getting the right feed supplement? It pays to be sure, that's why more farmers feed Min-a-Vit Green Band to their commercial and stud pigs. Min-a-Vit Green Band improves feed by ensuring it contains adequate levels of minerals and vitamins. Min-a-Vit Green Band—The feed supplement recommended and used by experts for maximum growth, good health and higher profits.



Min*a*Vit Green Band

—The original mineral and vitamin feed supplement for pigs

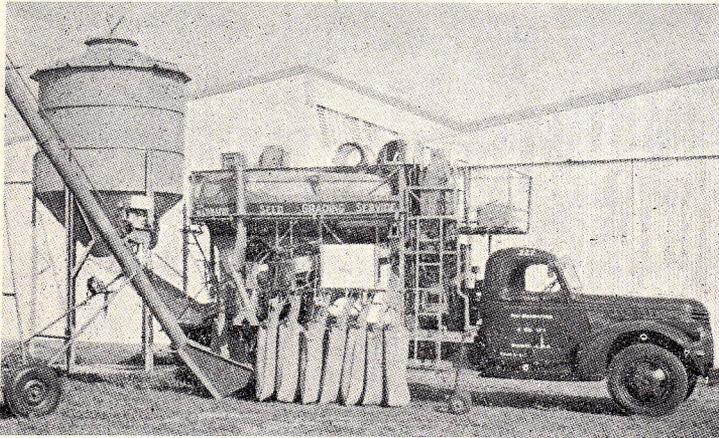
OBTAINABLE FROM YOUR LOCAL COOPER AGENT

Manufactured by William Cooper & Nephews (Australia) Pty Limited

WC/518

ALF. HANNAFORD & CO. LTD.

Specialising in Seed Grading



Get more room in barn

Protection from vermin

Less effort

HANNAFORD MOBILE SEED GRADING MACHINE IN WORKING POSITION ALONGSIDE LYSAGHT
ESG 260 ELEVATED SEED GRAIN SILO

Manufacturers of:

FARM CEREAL GRADERS

SUPER SEEDS PASTURE CLEANER

HANNAFORD CENTRIFUGAL HEADER
SCREENERS

IDEAL DRY PICKLERS

ADJUSTABLE OAT CLIPPER

No. 10 CYLINDER LENGTH SEPARATOR

HEXCEBUNTELL WHEAT PICKLE

LEYTCSANELL . . .

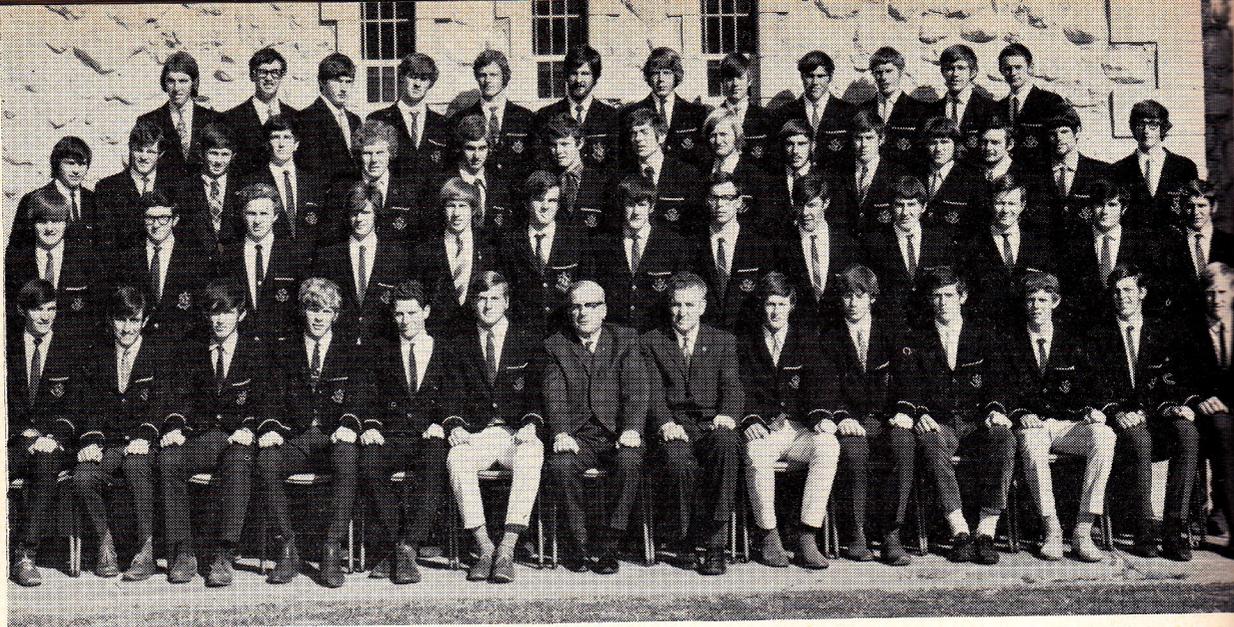
the most used mercurial barley pickle
and weevil treatment

STICKS WELL TO GRAIN

REDUCES DUSTINESS

Head Office:

**932-942 PORT ROAD, WOODVILLE WEST
SOUTH AUSTRALIA 5011**



FRONT ROW (From Left): L. Warneke, C. R. Proud, T. A. Sismey, E. A. Alcock, R. A. Flockhart, R. R. Everett, Mr. R. I. Herriot (Principal), Mr. J. Foot (Housemaster), M. E. Biven, I. K. Wilson, K. A. Butler, K. N. Hudson, N. Pontifex, C. A. Martin.
 SECOND ROW: P. A. K. Symonds, T. J. Baldock, D. K. Walter, G. W. Hayman, R. S. St. J. Sweeting, K. A. Jacobs, T. J. Boehm, J. Webb, G. E. Mitchell, B. R. Gravestocks, R. G. Haeusler, A. L. Craig, L. B. Schwarz.
 THIRD ROW: P. R. Munn, B. J. Light, M. J. Vowles, K. Michael, B. W. Nankivell, J. S. Gould, C. R. Sharpe, J. P. P. Kerry, B. J. Thiele, S. J. Chester, M. J. Hickman, J. S. Hancock, R. N. Brown, R. Thompson, D. Wardlaw.
 BACK ROW: R. P. Haensel, W. Judd, P. B. Clark, J. W. Bowden, D. T. Bateman, S. W. Duthy, P. F. Flavel, D. S. Clifford, R. W. Mitchell, D. J. Schebella, W. P. Eckermann, J. C. Hill.

FIRST YEAR

It was a sunny but tense 3rd of March, 1970, when 54 young bucks listened to the inspiring words which told them of a promise of adventure, knowledge and fulfilment in the three years to come.

After a vicous handicapping system in preparation for the Steeplechase, odds were set and the horses were auctioned. The Arabs were the main buyers, the highest price was \$21 paid for Grant Hickman. A month of hard training followed, interrupted by Inward Bound and New Boys Test before the race was held on 1st of April. The high price was invested well as Grant collected a barometer for his first place.

The year was narrowly defeated by Third year in the swimming competition.

This year was the first year that we were permitted cars and senior students benefited greatly as we did a large part of the work on the new student workshop.

A number of us acted as stewards at the Royal Adelaide Show and thus a great deal was learnt about prize sheep and their showing.

Later in the year a trip to Wallaroo Fertilizers and John Shearer's plant proved most interesting.

Happy to be labelled as "guides", we showed visiting farmers and other people about the College throughout this year and will certainly be pleased to do it again in 1971.



FRONT ROW (Left to Right): K. E. Dutschke, J. E. Both, A. G. McFarlane, R. I. Herriot (Principal), J. Foot (House-master), K. K. Habner, I. A. Cowell, I. E. Graue.
 SECOND ROW: D. A. G. Paton, S. J. Dohnt, I. L. Coombs, G. J. Bourne, A. O. Uppill, D. C. Brown, J. F. Turner.
 THIRD ROW: R. B. Nourse, R. J. Wilkinson, P. J. Rymer, J. S. Cameron, T. P. Byrne, S. J. Wright, C. A. Thomas, M. B. Revell.
 FOURTH ROW: D. L. Cox, D. K. Chambers, N. R. Sprigg, J. N. Hannay, R. N. Smith, A. H. Richardson, J. C. Brown.

SECOND YEAR

After the weeding out of some of our mates we began the year with 37. Thirty-five originals and two ring-ins; Dave Brown, who decided R.A.C. is a superior place to Adelaide University, and Gary Bourne repeating, because of illness.

Unfortunately, we have had two of our number leave us recently; Tony Snewin who is now working in a winery and Dave Clarke to try his hand at computer programming; rather far removed from Agric! Perhaps he has discovered a new punting system.

Academically, our year has again been noticed and many predictions have come down from above. Again our number has done well in football being well represented in both "A's" and "B's". Bob Smith again put in a great effort in our "A" side. Burdy McFarlane showed his footy skill playing most of the season with the "A's". Nev Sprigg, Don Chambers and Chris Thomas also made their presence known. Dave Brown also fitted well into our "A" side.

At Inter-collegiate our year was again in the fore with Benny Revell skippering the tennis team and under his superior leadership took the honours. Dave Brown was also there.

We also had our representatives in the rifles team, with Hector Cowell, Buck Uppill and Peter Schick. A new sport has been created; "Skiddies" — on Granger's Road. We are told by Mort Clarke, Grant Sheehan "Stirling" Brown and Bucks Cameron it is a great way to spend one's leisure time and the next six months knocking fenders.

We have lost a great leader from the S.R.C. in Mort Clarke. He has been ably replaced by Ken Habner.

Most of our number have cars now, varying in quality and performance. Though Al Richardson tells us the Land Rover is the desirable mode of transport Peter Schick is inclined to disagree and swears by riding boots and 6" Cuban Heels.

Over all, this year has been much more settled though we have not been without our ups and downs.

Penalties this year have not been as severe, tending toward novelties such as catching ten rats, as a few of our number can vouch for.

Everybody enjoyed the River Trip, except for "Red" Searle Byrne who was almost quarantined. The barley industry had nearly as much significance as horticulture especially in Berri. If we enjoy the exam results as much as the trip, this year will be one to remember.



FRONT ROW (Left to Right): Christopher Olsen, David Spencer, Andrew Cumming, Timothy Prance, Paul Mansfield, Michael Shallow, Noel Christophersen.
 SECOND ROW: Colin Hopkins, David Snodgrass, Ray Fehlberg, Mr. R. I. Herriot (Principal), John Chappel, Brian Ashton, Ian Black.
 THIRD ROW: Graham Rady, Trevor Bolto, Michael Wake, Ashley Barnes, Peter Bowey, Lachlan McLaren, John Crosby, Darryl Gravestocks, Tom Yeatman.
 BACK ROW: Peter Carroll, Lindsay Wright, Robin Dawson (Absent: B. Growden).

THIRD YEAR

After yet another of the very successful River Murray boat cruises, Roseworthy College reopened its gates to all but a few who apparently missed the supplementary boat and joined the many fish already in the sea of industry.

Considering the liquid vein of these first few weeks it was not surprising to "sea" a further seven cast off from the third stream into the Oenology course, where they appear to be up to their necks in wine tasting and studies.

A feature of this year has been the "all hands on deck" manner of administering student activities, every single (and married) member helping to keep the boat on an even keel, although many individual achievements have been registered:—

Ashley Barnes proved to be the fastest fish around when he thrashed allcomers in the annual Swimming Carnival, captaining third year to the greatest win of all time and being recommended for a Blue himself.

Michael Shallow was the outstanding player in "A" grade football, winning the Tim Dunstan trophy by a street from seven other third years who regularly played "A" grade, and Graham Rady was similarly superior in a "B" grade team dominated by third years and containing John Crosby, who was top "B" grade association goal-scorer.

Andrew Cumming and Peter Bowey showed the third year class in Rifles.

Paul Mansfield was awarded a Blue for his high jumping records.

Dave Spencer rocked the boat with his "frothy bloat" painting and many other rather fishy oddities. Dave also owns the antique motor bike "Jimmy", which was recently toppled in a drag by the Cumming twin exhaust Classic.

John Chappel has held the helm of the S.R.C. syndicate and weathered many storms and strong challenges this year.

Peter Carroll has contributed to the demolition of older buildings at Roseworthy.

Cheesman Black and Locky McLaren continue their love for parking inspectors.

Robin Dawson became the only 4-car man in College with the purchase of three FJ Holdens, all contributing to the construction of one FJ of reasonable stature.

David Snodgrass takes secret trips to Adelaide without notifying his "best mates", sending nasty rumours through the year.

It could not be said that 1970 was a year of individualists, as many mind stimulating (or at least thought stimulating) group activities such as telegraph pole stone throwing between lectures involving the majority of students, but dominated by the vertical lift straight release technique of Chris Olsen. Tom Yeatman had the last say in this department.

Big-time baseball takes second place in lecture breaks to the above enthralling activity, but has some exciting completions.

Recently initiated by Ashley Barnes is the World Counter-clicking Championship—the title at the moment being held by a foreigner, but we will shortly lift our game.

Through a request by the Curriculum Committee, consisting of students and staff, this year has seen a greater number of day trips to industry and top properties including: The huge salmon canning complex of Safcol at Pt. Adelaide; the Parafield Poultry Station, where we were told of the clean theory and dirty theory of broiler chicken raising; Balquhadder, Cape Jervis, where ex-Roseworthy man Grant Mayfield supplied a most refreshing afternoon tea (the driver didn't indulge); Bruce Wigney's Farm Club, where bus pushing was the order of the day.

The musical talent available and the need for for a resident band at Roseworthy College has meant the formation of "Living Inn sin" starring Third years, Michael Shallow, lead singer and Peter Bowey on bass.

Besides the day trips we have also undertaken the usual Northern and S.E. trips, both of one week's duration. These trips are crammed with notable incidents but, through the haze of smoke and thick heads on the Northern trip I seem to recollect a wild show at the Bowey residence, Jamestown, at which conversation was over, and under the table, a television interview at Pt. Pirie with two bleary eyed students, a lesson on the downfall of educated people in the community by a leading Stud sheep breeder, an Ag. Department meeting which was adjourned to the Jamestown Hotel to increase student participation — a roaring success, a truck ride around Anama, Mr. Hawker's property — the cabin must have been warmer, and yet another frigid lecture, this time on a hill top discussing soil conservation with a hardy local 'cocky'.

Although the lack of 'situations vacant' appears to be acute this year, the Third year students generally believe it to be of tremendous value in a wide range of vocations and many are contemplating returning to do the 4th year in 1971, so top quality hands will be available to guide the College to bigger and better things in the future. We hope following years take full advantage of the facilities available, as they will be tremendously rewarding.



STANDING: P. W. H. Botten, R. H. K. Morrish, S. J. Auld, Mr. R. J. Baker, A. L. Tolley, R. G. Bouchier,
P. M. Burne, M. D. Press.
MIDDLE ROW: N. T. Paulett, J. S. Ellis, J. C. Sullivan, R. L. Warland, R. C. Moody, C. J. Glaetzer, Mr. R. I. Herriot
(Principal).
FRONT ROW: F. J. Loxton, M. A. Ray, P. M. S. Ashton, T. C. Lewis, D. F. Bowen, N. G. Holmes.

OENOLOGY 1970

An intake of 19 students this year resulted after the graduation of six students at the end of 1969. The year contained those having industry experience and the rest from our own Agricultural College and the two Victorian Colleges — Dookie and Longeronong.

As a group, the standards attained prior to their entry were the highest on record. One B.A., Dip. of Chem., three R.D.A.'s, five Dip.Ag.Sc. and seven with two years' R.D.A. under their belts, are the achievements made by students in the course.

Two of our ranks (being the wise(?) old men) were married before the commencement of the course and both are living in the Barossa. Another member decided also that it seemed to have its advantages and married at the end of the first session. Others seem to be hot on the trail as a total of three are engaged at this stage.

The "Plonkies" have experienced great success in the sporting field throughout this year. Three represented the College at the annual inter-collegiate sports in August. Fifty per cent of the victorious tennis team were "plonkies" while we have the top rifleman for the College. Seven played a major role in the "A" and "B" grade teams reaching the grand final of the football. Six players toured the Victorian Colleges in September and again played a large role in guiding the College to wins over both Dookie and Longeronong. They also helped create a record consumption while on tour.

On the scholastic side the performances by most in the sessional exams was good. Extractions in a few cases could see a passage by all to round two. The guidance by our Government Oenologist and other staff members could make it a most enjoyable Christmas for all.

We must congratulate Bob Baker on his Rudi Buring Scholarship win this year and hope that the information he attains on his projected study tour in 1972 will be both beneficial to himself as well as to the College.

The trips on which we have ventured during the year have been enjoyed to the utmost and the hospitality of industry personnel during these trips could not be faulted.

The new winery which was due to be completed earlier this year is still under construction, but should be in a suitable state to allow the 1971 crush to be carried out satisfactorily. Most of the "plonkies" are impressed by the design and also the equipment which will be available for use during our final training year.

While pontoon prevails in the Casino and the gannet king continues on his way, the year should be completed on a very happy note.

PHIL BOTTEN



FRONT ROW (Left to Right): J. Chappel, D. Brown, P. Mansfield, M. Shallow (Captain), C. O'Brien (Coach), C. Weeks, J. Hancock.
 SECOND ROW: N. Christophersen, N. Paulett, B. Gravestocks, G. Mitchell, P. Flavel, P. Redden.
 THIRD ROW: A. Oliver, D. Snodgrass, R. Morrish, R. Smith, C. Hopkins.
 BACK ROW: A. Barnes, M. Wood, A. McFarlane, P. Botten.

FOOTBALL

The 1970 season ended with both College sides playing off in the Grand Final. However, neither managed to take out a pennant after having both finished minor premiers.

It was virtually a repeat performance of 1969 when, after a good win in the second semi final, South proved too strong in the Grand Final, taking out the flag comfortably.

Undoubtedly, the College teams will still be well to the fore in season '71 due to a good influx of talent in the present First Year and Oenology Year which provided the club with some outstanding Victorian talent.

Again, the College was well represented in the Association side by Mick Shallow, Andrew Oliver, Colin Hopkins, Rod Morrish and Phil Botten. Of these Rod Morrish was runner-up for best and fairest during the Carnival and also our top vote getter in the Mail Medal, while Mick Shallow took out the Tim Dunstan trophy.

Special congratulations must go to Peter Friedrichs and Andrew Oliver who were both awarded Blues for football at the end of 1969.

The season finished on a bright note with a highly successful interstate trip during which we convincingly beat both Dookie and Longeronong.

Thanks must go to Chris O'Brien who once again coached the "A's" through a very successful season and also to Dave Curtis who along with Chris coached the "B's".

PAUL MANSFIELD



STANDING: Mr. Baker (Manager),
A. O. Uppill, R. G. Bouchier,
A. G. Cumming.
SITTING: I. A. Cowell, P. H.
Bowey.



STANDING: R. C. Moody, R. H. K.
Morrish, L. D. Wright.
SITTING: D. C. Brown, M. B.
Revell.

THE VALUE OF INTERCOL

Having participated in two inter-cols. I would like to express my views on this annual event and what I feel is its value to the affiliated colleges.

Intercol. was originally held primarily as an excuse to bring colleges together in an effort to foster closer relationships on an agricultural basis. Secondly, and of least importance, there was the competitive relationships of rifles and tennis.

The rewards for selection in a team are great, an interstate trip and recognition as a college sportsman. For the victors there is a shield and the thrill of playing for a winning team.

Thus, enthusiasm then was high and the competition stiff.

Today it is different. Intercol. is treated as a drag! Practices for matches clash with football finals — both Aussie and Union Rules. Training for football is strict and rifles and tennis both suffer at the hands of football.

Views of the administration and students appear to differ. The former placing the emphasis on sport and the latter having a higher value of intercollegiate relationships.

Intercol. has been so successful that it has developed rapidly. Today six colleges compete and two more appear to be very anxious to join. The large number of competitions means that the programme is very crammed in order to finish within the week. The draw is arranged so that the visiting tennis players have less than one day to tour the host college and area, and the other five days are spent furiously playing tennis. Rifle shooters have one day to practice and one to shoot. The rest are free.

In R.A.C., Dookie, Wagga, Burnley and Longerenong the peak of the wet season clashes with

Intercol. Only about three hours are allowed for inclement weather or any other unforeseeable disasters. This is not enough. If it rains then generally it will rain for half a day or more.

Two years ago, at Dookie, rain almost halted the competition and this year at Roseworthy, well over one day was lost through rain. If it was not for the proximity and availability of two extra courts near the College, tennis would have been in a far more congested state than it turned out to be.

One college is claiming that it no longer benefits from Intercol. because its standards are as high as a university in that State and it is far cheaper and advantageous to spend the money normally raised for Intercol. within the college. It says that it would gain more benefits from affiliating with university sporting bodies. Its only reason for remaining is to pass on ideas to the other colleges and help strengthen the bonds between them.

Without a doubt there will have to be changes made when the other two colleges amalgamate. The old system which was suitable when there were four or five colleges competing, will be far outdated to handle eight colleges.

With rifles being substituted by basketball there will be extra accommodation worries. But this will be advantageous as it will provide an "excuse" to update the programme.

It now appears that, to remain successful, the Intercol. will have to be split into two trips. One for S.R.C. members and one for sport. In this way the colleges will benefit academically and sportingly. It will also provide the much needed contact between colleges — something which is very poor today but essential if all diplomas are to be recognised equally in Australia.

The controlling of Intercol. is situated at Hawkesbury in N.S.W. and we can only hope that from here will emerge a better planned and efficient programme and this will only be achieved by the full co-operation of all amalgamated Agricultural Colleges.

RAY FEHLBERG

WATER POLO AND SWIMMING

The 1969-70 season was an extremely disappointing year for the water polo club. With 30 registered players — a mixture of little experience and tons of enthusiasm — it appeared possible to repeat the 1967-68 premiership victory, but Christmas holidays and supplementary examinations took unexpectedly heavy toll of available players for the water polo team. Training attendance and match successes suffered accordingly. This problem is likely to repeat itself in coming seasons so the future of water polo as a very competitive club in the Association matches is in doubt at this stage. The obvious interest in the club suggests we will be able to overcome these problems and operate successfully.

In marked contrast, the success of the Swimming Carnival staged by the Swimming Club was tremendous. Ashly Barnes was undoubtedly the star of the day, breaking the long established 55 yard sprint record in the heats and setting an even better mark in the final — all this on the way to clearly winning the Champion Swimmer Award.

All events were very keenly contested, but it was obvious early that Third Year had sufficient depth of swimming ability to have a big win in the inter-year competitions.

Thanks must go to Mr. Gill Hollamby for once again being the mainstay in the clubs this year and it is hoped, for the clubs' sake, that his services can be retained in the future. The committee would also like to thank all officials who made such a success of the Swimming Carnival.

CRICKET

The "A" team, capably led by Brian Falkenberg, got to the semi-final, only to be beaten by Gawler "A's".

Bass and Falkenberg were the main batsmen obtaining averages of 51.1 and 31.7 respectively. They were well supported by Weekes, Hopkins and O'Brien.

The main bowlers were Pick and O'Brien, who netted 53 wickets between them. They were ably supported by spin bowlers Bass and Burge. Brian Falkenberg was elected captain of the Association team which also contained Bass, Hopkins and Pick.

The "B" team beat Mallala in the semi-final, to play Salisbury North Footballers in the Grand Final. They were well beaten. Throughout the season the "B's" were captained by Crosby, Christophersen and Snodgrass at different times. Shortage of regular players during the Christmas break caused some matches to be lost.

Crosby and McLaren were the main batsmen. Snodgrass, Byrne, Liebelt and Christophersen played useful innings.

Liebelt took the most wickets well supported by Crosby and McLaren. Byrne was the main spin bowler, taking 15 wickets. Wright bowled well as a change bowler atking 16 wickets.

GYM—JUDO

BOXING

Although another year has passed without the convenience of a ring the Boxing Club has functioned with its usual enthusiasm.

There has been good progress made with the construction of the new ring with the aid of the Agricultural Engineering section. It is expected that it will be finished by the end of the year, in readiness for 1971.

JUJITSU

Jujitsu started the year in no uncertain manner by organizing a display for the Mallala Rural Youth, with the cost of many stiff joints through lack of practice. New members have shown keen interest and ability during the year. It is expected that grading, which is imminent, will yield a number of yellow belts and one brown.

The Jujitsu club extends a special thank you to its instructor Mr. Brady for his help during the year.

FENCING

The fencing club has functioned well this year, with good support from the first years.

The foil has proved to be the most popular weapon, with the sabre being wielded enthusiastically also.

A visit to the Adelaide Teachers' College was arranged. This was a great success, with valuable hints being gained by all those participating.

GYM CLUB

Unfortunately, the Gym Club incurred its usual problem of lack of members this year, and this position was aggravated by the loss of its leader David Clark.

WEIGHTLIFTING

The weightlifting club has worked in an informal and rewarding manner this year. However, as there was no competition night, no blues or badges were awarded.

Now with the fitting of lights in the weight lifting section it is expected that the club will now flourish.



STANDING: Kenton Habner, Richard Everett, Richard Stewart, John Ellis, Ashley Barnes, Michael Wake.
FRONT ROW: Alistair McFarlane (Sec.), John Chappel (President), Michael Wood.

PROGRESS IN REPRESENTATION

For many years at Roseworthy there have been problems of understanding and co-operation between the Students' Council and the Principal on matters of policy concerning with student life generally.

In particular, problems involving Curriculum, Student Rules and Regulations, Leave, Staff-Student relationships together with Staff's responsibility as policeman, have all been extremely arduous and progress has been difficult. In an attempt to establish a more acceptable situation, a policy of student involvement in these matters was presented and discussed with the Principal.

So was born a new era of staff-student relationships, previously a bugbear of student life and a source of much ill-feeling among the student body. For the students there will now be a much greater reliance on their own responsibility and self-organization.

For the S.R.C., this demands a two-way appreciation of the forces in operation; representation of the Student Body in their best interest on the one hand and recognition of the Principal's position as manager on the other.

The 1970 year showed a "general relaxing" to almost complete abandonment of staff intervention in almost all matters concerning student life, the exception being enforcement of duties expected of students on the College farm and various work sections. The response by the student body adequately demonstrated that they were capable of self-organization and could be relied upon for their common sense, except in a few isolated cases which were, perhaps, to be expected.

However, should the common sense not prevail and a source of action be required in the face of a breach of the still standing and recognized rules, the S.R.C. has two basic alternative roles to play in the disciplinary process. Over the years the S.R.C. has acted as a pressure body, primarily to meet the Principal head-on in matters of discipline as an advocate for the defence, irrespective of the degree of guilt or innocence. The alternative, adopted by the 1970 S.R.C. has been an attitude of co-operation and openmindedness with the Principal entering consultation on any matters of discipline that may arise.

If this policy of liberalization for students is to succeed, the S.R.C., must be open for consultation with the principal.

In summary, of the incidents that occurred during 1970, we are confident that the policy has been justified because of the progress that has been made by the acceptance by the Student Body as a whole.

The future for students at Roseworthy is a bright and exciting prospect, limited only by the responsibilities that are becoming more and more a part of their everyday lives.

JOHN CHAPPEL
President S.R.C.

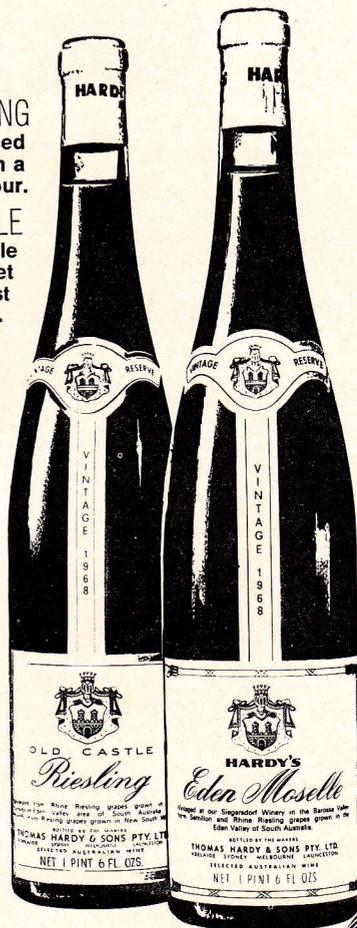
The two whites with unexcelled bouquet and flavour

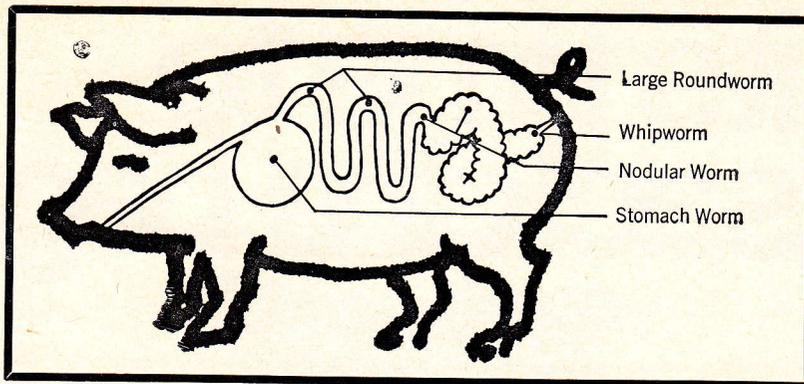
OLD CASTLE RIESLING
An extremely well balanced
table wine, quite dry, with a
delightful bouquet and flavour.

EDEN MOSELLE
Possesses a subtle
sweetness and bouquet
that complements most
foods. Extremely light.

HARDY'S

Fifth generation wine makers
in the world of today.





ATGARD*

New pig wormer from Shell the only pig wormer to kill all gastro-intestinal worms in pigs.

ATGARD is easy to use, effective and safe to stock. It's a product of world wide Shell research, now released in Australia through Shell Animal Health.

ATGARD works all the way through the pig's digestive tract.

Sustained release pellets of the chemical dichlorvos kill worms in the tract continuously, and when excreted continue to work against flies and larvae on the ground.

ATGARD pellets mix easily in the pig feed. No purging or starving of pigs is necessary before ATGARD is fed.

Thorough testing by the Shell Animal Health Research and other authorities has shown that pigs treated with ATGARD maintain better feed conversion ratios and thrive better than pigs treated with other wormers.

ATGARD kills stomach worm, large round-worm, nodular worms and whipworms, is harmless to stock and presents no residue problems. It's recommended for weaners, fatteners, gilts, sows, and boars.

Advice from Shell Chemical

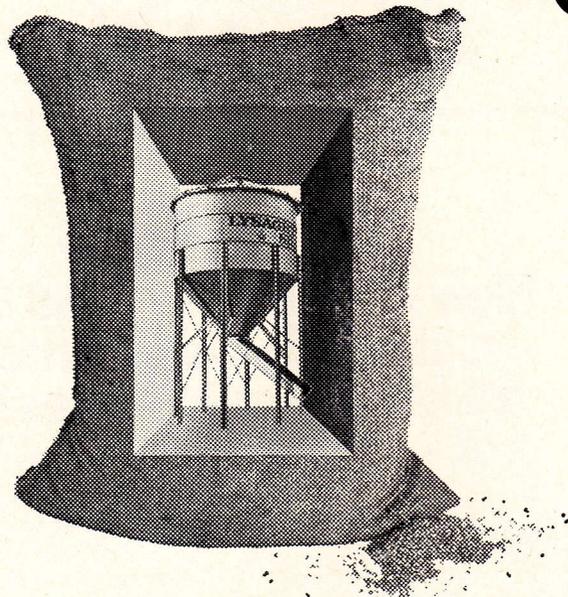
You've a friend at Shell Chemical who'll discuss your animal health problems with you.

For further information on this new Shell Animal Health product, write to Shell Chemical (Australia) Pty. Limited in your capital city.

*Registered Trade Mark

Shell Chemicals 
Shell Animal Health
SC419N7-3

it's time to sack the bag



Your seed grain is stored almost as long as it spends growing. So it makes sense to store it as carefully as you grow it. In a Lysaght Elevated Seed Grain Silo, specially designed to solve your seed grain storage problems.

Lysaght Silos are prefabricated to make light work of installation. And the "controlled flow chute" takes the load off your shoulders when it comes to loading the grader.

The cone is self cleaning and self

emptying because there are no horizontal crevices or corrugations to harbour dust or seed. And the silo is completely safe from rodents and the weather.

Lysaght have a range of four elevated seed grain silos. **The largest sacks 170 bags.**

Ask your dealer for the Lysaght Farm Storage Booklet containing full details of the standard fittings and optional extras available for our complete range of rural products.

SPEC. & PRICES EX LYSAGHT'S STORE ADELAIDE

Silo Model	Capacity (Bushels)	Price	Overall Height	* Min. Auger Length (Ft.) to Centre Fill
ESG260	260	\$246	17' 0"	28
ESG330	330	\$266	19' 0"	30
ESG390	390	\$323	17' 6"	28
ESG510	510	\$345	19' 6"	30

*These auger lengths are the minimum lengths required based on an auger slope of 45° on level ground.

Silos now 100% Tax Deductible in year of purchase

Lysaght 'Blue Cap' Elevated Seed Grain Silos

*Australian Patent granted 241,306

"Setting the standards for the industry"

DISTRIBUTED BY:

John Lysaght (Australia) Limited, Fabricated Products Division, 99 South Terrace, Adelaide, S.A. 5000; Box 125B, G.P.O., Adelaide, S.A. 5001. Phone 51-5052/3.



S7544

Now more than ever



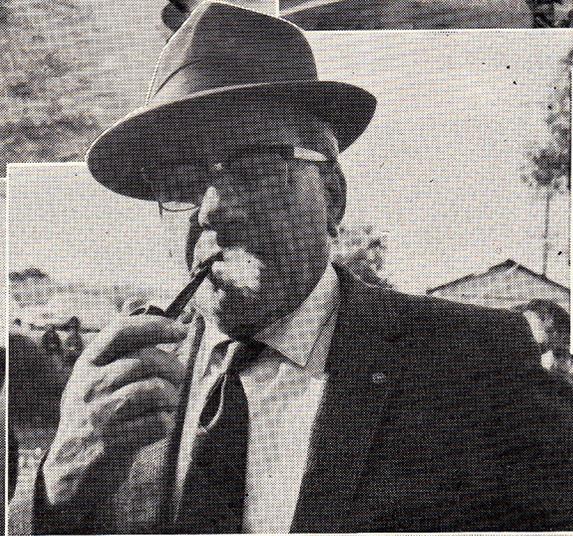
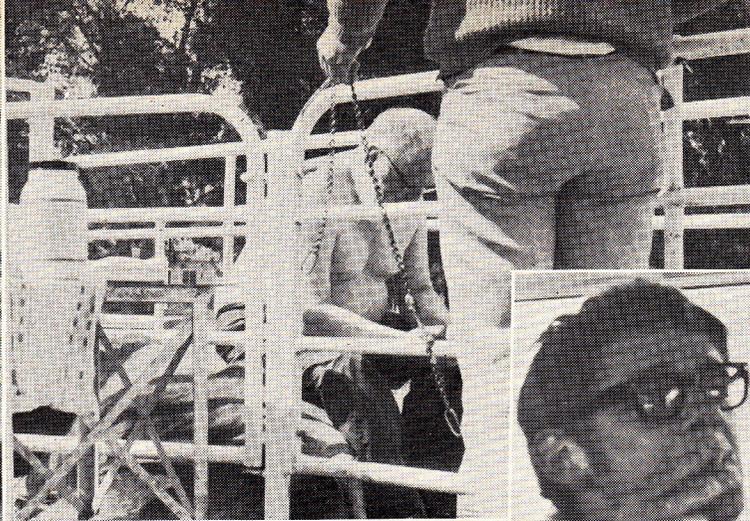
**for MF Industrial
and Construction
Machinery**

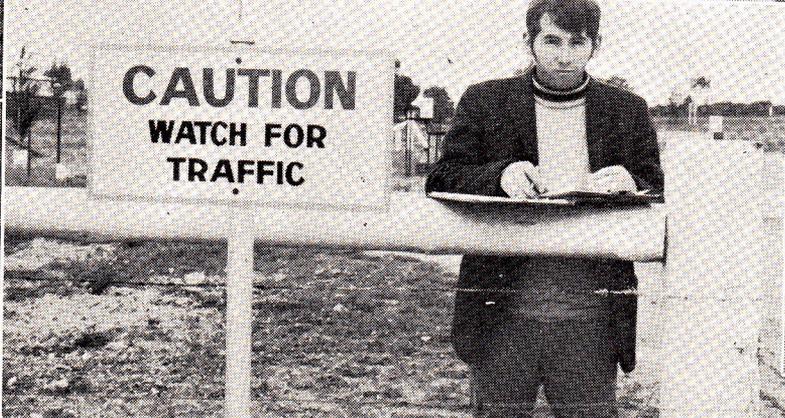
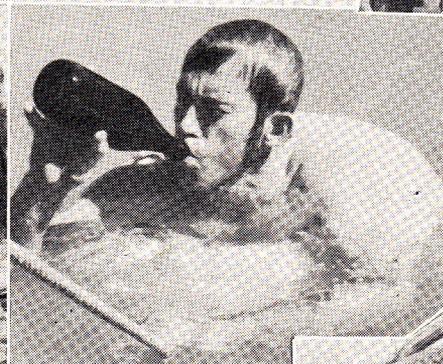
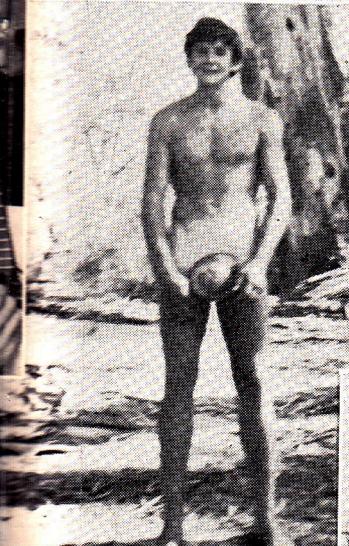


QUEEN'S BRIDGE MOTORS PTY. LTD.

152 GRAND JUNCTION ROAD, BLAIR ATHOL, S.A., 5084. TEL. 62 2022

7812





GRADUATES '70



ASHLEY BARNES — "Ash (Senrab)" "Who's your best mate?"

A.B. is endowed with a wit that defies answer and is often the causal agent behind various stirs. His victims include lecturers and other lower orders.

Hailing from a boulevard on the Bay, via Urrbrae, Darwin and other Australia-wide residences, this weed has an elongated habit and hence was cast in the role of a ruckman, although he maintains he prefers lacrosse, much to everyone else's disgust.

An S.R.C. rep, writer of repute, Amateur Hour narrator, adept boxer, champion swimmer, complete a few of his pastimes.

Like career, like birds, Ash is shopping around at the moment and will probably end up doing 4th year, after which, who knows?—perhaps even New Guinea-ing or just wandering around collecting for "Head Corner".



LINDSAY WRIGHT—"Linz" "Slaaack!"

Being one of Growden's "dunzy mates" from way back, Linz, and his beard, didn't quite know whether he/it was coming or going as the R.A.C.M.A.A. took up some of his time as he did long May break in '69.

With his sarcastic wit and challenging (when not glassy) eye he can tear strips off friend and foe alike—there not being many of the latter except some elderly matrons at the "Hu'ch" and probably some ex-teachers at Kings College.

A quick trip to the D.I. is no problem and "The Min" is often seen panting after some late night wanderings, although we're sure Rural Youth finishes a little before 3.00 a.m.

A very good tennis player (Linz has represented College at Intercol 4 times) he also is a keen dogpaddler and football trainer.

The future will see him using his booming voice around the hills of Eden Valley telling his sheepdog (in no doubt polite terms) to get a move on.



BRENTON GROWDEN—"Grizz" "Up ya Rural!"

Much to the delight of a certain nurse, we've heard Brenton's characteristic laugh, and seen the great overalls around for many years tho' he'll soon be returning to beach bum around his dunzy copper deficiency Wedge Island.

When he's not crutching-up at the shearing shed, or elsewhere—he's whipping out his Morris' engine to see what the mysterious "clunk clunks" are.

Probably one of the College's best with a knife in the slaughter house, Grizz's untroubled "no worries" outlook on life makes him very easy to get on with even if you are told to "Get here" a few times.

A good ju jitsu teacher, Grizz performs well in the broad jump and also plays water polo when the time allows.

When not answering the phone (shou'd have one installed) he can be found—sometimes—lying on his back (blanket on 3) talking with his dunzy mates about last Sat. night or even about the future of agriculture.



MICHAEL SHALLOW—"Mick" "Howya going boy?"

Undoubtedly the Romeo of the year (despite some inferences that he's a fairy), Mick has made up for those birdless years lost at St. Michael's as now, few Saturday nights are spent quietly. He and King are a familiar twosome heading southwards for the weekend.

Conditions have to be right or he has to be out of chewing gum for him to talk for more than 5 minutes on any other subject than women.

A brilliant footballer, he won the College "A" grade best and fairest. Mick also has a dabble at tennis and water polo but would like to become a pro. in the basketball circuits.

With an increasing enjoyment for music and sporting the hair and the sideboards (?) he has had good success in the College band especially in Amateur Hour 1970.

Mick says the Vet. Science course is in the future but the Gawler teeny-boppers have other ideas as long as he sings "Credence" as he does!



COLIN HOPKINS—"Hoppy" "Hey Paul, going to the canteen?"

Determined to let everybody know that he's around, Hop can usually stir up something whether it be a word barrage against Rabbit or Big Pete, a physical clash with a Smokeless Datsun owner or a general grot session with Senrab.

Both his liquid capacity and his football ability have improved greatly and if you can't see the blonde head high up in packs on the footy field you can certainly hear him.

Invading R.A.C. from Parndana Area, Colin is good at most things he tries and has his paper weights (Shell prize), cricket fielding trophy, table tennis bat and indecent furry monkey to prove this.

The Western fan in the year, his other interests (when not bird observing) include water polo, boxing, throwing rocks and talking to friends at 3 or 4 o'clock a.m.

A hard person to keep in one spot, we predict many gay single years left possibly over at Armidale, meeting many people and telling them all about "The Boom".



BRIAN ASHTON — "Red Scale", "B.A." "How ya going, honey babes?"

Brian cultivated his poetic prowess (which he uses on crabbing expeditions and Amateur Hours) at Westminster and Naracoorte before coming to R.A.C. to grow beards and other things.

This ex-sheepfarmer, now almond (and people) knocker, has found home-life enjoyable and is frequently seen heading south with the board on the rack.

A vigorous worker, though to watch him make merry in lectures one would think otherwise, Brian is the "bomber" of the year carrying out this practice anywhere from Jamestown to The Mount to Berri or even in his F.C., which underwent a transplant (successful, too) earlier in the year.

Red has thoroughly enjoyed life at R.A.C., and although he has sold THAT picture at the auction, and much to Black Man's pleading not to, he will tackle 4th year and then . . . well . . . tell you next year.



ROBIN DAWSON — "Smokey" "I feel shat!"

Our prang specialist, Robin and the Datsun are rarely seen on weekends, but may be found thrashing to various parts of the State and in particular, Eudunda.

Noted for his water polo, absence near exams, and enticement of females, this ex-Urrbrae recruit has a carefree way of College life, to the despair of one balding gentleman. He still manages to do well in exams, however.

Smokey intends to return to the family property at Lock where he will no doubt devastate the Wheat Board with colourful recipes on how to make alcohol, or petrol, or plastic from wheat. He will probably end up selling camels on the black market for a while, after which he'll tackle Geilignite Jack's record for across Australia.



NOEL CHRISTOPHERSEN — "Noel" "Better get down to it."

One of the quieter ones of the year, Noel is forever telling us of the knee high clover and eight sheep/acre carried at Booleroo Centre and he enjoys R.A.C. practical and doesn't do too badly on the theory.

Being an active member of the Cricket Club and playing well balanced footy games on a wing, Chris teams up well with Scrub in defending the primary producer.

The ule seems to have clocked up a few miles (even with its sore horn) in his quiet search for "the right one" or even just for the occasional ale at Findon, although it seems more time was spent in Gawler and perhaps " may come home".

Noel can certainly sort the bull out of a conversation and thus he has a good future even if it means producing wheat worth \$1.10/bushel for \$1.40.



CHRISTOPHER OLSEN—"Olsey" "She's nice"

Another Urrbrae recruit, Chris first appeared a very smooth type, content to let others blab away endlessly while he sat back and passed exams well. Rural Youth then came along, and when the blonde sideboards appeared in 2nd year, he wandered further and has never looked back since.

Females were to be derailed (but not at all costs) and so, tracks were often made down to the "Big Smoke" in the camel-coloured machine to match wits—and other things—with the better of the best of them.

Interested in hockey, Chris also enjoys tennis and football.

He enjoys a good joke and although can see the humorous side of most things, has a mind of his own especially where the pig industry is concerned and in which he would like to become involved.



TIMOTHY PRANCE—"Dancer" "Hang on a minute"

If a true blooded swamp rat is one who shows his knees on cold July mornings, then guess what Tim is. With Friend Frandson under one arm and a pouch of tobacco on hand, he honoured R.A.C. by staying three years to tell us what is exactly wrong with today's agriculture, and whether he got his knowledge from Ferna Primary School or not, Tim is rarely wrong and perhaps relishes watching lectures flounder in his sea of searching questions.

He has never yet been seen to buy two packets of tailor mades in a row, as Dancer is unscrupulously economical which is probably why the Dookie trip was such a success and the R.A.C.F.C. has had such a good year.

People aren't too sure whether to believe him when he states that "The Rover" only costs him approximately 7.3267 cents/mile as its been off the road for 7 months.

Tim has always done well in exams, except 1st year dairy (1/2 a mark is 1/2 a mark) and will no doubt do well, if accepted, at New England University next year where he hopes to study Rural Economics.



GRAHAM RADY—"Rabbit" "Young buggers"

The co-ed school of Seacombe High must have turned Graham off the opposite sex so he came to R.A.C. to jump (or hop) some hurdles.

He was weaned onto something a little stronger in his 2nd year and this probably accounted for his addition of weight and his incredible leaping ability.

The football "B's" thrived with the signing of Rabbit this year (he even practiced during exams) and for a small man he certainly throws his body in to get the ball where others would need a rake.

In between dropping catches and talking back, Graham is a good cricketer and also handles a table tennis bat well. A highlight of his stay at R.A.C. would be his selection as the "Best and Fairest College B grader", much to his disbelief.

A growing susceptibility to a Myxo strain has forced him to look for future employment overseas (no not K.I., Bolto) and he has his hopes set on New Guinea.



PETER CARROLL — "King" "I could have won \$30 Saturday if. . ."

Another having the taste of Urrbrae, although mostly Pulteney educated, King HAS spent some Friday nights here although not too many people know what the front of the Viva looks like as he often flies southwards.

Playing a mean game of football, he is noted for his appetite (?) at the College dinner table, unscrupulous bet making, rock throwing, scuffles with Shallow, foreign bale carting, but mostly for his rapid turnover of females.

The last problem has been looked into thoroughly and although the clothes and 'boards are O.K. he still can't find the wife of the future. (Which may be sooner than many people think.)

With thoughts on New Guinea, although still very interested in dairying, Peter is a warm-hearted bloke—and that's not bad for an ex-rocker who can ride a bike better than most—who'll probably finish up being the brain of a tax collecting organization!



IAN BLACK — "Black Man" "How 'bout you, B.A.?"

From eight miles of peaty creek comes this deep-hearted dairyman who is at R.A.C. to start up a Friesian stud, learn the art of butter making, drink plenty of milk (not all the time) and anything else he reckons may aid HIS industry.

Mt. Gambier High got rid of him just in time as he developed a liking for smoke belching motor bikes but finally settled for "The Morris" in which much more territory was covered (often in darkness) and thus opportunity for collision was high and so it was hardly unexpected when "No 2", together with its bevy of nasty letters, came along.

Cheeseman of the year, Ian played water polo and also attended many footy practices, and so maintains his quick reflexes much to the annoyance of Red Scale and Hoppy.

A stirrer from way back and a renowned bird-watcher (note that, Julie) he has his sights set on 4th year or possibly a year of teaching.



LACHLAN McLAREN—"Locky" "What a classic"

An allrounder, Locky (plus his steely mop) is often seen bobbing around in our pool, swiping viciously with a cricket bat or charging over the footy field.

The beard appeared when isolation for exams became necessary and it stayed and did the women flock in—(did they?).

Educated at Findon High, Locky supports all College functions with unquenchable gusto and manages to keep in touch with all his contacts without them knowing about each other.

A veteran of log chopping and brick chipping, other interests include boxing, table tennis and sarcastic commenting.

He says the future's a little undecided but may go scrub-bashing in "The B" or hopefully marry a rich Northern Grazier's daughter.



DAVID SPENCER—(Romo) "Jeepers!" "Few beers"

A queer bloke at the best of times (probably due to a confusing childhood at "good old Rostrevor") Dave is an A1 college man with such interesting and refreshing topics as motorbikes, beer, women, junk Oh, and study, forever on the mind.

It seemed that around exam time both his beard and the mysterious "Ark-Ark bird" appeared and although he has often had bets about not smoking, exam time is the true test. He breaks!!!

Room was limiting on "Jimmy" and perhaps this was the reason fewer "Granny Goodies" and less "C.J." appeared after weekends.

Romo would like "an old reliable" to ring up and I'm sure that when some "young un" gets used to his millions of bottles, the beard, the innumerable expressions and the Dave Spencer sayings (some unsavoury ones), he'll have one—provided she likes "The Country Estate" of course!!

Dave will probably be a sound effects man for an elephant movie (after he's released his hit record "Dave Spencer's a bloody good mate"), or an organiser for countless river trips.



MICHAEL WAKE—"Scrubber" "Bloody City Slickers!"

Educated all over the State from Darkes Peak to "down the Mount", Mick decided to learn how to lessen the cocky's plight and so unloaded himself on R.A.C. for 3 years.

He likes to get his point across in the lecture room (one farm manager is often shot down with practical bombardments) in debates and at other College gatherings.

Scrub enjoys a good stir and will go to great lengths to achieve this end.

S.R.C. treasurer, football, tennis and the odd elbow bender occupy the remainder of Mick's time, although he certainly works hard when necessary as he realises the value Roseworthy has to offer him.

Scrub is a little undecided on how exactly the bread will come in but it may involve going to Uni. and laughing at all the no-hopers there, or he may even return to sowing and supering stuff we call dirt but known to him as a valuable long term asset!



PAUL MANSFIELD—"Paulo" "Gee, I hate work"

In between letting everybody know the racing potential of "The Morry" (especially Grizz) and midnight jaunts up a swaying ladder, Paul has an efficient work output once you can get him working.

Coming here via St. Ignatius College, he often tells long, and no doubt truthful, stories which manage to make everyoody laugh, especially after a couple, few, several—many beers.

Paulo is a College record high-jumper, plays a somewhat confusing game of water polo and his agility is also shown on the football field.

Being unavailable for both Grand Finals and the Dookie trip, because of injury, was bad luck, but it was during this time that his successful coaching career was unveiled. His very extraordinary training techniques interstate, obviously left many a Victorian bitter and some big people still wonder how he did it.

Paulo has definite thoughts about topics ranging from his nose to "feeling groovy" and yet he still hopes to be an accountant in the near future.



RAY FEHLBERG—"Rayberg" "What a beauty!"

Son of a teacher man, Ray rolled into Roseworthy after an education at Immanuel College, residences including Sedan, Yahl and currently Christies Beach.

An ardent folk fan, both he and the local guitar are active members of the S.C.M. and have garnered an inside footing into Teachers' College. (His intentions are honourable but he remains quiet about Sat. nights).

The V.W.'s been on many treks around the countryside, with Smokey and C.K., and has accomplished many fantastic feats, but normally he's a fairly reserved type, except when primed by a certain Amoco additive where-upon the smile and the waistline increase proportionately.

Fortunately, the latter is suppressed by the occasional cross-country run and water polo.

After the finals he intends to take the V.W., or some car, around Australia to extend his knowledge and to find the man with the yabbie in his milk.



JOHN CHAPPEL — "Chaps" "Time for a Cuppa?"

Hailing from the highlands (Aldgate), John spent some time at Scotch College and Urrbrae before heading north for a year and thence coming down to R.A.C. despite the "..... cold."

An "A" grade footballer, a keen tennis player and a vigorous boxer, he tries to maintain all year fitness, starvation being one very handy ingredient, but he is disinclined to slow down on his ales and "clagons of flaret".

A reliable organiser, John's Chairmanship on the S.R.C. has left a lasting impression on the College and he sincerely hopes future students will accept more responsibilities and realise the opportunities available to them at Roseworthy.

Often working in his pet oil burner, Chaps sadly finds his tools out of their box and at once an inspection is conducted; "thoroughly" too.

Highlights at R.A.C. would include playing in two footy Grand Finals and 3 Dookie matches, S.R.C. representation and the success of Intercol and Open Day 1970.

Being very interested in beef, John looked after our show team for 3 years—John plans to do 4th year before setting the Beef World on fire in '71.



JOHN CROSBY — "Bing" "Snodgrass, what are you doing?"

Taking things as they come (including several years at Kadina Memorial High), Bing has been vice-captain of our "B" footy side and is also a reliable bat in the cricket team.

Rabbiting with Falcons (not the winged type) was a good memory but usually the green machine can be seen heading North, South, East or West on his endless search for DI's with D.W.S.

"Oh, that and a bit more" is an oft cited quote but usually the lecturers rarely even get the bit more as not many assignments seem to be handed up on time, and if asked if they are necessary he may snort "Bull . . ."

John, with Snod, will no doubt be managing half the S.E. (sorry Tim, you miss out) within 20 years as both have added sound theory to their already wide practical knowledge while at R.A.C.



DAVID SNODGRASS — "Snoddy" "What's the next lecture?"

An incredible digester of material when necessary, Dave is quietly conscious of those people airing too much theory and not enough practical and having spent a year on their Lucindale property before coming to R.A.C., he should know what he's talking about.

Noted for his excellent games of wet weather football (much better than his sloppy blonde-headed wrestling opponent, he quotes), he is a whimsical cricketer and can also rip off a good fleece in the shearing shed.

His love of cars (1 filing cabinet nearly full of "motor mags.") and hairy driving sense enable him to make a quick trip down town if necessary, but if those mysterious phone calls continue, his interest in Gawler banking bodies will increase.

Snod's returning to the property and highlights of R.A.C. would include 3 years inclusion in the Dookie side, topping A.E., the knuckling of Deuter and the general bull sessions.



PETER BOWEY — "Big Pete" "Hey, gangrene!"

Pharmacist's son turned farmer, Pete is a good judo and karate man and CAN break bricks with his hand.

Always shoots plenty of bull—down at the rifle range—he's been a veteran of the Intercol team for three years and hopes not to be a veteran of Vietnam, but will probably be battling.

A good swimmer, B.P. is bass guitarist for the College band, for which he's put in a lot of time, and if not found at College will no doubt be at the Mallala race circuit or down town waving a banner.

Pete has been known to raise his voice viciously, but never in the cockpit of his Humber, and we're not too sure if he learnt this at Jamestown High or telling Shallow to be quiet in the next room.

Very keen to learn something, Peter hopes to do fourth year and then go out advising or selling motor bikes.



TREVOR BOLTO — "Albert" "Fair enough!"

He thought the Island might sink into a stagnant farming situation, so he paddled over to the mainland and stayed for a few years at R.A.C.

Not much is known about what goes on in Trev's room sometimes—methinks it's not always study—and this was found out more so in 3rd year when he was discovered kissing a 12" speaker; wireless, that is.

Upon stumbling through the diodes and resistors he was found soldering up Chriso's wireless for the fourth time and mumbled something to the effect to get off his much loved No. 2—his straw hat, of course.

Some have tried to wean Sebas off milk (started at Parndana Area and hasn't stopped) but this was not to be if he was to maintain his strong, round-arm rock-throwing or his good cricketing ability.

Trev will go back to his property and catch bugs, read books, listen to Radio Peking, look at stars and, oh yes, farm.



ANDREW CUMMINGS — “Cattle King” “You’re not using your V dub are you, Fehlberg?”

One of the wanderers of the year, he is often going, but always coming, and has been seen in such high places as San Francisco, Kings Cross and a certain flat in Gawler.

As captain of the bull-shooters, Andrew used his water polo experience to keep the team's sights above water at Intercol this year, but only managed to muddle in at second position to Dookie.

The acquisition of a \$5 bike from an ex-rocker staffie has resulted in many laborious hours and some hair-raising moments on the Old Boundary Road.

C.K. never shirks from an argument and is often seen (and heard) venting opinions with staffies.

On leaving Roseworthy, the beard may return again and he'll no doubt earn his nickname on some northern cattle station.



DARRYL GRAVESTOCKS — “Gravey” “That’s all very well, but . . .”

Born and educated near the noble township of Parrakie (yes, it's in S.A.), gun-shearer Gravey is one of the stalwarts of the year, having completed nearly 4 years' faithful service.

Part-time football and full-time womanizing occupy his time and he and “the wife” are a familiar couple around the College.

Skiing with the Simca, studying in a “balanced environment”, working for a Scottish vet and engaging in lengthy and not altogether wholesome conversations with Linz and Grizz, are a few of his pastimes.

As our meat man, he had camp pie abolished and replaced with quality kitchen mutton on our day trips.

Very practically minded and always ready for an argument, Graves was partly responsible for initiating one culture lecturer and always gives the others a run for their money.

Darryl has set his sights on 4th year, after which he (they?) will return to the family ranch and eke out an existence mincing meat.



THOMAS YEATMAN — “Thomas Morgan” “Turn it down a bit!”

Coming from Torrens Park via Watervale, Tom usually has a go at everything and thus his interests are wide and varied, ranging from S.C.M., long distance running and judo to tennis and Rural Youth.

A very keen Rural Youther, he walks strenuous miles raising money and enjoys a good debate.

Thomas Morgan continues to disillusion farm management lecturers and this, together with his characteristic laugh and cheery grin, makes one wonder what he'll do in the future.

Tom reckons 4th year could be good value and after that possibly teaching (but not at St. Peter's, where he was taught the three “R's”) but most likely he'll venture around the countryside forever birdwatching.



FRONT ROW: Dennis Hansen, Andrew Oliver.
 BACK ROW: Richard Stewart, Robert Maczkowiack, Michael Wood, Mr. R. I. Herriot (Principal), Phillip Redden.

R.D.A.T.

ROBERT MACZKOWIACK — "Duck"

Duck has maintained his previously held standards of giving vocal advice to dairy farmers (aided by his increasing knowledge of pastures (Refer Taplin, D.E.)), and this appeared to have worked in the Hundreds of Birdwood Hollows. As occurs with all good things, taste is acquired with age, and this has been held true in the frequent "Port" and sundry beverage tastings. The new Renault is really flying well and has been lucky to catch many birds, only to let them free.

Sorry to say he has fallen down in the most important facet of his career—log chopping, and he has been sadly missed from the scene, as have been his vocal utterings.

Bob, along with two other plant men, Den and Chas, has provided a formidable barrier to the other three seemingly superior "animal men" and all their attempts at flustering our feathers have seemingly gone over like "Water on a Duck's Back".

Bob, in aiming for the Education Department and in particular the Certificate course at Urrbrae, will show these students the skills in Farm Management Roseworthy can give a fellow, after four years. The standard of these students will have to be exacting and their patience enormous to suit their master.

ANDREW OLIVER — "Tex" "Jees, she was a good film."

Pigs, pigs and more pigs. Oli studies them for the greater part of his waking hours and raises them on the home property when time permits, remembering of course that he has to leave some time to make his weekly visit to his "wife" at Port Pirie, censor all the Western movies that hit the television screen, and devour as many Tex bars as Hoadleys plant can manufacture.

We know that the 'wife' has taken up the major part of the week-ends (although rumor has it that they missed seeing one another for one week-end this year). The new Holden has assisted greatly in this extensive travel of country roads, aided by "Keith" keeping the gas tank full.

We're glad to say that football doesn't officially last for 12 months of the year, because apart from his fiance, football is his other stimulus, and even during the limited season it extends for, we all have time to admire Oli's skill and abilities at this sport—well done, Andrew.

1971 will see the Pig Section of the Department of Agriculture inundated with new piggery concepts, and Dr. Engel will soon have a working example in front of his eyes of how to extend to pig farmers in collectivities the "Methods of Preventing Piglet Losses".

MICHAEL WOOD — "Wacka"

We didn't think it wise to coin a phrase for Wacka, as no one sentence could ever do him justice. We all realize that he's remained to reap the benefits of South Australia for another year (probably due to an intent to keep him out of Tasmania, especially as he still isn't returning there until after a six months world trip).

We've all benefited by his presence, and he has been valuable in spreading stories of "Archie" and the other one about the Tiger, around the important social centres of this State (and the Snowy Mountains during September). Wack has helped the BMC Company prove the stamina of its Mini, all observers of the trial being suitably impressed, apart from the difficulties suffered with heads. Never mind, Wack, for you the thirteenth time may have been lucky and you mightn't have to remove it again.

Although 12 months ago it was reported that he was running out of South Australian birds, more have matured since and activities have been sustained, but although there was one contender in the running, it would appear now that we won't be losing a local bird to the closed sanctuary of Tasmania.

After another successful year's footy, a sterling job in the S.R.C. and Workshop Reconstruction, we will be suffering a loss when he leaves, but he takes with him a wealth of farm management and beef knowledge, which will be put to good use at some time in the future.

PHILIP REDDEN — "Big Willamora" "Check the Perkins sign."

Well, Phil has purchased a new toy and has put it to good use, and so far this grey "Z" car hasn't left the road "due to poor driving" except for minor detours to check the scenery of uninhabited bush tracks.

Phil was successful in "A" grade football, following this with luck in the chemistry laboratory, and carried through to the end with a triumph at Hutchinson Hospital—well done, Phil.

Stories of Sheed, Florrie and Cookie have coloured the year's coffee breaks, and Phil has made a 'hit' in the sheep world and animal production laboratories—much to the distress of a beef and a pig man.

Phil had a boomer of a 21st at Terowie, showing that the Northerners still exist and know how to turn it on.

We are all sad to see Phil leave for the savage territories of New Guinea, where he will surely put into practice the many skills acquired during four years at Roseworthy.

DENIS HANSEN — "Denny" "C.O.B.'s waiting, Duck."

Denis finally exhausted the South Australian literature supplies on the mythical sciences, and continued to devour all the academic writings available at Roseworthy.

Denny finds time to do the four most important things in his life, including sleeping, eating, vegetables only (as Wacka exhausts the meat supplies), and studies (especially his speciality—crops), as well as commuting between Adelaide, Mt. Barker and Roseworthy in the Mercedes.

All this taking up 24 hours of the day, Denis can't possibly do much more, except, and this is only occasionally, to tussle with Bob or Chas.

Denis has kept the pressure on everyone, and finally we all toed the line (and for this we are thankful), although this mighty little power pack will be lost in the new year when he heads off, first for a few months to the family farm, then out for a job to establish his fortune.

RICHARD STEWART — "Chas" "I know a lady down the road."

The century old buildings of Roseworthy shuddered when they found that Chas was returning for a fourth year, for where Chas is concerned there is always an attempt at organizing something. Emphasis this year has been aimed at stirring up the S.R.C., getting as many lines (including Tex bars for 'Tex') as possible onto the canteen shelves, as well as attempting to retain his franchise on the finances of Roseworthy—but as he's still around we won't disclose if any of these have worked.

Buckingham Palace was redecorated this year, so that the study and smoke room sections were more in keeping with the character of a fourth year—with the bookcase, grandfather clock and Objects d'Art finally occupying more floor space than was desirable. Still, a considerable amount of business managed to get transferred from the "in" to the "out" baskets.

Anna the maid has provided an excellent service to Chas and the other fourth years, and we all thank her for her efforts.

Look out Tolley's, rumor has it that Richard has left at 40 m.p.h. in the Austin for Renmark, loaded with typewriters, piano and a removal van of other useless junk, but beware if he ever gets there as you will suffer from the same frustrations of organisation and other undesirable traits that Roseworthy has for the past four years.



AGRICULTURE AT THE CROSS ROADS

ADDRESS TO ANNUAL FARMERS DAY — ROSEWORTHY AGRICULTURAL COLLEGE, 1970

By Mr. R. I. HERRIOT, Principal

Whilst going about the business of living, we, both literally and metaphorically, are repeatedly coming to crossroads. It is commonplace experience, so common in fact, that in most instances we just go past. The significant point however, is that every time we do this we make a decision, but before making the decision, we need to know where we are going.

It is in this context that I have chosen my title for today's talk — Agriculture at the Cross Roads.

Agriculture is an evolving industry. We would all like to think of it as a progressive industry, or, if you like the sound of it better, we can say it is a dynamic industry. But did we take the right turn at the last crossroad or the one before? And are we going to do the right thing at the next one.

Obviously we do not know unless we are headed for some very definite place.

The point of all this is that we cannot hope to reach the right place efficiently, if at all, unless we know where we are going and have thought out the best way to get there.

It will be clear to all that the problems facing agriculture today are very different from those of even a few years ago. We have made lots of decisions since then, when it was relatively easy to be prosperous and most farmers seemed to be pretty happy with their lot.

Now you don't have to be a genius to know all, or most of the answers, when you can look backwards, and after all, it's only the forward look and the decisions made in advance that are really worthwhile. Do whatever we will, one thing is certain. We cannot have yesterday over again, and we have to live with the products of yesterday, or use part of tomorrow to straighten out something that could easily have been avoided. Perhaps, even, we or at least some of us, are thoroughly lost and beginning to exhibit that irrational panic-stricken behaviour that characterises approaching doom.

We have around us a mass of social and economic problems and we cannot escape the inevitable decision, that they had their roots in "yesterday".

Answers are certainly needed, and for many they are needed quickly, but there is no chance of coming up with the right answer if the motive force for thinking is panic stricken frenzy. If we are going to find the right answer we must first ask the right questions.

Within, farming — its methods, its economic structure and its social structure — had undergone a very great change. Something much more than evolution has occurred — revolution is a more appropriate word to use.

Farming land, itself, has become a scarce commodity. Few people who would like to become farmers can afford to become farmers. Farming itself has changed from a backbreaking job requiring long hours of tedious work and become a capital intense industry requiring relatively little labour.

In practically every district in the State the business using the most capital will be the largest farm in the area. It follows then that the farmer, who still enjoys farming as an easy-going way of living and who is **not** first and foremost a business man, is on the way out. It is no longer rational to think of business men in Main Street and farmers on farms; one of the big problems of today's agriculture is that so many of our present-day farmers have been swamped in their own conservatism — their own inability to change when the need for change should be obvious.

Sentimental attachment to a piece of dirt is a very fine thing, and whilst we certainly need to recognise that the attitudes of a successful farmer will be fundamentally different from those of a successful miner, there is no hope for any philosophy that regards a farm as other than a **business enterprise**.

The successful solution of these issues demands, I believe, a forward looking and clearly defined agricultural policy for the nation as a whole. The individual efforts of farmers need to be related to national goals. But where are these goals? I must confess that I don't know, and I suspect that all of you are in the same boat.

In the post-war years tremendous effort has been expended to unite farmers so that an effective hobby can be established in Canberra. What has it produced? I would suggest that the result has been principally a series of handouts to patch up vessels in distress, without much thought as to whether the result is worth saving, and what we are going to do with it if it doesn't sink.

The emphasis, all the time, is that industries are in trouble — the dairy industry, the dried fruit industry, the wheat industry, the wool industry, and so it goes on.

You will all recognise that an industry approach to problems is good up to a point because it shows us where to look.

As I see it, the only justification for "across the board" handouts is that they are easy to administer. In each of these industries certain people have greater problems than others, depending upon their own personal skills and or the economic structure of their own businesses. To me, it appears, that we cannot solve the problems of present-day agriculture until we are prepared to look through the various industries to those people who have the specially acute problems. Somehow we have to find a way of handling the personal problems, and any system that doesn't do this can only be both expensive and inefficient.

We have more recently embarked on a new way of solving problems. We are in the quota era and I should think that we will see more of this in the near future.

You will all be aware of the problems here, and, I think, you are all prepared to subscribe to the general philosophy that organised marketing is a hopeless proposition, at least some of the time, if our concept of this does not also include organised production.

The problem arises when we have to decide who is to be allowed to produce the national quota.

The easy formula for governments to administer and for the most efficient producers is to have a flat rate of 10%, or say 20%, cut on some arbitrary base. Such a proposition is not fair unless its effects are fairly distributed, unless the burden is equally shared. Here, again, whilst there may be need to reduce production in some industry by a certain amount, we have to be able to decide on an appropriate formula. It is too easy to assume, looking at a problem on an industry basis that, say, if we produce 100 million less bushels of wheat, or perhaps so many million dozen eggs, that the exercise has been successful.

Somehow, and I am not suggesting how, we have to be able to look through the industry to the individuals that will be hurt the most.

It is clear that present formulas are only hastening the demise of the traditional farm. Perhaps this is what the industry leaders and our governments want, but if it is so, there are no medals to be gained if our scheme does not include at least a dignified funeral.

The key to the future well-being of our agriculture lies in having well run farms that also have an appropriate social and economic structure, and it will be apparent to most of you that we have a lot of farms in this country that do not measure up to these basic requirements.

It is certain that we have ahead of us a period of intense readjustment. We have to choose whether we are going to let the inevitable happen, with consequential traumatic experiences for the many who are emotionally attached to their farms, and who will stay there because there is nothing else they know, or whether we will devise a scheme or schemes to lighten their load.

This all leads me to the vital question. Let us assume that we can handle today's problems with today's farmers. What are we doing to ensure that tomorrow's farmers will be capable of handling their special problems, the nature of which is now apparent?

It should be apparent to all that tomorrow's farmers have to get ready for the job in a way quite different from that of their fathers' day. Few farmers can now teach their sons how to farm in the business-like fashion now demanded. New skills and new techniques are essential. Successful farming is no longer a test of physical strength and endurance. The successful farmer, even today, and more so in the future, will be the man who makes the best business decisions.

It is to me a matter of very great concern that a lot of really good talent capable of meeting this challenge is being excluded from farming because it has not the financial capacity to get started.

It is also a serious reflection on our assessment of future requirements to observe that about 70% of the lads going farming are, even today, doing so without having made a reasonable job of their secondary education and with no training whatsoever in the principles of decision making and business management.

I am concerned, too, with the "brain drain" from farming. It seems inevitable that, where there are more sons on a farm than can be established there in the next generation, that the least well-endowed son stays home. The brighter ones, who are capable of qualifying for the professions, are generally headed in that direction as fast as they can go. In the social context of the family farm, the situation is perhaps inevitable, and quite understandable, but in the national interest it must surely be deplored. Agriculture, with all the problems that lie ahead of it, cannot stand any downgrading in the quality of its manpower.

This brings me, naturally, to say a few words about Roseworthy. It will be obvious that we cannot train in this Institution the 800 new recruits — the future farm owners or managers — required for South Australia each year.

We have other jobs to do as well. We produce the future agricultural teachers for our secondary schools; we also produce a fair proportion of district agricultural advisers; and we have a big demand from industry to provide special officers for their marketing organisations.

You will all know we are now well into an expansion programme, and, by 1973, we will have about 190 students in this place, which is about twice the number normal for less than 10 years ago.

As from next year we will be taking 65 new first year agriculture students each year, and all those successful in their course will be very well-equipped to meet the challenge of our changing agriculture, but I need to emphasise that only a fraction of these will go farming.

Until the last couple of years Roseworthy has consistently recruited only about 30% of its new students each year from farm families. Farmers traditionally have not been education minded.

In 1969 there was a spectacular change. In that year 50% of our new recruits came from farms. 1970 was even better; 60% of our new first years were farm reared and, what is even more important, the higher up the class the greater was the proportion of farmers' sons.

If this really meant what it looks like at first sight — that the tide has turned and talent is now getting ready to go farming — it would be wonderful. It might be so, but I cannot help holding the suspicion that many of these are using Roseworthy as a way out of farming and into a related field of farm employment.

In conclusion, I just want to make one plea.

For the sake of your farm, for the sake of the future of your sons who will be going farming, for the sake of our traditional family-type farm (if you think it is worth preserving), please see to it that your sons are adequately prepared to meet the challenges that lie ahead.



EMPLOYMENT OF A DIPLOMATE

"The going will be tough for diploma holders in the future, but there are fields for which they are better trained than anyone else." (Mr. Tony Clancy, R.O.C.A. Digest.)

Perhaps the greatest problem facing diploma students in the final year of their course is the application of their diploma to the industry. Probably there are fields of extension in bridging the communications gap that the diploma lends itself to as a preparation for the "job" that is closer to the mark than any other qualification. If supplemented with post graduate extension special training this would certainly be so. To a student with a definite aim in some particular aspect of Primary Production, using the diploma course as a "stepping stone" into the industry could, reasonably expect greater value than he is now getting.

The parameters used by the administration as guidelines in determining the course structure should be more directed to supplying the various industries with what they need in a diplomate. Criticism has been fired at the administration for outlining a course too diverse for the needs of most students already and to suggest that this be taken even further would be ridiculous. Surely some specialisation within the framework of the course must be instigated to accommodate students with specific aims in using the course to attain an intimate knowledge of the subject in which they are interested. There is no doubt that the facilities and resources available to students deeply interested in a particular aspect are unlimited if the individual cares to capitalise on them. This does not detract from the major issue that much of the superfluous curriculum material is time consuming and this could be more usefully applied.

Unless the specialisation is included within the curriculum we will lose the opportunity of direct repercussions throughout the Industry of diploma recognition. This means any remuneration for one's effort and endeavour in gaining a diploma is lost. I am not disputing the point that at some stage or another everyone has to compete in the cold, hard world of reality and the great benefit of our diploma should be reflected in the individual's personal merit. Surely though, some status should be inherent with the very fact of just having a diploma. Together with the efforts of our National body, A.T.A., a greater and more intimate association within Industry at student level is an important step as a means to this end. One cannot help but make a comparison with the wine trade, with which we at Roseworthy are closely associated, through our Oenology course.

The students, both individually and as a group are constantly "mingling" with the Industry. In fact, the whole course is based on what the employers are looking for.

If a graduate intends launching into a career of applied agricultural technology in the field of extension, the diplomate once again meets the problem of status.

The one role that the course fully caters for is extension and still the diplomate is considered subordinate to a University Graduate in Agricultural Science. Both the Industry and Governmental Departments hold this attitude. Maybe, as an individual, the Agricultural Science Graduate may be able to apply himself in this field as successfully as the diplomate. However, if he intends to be an extension officer, he should consider the diploma course the most suitable available, and similarly employers in this field should recognise the diplomate as the most suitably trained.

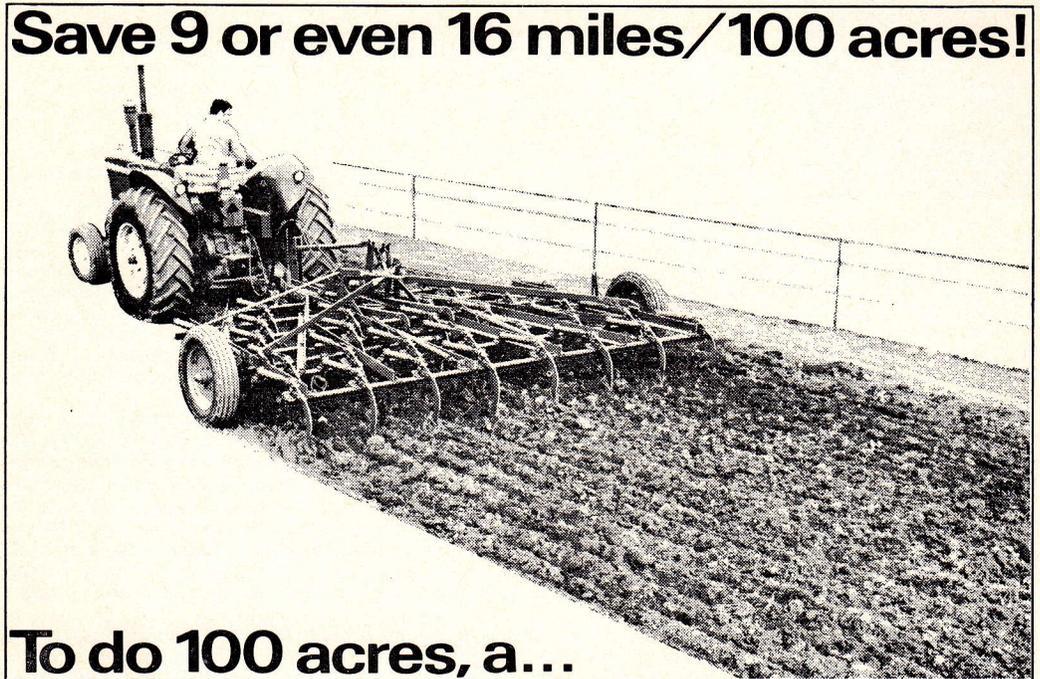
In short, the Agricultural Science Degree is designed to provide training in Agricultural Science Research and should be confined to this field. At the other end of the scale we have the primary producer who cannot hope to keep abreast with, and assess the latest technological data and improvements released by the Research Officers. Also this material is so often sadly lacking in managerial approach and needs to be processed with economic analysis. The diplomate, I feel, is equipped to bridge this gap and is in a good position to be successful with a career in this field.

Much hard work and action is badly needed in lifting the status of the diploma. We maintain that as an expert in agricultural management, agricultural economics, applied agricultural technology, extension in the field and practical project research the diplomate has no equal. A.T.A., our national voice, supports these aims but these advocations must be supported with continual progress in the course to meet them.

J. B. CHAPPEL

Can't you pull a bigger one?

Save 9 or even 16 miles/100 acres!



To do 100 acres, a...

12'6" scarifier travels 66 miles
...a 14'6" travels only 57 miles
... a 16'6"...only 50 miles!

Shearer can fit your existing power with
Australia's widest scarifier range.

To do 100 acres an 8' 6" scarifier travels 97 miles, or a 10' 6" travels 78½ miles. A 12' 6" scarifier disturbs only 2,868 tons or on a 33-tyne only 2,173 tons. A 14' 6" travels 57 miles. A big 16' 6" only travels 50 miles to do 100 acres! Don't pull your leg - pull a bigger scarifier. If you're wasting horsepower, you're spending too much on points, too! On a 17-tyne, each point has to disturb 4,217 TONS of soil per horsepower. Like to see an interesting chart? Ask your Shearer Dealer to show it to you. Have a look at the big Shearer range to suit your existing horsepower.



John Shearer & Sons Limited

Share Street, Kilkenny
South Australia 5009

Send coupon for Scarifier illustrated brochure
to John Shearer & Sons Limited
Head Office and Factory
Share Street, Kilkenny, S.A. 5009

Name

Address

Postcode

THE

"Gardener" BOOT

for any outdoor job.



R. M. Williams designed the "Gardener" for the man who wears a work boot many hours daily and needs comfort and protection for his feet. This high quality hard-wearing work boot fits neatly at the ankles and keeps out dirt and grass seeds. Uppers of chrome tanned water-resistant oiled kip are attached to butt leather insoles. The two outer butt greenhide wax-filled soles are secured by a double row of brass screw wire.

Available in wide or extra wide fittings. Colour: Dark Tan only.

B585: The Gardener, \$16.65, post free. Buy the first pair and you will buy no other brand.

Wearite Gardener. The same type of boot, but with an outer sole of wearite which is bonded and brass screwed to a butt leather sole. An ideal non-slip boot, particularly for dry grass conditions.

B586: Wearite Gardener, \$15.60.

WRITE TO:

R. M. Williams

5 PERCY STREET, PROSPECT, S.A.

Hot water unlimited!

the low-cost oil-fired way

- Never a worry about running short
- Cheap to operate
- Automatic units available
- We handle everything: unit, installation, tank, oil, etc.

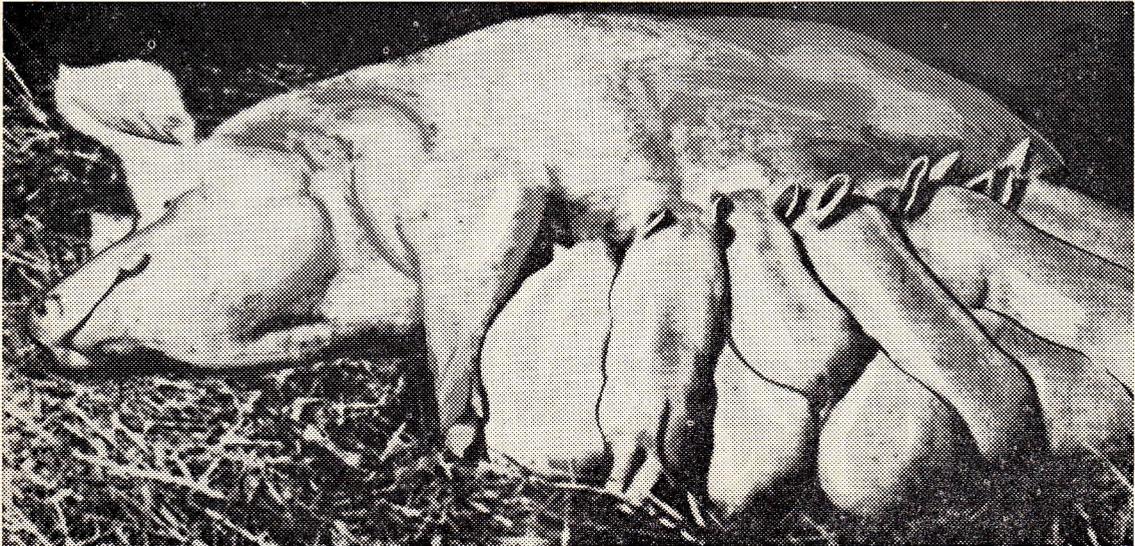


With clean modern oil heating hot water problems are banished for ever.
See your Shell Home Heat Dealer for advice on hot water systems now.

THE SHELL COMPANY OF AUSTRALIA LIMITED



Pig Farmers Now Increase Growth Rates with Noske's "Danex" Feeds



For Sows before and after farrowing, Suckers, Porkers, Baconers or Breeders, there's a special Noske's laboratory prepared and tested "Danex" feed to ensure you

- Superior Feed Conversion
- Top Grade Pigs
- Earlier Marketing
- Greater Profits

For further information, get your FREE COPY of the NOSKE FEEDING GUIDE FOR PIGS.



The "Danex" range also includes feeds for de-worming, and balancers for adding to your own grain.

All Noske "Danex" Feeds readily available in bags or bulk.

NOSKE FLOUR MILLS PTY. LTD.

(A Division of Noske Industries Ltd.)
19 TREMBATH STREET, BOWDEN
(Box 78, Hindmarsh, S.A. 5007)

Please forward the NOSKE FEEDING GUIDE FOR PIGS to

NAME

ADDRESS

PHONE

**ORDER
TODAY**

Phone your nearest Noske's branch at:
Murray Bridge 32 2422, Balaklava 209,
Adelaide 46 4791, Loxton 7388,
or order through your local Stock Firm or Fodder Store

“The War in Vietnam—Australia’s Shame”

As a Nation, we are proud of the wars in which we have been involved — Australian Troops fought in two great wars this Century TO PUT A STOP TO IMPERIALISM.

There is no higher ideal for a nation than to strive to preserve the freedom of men, so they can determine their own destinies. However, doesn't the reverse apply in Vietnam?

We are the invaders, not the Vietnamese — Northern or Southern, for they have no boundary dividing their nation — that was put there by the Americans in 1954 when they occupied South Vietnam preceding the French capitulation.

Let us compare the situation in Vietnam as it stood in 1954 with the Indonesian Revolution when Soekarno came to power. He overthrew the Dutch and set up his own regime. This is what the Vietnamese leader did. His name was Ho Chi Minh. That didn't matter to the U.S.A. He happened to be a Communist! This was more important than that he was a peasant farmer who led his nation to Independence. What if Soekarno had been a Communist farmer instead of the leader of a Military Junta? Would we have American and Australian Battalions in Indonesia?

The war, we must realise, is being fought against Vietnamese not Russians or Chinese; Vietnamese! True there are Communist and OTHER Left Wingers operating in Laos — but they are Laotians — The Pathet Lao — and not the “Yellow Peril” our Government has led us to believe exists. True the Vietnamese get aid from the USSR and China but not men. Didn't we send aid to Britain when she was in a similar position in 1930? You could hardly blame Russia and China for sending troops there if the Northerners asked for them. We sent them to Britain 30 years ago without Britain even asking. Therefore surely the USSR and China are acting with restraint, unlike the U.S.A. and her allies.

Between 1956 and 1970 the Americans, Australians and their allies have killed 250,000 “Viet Cong” and 480,000 Vietnamese civilians and 90,000 Northerners, mainly civilians. That's about the number of people in Adelaide right now!

These figures are conservative, because no-one ever bothers much to count dead Vietnamese Civilians any more.

The massacre at My Lai was typical of the type of atrocities occurring in Vietnam today. You can kill women, children and old people with M16 rifles. You can also do it with aircraft cannon firing 5,000 rounds a minute into villages, or canisters of jellied petrol and kerosene — napalm!

More bombs have been dropped on Vietnam than the total of all the bombs dropped by both sides in World War Two. More bombs are being dropped on it now than ever before. Much of Vietnam is scarred and pitted like the moon.

If a platoon equipped with M16 rifles commits an atrocity in a village, what does 3 MILLION TONS of bombs and napalm do to one small country?

The Vietnamese people have held the greatest military power in the world at bay for 16 years and are still doing it. Why? They believe they have something worth fighting for—that ideal which Australians fought and died for in 1914-18 and 1939-45. Independence and freedom from foreign invaders. How else could that tiny nation survive for 16 years against a force of allies that brought Hitler's empire to an end.

Could it be that Wonderful Australia (which is always on the side of Right and especially God) is wrong? That in this case She is the “baddy”?

If people inside any country are to take up arms to fight a civil war then conditions in that country must be the cause of it. If they have to take up arms, they have to risk their lives. They will not risk their lives unless conditions are extremely bad. Isn't it a matter of dealing with bad conditions, rather than shooting those who object to them?

P. BOWEY.

FACTORS AFFECTING THE PRICE OF WOOL

For some years now there has been discussion of schemes to change the methods of marketing Australia's wool clip, and now that the Government has announced proposals for the new statutory Marketing Authority (Australian Wool Commission), some people think that the price of wool is going to improve overnight.

I have written two articles — one pointing out peculiarities unique to wool and the other describing methods of decreasing the costs of marketing our clip — because I believe too much emphasis has been placed on trying to change our marketing system whilst other important factors have been overlooked.

WOOL — A UNIQUE FIBRE

(1) **The wool textile industry** in Australia and overseas holds large stocks of raw materials and semi-manufactured goods, and also conducts extensive trade with wool products — that is, they use wool as a form of exchange. Thus, changes in exchange rates (revaluation and devaluation) as well as domestic money situations (lower availability and higher interest rates on loans made to buyers and textile manufacturers) has made the trading aspect of the wool textile business uncertain. This, coupled with rising manufacturing costs and rising world wool production, has caused the price received for wool to react adversely.

The effect above results from the fact that 60% of the world's wool production is exported, and because Australia, New Zealand and South Africa export 80% of the world's total wool exports, the influence of monetary factors in foreign countries becomes localised in these three countries. Wool ranks as one of the most freely and internationally traded raw materials — the United States of America being the only country applying a tariff on imported wool.

These "psychological factors" are, I feel, the prime cause of the lack of confidence in wool as a fibre, which has resulted in the fluctuations in the price of wool, whilst supply and demand have been relatively constant. The effect of competition from synthetic fibres may have also been reflected in the general lack of confidence in wool — however this effect probably has been exaggerated in past years, whilst the root of the problem (*viz.*, world inflation and the "tight" money situation) has been neglected.

(2) **The different types of people** who handle wool — from the grower to the tailor — each have discreet market functions and these have been built up since the Merchant Era of before the 17th century. Associated with these functions are traditions, and like most traditions, perhaps they may need changing or removing; but, also like traditions, once they are changed or removed, with what do you replace them? These people are:—

(a) **Growers:** Produce the wool.

(b) **Brokers:** Act as growers' agents in selling wool, because growers work as individuals, but sell wool to relatively few buyers.

(c) **Buyers:** Purchase over 90% of the Australian clip in the auction room on behalf of wool users in more than 50 countries. They cushion fluctuations in user demand and meet the flow of raw material to the manufacturers by forward selling. They do this by utilising considerable financial resources to enable them to buy in large amounts of wool. Whether any single marketing authority could replace the buyers' functions is debatable when the value of the Australian wool clip alone is put at \$715,000,000.

(d) **Manufacturers:** Includes combers (produce tops), spinners (produce yarn), weavers (produce cloth), tailors (produce suits). This partially and completely manufactured wool is traded as mentioned before.

These separate bodies each have a discreet function and any interruption of these functions may stop the free flow of wool to the manufacturers, and this free flow of wool via the auction system is one of wool's greatest assets.

Each of these bodies is part of the marketing chain and hence deserves a return for his efforts. The grower must realise that he is only one member of the marketing chain, and because each link of the chain depends on the one before, any marketing proposition needs to have the agreement of all the members of the chain.

Also it is worth remembering that buyers do not want to obtain wool too expensively or see their competitors procure it too cheaply — that is, they don't want to buy it too much below or too much above the market price — and whilst falling prices are disastrous to the growers, they are not liked by the buyers either. Thus, to be successful, a reserve price has to operate just below the market price and **never** above it. Also a reserve price must be flexible and adjusted daily, because the market price varies daily. Problems with reserve price schemes in the past have been

- lack of knowledge on the degree of demand for wool overseas;
- the reserve price has been too inflexible.

I am hopeful that the newly formed Market Intelligence Unit will be able to fill in these gaps of knowledge to enable the new reserve price scheme to work successfully.

(3) **Wool cannot be sold** under a simple, descriptive grading system, such as is used with wheat, because there are over 2,000 types of wool depending on breed, style, length, quality, locality, burr, colour, etc., and each type has its specific uses. In wheat there are only five types — prime hard, hard, F.A.Q. and soft. Although the number of types could be decreased by more uniform classing, it is likely that appraisal (both visual and objective) of a sample of each lot will continue.

(4) **Wool cannot be sold** under a two-price discrimination scheme — with one export price and a higher home consumption price — because only 10% Australian wool production is used on the home market.

(5) In 1967/68 over \$715,000,000 worth of wool was exported — which was 25% of our total exports.

Wool **must** pass freely onto buyers and overseas manufacturers because if it is not sold, it is stockpiled in Australia and this means

- less overseas money to balance our imports;
- money which is tied up in the stockpile is not returning capital and is probably depreciating (as wool prices fall);
- wool is a low density fibre and expensive to store;
- when stockpiles are released, prices usually drop.

MARKETING COSTS — HOW TO DECREASE THEM

(1) **Handling and Freightage:** On the average it costs \$30 to move a bale of wool from the farm gate to the mill door. Freight costs \$17 (over 50% of total handling costs) and brokers' charges cost \$5. Integrated single storey wool stores where handling, repacking and dumping are done in one centre — such as the Yennora Wool Village idea for N.S.W. — and where maximum utilization of equipment occurs, with wool being moved and handled in larger lots, must cut down the cost of marketing wool.

It has also been stated that it costs \$13/bale or \$42,000,000 to freight the Australian clip to Europe and the United Kingdom alone, and that this is dominated by the conference lines, who must carry wool to make their ships pay. Apparently charter or tramp shipping agents can transport wool overseas at 25% of the present rates.

(2) **Selling via sample** rather than via bale.

50% of the Australian clip is opened and displayed in brokers' stores for visual appraisal. After the sale the bales are repacked, repressed and dumped before being exported. The cost of

building wool stores to show this number of bales in well-lighted conditions, as well as the labour costs for this extra packing, pressing and handling of bales must be enormous.

Why not take a random sample from each line of each clip, test it for fibre diameter and yield, then exhibit this sample for visual appraisal for handle and colour? It would mean an accurate assessment of quality and yield as well as displaying only a fraction of the Australian clip — hence saving floor space and rehandling charges.

The rest of the clip need not be opened but taken direct to a central storage depot for dumping and shipment once the sample is sold.

However, the practicability of this scheme depends upon the growers. They must learn to make even lines, so that one sample (perhaps 10 lbs.) is representative of his line (perhaps 10 or more bales). This will come — at the present the Wool Marketing Corporation is enforcing standards and it is anticipated that the Wool Commission will do likewise. It seems amazing that as recently as 1969 wool was the only product handled by the Department of Primary Industry, which was not certified as to standards and quality.

Unfortunately, the grower is at the bottom of the wool marketing chain and therefore the suggestions that I have made may not result in any price increase to the grower, but they should at least stall any increases in the cost of marketing — which are eventually passed on to the grower anyway.

T. PRANCE.

BREAKFAST AT R.A.C.

The door is opened slowly by a yet unfeeling hand,
And the squeaking of the hinges, and the way in which 'tis slammed,
Are merely symptomatic of the man's expression bland
Which greets the steaming tea urns on the table where they stand.
With hair unkempt and mind unwoke, he sleepwalks down the aisle,
And lounges on the counter in a grumpy sort of style,
Whereon he greets his fellows with an unresponsive smile,
Rubbing weary eyelids and yawning all the while.
But as the kitchen smells and sounds arouse his blunted brain,
The presence of reality reveals its form again,
And limbs outstretch for plates of food, and hungry lips complain,
Of the slowness of the service, or an egg that's cooked in vain.
The grappling with a neighbour to grab the morning meal,
And a pushing, shoving exit are bringing back the feel,
Of the hardness and the harshness that the morning sun reveals,
While dreams that once were part of life have now become unreal,
For yet again the man is born and placed upon the wheel
That turns another cycle until dark will life conceal.

A. H. RICHARDSON.

MAN Vs. HIS ENVIRONMENT

Although perhaps considered unqualified to make such a statement, I feel the vast majority of people concerned with farming in the past and at present have and are showing open hostility to their natural environment. For those extra dollars associated with greater acreages of open farmland and pastures; vast scrublands, rainforests and plains have had their natural flora and fauna shot, poisoned and bulldozed into oblivion. Anyone suggesting to many people that they could leave some patches of natural habitat is showered with the dogmatic, well rehearsed, selfish, rejoinders such as:

"The native fauna and flora compete with and destroy crops"; or "are unsuitable environments to grow pastures and graze animals" or "Those bloody trees are taking up valuable room!" Unfortunately, in many cases there is a great deal of justification in that type of statement, and when a farmer is on subsistence level one feels at a loss to plead a cause that offers no financial return, only satisfaction in knowing something natural has been preserved.

When the farmer destroys one ecosystem, after a time a new one replaces it, usually adjusted in irritatingly minor ways to hinder the farm's smooth running. Insects and parasites, large and small, necessitate chemical control in a new ecosystem. Many a farmer has cleaned and destroyed all of an ecosystem that has been in some kind of fluctuating "balance" for many thousands of years, then wondered why his soil blew away or why the roos came and ate the only thing around — his crops, and why he has had to spend money on insecticides and weedicides which, the biologist tells him are building up high levels of hydrocarbon residues in the body of his family and his produce.

I venture to say that man has shown little interest in understanding his environment or made few attempts to preserve a substantial part of it.

KEITH A. JACOBS

THE DISCO

Smoke pierces the caelesthenic flashes,

The room of life throbs with expression.

Lights blue, figures flash, music crashes,

Sweating, revolving, they dance aggression.

M. B. REVELL.

WHEN

The
does life
we find
baby. W
a mature

From
there life
sation, p
from the
the first
develop
breasts?

This
which is
the fath
cell and
instant!
to devel

Has
certainly
being an
Obviously
we posse

Wha
ing the
destroyin

Wha
the killin
baby end

The
because
which in

Sho
Much bel
These qu
really inv

WHEN IS LIFE?

The child is born and life starts! But does it? Didn't it really start some time before? Just when does life start? An interesting question, asked many times before. In looking at a newly fertilised cell we find it divides, divides more, grows, differentiates, and specialises. The foetus is born. We have a baby. While growing the differentiation becomes better, the specialisation even greater. We now have a mature man. The body constantly ages, decays and eventually dies.

From the first cell until death, no sudden change, no point at which to exclaim "There it is, there life starts"! In fact, the only difference we can see is one of growth, differentiation and specialisation, processes that may not be complete the day we die! The only thing the whole process requires from the first cell onwards is a suitable environment! A baby we class as a human, why don't we class the first cell as such? Can we really say that first special cell is not human just because it hasn't yet developed arms or legs or head? Do we say a young girl is not a female just because she has no breasts?

This still has not answered the question "When does life begin?" We have on one hand the cell which is a developing human, on the other two separate "half cells", one from the mother, one from the father. The great process that lies between fertilisation. The male chromosomes enter the female cell and the two groups of chromosomes come together and line up with each other—This is the instant! The moment these chromosomes have lined up, new life starts. Once done, the cell is set up to develop differently from all others in the entire human race. A complete individual.

Has this cell a soul? What is a man's "soul"? Is it his ability to grow and live? If so, this first cell certainly has a soul, whilst a dying man is a person fast losing his soul? Is it man's consciousness of being an entity in this universe, his ability to have a concept of a God? If so, a baby has no soul! Obviously I have no real concept of what a soul is, but whatever it is surely if we possess one at all, we possess it when the chromosomes have lined up and a new life begins.

What about the future possibility of selecting the sex you want for your baby. If it involves destroying the cells of the undesired sex, isn't this as inhumane as waiting until they are born and then destroying them?

What about abortion? From the first cell the new life is human and an individual. If you regard the killing of a baby as murder then the taking of a life earlier is surely no different. If having the baby endangers the mother's life what then?

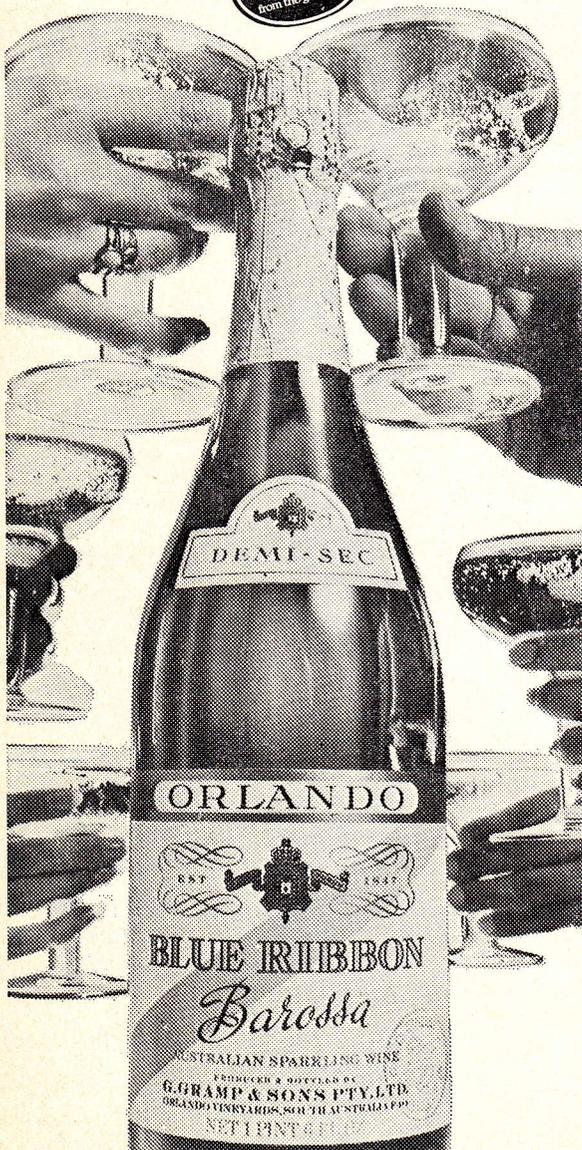
The great majority of abortions are done to convenience the mother or please Western Society, because it has no real place for bastards. As society forces mass murder every year it is our society which induces the murder and is the cause.

Should a girl have an abortion just because having a baby would be an inconvenience? I think not! Much better that she and the father use forethought and ensure that it isn't conceived in the first place! These questions on abortion are not clear cut, but if you say abortion is permissible because it doesn't really involve the killing of a human being, an individual, I think you should reconsider!

R. FEHLBERG

Ladies & Gentlemen: BLUE RIBBON BAROSSA

Orlando have vintaged
a tinglingly, crisp, natural
white wine fit for the most
important occasions.



maintain
peak
condition

with

Charlicks
new
improved
**STOCK &
POULTRY
FEEDS**

Years of close co-operation with scientists and producers in the formulation of animal and poultry feeds have given Charlicks a clear lead in feed production. The Charlicks brand is your guarantee of the best in new and improved feeds, bag or bulk.

Choose from the biggest range of stock and poultry feeds available . . . **CHARLICKS NEW IMPROVED**

Poultry
feed

Dairy
feed

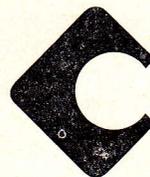
Turkey
feed

Pig
feed

Sheep
feed

Dog
feed

available in bag or bulk from your local
Charlicks distributor or . . .



**CHARLICK
FEEDS**

SCOTLAND ROAD, MILE END SOUTH
SOUTH AUST. 5031 PHONE 574162



R. Babidge & Sons

- COOPERS
- IMPORTERS
- VAT BUILDERS

Cnr. Cuming Street and Railway Terrace,
Mile End, Adelaide

Spray Vats and Pickling Casks
of any size and shape
Made to Order

TELEPHONE 57 4723



ROCLA
PIPES  PTY. LTD

- *Made to last
from reinforced, highly
compacted concrete*
- *Non-leaking rubber joints*
- *8' lengths are easy
to assemble and extend*

Available from—

ROCLA CONCRETE PIPES LIMITED

Cavan Road, Dry Creek

or

YOUR STOCK AND STATION AGENT

for an exhilarating experience, sample

ROVALLEY

CHARMANE

— the sparkling wine that —

LOOKS

like a million dollars and costs much less.

Made by B. Liebich and Sons, Rowland Flat, S.A. Ph. 237 or 257

MAY & BAKER

MAKERS OF

'BUCTRIL' MA, 'EMBUTOX' 40, 'TOTRIL'

and Leaders in Selective Herbicides for crops and pasture
proudly introduce:

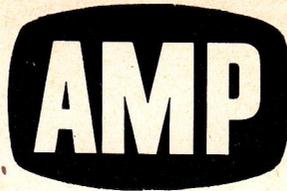
- 'BUCTRIL' 20** • Controls broadleaved weeds in seedling and established lucerne.
- 'CARBETAMEX'** • A new grass killer for use in seedling and established lucerne.
- 'ASULOX'** • For selective control of annual grasses and docks in perennial rye grass seed crops.

For maximum production depend on 'M & B' Selective Weedkillers.

Distributed by

MAY & BAKER (AUSTRALIA) PTY. LTD.

P.O. BOX 41, FOOTSCRAY, VIC. 3011. TELEPHONE 314 0444



All classes of
LIFE, FIRE & ACCIDENT INSURANCE

Consulting Representative

RICK GORDON

GAWLER 22 2668 (Office) 22 2512 (Home)

PERSONAL SERVICE THROUGHOUT THE CONTRACT

COLES BROS. LIMITED

FOR

LAND

LIVESTOCK BLOODSTOCK

AND

MERCHANDISE

70 CURRIE STREET, ADELAIDE

GAWLER OFFICE: Manager DON URLWIN
Phone 22 1209

“WHEN A MAN’S A MAN”

The title derives from an insignificant-looking book which I read over five years ago. The story itself was noble and big, it was courageous and inspiring. It was transforming. Yes, it was through the portrait of another’s conflicts in becoming a man that I too embarked excitedly upon that difficult but worthy road. In brief, I would sum up the man portrayed in this book as one who “sees the way and goes it, who draws a line and toes it”. It is my purpose to share with my reader “the Way” I have seen, “the Line” that has been drawn for me. For five years now I’ve endeavoured to tread this “way”, to walk this “line”. I am deeply convinced that this is a path worthy only of true men (and of true women). Its rewards are profoundly satisfying. Its lessons are abundantly enriching. Its goal is life itself. Manhood is not an end in itself — it is a means to an end. That end is worthy of our noblest, most energetic aspirations and pursuits.

It is my humble belief that there is only one path to true manhood, and that every man must tread this path himself if he would arrive at its glorious destination. I hope that the following thoughts will help all who will consider them seriously, any who are already on the “way”, any who wish to find the “way”. I could wish to deal more fully with some aspects which follow, but space and discretion do not here permit me. I hope that my reader finds the following lucid and adequate enough.

Let me begin by reminding you of the fine fine words of the noted writer Rudyard Kipling in his immortal poem “If”.

If you can keep your head when all about you
Are losing theirs and blaming it on you,
If you can trust yourself when all men doubt you
But make allowance for their doubting too;
If you can wait and not be tired by waiting,
Or being lied about, don’t deal in lies,
Or being hated, don’t give way to hating,
And yet don’t look too good, nor talk too wise.
If you can dream—and not make dreams your master;
If you can think—and not make thoughts your aim;
If you can meet with Triumph and Disaster
And treat those two impostors just the same;
If you can bear to hear the truth you’ve spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken.
And stoop and build ’em up with worn out tools:

If you can make one heap of all your winnings
And risk it all on one turn of pitch and toss,
And lose, and start again at your beginnings
And never breathe a word about your loss;
If you can force your heart and nerve and sinew
To serve their turn long after they are gone,
And so hold on when there is nothing in you
Except the will which says to them, “Hold on!”
If you can talk with crowds and keep your virtue,
Or walk with kings—nor lose the common touch;
If neither foes nor loving friends can hurt you,
If all men count with you, but none too much;
If you can fill the unforgiving minute
With sixty seconds’ worth of distance run,
Yours is the Earth and everything that’s in it,
And—which is more—You’ll be a Man, my Son!”

But may I caution my wise reader not to congratulate himself too much on the above conclusion, assuming that he could keep all these “Ifs”. May I explain myself in this next section, which at first seems unrelated to what has gone before, but is in fact another facet of the whole man.

The old adage, “No man is an island”, forever holds true. Generally speaking, man is a social, inter-dependent being. God has made him that way. Specifically speaking, a man needs an Ideal, a Person, a Love, a Life, a Law, and a God to respond to. Each should call forth his strivings for the *summa bona* (highest good). The choice of each is a man’s to make. May I say again: The choice of a Life, a Love, a God is the right and responsibility of a man (not a boy or infant)! Once having made that choice as a man, he alone is responsible for the consequent joys or sorrows, blessings or curses, which are incumbent upon it. It is his privilege to choose. This privilege is in itself a criterion upon which the quality of a man may be assessed. The way he uses or abuses this right portrays him to all the world as either wise or foolish, strong in character or weak, noble or base, high-minded or depraved.

To return to the statement that "No man is an island" is to remind ourselves that all that we say, think, do, hope, pray, or choose affects others also.

What kind of effect does the ripple of just one man's life have upon his fellow man? Well, what do you think of when you hear the names of Caesar, Napoleon, Hitler, Churchill in war leadership; or of Socrates, Lincoln, Emerson, Russell in philosophy and politics; or of MacArthur and Ridley in Australian Agriculture; or of Confucius, Buddha, Jesus Christ, Mahommed, Mao Tse Tung in religion and ideology? Each man has had his individual and cosmological effect. Only one name in the above list needs further qualification. All claimed some fame or title. On relative, human standards all were mortal men. On absolute, eternal standards one name must forever remain above them all. One man only claimed with authority and truth "I am the Son of Man". Not "a son" nor "a son of a man", but "The Son" of Man as a race of created human beings. The documentation and authentication of this Son of Man's manhood constitutes an historical, literary landslide of information.

Let us, for a moment, pause to look at "The Man", as the Roman Governor Pilate nominated Jesus Christ. He was one who could, with the dynamic words "Follow me!" excite twelve full-grown men of such diverse occupations as tax-collecting and fishing — none of them jobs for boys or weaklings, to immediately leave house, friends and vocations to follow him for the remainder of their exciting lives. He was one to whom the whole countryside came eagerly at several memorable gatherings. He was One who prayed quietly alone to God, His Father, through many a Palestinian night, who healed a sick widow, restored eyesight to the blind; who raised a little girl from her death-bed, and a dead man who had lain for days embalmed in a tomb; who spoke encouragement and forgiveness to a woman arraigned for adultery, and dined at a hated taxcollector's house; who changed water into new wine at a wedding feast and fed five thousand men (as well as another fifteen thousand wives and children!) who walked on water and calmed a tempest. And so I could go on. He was truly "The Man" — the example of what true manhood is. This Man came to make men whole again. For when he came he found no man. No man was living according to the pattern for which God created him. There never has been any ordinary man who could live as a man should. Nor could there be — except for one thing.

The life of "The Man" did not just consist of teaching, healing and performing miracles. It was one of absolute obedience to the Life, the Love, the God whom He had chosen to serve. It was His free choice and He made it — and this choice involved not only obedience in life, but also obedience to death on a cross. No other could have endured this particular death. Only He was good enough (perfect), and man enough to receive the penalty which our failure to obey God demands. Our failure warrants our own punishment according to Divine Law. But "The Man" stepped into our shoes and took the lash himself. That's the mark of "The Man".

So now we see that there is just one chance for a man to live as he should, i.e., for a man to be a man. This one chance involves the total submission of the Life, and Will and intellect in obedience to his Creator. In short, this means that he must choose between this and his previous choice of a life which brings death; of a love which produces lust and hatred; of a law which leaves him empty and servile to his own legislation; of a God which is the epitome of selfishness, pride, depravity and death.

Such is the situation into which "The Son of Man" came. He came to seek and to save lost men; to change them from being slaves of self into being sons of God — or true men. He also claimed to be "The Son of God". The effects of the life and death of this Man who is also God are profound, and integral to my contention, that only in living the life of "The Man" can a man be a man in the true sense of that word.

The word "man" denotes courage, strength, leadership, aspiration, worship, faith. A man is a thinking individual — one who makes sensible decisions, one who is wise, prudent and prepared to

shoulder the consequences of his actions. He is an overcomer. He is master of himself and of the world he lives in. He gives worth to fellow man and beast, to earth and heaven, to life and death, to heaven, and he recognises hell, and good and evil. He obeys the inexorable laws of his environment, of nature, and of his Creator. He is always willing to learn by instruction and through his unintentional mistakes. He rejoices in the right and truth, is brave enough to offer his friendship and love to all men — even his enemies, and is conscientious enough to work for the prosperity of all whom he influences. He is not subject to gossip, slander, lies, cheap talk, smut or rudeness. He has a refined sense of humour. He is tender towards the bashful, gentle towards the distant, merciful towards the absurd. He is never mean nor little in his disputes, never takes unfair advantage of one less fortunate than himself, nor insinuates evil which he dare not say out. He is simple, forcible, just, brief, and candid. He is confident, enthusiastic, tolerant, adaptable, patient, sensitive to the needs of others, humble and open-minded. So I could go on ad infinitum, for the scope of manhood is really large.

But now as I close, it is my hope that you, as a thinking man or woman, will consider what has been presented so poorly, but so earnestly. When a man's a man, or when a woman's a woman, the whole earth and heaven itself will know that he is around — nor will a man and his good works be forgotten. There is a great reward for manhood, and only a man can obtain the worthy title, and the glorious epitaph "A Man Amongst Men".

I conclude with this re-arrangement of Kipling's "If". I acknowledge its unknown author's inspiration. Some phrases have been modified.

If you can keep "the truth" when those about you
Are losing it and seeking something new;
If you can stand the firmer though they flout you
As being simple and old fashioned too;

If you can laugh when human hopes are banished,
When castles fall and cherished prospects die,
And just keep on, though earthly props have vanished,
Content to see the pattern by and by.

If you can meet abuse without complaining,
And greet your unkind critic with a smile;
If, conscious that your human love is waning,
You claim a higher love that knows no guile;

If you can bear the unjust imputation
Without a murmur or revengeful thought,
And even forfeit rights and reputation,
Because God's glory is the one thing sought;

If you can give an honest commendation
To him whose work looms larger than your own,
Or scorn to speak the word of condemnation
To him who falls and reaps what he has sown.

If you can be content with God's provision,
'Though others seem to prosper and succeed;
Nor let repining mar the heavenly vision,
And simply trust in Him for every need.

If you can let the mind of Christ possess you,
To think on "things of good report" and true;
And ever let the love of Christ obsess you,
Constraining everything you say or do;

If you can find in Him your highest treasure,
Let him hold sway o'er heart and soul and limb;
Then LIFE is yours, and blessing without measure,
And what is more—you'll live and reign with Him.

"I can . . . through Christ". Philipians Ch. 4V.13.

WHO IS MAN ENOUGH FOR THESE THINGS?

J. WEBB.

THE BALLAD OF HOSEWORTHY PILLAGE

A meal, they say, doth make a man
Feel a way he seldom can,
Whilst women and wine rank first place,
And song is close by in the race,
There's many a man who feels content
When the table's wealth has at last been spent
Now there was a young man, Pew by name,
Who from the country initially came,
And he attended Hoseworthy Pillage,
A bawdy, rioting, revelrous village.
He wished to do the apology course
And it's here we meet with Pew's remorse.
The study of apology is no mean feat,
And Pew discovered that he had to eat.
To remain in health was vital to him,
For without life's food, things were grim.
'Twas suggested he hit the dining room,
A place of suffering, misery, gloom.
He made the scene one cold, cold morn,
When sun's glum smile had scarce been born.
The clicks face grinned a brash seven twenty,
As he made his way to this place of plenty.
Over asphalt, steps and waxen floor,
A click (grinning 12.30 p.m.) guarding door.
Beyond brass handled door was waxed jarrah floor,
And Pew snuck in and gazed in awe.
Before him was a sea of faces,
Midst chables and tairs in assorted places,
And fives and knorks were wielded aloft
Whilst palt and sepper was sprayed acrost.
After gazing, wonderstruck for quite a while,
Pew tried to obtain his own feed pile.
He wandered behind a high partition
And the sight he saw stopped his rendition
Of Mozart's fifth, which he was quietly singing.
He had not expected such wild hash slinging.
Everyone leant on waist high benches,
And he was handed a playt full of stenches.
There were two 'twas said, came from a fowl,
He agreed, definitely a section of bowel.
He also received a playtfull of beet whix,
And a sturdy trowel with which to pre-mix.

They gave him also a black piece of bread,
Upon which to rest his stenches, they said.
He came from behind the partition at last,
Determined to end his torturesome fast.
He pulled up a tair at a vacant spot,
And gazed at his breakfast, a sundry lot.
Odorous constituents wafted aloft,
And tickled a nostril and so he coft.
Determined he wielded his fife and knork,
Aiming to puncture a slab of pork.
He bent the knork and blunt the fife,
And perforce was involved in terrible strife.
He grabbed the pork and bit it hard,
His jaws twanged open, vibrated, jarred.
And his teeth rattled into a pile on his playt,
What had he done to deserve this fate?
He trod on the pork and stretched it hard,
And a bit flew off; an eyeful of lard!
He put the pork on the floor in the aisle,
And endeavoured to devour his stenches in awhile.
No matter how he bit and chewed,
They stuck his mouth as if 'twere glued.
He tried some tea, real corrosive gore,
Which burned the glue and part of his jaw.
He tipped the stenches on the floor,
He would not, he vowed, try to eat any more.
Then he sloshed some milc on his beet whix,
And added sugar which began to mix.
It fizzed and frothed and covered the chabble,
To control the reaction he was unable.
The fizz it filled the room up to the brink,
Until someone, somewhere, began to think,
And opened a window and let it out.
Everyone vanished down the spout,
Of a drain outside which led away,
To a pond midst grass and gums and hay.
And even today if you listen hard,
At the lonely pond in the Pillage yard,
You'll hear above the croon of birds,
Midst the ghostful sound of washing curds,
A mournful voice murmuring low,
"Oh what a way, a way, to go!"

PEW'S GHOST,
Dip. Opology.

POSTSCRIPT.—"A BALLARD'S LAMENT"

*Oh, would that I could there have been
To save him from that ghastly scene.
I could have fed him luscious grub,
To fill him up and earn his love,
As a mother would for her own chick,
(Rather than have the poor boy sick!)*

WAY OUT-BREEDING

Latest Report on Crossbreeding (Out-breeding) Programmes as being carried out at Roseworthy Agricultural Institution.

(1) **Ronithmaster** (Stud Symbol F)

(Rochedale 440 x Corriedale) x Santa Gertrudis.

Characteristics of Breed:

A woolly breed of cattle, capable of laying in excess of 300 eggs p.a.

Bulls naturally docile (occasionally fidgety at shearing).

Cows are high milk producers and generally good mothers, but tests have shown a tendency towards broodiness in hot weather.

Egg production can be improved by crossing back to White Leghorn, but this reduces carcase and fleece weight.

Summary:

This breed has potential in the temperate areas of Australia (South of Darwin). Accommodation for the beasts can prove a bit of a problem (this is because of their habit of roosting in gum trees at night), but recent tests in other research centres has led to the development of a new intensive cage unit system which shows some promise.

(2) **Tricross XXX (XTX)**

(Merino x Jersey) x Red Kangaroo.

Characteristics of Breed:

A hardy, high butter fat yielding breed of ? that are really jumping ahead in agricultural circles. The high yields of milk and wool, together with the good mothering qualities more than compensates the extra management problems involved in such things as extra high fences and specially designed shearing sheds. A feature of the breed is the amazingly fast growth rates exhibited by the Joey's.

Summary:

The figures obtained from the yields are outstandingly high, but unfortunately the breed is only suited to limited areas in Australia. (Recent work suggests that this breed is best suited to the area just north of Adelaide — around Kangaroo Flat.)

G. BURROWS
M. REVELL

THE MOMENT OF TRUTH

He shifted uneasily on the wooden slab which served him as a seat. A feeling of loneliness surged over him and worked its way to his stomach where it dissolved in a wave of nausea. He glanced at his team mates. They too were alone; afraid; uncertain. He swallowed hard to fill the gnawing gap in his stomach and he knew that too soon he would have to meet his attacker. Too soon the crowd would roar with joy as his team mates fell victim to the attacker's small, but deadly weapon. Too soon it would be his turn.

He glanced at his protective armour. It would protect him from many of the hard blows but it could not protect his pride. The pain of a loss—the sting of failure—the stigma of defeat.

Suddenly the crowd went wild, his team mate had failed. Instinctively, he clutched his long weapon. He felt its smooth edges and gripped its long, bound handle. It gave him a new strength.

He hardly saw the hopeful nods from his team mates. He dimly heard the excited roaring of the crowd. He knew he was their last hope as he stood up and wearily strode to the centre of the arena.

Automatically he positioned himself and turned to face his attacker.

The crowd hushed. The assailant sprinted towards him. He saw his hand curl upwards then shoot forwards, releasing its missile straight at him.

Suddenly, all fear left him. Instinctively he swung his weapon and the air rang as he made contact. The crowd went wild. He had successfully weathered the first ball of the over. Now he could relax.

M. B. REVELL

EXTRACT FROM THE RACE OF THE YEAR

THE 2nd YEAR STAKES

They're lined up for the second year stakes here at Hairold's Park. Last minute scratchings are Mortus, Roderick and Mr. Sheen.

They're off! Worm got away to an early start and Jew has a tight grip on the rails. Simon broke the barrier well and Tool is well positioned. Grub is digging in well but Scale has him covered. Tractor is really turning on the power and Bennie is already proving to be a dark horse.

As they round the corner Country is in command from God and Jew is within easy reach of Bucks. Slag is sticking to the rails but Disease is all over him. Pussy has climbed to a good position and Chunder is spreading out from Boardds Who's beginning to crack. Don't is putting up a poor fight and Panda is puffing badly allowing George to sneak past. Lower down in the field Kid is leading the race from Berkshire. Thug is battling well and Zorba's chances are slim. Trying to make a run but penned in is Sow, Bully's flowing motion is allowing him to keep close to Mounse's tail. Flabby appears to be carrying too much weight and Stave looks finished.

REVELL — RYMER

INTRODUCING R.O.C.A's PRESIDENT



David Suter graduated from Roseworthy in 1942, immediately entering the R.A.A.F. in which he served with distinction in England as an air gunner while flying in Lancasters.

He returned after active duty to Roseworthy and became Assistant Farm Superintendent to Ralph Jones and later Doug. Mellor. He succeeded Doug. Mellor as Farm Manager and held this position until 1958.

In 1958 David left Roseworthy for the Lands Department to become the Supervisor of Land Development, first in the South-East and then at Parndana on K.I. Once development was completed on "the Island" he was transferred to Head Office and worked on a survey of the deep sand region out from Pinnaroo, involving much travelling in country sporting few roads. His Air Force training in navigation must have stood him in good stead during these years. He is at present the Superintendent of Dry Lands in the Lands Department. He and Marj. have a family of two daughters and a son. Jennifer is working with the Bank of N.S.W., Elizabeth is now at University doing First Year Science, while their young son, John, is still at school.

During all these years since returning from service, David has been a stalwart of R.O.C.A. For many years while at Roseworthy he was Secretary, being involved intensively with building the Chapel, and subsequently was President. For outstanding service he was awarded Life Membership. This in itself explains the calibre of Dave Suter and his interest in R.O.C.A. as he renews his association on the executive of this Association.

It is to people like our 1970 President that R.O.C.A. owes its gratitude for being the viable Association that it is.

PAST PRESIDENT'S REPORT

It is my pleasure to present to you the 72nd Annual Report of the Roseworthy Old Collegians' Association. There has been a steady progress during the year, and, thanks to our committees and branches, active interest has been maintained at a high level.

Financially, the Association is in a particularly sound position, as will be seen by the Treasurer's Report to follow shortly.

MEMBERSHIP NUMBERS

Membership numbers have shown an increase of 15, although it is disappointing to note that 10 ordinary memberships have been cancelled due to arrears of subscriptions.

Life Membership numbers increased by 12 to 638, and these include 7 Honorary Members and 6 Associates. Ordinary membership numbers increased by 3 to 214, including 4 Associates.

It was with deep regret that we recorded the death of the following members during the past year:—

R. R. Bartholomeaus	1911-14
B. W. Bussell	1934-37
E. G. Hubble	1899-1902
F. W. Gilbert	Associate Member
S. B. Opie	1912-15
H. W. Robinson	1922-25
G. E. Thomas	1921-23
H. C. Wilson	1903-06
A. T. Hanisch	1938-41
J. H. Fletcher	1909-12
Bowden Oswald	1915-18
E. J. Snook	1938-40

I am sure all members will join with me in expressing sympathy to the relatives and friends of these men.

AWARD OF MERIT

This year's award has been won by Mr. R. H. Badman. Mr. Badman has made a very significant contribution to Agriculture, the small seeds industry in particular, and he has also taken a very active interest in community affairs. He is a most worthy recipient of this award and we extend to him our sincere congratulations.

BRANCHES

I was pleased to be able to attend the South-East and Eyre Peninsula re-unions, but, however, was disappointed at not being able to be in attendance at the Upper Murray function. It is extremely pleasing to see all three branches having such successful meetings, and this is indicative of a strengthening within the Association. The respective committees of each of the branches are to be congratulated for their efforts.

As your State President I attended the Annual Speech Day at Roseworthy and wish to thank the Principal for his invitation.

AGRICULTURAL TECHNOLOGISTS OF AUSTRALIA

A branch of A.T.A. was formed in this State earlier this year and R.O.C.A. can feel justly proud of the part it played in the formation of this professional organisation. Keen interest has been shown by many members, and to those R.O.C.A. members who have not already joined I ask them to give the matter their serious consideration. A strong association is based on a strong and active membership.

STUDENT MAGAZINE AND R.O.C.A. DIGEST

Once again Ray Norton has maintained a high standard with the Student Magazine, and we congratulate and thank you, Ray, for your efforts in this regard.

Quarterly issues of the R.O.C.A. DIGEST were again published.

RECOGNITION OF DIPLOMATES BY EMPLOYERS

A considerable amount of investigation work has been carried out and Bruce Wigney, Chairman of the sub-committee, will be giving a brief report on their findings shortly.

I wish to extend my thanks to all members who have contributed to this publication, and I would particularly like to mention the Eyre Peninsula Branch for once again assisting financially.

HONORARY LIFE MEMBERSHIP

I was pleased to receive from the Eyre Peninsula Branch the nomination of Des. Habel as an Honorary Life Member. Des. has made a tremendous contribution to our Association and this would be a fitting reward for him.

Whilst on the subject of Honorary Life Membership, members of the committee have been seeking to obtain a suitably designed badge and certificate to present to these honoured members. A suitable badge has now been designed and we hope that presentations will be made next year.

COMMITTEE

In conclusion, I would like to pay a tribute to the faithful work of all committee members and thank them for their support during my term of office.

I want particularly to mention Cliff Hooper as treasurer, John Jones who has so capably taken over from John Gursansky as secretary, and Ray Norton for his assistance with the Digest. To Bill Edge and John Gore, who have indicated that they do not wish to continue in office, we express our sincere gratitude for many years of faithful service.

Gentlemen, I thank you for being given the privilege and honour of serving as your President during the past 12 months.

ROSS FORD.

STUDENT ROLL 70

R.D.A.T.

Fourth Year

OLIVER, A. T.
MACZOWIACK, R. I.
REDDEN, P. F.
HANSEN, D. E.
WOOD, M. A.
STEWART, R. J.

OENOLOGY

ASHTON, P. M. S.
AULD, S. J.
BOTTEN, P. W.
BOWEN, D. F.
BOURCHIER, R. G.
BURNE, P. M.
ELLIS, J. S.
GLAETZER, C. J.
HOLMES, N. G.
LEWIS, T. C.
LOXTON, F. J.
MOODY, R. C.
MORRISH, R. H. K.
PAULETT, N. T.
RAY, M. A.
SULLIVAN, J. C.
TOLLEY, A. L.
WARLAND, R. L.

R.D.A.

YEAR III

ASHTON, B. L.
BARNES, A. J.
BLACK, I. H.
BOLTO, A. T.
BOWEY, P. H.
CARROLL, P. D.
CHAPPEL, J. B.
CHRISTOPHERSEN, N.
CROSBY, J. R.
CUMMING, A. G.
DAWSON, R. P.

FEHLBERG, R.
GRAVESTOCKS, D. W.
GROWDEN, B.
HOPKINS, C. E.
MANSFIELD, P. J.
McLAREN, L. D. M.
OLSEN, C. D.
PRANCE, T.
RADY, G. L.
SHALLOW, M.
SNODGRASS, D. W.
SPENCER, D. C.
WAKE, T. M.
WRIGHT, L. D.
YEATMAN, T. M.

YEAR II

ANDERSON, A. J.
BOTH, J. E.
BROWN, J. C.
BROWN, D. C.
BOURNE, G. J.
BURROWS, G. K.
BYRNE, T. P.
CAMERON, J. S.
CHAMBERS, D. R.
COOMBS, I. L.
COWELL, I. A.
COX, D. L.
DOHNT, S. J.
DUTSCHKE, K. E.
GRAUE, I. E.
HABNER, K. K.
HANNAY, J. N.
McFARLANE, A. G.
NOURSE, R. B.
PATON, D. A. G.
REVELL, M. B.
RICHARDSON, A. H.
RYMER, P. J.
SCHICK, P. C.
SPRIGG, N. R.
SMITH, D. H.
SMITH, R. N.
THOMAS, C. A.
TURNER, J. F.
UPPILL, A. O.
WILKINSON, R. J.
WRIGHT, S. J.

YEAR I

ALCOCK, E. A.
BALDOCK, T. J.
BATEMAN, D. T.
BIVEN, M. E.
BOEHM, T. J.
BOWDEN, J. W.
BROWN, R. N.
BUTLER, K. A.
CHESTER, S. J.
CLARK, P. B.
CLIFFORD D. S.
CRAIG, A. L.
DUTHY, S. W.
ECKERMAN, W. P.
EVERETT, R. R.
FLAVEL, P. F.
FLOCKHART, R. A.
GOULD, J. S.
GRAVESTOCKS, B. R.
HAENSEL, R. P.
HAEUSLER, R. G.
HANCOCK, J. S.
HAYMAN, G. W.
HICKMAN, M. J.
HILL, J. C.
HUDSON, K. N.
JACOBS, K. A.
JUDD, W.
KERRY, J. P. P.
LIGHT, B. J.
MARTIN, C. A.
MICHAEL, K.
MITCHELL, G. E.
MITCHELL, R. W.
MUNN, P. R.
NANKIVELL, B. W.
PONTIFEX, N.
PROUD, C. R.
SCHEBELLA, D. J.
SCHWARZ, L. B.
SHARPE, C. R.
SISMEY, T. A.
SWEETING, R. S. St.J.
SYMONDS, P. A. K.
THIELE, B. J.
THOMPSON, R.
VOWLES, M. J.
WALTER, D. K.
WARDLAW, D.
WARNEKE, L.
WILSON, I. K.
WEBB, J.

