



## *The Australian Rangeland Society*

### RANGE MANAGEMENT NEWSLETTER

An official publication of The Australian Rangeland Society

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# Range Management Newsletter

Official newsletter of the Australian Rangeland Society

Editor — Dr. W.H. Burrows, Charleville Pastoral Laboratory,  
Hood St., Charleville, Queensland 4470.

No. 78/2 June 1978

## EDITORIAL

I never cease to be amazed at the power of the press! Since my last editorial telling you of our summer drought my area of Australia has experienced a "normal" autumn-winter season with rainfall well above average. I hope your God has been equally benevolent! Well this is my editorial swansong as now that I have been elected your president it seems inappropriate to wear two hats. More importantly the more people we can involve in Society affairs the better it will be. Consequently, Council believes that the Newsletter editorship should move from state to state annually in similar fashion to Council itself. Your new editor is Tim Fatchen, Roseworthy Agricultural College. I'm sure you will continue to give Tim the support that I have enjoyed by regularly contributing to your newsletter.

This issue as usual encompasses a variety of subject material which should cover the interests of most members. I would like you to particularly note that plans are well in hand for our next conference. Please assist the organisers by dispatching by the due date the attached questionnaire concerning your attendance. The biennial conference is the major meeting ground for all members so give it your fullest support.

Bill Burrows  
Retiring Editor

Deadline:

NOTE

Copy for the next issue of the Newsletter is required by August 31, 1978. Please note the address of the new editor:

Dr T.J. Fatchen,  
Roseworthy Agricultural College,  
Roseworthy 5371 S.A.

## THE AUSTRALIAN RANGELAND SOCIETY

MINUTES OF THE THIRD ANNUAL GENERAL MEETING - HELD AT BOURKE, N.S.W.,  
MAY 25, 1978 at 4.55 pm.

### Present

Approximately 30 financial members. Apologies were received from G. Cunningham, G. Lee, P. Le Leivre, T. McDonald and J. Vickery.

### Minutes of Previous A.G.M.

The minutes of the 2nd annual general meeting of the Society were read and accepted as a true record.

Burrows/Campbell

### Business Arising

The term of office of Council was discussed. It was agreed that a 1 year term was preferred since this would mean each State and the Northern Territory would hold office relatively frequently.

### Presidents Report

Since the previous Annual General Meeting held in Perth on the 27th May, 1977, the Society has held a very successful general conference at Broken Hill in July, 1977. Approximately 140 people attended, drawn from all fields of endeavour including a large proportion of grazier members and members from every state except Tasmania. There was a general meeting with the conference with two half day excursions on the following Saturday. The Society owes a great debt of gratitude to the local organizers of the conference, John Lawrie and Roger Stanley of the N.S.W. Soil Conservation Service.

Your council has held three meetings, each attended by the President, Secretary and Treasurer.

The first was a combined meeting of the old and new council at Broken Hill in July, 1977 at the time of the general conference. Matters discussed at that meeting were:-

- How to maintain the interest of grazier members in the Society.
- Discussion on publication of symposium proceeds, particularly the Chenopod Symposium held at C.S.I.R.O. Deniliquin in October, 1976 and the proposed bumble box woodlands symposium which had been deferred.
- Tenure of executive positions (there had been thoughts of keeping Councils in each state for two years - however, subsequent thoughts on the matter were that it would be preferable to expose the various states to the activities of the Society within as short a time as possible and a subsequent decision was made to change Council annually).

A second meeting of Council was held at Condobolin in November, 1977. Amongst a number of domestic matters, the following matters were discussed:-

- Possibility of forming sub-branches in outlying parts of N.S.W.
- Nomination of Mr. O.B. Williams, C.S.I.R.O. Canberra to represent the Society on the Board of the International Rangelands Congress, the first congress of which would be held in July, 1977 at Denver, Colorado.
- Venue of next conference.
- Legality and desirability of setting up a N.S.W. sub-branch.
- Format of next conference.

The third meeting was held in Sydney in March, 1978. The establishment of a successful sub-branch at Broken Hill was reported. It was also decided to hold the next conference in Adelaide in 1979 and the South Australian Branch were asked to forward proposals as to time, place and a suitable format.

Four issues of the Range Management Newsletter were published during the year and the Society owes its thanks to Newsletter Editor, Dr. W.H. Burrows of the Queensland Department of Primary Industries at Charleville.

There has been a steady increase in membership over the year to well in excess of three hundred, thus consolidating the sound base established by the first Council in Western Australia.

The most pleasing aspect of the Society's activities was the establishment of a very successful sub-branch at Broken Hill in western New South Wales where some forty-five members and potential members,

mostly graziers, attended a meeting which, after hearing papers from both researchers and graziers, resolved to establish a sub-branch.

A similar pilot meeting was organised for Bourke, N.S.W. to coincide with the third Annual General Meeting on the 25th May, 1978 and I am happy to report, as my final act as President of the Society, that this day also has resulted in the formation of a successful sub-branch based on Bourke - Brewarrina - Cobar and operating over a large portion of the Western Division of N.S.W.

It was reassuring to have the Queensland nominees for the 1978-79 Council attend in person to pick up the baton and carry it on for the ensuing twelve months.

Finally, my thanks to the Secretary, Geoff Cunningham, Soil Conservation Service, Condobolin, and Bill Mulham, C.S.I.R.O., Deniliquin for their assistance in continuing the good work initiated by Foundation President David Wilcox and his crew from Western Australia.

### Treasurers Report

The treasurer reported on the financial position of the Society and submitted a financial statement and audited balance sheet for the period 1/1/1977 to 25/5/1978.

It was moved and carried that the Treasurer's report be received and accepted.

Barker/Burrows

(Editor's note: This statement will be included in the next newsletter as it has inadvertently gone with the treasurers books to Brisbane and is unavailable to your editor at present. However suffice for this stage to say that our financial position for the period covered by the statement is sound. Nevertheless we do appear to have a larger number of unpaid subscriptions for the current year (1978) than is usual at this time and your assistance in forwarding any unpaid subscriptions to the Treasurer would be appreciated.)

### Membership Report

The treasurer also submitted a membership report (25/5/1978)

Total members	345
Financial	185
Unfinancial	160

It was moved and carried that the membership report be received.

Kearins/Green

### Elections

The President advised that the following nominations for Council had been received:

President - Dr W.H. Burrows, Charleville Pastoral Laboratory, DPI,  
Charleville, Queensland  
Vice President - J. Vickery, South Australian Pastoral Board,  
Adelaide, South Australia  
Hon. Secretary - J.R. Childs, DPI, Charleville, Queensland  
Hon. Treasurer - G.R. Lee, DPI, Brisbane, Queensland

There being no other nominations, the above officers were declared elected. Council now consists of the above officers and Past President R.W. Condon and Editor (Ex officio) K.M.W. Howes.

General Business

1. It was moved and carried: that this meeting recommend that an amount of \$2 per sub-branch member be made available to each sub-branch, on application, to finance its operations.

Mulham/Campbell

2. It was moved and carried: that a suggestion be put to Council to consider the design of an emblem for the Society.

Wallace/Kearins

There being no further business, the meeting closed at 5.40 pm.

EXTRACTS FROM FIFTEENTH COUNCIL MEETING OF THE AUSTRALIAN RANGELAND SOCIETY HELD AT BOURKE May 25, 1978

Several matters were discussed concerning the running of the Societys affairs inter alia

1. Council will check on the legality of State branches (e.g. NSW State Branch) in relation to sub-branches within the State.
2. Council resolved "To draw up a set of rules for administration of the subsidy to be paid to sub-branches to help finance their activities following consultation with the society's auditor, and such rules to be circulated to the Secretary/Treasurers of sub-branches.
3. The matter of the frequency of holding the Society's General Conference was discussed. It was resolved that the Society should aim to hold a general conference every second year, since this frequency was all the Society could reasonably handle.
4. Council endorsed the proposal from the South Australian Branch for the general conference in May 1979 to be on the general theme "Rangelands 2000". (Details follow this report - Ed.)
5. The matter of members in arrears was discussed. Council resolved to further investigate this matter and formulate a policy concerning arrears.
6. Council resolved to investigate avenues of obtaining funds to assist grazier members to attend conferences of the Society.
7. It was resolved that the Society conduct a competition amongst members (with a nominal prize of \$20) to seek a design for an emblem for Society use on Correspondence, badges etc, with details to be advertised in the Range Management Newsletter, and to close on 30 September 1978. (See later in this issue - Ed.)

1979 CONFERENCE AND A.G.M. - SOUTH AUSTRALIA

FROM: Brendan Lay, Secretary, A.R.S., S.A. Branch

Call for Intending Participants and contributed papers.

In May 1979, The South Australian Branch of the Society will host a two-day conference on the theme "Rangelands in the year 2000".

The organizing committee request that intending participants or contributors notify their intent on the attached tear-off slip and forward it to:-

Dr. R. Stephanson,  
Roseworthy Agricultural College,  
ROSEWORTHY. 5371

by ..21st.August.1978....

Date and Venue:

During May school vacation: probably the week of 14 - 18 May 1979 at Roseworthy Agricultural College - a residential college located 50 km North of Adelaide. Transport will be provided to and from Adelaide, and it is hoped that participants and their families will "live-in" where possible. Accommodation is \$8-00 per person per night, and all meals are \$2-00 each. Full bar facilities are available as is space for caravans at \$2-00 per night including electricity.

Papers:

Papers not exceeding 1500 words in length are requested under one of the four sub-themes:

- (a) Socio-economic outlook
- (b) Land and pasture condition
- (c) Animal Husbandry and Management
- (d) Multiple use

Papers should be submitted in full by December 15, 1978. (All papers will be pre-published in working volume.) They will be reviewed by a selection committee and selected contributors will be given 10 minutes to speak to their paper followed by 5 minutes discussion, with general discussion at the end of each session to discuss other contributed papers.

Field tours:

It is intended to organize a one-day pre-conference tour and/or a two-day post conference tour. The one day tour will depart and return to Roseworthy and the route would be to the Burra, and Morgan Lower-north-east pastoral country and "Marginal Lands". A barbeque at a winery will conclude the tour. Cost will be approximately \$10-00.

The two day tour would be from Roseworthy via Yanta to Koonamore Station, then to Cradock; Quorn and Port Augusta (overnight). The next day travel would be to Whyalla (Middleback Station) then to Adelaide to connect with interstate flights. Cost would be \$20-00 approximately plus accommodation for one night.

Registration:

Registration will be about \$15-00 and \$7-50 for full-time students. This includes a conference dinner at the college with unlimited refreshments, and the papers pre-posted. Students must collect their papers on arrival.

Remember - please indicate your intentions by ..21st.August.1978!

UPPER DARLING BRANCH OF THE AUSTRALIAN RANGELANDS SOCIETY

Prior to the third A.G.M. of the ARS at Bourke approximately 40-50 members and potential members of the ARS (including 8 members from Queensland and about 20+ graziers from Bourke and surrounding districts) attended a meeting/discussion with the intention of forming a sub-branch.

Four papers were presented during an informal session before and after lunch as follows:-

R.A. Kearins, Livestock Officer, Department of Agriculture, Cobar  
"Feral Pigs and their control in the Western Division"

A.L. Mackenzie, Neranghi", via Brewarrina  
"Grazing country of the Brewarrina District"

C.A. Booth & P. Barker, Soil Conservation Service, Bourke  
 "Survey of Scrub Infestation in the Far West"

W.H. Burrows, Charleville Pastoral Laboratory, Department of  
 Primary Industries, Queensland

"Factors in the problem of scrub regrowth"

Following the papers the meeting resolved to establish a sub-branch of the ARS based on Bourke-Cobar-Brewarrina, to be known as the Upper Darling Sub-Branch of the ARS. It was resolved that the executive consist of a president and two vice-presidents (one from each of the three districts), a secretary-treasurer, and four committee members of whom two should be graziers and two departmental officers, either State or Federal.

The following were elected to the Executive:-

President	A.L. Mackenzie, "Neranghi", via Brewarrina
Vice Presidents	Les Le Lievre, "Tundulya", via Louth Colin Middleton, "Buckanbe", via Tilpa
Secretary -	
Treasurer	Doug Campbell, District Agronomist, Department of Agriculture, Bourke
Committee	Frank Honeyman, "Conlea", via Wanaaring Bruce Wallace, Coolabah, (Central Division) R.A. Kearins, Livestock Officer, Department of Agriculture, Cobar C.A. (Sandy) Booth, Soil Conservationist, Bourke

It was resolved that the first activity of the new Sub-Branch be a field day which would be sponsored by the Sub-Branch but organised chiefly by CSIRO officers at Deniliquin. The Secretary would correspond with Dr. Harrington.

Other subjects for consideration at later meetings were - the place of improved pastures in the Western Division, and - a comparison of land tenures in Australia.

(Congratulations to Bourke area members on their initiative. The long term future of this society rests with its success in establishing & maintaining active sub-branches. How about your region - Editor)

#### OBSERVATIONS ON BUSHFIRES

FROM: Dr Brian Roberts, Biology Department, Darling Downs Institute of Advanced Education, Toowoomba

I read Geoff Rodda's ("Nagella" Broken Hill) comments on the regrowth after the big fires in S.W. - N.S.W. during January 1975 with much interest. I suggest that there are many other persons whose observations on both sides of the 1975 fire line could be of considerable value if these could be catalogued and compared as a basis for developing generalized conclusions on the recovery of various species of plants after fire and its good to know that the research boys are onto this as well.

Of course the reactions which have been observed will be largely the result of the type of seasons which have followed the fires and as Geoff says, he is not suggesting that his results apply to other situations. However, I believe he refers to a very important principle (approach, method, management, strategy) when he writes "We are now considering the possibility of burning, when possible, approximately 25% of our mallee country every 3 or 4 years. Eventually this should give us a percentage of country at various stages of regrowth. In the long term we hope that this will have a levelling effect on station income as well".



This approach, known as rotational burning, has been used in many types of country prone to bush encroachment in subtropical South Africa and Rhodesian bushveld for a long time. In fact 4-yearly burning of each paddock has been a standard official recommendation for 30 years in many regions. It has also been the basis of wildlife management in the Kruger National Park since the 1940s, where a patchwork of blocks spread throughout the game reserve is burnt each year, returning to each block every 4 years.

This method of bush control needs to be combined with management decisions concerning stocking rate, type of animals, length of time after the burn before animals are put in and season when burning is done. Of course the manager can't keep to a rigid rotation because of the occurrence of drought and natural fires but the principle of having portions of the station as a whole at various stages of regrowth is still applied in a general form as dictated by the rate and stage of regrowth.

Fire and/or goats are seen as useful scrub control agents. In 25 years I've seen both or either working well, depending on many things, but at this stage in Australia, we should appreciate the lessons of history as far as mismanaged goats are concerned. The age old arguments for and against fire and goats are generally too simplistic to be of use in our present situation in Australian rangeland management. Despite this background, my plea would be strongly in favour of more fire research and a simultaneous caution against goats (despite mohair's price!) in our fragile dry country unless we had a guarantee against overstocking.

Perhaps this will stir a few goaties into filling your pages, Mr Editor.

#### KANGAROOS IN WESTERN NEW SOUTH WALES

FROM: Bill Bolton Smith, Wilangee, Silverton (from an address to the Broken Hill sub-branch)

Most Graziers or Rangeland Managers are natural observers of things going on around them and from their observations they draw certain conclusions which quite frequently bring them into conflict with the findings of Scientists who have worked in the field on certain studies for varying periods of time.

Whilst many Graziers have been making their observations for periods in excess of 30 years, very few scientific studies have extended for anything like that period so it is quite possible and feasible that our conclusions are correct and the only reason we are in conflict with scientific studies is that our observations covered a certain set of conditions which have not been repeated during the term of the scientific investigation.

I believe a most interesting and perhaps an important aspect of the Rangelands Society's activities could be to record in one or another of their publications some of the more pertinent observations which have been made by graziers during a lifetime in the bush and even some handed down to them from former generations.

As kangaroos are always good for an argument between managers scientists and preservationists and perhaps as much effort and money has gone into the study of them in Western New South Wales as has gone into the study of sheep and cattle I am going to stir the pot a little and maybe "provoke discussion" by giving you my observations, my conclusions and my predictions based on 35 or more years spent in the one area.



### Early History and Management

To go back a little before my time, Western New South Wales has been used for grazing purposes for over 100 years, yet to borrow a phrase from a well known politician, the kangaroos in 1977 "have never had it so good".

In the pre-white man era it is reasonable to assume that where the roos relied entirely on natural waters they must have died in their thousands in each drought period as the water supplies dried up and they became stranded. As a natural part of the stock management process more and more watering points and especially permanent bore and well supplies have been provided so that there is always water available, even in the worst drought and we don't have that natural "culling" situation which used to exist.

Possibly for the first 70-80 years of occupation by Graziers there were no controls over the destruction of kangaroos. Then came occasional closed seasons in certain areas. At that time the skins were the only saleable product from the killing of kangaroos.

Then came the meat markets for both pet food and human consumption and the consequent big ursurge in killings of the late 1950's to mid 1960's.

The publicity given to this activity provoked panic amongst the preservationists and Government with subsequent tighter controls leading up to complete protection with a licensing system administered by the National Parks and Wildlife Service as we now know it.

In earlier days, whenever kangaroos became very thick in any area there was a concerted attack upon them and any method of reducing numbers or frightening them off would be used, including poisoning, shooting at night and in daylight and I understand even organised drives whereby the 'roos would be driven into a yard or trap in large numbers and then destroyed.

They could not be frightened off an area of fresh feed by any method and remained there in apparently similar numbers until the feed was all gone and they dispersed again.

Given a certain set of circumstances which include very dry conditions in one area and good rain and subsequent feed in another, and possibly a smaller amount of rain in between, kangaroos will move off in droves and travel at least 160 km to reach that better area. I know this has not yet been proven by movements of marked animals but we know it happens and I will say it again here that when the right set of circumstances occur it will be proven by the appearance of marked animals at least that distance from where they were marked. That is if the marking continues long enough and there are marked animals still available.

We have always known and claimed publicly over and over again that the kangaroo as a species has never been in any danger of becoming extinct in Western New South Wales and with/ or without control it never will be while this remains a pastoral area.

Even at the very peak of commercial and sporting activity the simple economics of the game and the amount of inaccessible country available has always and will always ensure the preservation of ample numbers to keep the species going. Also as explained earlier, the great network of permanent waters and consequently the greater mobility enables them to escape and survive and most severe droughts.

### Kangaroos and National Parks

While initially we can anticipate that kangaroos will tend to favour National Parks, because of the comparative quiet and lack of

competition from stock, as time progresses the feed becomes more rank from the lack of grazing by stock and their favourite feed species become scarce because of overgrazing by roos themselves. Unless something is done in the form of grazing by stock, burning off or drastically reducing the kangaroo population within the Parks by slaughter, they will move out of the parks and into the grazing country to get at their favourite short, sweet and preferably green grasses. A drought in the Park area will have similar consequences.

Since the control of kangaroos has become highly organised and well policed there has not only been an upsurge in the population because of a lack of shooting activity owing to failing markets, but there has been a change in the structure of mobs or colonies whereby the percentage of large roos has been decreased with a subsequent increase in the percentage of smaller ones.

The weight limits imposed could well be proven to be an error and the old system of shooting anything that crossed the sights could have been more rational and equitable in maintaining a cross-section of the population.

### Conclusions

In the light of my observations and those of other graziers I have reached the following conclusions and make a few predictions. I hope they will be recorded somewhere for future reference so that when they are eventually proven to be correct in a scientifically acceptable manner we won't have to say "I told you so"! Briefly they are as follows:

- ✓(1) With or without controls the Red and Grey Kangaroo and the Euro will never become endangered species in Western New South Wales.
- +(2) The population of these species would be better controlled and maintained by a continuing open season with no restrictions on size and no obligation to market the meat or skins.
- ③ (3) If National Parks are left in a wilderness state, the majority of the kangaroo population will eventually leave them.
- ✓(4) Kangaroos, especially Reds will migrate over long distances in a given set of circumstances.
- ✓(5) In fairness I should record that controls over the destruction of kangaroos and controls on firearms have greatly reduced the incidence of nuisance or "week end" shooting on properties within reasonable reach of main centres of population.

### EMBLEM WANTED (REWARD OFFERED!!)

Do you have an artistic bent? Have you imagination, inventiveness or an innate sense of design? Whether you do or don't your council would like you to give serious thought to the design of an appropriate emblem or symbol for your society. We want you and us to be able to proudly display to the world our allegiance to the Australian Rangeland Society.

Everyone instantly recognises the Wool Corporation's wool mark. Would Hitler have gone as far as he did without the swastika? The American Society for Range Management has its Trail Boss (Would a Yamaha motor bike be more appropriate for the Australian Society?)

Seriously though if you have an idea, sketch it out and send your suggestion to:

Mr J.R. Childs,  
Hon. Secretary,  
Australian Rangeland Society,  
P.O. Box 282,  
Charleville. 4470.

by 30th September, 1978.

What we seek is the idea rather than the polished end product. We can engaged a professional artist/designer to formalise your idea but the idea should originate from someone with empathy for our rangelands. A nominal prize of \$20 will be offered to the best design. Final approval will be sought from all members (perhaps by a simple majority vote via a newsletter questionnaire) before the selected emblem is incorporated into letter heads, badges etc. Council will retain a discretionary power to not select any entry if no "satisfactory" designs are forthcoming. Immediate and posthumous fame awaits you if your design is selected. Go to it!

FROM: Brian Clarke, Kayrunnera Station, via Broken Hill, 2880.

### "BY THE HANDFULL"

A lot of research is being carried out to aid the rangeland areas of Australia. Unfortunately some of the projects appear practicable in theory, but are unmanageable in practice, often due to reasons not even associated with the experiment. This is where the relationship between the researcher and grazier is most important - they must arrive at a compromise which may be say only 70% as efficient as the researched findings. These variations in efficiency are important, because if they are not considered together by both scientists and interested graziers when something new is being tried, a lot of effort may be wasted or good ideas shelved and forgotten.

On "Kayrunnera", a station which is approximately 220 kilometres north-east of Broken Hill with a summer dominant annual rainfall of 225 mm, various research projects have been tried. One of these involves the assessment and comparison of tyne pitting and contour furrowing used for revegetation of degraded saltbush/bluebush country. Both techniques have enabled re-establishment of perennial bushes, but the results were highly variable. Except in special cases, these techniques are not worthwhile due to the considerable amount of time and money required, and because the results are well below peak efficiency.

A research project of my own which has proved to be successful and involves very little time or effort (and is therefore relatively more efficient) involves the growing of couch grass (Cynodon dactylon) on the banks of sandy creeks. During or after rain handfulls of the seed were thrown into running water in the creeks and water courses on Kayrunnera, and although subsequent rainfall has been very high in some years, the couch has established on the banks up to a distance of 20 km downstream from the place of sowing in a period of 6-7 years. This has helped prevent erosion, provides useful feed, and where the grass takes it is virtually impossible to kill through lack of water or rabbits and pigs digging it up.

The project requires no machinery, and only a few minutes of time. There may only be one or two creeks on a property which are accessible during and straight after rain, and if these are sown then at least this is a good start.

The Soil Conservation Service of N.S.W. makes trees available to landholders, and I felt that they could make a significant contribution to erosion control by adding supply of couch grass seed to their service.

(Editors note: Brian included photographs of grassed creek banks to support his statements but unfortunately we are unable to reproduce them by our newsletter copying process).

JOBS FOR THE BOYS

## LIVESTOCK PROJECT

## RANGE MANAGEMENT/PASTURE IMPROVEMENT SPECIALIST

- Qualification:** Appropriate university degree. Wide experience in range conservation and pasture improvement in arid and semi-arid temperate and sub-tropical climates. Good knowledge of plant introduction and evaluation. Experience in reafforestation techniques, erosion control and watershed management desirable. Teaching experience an asset.
- General:** The livestock project employs 15 experts and is subdivided into 6 divisions covering most livestock disciplines. The country consists of hot-dry coastal plain rising to temperate mountain ranges with occasional frosts. Rainfall isohyets are from 100 mm to 800 mm in favoured districts. Range degeneration and erosion is widespread through cutting down of original vegetation and overgrazing.
- Duties:** The candidate is required to work in both the range conservation division and the training division. The work in the latter will mostly be in-service and vocational.
- A great deal of time will be spent in the field.
- Condition:** The contract is initially for 3 years with a salary range between \$30,000 - \$40,000 (tax free) per annum.
- An allowance of \$2000 per year is provided for each school child. Unfurnished house rent up to a reasonable standard is paid by project.
- Application:** Forward personal history in the first instance to the:
- Project Manager,  
Livestock Project,  
P.O. Box 836,  
Sana'a, Yemen Arab Republic.

Please enclose copies of testimonials and names and addresses of 2 referees. Persons who are most recent graduates from a University or good Technical College are invited to also apply as a second less senior position may be created in the near future.

FURTHER FIRE STUDY COMMENCED AT COBAR

On Friday 27th May, the first of a series of controlled burns was carried out on "Lynwood" station, 120 kilometres north-west of Cobar.

Peter Walker, Daryl Green and Les Foody, of the Soil Conservation Service at Cobar are working with a grant from the Reserve Bank of Australia on a trial aimed at controlling narrow-leaved hopbush (Dodonaea attenuata), by burning and stock management.

Hopbush is spreading and becoming more dense on many of the sandy areas of western New South Wales. Dense growth of the bush reduces pasture growth and leads to wind and water erosion under the plants. This lowers the carrying capacity and makes mustering more difficult. The main pasture grasses in this area are woolly butt (or neverfail) (Eragrostis eriopoda) and wire grass or No. 9 (Aristida jerichoensis).

Areas on the trial site will be burned up to three times, in autumn, as fuel becomes available. Burned and unburned areas will be stocked with sheep immediately after each fire or after a period of 6 to 12 months has elapsed after the fire. Other areas will not be stocked. This will allow the effect of post-fire stocking on the composition of the pasture and regrowth of shrubs to be studied. Possible erosion on the area will also be measured.

Later studies will involve spraying of regrowth and unburned shrubs with herbicide, temperature requirements for germination of hophush seeds, and growth patterns of pasture species on burned and unburned areas.

The first fire was lit three days after a fall of 12 mm of rain, and 8 days after a fall of 35 mm of rain, so soil moisture levels are high and should encourage regrowth of the pasture species. The day started off with north easterly winds up to 15 km per hour, but these later dropped to gusts reaching 5 km per hour. The fire started off well but moved very slowly when the wind dropped and would not cross small bare areas.

However, the fire is thought to have been of sufficient intensity to kill a proportion of bushes.

Further results will be published as they come to hand.

#### WEDGE TAILED EAGLES IN WESTERN NEW SOUTH WALES

Following on my earlier suggestion that observations made by Graziers over a long period should be recorded, I offer the following information on Wedge tailed eagles in Western New South Wales.

I think we would all agree that the Wedge Tailed Eagle is basically a scavenger and will feed on rabbits and carrion including dead sheep and kangaroos, but we do not agree that they do not pose a threat to young lambs and any lambs they do take are only weaklings destined for an early death in any case.

I do not know in what area the observations were made from which the conclusions regarding the effect of eagles on lambing percentages were reached, but I do know they were not made over a period of 50 years and as in the case with kangaroos quoted in an earlier paper of mine, given a certain set of circumstances, the evidence is entirely different.

In the late 1920's my late father had an experience with eagles attacking a mob of lambing ewes and he told me that despite the fact that he eventually yarded the sheep at night and shepherded them all day and poisoned numerous carcasses, the eagles persistently attacked the young lambs and even while he was there all day on horseback, while he was on one side of the flock the eagles would be killing lambs on the other until they virtually killed more lambs than were reared. It is well recognised that eagles are hard to poison with Strychnine and Arsenic baits which would have been the main poisons available at that time, so very few eagles were destroyed.

Much more recently, in the early 1970's Mr Croydon Johnson of Langidoon Station had a similar experience and lost most of his lambs to eagles despite continual patrolling and shooting.

There are no doubts about the authenticity of these reports and that it was actually eagles and not other predators who killed the lambs, also the lambs were fit and strong and not weaklings.

I have counted 91 Wedge Tailed Eagles along the Wilangee-Broken Hill road over a distance of about 6 km where kangaroo carcasses had been left. This was in the late 1940's.

I have seen two eagles systematically attacking a hopping kangaroo by taking it in turns to "dive bomb" the animal and hit it on the back

of the neck. It was hard to be sure but I think they were hitting it with their feet. The strategy fairly obviously was not to knock the roo out but to knock it up till, from the effects of a long non-stop hop with the further effect of fright and nervous exhaustion it would go down and be easily finished off.

My father witnessed a similar attack only by 6 eagles near Alice Springs in the late 1940's.

Jack Hughes from Margalah Station near Wanaaring recently saw a single eagle actually bring down an emu by using a similar tactic.

I do not know of any common denomination in these various cases but fairly obviously there would have been a shortage of natural food at the time and the two lambing situations could have been a case where the lambs were being dropped in isolation and very few, if any, other properties in the near proximity had lambing ewes at the same time.

As is the case with kangaroos, this country has been subject to grazing activities for over 100 years and during a long period the Wedge Tailed Eagle was actually a declared Noxious Animal with a bounty on its head, yet after all that time there is absolutely no evidence to suggest that there are any less eagles here today or that they are in any way a threatened species. In fact it could be quite legitimately claimed that the presence of grazing activities with the consequent greater availability of food and water has assured more than threatened their future existence, and whatever numbers were destroyed in the past by various means have been compensated for by the more assured supply of food. While it is reasonable that they be removed from the noxious list it is questionable whether it was necessary or even desirable to protect them.

(This above contribution is the last of several we have had from Bill Bolton Smith, Wilangee, Silverton. He obviously has a wealth of experience and is not afraid to state his opinions on what are often controversial subjects. Your Newsletter is an ideal medium for sharing these types of viewpoints so I would urge pastoralists and scientists to carry on a two way discussion on these and similar topics - Ed).

#### A FINAL MESSAGE

During the process of putting this newsletter together I have cleaned out my contributors mail bag so to speak. This has given me a clean slate but left the incoming Newsletter editor, Tim Fatchen, with a bare cupboard. All editors like to have an excess of material on hand so my final plea as Newsletter editor is to all members to put pen to paper and get Tim off to a good start - Bill Burrows (old editor, new president).

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I M P O R T A N T

To assist the organizing committee to plan the next conference it would be appreciated if you could forward this form to reach

Dr R. Stephanson,  
Roseworth Agricultural College,  
ROSEWORTHY. 5371. S.A.

by 21st August, 1978.

TENTATIVE INTENTIONS

I hope to attend the Rangelands Society conference at Roseworthy  
in May 1979 ☐

I will require accommodation at the college ☐ \*  
for \_\_\_\_\_ person(s)

I hope to submit a paper ☐ within the theme

(a) ☐ (b) ☐ (c) ☐ (d) ☐ (see newsletter)

I hope to go on the preconference tour ☐

I hope to go on the post-conference tour ☐

(Please tick the appropriate boxes)

Note: Confirmation of intentions will be sought at a later date when actual conference dates are finally determined.

Name: \_\_\_\_\_ (Please print)

Address: \_\_\_\_\_  
\_\_\_\_\_ (Please print)

Signed:.....

\* Caravan space (with power) also  
available. Please indicate  
if required

☐