



The Australian Rangeland Society

RANGE MANAGEMENT NEWSLETTER
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Range Management Newsletter

Official newsletter of the Australian Rangeland Society

Editor — Dr. T. Fatchen, Roseworthy Agricultural College,
Roseworthy, South Australia, 5371

79/4

December, 1979.

Deadline for next issue. 29 February, 1980.

FROM THE PRESIDENT

James Vickery, President A.R.S., Department of Lands, G.P.O. Box 1047
Adelaide, S.A. 5001

The prime stated objective of the Australian Rangelands Society reads:-

"to promote the advancement of the science and art of using Australia's rangeland resources for all purposes commensurate with their continued productivity and stability".

I believe that the Society through its Journal and this Newsletter have established a high level of contact, and motivated a great deal of interest and involvement in respect to the dominant rangeland user, i.e. the arid zone pastoral industry. However, perusal of contributions and correspondence in the Society's publications reveals a general lack of interest and involvement by other rangeland use interest groups, and a tendency for the pastoral contributors to criticise and dismiss other arid land use interests as an unnecessary impediment to their livelihood.

I suggest that the above-stated Society objective embodies a commitment to assist in resolving what has become a situation of guarded, and at times open, conflict, in which alternative land use interests have withdrawn in the face of apparently overwhelming opposition.

I am of the view that there is a need for mutual concessions and recognition of facts as a means of reducing an apparently significant problem to one of trivial proportions.

Two fundamental facts must be recognised:-

- (1) With certain possible exceptions, arid rangeland tenures are terminating tenures which reserve certain rights to the public and emerging land use alternatives.*
- (2) The implied intent of our legislative architects in respect to arid rangelands has generally been achieved and exists today, i.e. rangelands are subjected to multiple or joint uses which embrace pastoralism, recreation, tourism, mining, fauna, & flora habitat, watershed etc.*

I suggest that there is insufficient recognition and even disregard of the fact that arid rangelands are subjected to joint use. Unfortunately this situation is aggravated and sustained by Governments who in their administration and management of arid rangelands persist in maintaining fragmented authorities and agencies who tend to frustrate co-ordination and determination of balanced management policies and decisions.

I am therefore of the view that Government resource management of arid rangelands should desirably be a multi-disciplinary function under common direction and funding in which all arid zone land use interests are represented appropriately, and in accordance with their economic, ecological, cultural and social significance and values.

Are there any comments? Of particular interest would be the response of a representative spectrum of total arid zone land use interests, rather than a deafening grinding of specific axes. The response, if any, may of course influence my own response to my wife's long exhortations to take long service leave !!

FINANCIAL DISASTER AREA

The treasurer reports: 375 Members in total of the A.R.S.
 201 UNFINANCIAL (i.e. 54%)

Please pay outstanding subscriptions (which cover January 1979 to December 1979): the society simply cannot afford to give half its members a free ride. The Council is most concerned at the extremely high proportion of outstanding subscriptions, as a continuation of the situation will doom the Society financially.

All membership records are now on computer and membership checking in future will be much faster. Members who have not paid 1979 subs by January 1980 will not receive Newsletters and Journals.

Please note that subscriptions for overdue members is \$16. (There was discount for those who paid before July 1979.) Subs should be forwarded to the Treasurer,

Keith Casperson
c/- Department for the Environment
150 North Terrace,
ADELAIDE, S.A. 5000

1981 RANGELANDS CONFERENCE

It has been proposed that the next conference be run jointly with the Australian Arid Zone Research Conference in 1981, a co-operative venture of C.S.I.R.O. and the A.R.S. The A.R.S. Council has accepted the proposal, and is now asking members for suggestions on content and organisation.

Proposal forms will be forwarded to branches, but suggestions are most welcome from individual members particularly on the following topics and questions.

LOCATION
TIME OF YEAR
THEMES
PUBLIC RELATIONS
TOURS
ORGANISATION e.g. invited review papers?
 invited speakers?
 workshops?
 pastoralist viewpoints?
 extension courses?
 refresher courses?

Members views are important. Detailed planning will have to proceed in the new year, and now is the time for you to offer suggestions. There is nothing to be gained for the Society, the member or the rangelands in waiting until after the event, and then criticising the operation.

Please forward comments as soon as possible to:

M.C. Willcocks,
 Hon. Secretary, A.R.S.,
 c/- Soils Branch,
 Department of Agriculture
 G.P.O. Box 1671,
ADELAIDE, S.A. 5001

THE AUSTRALIAN RANGELAND JOURNAL

The Editorial Committee Comments

From: A.J. Pressland, Chairman, Editorial Committee
 (P.O. Box 282 Charleville 4470)

There has been some criticism in recent Newsletters levelled at the content and readability of the Journal, and I would like to take the opportunity now of answering these.

First, CONTENT. We can only publish material if we receive it, although not all the material submitted is accepted by the Editorial Committee, because it does not reach the standard which we are maintaining. The standard of research reporting is high, and I also believe, contrary to Roger Stanley (Newsletter 79/3), that its value to members other than "academics" is reasonable. Sure, there are probably few grazier members who for example, are interested in a method for estimating the weight of forage on shrubs (apologies to Messrs Andrew, Noble and Lange), but there are also papers in which "academics" with a particular interest would not be interested. There are nonetheless, many other papers (e.g. methods of rabbit control, poisonous plants in ARJ 1(3)) of interest to graziers.

The journal does suffer from a lack of contributions from members other than those from scientific disciplines. There certainly is a place for such articles, and the Editorial Committee will accept well written, opinionated manuscripts which rely predominantly on the author's general experience. This will be spelt out clearly in the front of the November/December issue of the Journal. Most graziers have some pet theory, or some practical management techniques, which would be of interest to the general membership of the Society, but we should not expect them to put their ideas down in a manner acceptable to the Editorial Committee. Rather, in association with someone trained in scientific extension writing, I am sure some such contributions would be accepted. This is not to say that all scientifically trained persons can write clearly, and I now come to my second point: READABILITY.

Many scientific papers are published in well recognized scientific journals even though they are poorly written and in some instances, difficult to follow. One of the jobs of the Editorial Committee is to assess papers on their readability, and if some papers in the Journal are difficult to read, the Committee must take some of the blame for it. On the other hand, I do not think the average member would expect the members of the Committee to totally rewrite an article. Often, only a few minor changes are required to make a paragraph more easily understandable. Further, a paper sound in content but grammatically poor is usually returned to the author for modification, to ensure that the message the author is attempting to make is in fact clearly spelled out.

I urge authors to carefully read their writings, with a particular eye on length of sentences (some sentences are so long that by the time the reader gets to the end he has lost the gist of what it was all about). Use of common as well as scientific names for plants, animals, pests etc., are a must. Figure and table captions should be such that they may be

clearly interpreted by all readers. There are of course instances when this is not possible and our non-scientific members should be aware of this; nevertheless, the text relating to the figure/table should allow the data contained therein to be easily interpreted.

A word on seminar and meeting proceedings. The Editorial Board has advised me that abstracts of seminar and meeting proceedings are acceptable for inclusion in the Journal. I hope those branches which regularly hold get togethers (e.g. Broken Hill branch) will submit a précis of their meetings for inclusion in the Journal. The Tropical Grassland Society of Australia does this, and it has proved a good method of communication between grazier and scientist.

Finally, more on Roger Stanley's (Newsletter 79/3) comments. I think that if the above guidelines are followed; if members with constructive and (some) substantiated opinion on facets of property management would put pen to paper; and by the inclusion of proceedings of meetings, the Journal will be more widely accepted by the grazier members in particular as a source of information and therefore communication.

Once again, I make the plea - MORE COPY.

AUSTRALIAN RANGELAND SOCIETY
BROKEN HILL BRANCH ACTIVITIES

From: Roger Stanley, Hon. Sec., Broken Hill Branch

1. Field Day - Lake Tandou

The Field Day organised by the Broken Hill Branch of the Australian Rangeland Society at Lake Tandou on November 13th was an outstanding success! The crowd of 200 people came from as far away as Sydney, Adelaide, Kerang and White Cliffs to inspect the irrigated cropping scheme on the lake, one of a chain of lakes along the Darling River south of Menindee. The crowd mainly comprised local grazing families, but included irrigation farmers, opportunity croppers from along the river, machinery manufacturers, and specialists in irrigation and cropping from the N.S.W. Department of Agriculture and the Water Resources Commission.

Talks by the Managing Director of Tandou Pty Ltd., Mr Bob Smith and Agriculture Department Principal Officer (Remote Sensing) Mr Eric Leggett, set the scene for what was the highlight of the day - inspection of the crops, irrigation system, harvesting and back-up facilities on the lake bed.

The lake has an area of 18,200 hectares and crops for 1979-80 include barley (2,600 hectares), triticale (1,200 hectares), sorghum (1,950 hectares) and seed lucerne (80 hectares). Crops currently under trial include peas, cotton and soybeans.

Tandou Pty Ltd is also a grazing enterprise, having a total of 83,365 hectares of rangelands in the Lake Tandou area. The company provides permanent employment for 14 men.

2. Shrub Control Seminar

The Broken Hill Branch is organising a seminar, tentatively set for May 29th, 1980, to discuss practical methods of shrub or woody weed control in the West Darling area. The spread of inedible woody shrubs and trees is one of the biggest problems facing this and other areas of the Western Division. The major problem species in the area are hopbush, turpentine and punty bush, but there are many others.

In recent years the C.S.I.R.O., Soil Conservation Service of N.S.W. and the Western Lands Commission have carried out considerable research into the control of inedible woody shrubs by the use of goats, fire and chemicals. Goats have not been very successful, but fire has shown considerable promise and large scale paddock burns have been made.

A new chemical, soon to be released on the market, has given excellent results in controlling all woody plants on which it has been tried, including mallee. The chemical is very easy to use, as it can be applied as a single dose with a "spot gun" anywhere under the plant, or from the air in a solid "grid ball" form. Initial costing makes the method look quite attractive.

As well as speakers from the government bodies mentioned, graziers from areas affected by shrubs will talk about their problems and attempted control measures, and an inspection will be made of chemical control trials near the town. Watch the next issue for further details of this most important meeting!

3. A Note from the Executive

After some early teething troubles the Broken Hill Branch is now well and truly off the ground. The Executive would like to thank all members of the Branch for their support during the year and look forward to their presence at Branch activities in 1980.

PROPERTY FINANCIAL MANAGEMENT COURSE, BROKEN HILL

From: P. & J. Crozier, Tor Downs, Via Broken Hill, N.S.W.

A short course in property financial management for graziers was conducted at the Broken Hill Technical College, 11-13 July, by staff from the Tanco Agricultural College in conjunction with the Broken Hill Branch of the A.R.S. Teaching came from John Bendeich, and Howard O'Donnell (Senior Lecturer in farm management and lecturer in pastoral management, T.A.C.) .

The thirteen graziers who attended gained familiarisation with property record keeping and cash flow budgetting, and had the opportunity to record their own financial information in issued farm record books. From this comprehensive accumulation of information, each participant was able to prepare a cash flow budget covering the next twelve months.

Overall, the course was a great success. Those who participated gained invaluable experience in record keeping which will lead to more efficient property financial management, so necessary for our survival in this age of technological change and rising costs.

PEST ANIMALS: ADDRESS TO THE SOUTH

AUSTRALIAN BRANCH OF THE A.R.S.

From: R.J. Downward, Branch Secretary, C/- Vertebrate Pest Authority, 25 Grenfell Street, Adelaide, 5000

Dr B. Cooke and Mr J. Bromell from the Vertebrate Pests Control Authority presented a talk on activities relating to the control of pest animals at a meeting of the Branch held in Adelaide on 26th July.

Mr Bromell spoke on the functions of the Authority, particularly those which relate to the arid zone, and stressed that because of the diverse interests which are involved it is extremely important for activities related to controlling vertebrate pests to be based on sound philosophies. These philosophies must be able to withstand critical scrutiny from hostile groups or individuals.

The Authority has no charter for dealing with native animals and in fact particular care must be exercised where measures to control declared vertebrate pests (rabbits, foxes, dingoes and hares on islands) are likely to endanger native animals.

Mr Bromell outlined the Authority's policy relating to the control of dingoes which baldly stated is the maintenance of a dingo free sheep zone for the State. Recent Western Australian research which is the only research to be done on dingoes' behaviour in sheep country has substantiated comments by pastoralists that most dingoes kill sheep and often for sport. The Dog Proof Fence which stretches from Nullarbor to the New South Wales' border divides the State's cattle and sheep zones and shields the latter from the dingoes which are common on the outside. To help maintain the effectiveness of the Fence and to reduce the pressure of dingoes against it the Authority organises an annual poisoning campaign on the properties adjacent to the fence each April. A supplementary campaign is carried out in October along the eastern Section of the fence where dingoes exist in greater numbers and tend to be a bigger problem.

(Copies of the Dingo Policy Statement are available on request from the Authority.)

To provide the information for the formulation of policies and philosophy the Authority has a research team of three scientists and five field assistants which is headed by Dr Cooke who outlined their activities. The group is currently studying rabbits, feral goats and the effects of the dingo poisoning campaigns on "off-target" animals. The studies of rabbits and feral goats, are in several parts which involve the animals' biology and behaviour, the damage the animals do and methods of control. Some of these studies complement each other and it is interesting to note that exclosures erected in the Gammon Ranges National Park to test the extent of goat damage indicate that rabbits are a more serious pest there than the goats.

The study of the effect of the dingo poisoning campaign is aimed at assessing the effects of poisoning on animals which are likely to eat baits. This involves assessing birds, marsupials, rodent and reptile species which eat meat. So far the only native carnivores which have shown any interest in meat baits and are likely to be poisoned are the fat-tailed pouched mice (actually marsupial mice). These animals have been shown to be common and very widespread so that the activities outlined by John Bromell would not present any danger to the continued existence of the species. As part of this project baits prepared by landholders for distribution after treatment with poison by the Authority's staff have been collected and analysed by forensic scientists to assess the amount of poison (1080) on individual baits and the effects of weathering on those levels.

This study has also underlined the need for landholders to strictly adhere to the recommendations on bait size as some smaller baits were shown to contain less than the amount of poison to kill a dingo. Another important result of this study has been to further increase the Authority's knowledge about the poison '1080' with a consequent safeguarding of the continued availability of the poison to control rabbits.

RURAL FINANCE IN NEW SOUTH WALES

The booklet "Sources of Rural Finance in New South Wales" by Peter Gisz (Economist, N.S.W. Dept. of Agriculture) which was mentioned in RMN 79/3, can be obtained from:

Mr Lloyd Davies,
Economist,
Department of Agriculture
P.O. Box 865
DUBBO, N.S.W. 2830

The booklet outlines the general purposes, terms and conditions under which funds are currently available to primary producers from the major sources of rural finance in N.S.W., including the recently established Primary Industry Bank of Australia. In addition to sources of debt finance, some aspects of the income taxation system are outlined as these can provide primary producers with avenues for improving the flow of funds within the farm business. The booklet aims to create greater awareness of sources of finance for primary producers by drawing together information from a variety of sources in a convenient, summarised form.

BULLARNEY OUTBACK

From: Richard Silcock, Charleville Pastoral Lab., P.O. Box 282,
Charleville, Queensland 4470

Have we any budding painters or poets or snake charmers in the society? We need such people as a gimmick to catch the attention on TV of armchair conservationists and ordinary Australians who have open and rational minds on the subject of wildlife preservation and rangeland management. The Harry Butlers and Jack Absaloms of the TV fame have so many good points to make about wildlife and conservation. Yet they insist on making ill-judged personal statements about subjects where few, if any people, have any good information.

Society members will be well aware of the difficulties which faced people who attempted to find vegetation 'bench marks' in pristine condition in inland Australia. In southern Australia saltbush country has very obviously suffered erosion in many places but to blandly say that claypans are the result of European man's introduction of hard hoofed animals is too much. Also the presence of stones on the soil surface is not necessarily due to increased erosion as the result of the hooves of sheep and goats. Vast undulating areas of stony downs in S.W. Queensland, where animals rarely graze, are simply the relics of an ancient eroded landscape.

Many Australians I'm sure are hoodwinked into thinking that erosion is a nasty, man-induced phenomenon. The Flinders and Macdonnell Ranges have been steadily eroding for many millions of years and filling up large salty inland lakes. In fact there are some graziers on the cracking clay soils of western Queensland who believe that heavy stocking i.e. severe trampling helps lessen soil cracking on these soils and thus reduces soil water loss. They have no proof but I am fairly certain no one has proof to the contrary.

On a slightly different tact, many people can show that shutting up certain types of country will not in itself induce regeneration of desirable vegetation and that stock or a plough are needed to disturb the present soil surface to encourage seedling establishment. Sure a lot of costly erosion has been caused by domestic animals and the plough but not all of it.

I would also love to show Mr Absalom the two holes dug in the ground every few feet by a gently hopping kangaroo or the large footprints of an emu of soft ground. Granted they are not as numerous as those of sheep and goats but the large toe nails of these native animals are far from soft. I believe the problem lies in the animal numbers not in any inherent characteristic of the species.

Turning to Harry Butler, many parents find his antics with snakes and other burrowing animals far from pleasing. Children love his programme but all too many younger ones think that sticking their hands in holes and hollow logs is quite safe. A little more intelligent filming could help greatly in preventing this misconception from being given to children. Even experts can sometimes be fooled by the colour or markings of a snake in the wild - maybe fatally so.

NICHE SEEDING FOR RANGE REGENERATION

From: C.V. Malcolm, Senior Research Officer, Soil Research and Survey Branch
Department of Agriculture, Jarrah Road, South Perth W.A. 6151

I read the contributions to issue 78/4 on mechanical range regeneration with considerable interest and believe our Mallen Niche Seeder may have some application. We have developed the seeder for establishing saltbush and bluebush on salt affected soils in the wheatbelt. It is based on the idea that plants in nature establish in a favourable niche, and if you can engineer a suitable niche you can coax them to grow even in very unfavourable environments.

The machine consists of a mouldboard plough (though other cultivating implements can be used), followed by a large V-shaped press wheel which travels along on the bank and forms a V-shaped niche. The press wheel drives a mechanism which places seed with chaff on top at intervals of about 3 metres in the niche.

We have had the machine under test for four years and this year sowed about 20 plots of about 3-10 ha size on a wide variety of sites. Results are encouraging and we are conducting detailed studies on the use of various treatments in the niche. Black paint is giving some very interesting emergence counts.

A principle of the method is that for spot application it is possible to use treatments that are otherwise too expensive. Our Carnarvon office has had some promising results with the technique on degraded range. It may have application either for general sowings or for establishing mother plants in areas devoid of desirable species.

[My apologies for the lateness of publication of this note - Ed.]

SHRUB DEATH IN DRY SEASONS

From: Richard Silcock, Charleville Pastoral Lab., P.O. Box 282, Charleville Queensland 4470

Regarding the death of saltbush plants during a long dry spell (RMN 79/3, September 1979, page 7), I wonder how closely these bushes have been observed during the period mentioned? Could the death be due to insects, particularly stem or root borers, or even some root pathogen? We in S.W. Queensland over the last decade have noticed many native tree and shrub deaths being caused by insects. Some are very insidious others very rapid. Where death occurs rapidly due to a breakdown in the moisture conducting system, it may be hard to separate insect damage e.g. by termites which occurred before and that which occurred after the shrub died.

Currently a large number of grey turkey bush (Eremophila bowmanii) plants are being killed during a long dry spell by an insect which bores down into the major roots. In a wetter time the plant could probably compensate by growing new roots but not now. We only noticed the cause because we were doing vegetation recordings at the time. Is this a possible cause of these saltbush deaths?

SOCIETY LOGO

The design below drew the most favourable comments at the Society's conference in Adelaide (May 1979). Council has invited comments on this design, either confirmatory or for further alteration, particularly as to what should be put in the centre of the design. If you feel strongly one way or the other put pen to paper and address your remarks to

M.C. Willcocks
Hon. Secretary,
Australian Rangeland Society
c/- Soils Branch,
Department of Agriculture,
G.P.O. Box 1671
ADELAIDE, S.A. 5001

(One problem with putting pictures of animals etc., in the centre arises with the small size of the logo when reduced for letterhead and similar purposes. A possible resolution of this problem is to leave the centre design optional. This would allow specific designs for specific purposes. For instance, special publications (symposia, conferences) might use the centre space to provide a design appropriate for the occasion.)

