

# THE WEED SOCIETY/ OF NEW SOUTH WALES

P.O. Box K287,  
HAYMARKET. 2000.

 2/74

23rd April, 1974.

In this Newsletter you will find -

- (1) Election of officers for 1974
- (2) Coming Events
- (3) Presidential Address
- (4) Financial statement for 1973/74

Officers of the Weed Society elected at the Annual Meeting,  
15th February, 1974 :

President	Ken Watson
Vice President	Mike Barrett
Immediate Past Pres.	Peter Michael
Secretary	Jack Burke
Treasurer	George McMaster
Committee Members:	

Bruce Auld  
Jim Strang  
Allan Mears  
Nelson Johnston  
John Toth  
Barry Lowe  
Eric Boersma  
Leon Smith  
Alex McLennon  
Jim Swain

## Coming Events;

The Executive Committee plans several events in 1974. The most significant one is a Conference/Symposium/Seminar in Spring, this year, to look at the place of Weed Control in the Environment. The details of this conference (or whatever) will be announced as soon as possible.

It is hoped it will appeal to a very broad range of interest groups.

Details of other activities will be announced as soon as they are available.

SYMPOSIUM

Subject: "Weeds of Turf"  
Mr. P. McMaugh, Senior Research Officer,  
Australian Grass Research Institute.

Place: Shell Theatrette,  
Carrington Street, Sydney.

Time: 6-30 p.m. - 23rd May, 1974.

MEMBERS & THEIR FRIENDS WELCOME

Other Groups

Notice has been received of the 5th Asian - Pacific Weeds Science Society Conference:

Tokyo, Japan - 5th to 11th October, 1975

Further details will be available later.

Past Events

Report of Weed Society Horticultural Tour:

This tour was held from 7 - 9 November in Bathurst, Orange and Cowra districts. The average number participating was 10 - 12, which was a little disappointing. List of places visited is appended.

At Bathurst A.R.S. herbicide trials, the young and established apples were inspected. Here ferbacil/diuron mixtures look promising. A trial with herbicides for young peaches has just commenced.

A commercial orchard where 'Tree Line Spraying', namely with bipiridyls, has been practised for the last eight years at Orange, was visited. Of interest was the very limited build up of perennial weeds under a mulch system.

Potatoes can be profitable in the Orange district as was evident by a visit to a large specialist grower. Skeleton weed appeared to be a major weed problem in potato crops on this property.

Edgells Ltd. - at Cowra are extremely anxious to solve agronomic problems associated with mechanical harvesting of processing tomatoes. Department of Agriculture Herbicide Trials and commercial demonstrations were inspected. Problem weeds are Barnyard grass and Nightshade.

Several visits were made on the last morning to intensive vegetable growers along the Lachlan Valley. Problems of herbicides soil residue and escape weeds were discussed. Main problem weeds are Barnyard grass, Amaranthus and Nutgrass.

- (1) Bathurst A.R.S.
- (2) Mescers Pierce, "Kurmgai", Nasadale - Apples
- (3) Mr. Don Strachan, "Tillouri", Springhill - Potatoes
- (4) Edgells Pty. Ltd., Cowra
- (5) Mr. Owen Simmonds, Forbes Road, Cowra - Sweet Corn/Tomatoes
- (6) Mr. R.W. Close, "Wirong", Forbes Road, Cowra - Peas/Tomatoes.
- (7) Mr. Alan Bush, "Ranfree", Warwick Road, Cowra - Asparagus/Red Beet.

PRESIDENTIAL ADDRESS - WEED SOCIETY OF N.S.W.

February 15, 1974

P.W. Michael

Know Your Enemy

"They strike at the enemy in his weakest and most vulnerable part. Here, at a comparatively less expense, we may make an impression likely to be decisive. In other places, with millions of expense and torrents of blood, little progress has been made."

*Edmund Burke in a letter to Henry Dundas (Oct. 7, 1793)*

And so with weeds.

In Australia and elsewhere knowledge of the biology of common weeds is sadly deficient. How can we contend with them sensibly if we do not know details of their variation, life cycles, germination and other biological or ecological characteristics. Routine testing of herbicides on a wide range of weeds is more often than not done with no consideration of the biological characteristics of the weeds concerned. Notwithstanding this, one cannot deny that worthwhile results have been obtained. One may take as an example, wild oat control with di-allate and tri-allate, the success of which was later found to be based on differences between the early growth behaviour of the seedlings of wheat and wild oats.

In Bill Parson's new book, "Noxious Weeds of Victoria", where he describes and gives control details for 90 weeds declared noxious, only one fifth of the accounts is accompanied with any sort of bibliography. Some of the studies referred to have provided a satisfactory basis for control measures. If I may cite my work on Oxalis pes-caprae and the work of Groves and Hull on skeleton weed as examples:

In studies on Oxalis pes-caprae I pointed to the greater vulnerability of the plant at the stage of old bulb exhaustion and recognized that the major problem in the field was the plant's capacity to shoot again after cultivation in the winter months from broken bits of rhizomes and injured crowns. My work was mainly geared to the effects of cultivation, but later work in South Australia has indicated that the plant is most susceptible to control by herbicides at the stage of old bulb exhaustion.

Groves and Hull's studies on skeleton weed, which demonstrated the presence of 3 forms, the common narrow-leaved form, a broad-leaved form and an intermediate form has led to a much better understanding of the problems involved in biological control. The rust, Puccinia chondrillina which has spread so dramatically in Australia since its first release in 1971, infects only the narrow-leaved form and present evidence suggests that the other forms may be increasing in area covered throughout south-eastern Australia.

Apart from the studies referred to in the bibliographies in Bill Parson's book, there are other studies now in progress or nearing completion, but there are still many of our common weeds, especially those not declared noxious anywhere in Australia, which are receiving no attention.

In my Presidential address last year I stressed the importance but great lack of taxonomic studies on weeds in Australia. In this talk I am taking these desperate needs for granted, hoping that we may be able to encourage support for such work, especially with the current interest in the preparation of a census of Australian plants. Our weeds (mainly aliens) may comprise at least as much as 5 percent of the total number of higher plant species in Australia.

The remainder of my talk is concerned with observations on the biology of a number of our common weeds on which no Australian, and often no other work, has been done.

Let us list a few of them ...

Oxalis corymbosa and O. latifolia and Nothoscordum inordinatum, all widespread bad weeds in gardens in the biggest city of Australia;  
many weeds of turf including Soliva (jo-jo), Gnaphalium (cudweeds);  
Echinochloa, Digitaria, Galinsoga parviflora, Nicandra physalodes, important weeds of summer or irrigated cropping areas;  
Xanthium spp. - widespread pasture and cropping weeds in New South Wales and Queensland;  
a large range of aquatic weeds;  
Erigeron (Conyza) spp. - unpleasant weeds of roadsides, waste places, and carelessly attended pasture or cropping lands.

Let us consider some of them in more detail, beginning with my old friend, Oxalis.

The two species I have mentioned have been tackled with all kinds of herbicides in a hit and miss way, but apart from fumigation with methyl bromide, which is, of course, of limited application, satisfactory control (and only virtually complete control is worth considering) is not possible. As far as I know, neither species has been subjected to serious biological study. In New Zealand, a species usually called O. latifolia has been studied, but it has quite different attributes.

The 2 species appear to differ greatly in their biological properties, O. corymbosa shows, I think, a large degree of bulb dormancy, while in O. latifolia, new bulbs appear to sprout as soon as formed. Life cycle studies would undoubtedly be difficult, but a serious long-term effort in field (garden) situations is a challenge which should be taken up. There has been little support for "home-garden" weeds but surely it is reasonable to expect future support for this kind of work in my department of Agronomy and Horticultural Science. Nothing less than a 3-year study is required.

There is very little documented information on the relationship of turf weeds in eastern Australia to different fertilizer treatments, surely another worth-while study.

Greater knowledge of the biology of our aquatic weeds must be obtained. Geoff Sainty has pointed to the possibility of handling the present weed problem in the lake at Penrith by fluctuating water levels. Support must be obtained for the proper testing of such ideas.

The great emphasis (and financial expense) on total vegetation control can be expected to be assisted by a detailed study of the important weeds in such situations. What environmental circumstances favour the abundance of particular species? Erigeron (Conyza) spp. are more abundant this season than in any other during my four years in Sydney.

My taxonomic studies on Echinochloa are now almost complete but in a very variable species like E. crus-galli, for example, there is much physiological-ecological work to be done to find out whether different techniques of cultivation, rotation etc. could be helpful in control. The different germination characteristics of the species and forms in rice must be studied in detail.

I do not for one minute suggest that we can do away with herbicides, but I feel as Burke did with his comments on war, that they could be used much more profitably if we gain a better understanding of the biological features of the weeds we seek to control.

How can we stimulate serious interest on the part of those who furnish financial support? Is it worth fighting for a fully fledged Weed Research Institute, whose main function would be to do taxonomic and biological studies on weeds?

STATEMENT OF RECEIPTS AND EXPENDITURE

FOR THE PERIOD ENDING 15th FEB., 1974

<u>RECEIPTS</u>		<u>EXPENDITURE</u>	
Bank Balance as at 14.2.73	318.81	Office Services	193.25
Petty Cash on hand 14.2.73	5.30	Audit Fee - O. Simpson	10.00
<u>Sundry Income</u>		Weeds Prize	20.00
Corporate		Petty Cash Payments	17.63
Subscriptions	\$240.00	Medical Publication Co. (Proceedings)	830.00
Ordinary Subs.	256.00	Society Dinner	200.00
Sale of Publications	101.89	P.M.G. Post Box	5.50
Society Dinner	204.00	Field Day Expenses	15.00
Transfer from Building Society	250.00	Cash in Bank @ 14.2.74	88.48
Bank Interest	11.53	Petty Cash Held by Treasurer	7.67
	<u>1063.42</u>		
	\$1387.53		<u>\$1387.53</u>

STATEMENT OF ASSETS AS AT 14th FEBRUARY, 1974

Balance as per bank certificate		\$ 88.48
Loan to Building Society	724.23	
Add Accumulated Int.	<u>55.50</u>	<u>779.73</u>
TOTAL OF ASSETS		<u>\$868.21</u>

TREASURERS PETTY CASH STATEMENT

Cash on Hand at 1/3/73	\$ 5.30
<u>ADD</u> Recoupments	<u>20.00</u>
	\$ 25.30
<u>LESS</u> Payments	<u>17.63</u>
Cash on Hand at 14/2/74	<u>\$ 7.67</u>

*I certify that I have examined the Books  
 of The Weed Society of New South Wales and  
 found them to be complete and accurate.*

O.B. SIMPSON,  
 Auditor

G.S. McMASTER  
 Hon. Treasurer

14th February, 1974.