

THE WEED SOCIETY / OF NEW SOUTH WALES

c/o Department of Agriculture, ~~Box 36, G.P.O.~~ Sydney

No. 69/2

May, 1969.

OFFICERS FOR CURRENT YEAR

Officers elected at the 3rd Annual General Meeting of the Society were as follows:-

<u>President:</u>	Mr. J. D. McFarlane, University of N.S.W., Kensington. 'Phone: 663 0351
<u>Vice-President:</u>	Mr. A. D. Mears, Department of Agriculture, State Office Block, Phillip Street, Sydney. 'Phone: 27 9851
<u>Immediate Past President:</u>	Mr. K. A. Watson, Amalgamated Chemicals Pty. Ltd., Northam Avenue, Bankstown. 'Phone: 70 3261
<u>Secretary:</u>	Mr. P. F. Rylands, Bayer Leverkusen Ltd., 47 Wilson Street, Botany. 'Phone: 666 9841
<u>Treasurer:</u>	Mr. P. Weiss, Geigy (Aust) Pty. Ltd., Western Road, Kemps Creek. 'Phone: 606 1085
<u>Editor of Publications:</u>	Dr. P. Michael, C.S.I.R.O., P.O. Box 109, Canberra. 'Phone: (Canberra) 40455
<u>Newsletter Editors:</u>	Mr. Mears and Mr. Watson.
<u>Committee:</u>	Mr. A. N. Johnston, Mr. J. Swain, Mr. A. Murphy, Mr. B. Long, Mr. B. Fox, Mr. D. Croger, Mr. K. Green.

ANNUAL SUBSCRIPTIONS

Members are reminded that annual subscriptions are now due:

Ordinary members \$ 4.00

Corporate members \$10.00

and should be forwarded to Treasurer, c/- Department of Agriculture,
State Office Block, Phillip Street, Sydney. 2000.

WEED SOCIETY OF NEW SOUTH WALES

ANNUAL REPORT - 1968.

The year 1968 saw five General Meetings, a symposium and a field day being held. Membership increased to 88 from 80 at the beginning of the year. There were nine new ordinary members, with two resignations and one new corporate member.

The Society was affiliated with the Australian Institute of Agricultural Science which offered to publicise the Society's affairs in the Institute Journal.

Six Executive Committee meetings were held to plan the business of the Society. Members of the Committee were:

President - Mr. K.A. Watson
Vice-President - Mr. J.D. McFarlane
Immediate Past-President - Mr. K.R. Green
Secretary - Mr. P.W. Weiss
Treasurer - Mr. A.D. Mears
Ordinary Members - Mr. A.N. Johnston, Mr. N. Harrs,
Mr. B. Fox (Co-opted) Mr. A.R. Murphy (Co-opted)

These members formed, mainly among themselves, various sub-committees comprising Newsletter, Programme, Project, Editorial, By-Law and Conference Sub-Committees.

The first undertaking of the Society during the year was a successful two-day convention held in the Murrumbidgee Irrigation Area. This consisted of addresses being given on weed control in orchards, irrigated crops, channels and pastures by a total of 11 speakers. Field inspections of work carried out by the Water Conservation and Irrigation Commission and of weed control in tomato, cotton, maize and sudan grass crops were also made. Several members also attended the Annual Rice Field Day at Yanco before the Convention.

The first General Meeting was held in May in conjunction with the Australian Institute of Agricultural Science. The meeting was very well attended and was addressed by Mr. Arthur L. Abel, Technical Director of Fison's Pest Control, England, who spoke on "Recent International Developments in Pesticides".

The second General Meeting in June was addressed by Mr. J.M. Swain and Mr. R.D. Locke who spoke on industrial weed control. Mr. Swain outlined typical areas of use of non-selective herbicides and the various modes of action of contact and translocated herbicides. Mr. Locke discussed the factors affecting the performance of residual herbicides and equipment in use.

Mr. D. G. Sharpe of Plant Protection Ltd., England, addressed the next General Meeting in July on "The Application of Bipryridyl Herbicides". He discussed their mode of action, droplet studies, uses and techniques of application such as types of nozzles and aerial application.

Mr. B. G. Long spoke on "The Role of Councils, Weeds Officers and Landholders in Weed Control" at the General Meeting in September. Mr. Long gave an interesting discussion of his experiences in the Council weed control field.

A timber control field day at Oberon in conjunction with Dow Chemicals was also held in September. Several members attended the First Victorian Weeds Conference organised by the Weed Society of Victoria in November.

The year closed with a talk being given by the Immediate Past-President, Mr. K.R. Green in December, on his recent overseas experiences in the field of weed control.

During 1968, planning was commenced of several projects which it is hoped will come to fruition in 1969. The main one of these was our next Symposium, entitled "The Problems of Woody Weed Control". The convenor of this symposium is Mr. Noel Harris who has arranged the speakers for it. It is planned to hold this on 27th May, 1969.

A proposed Weed School for Operators attracted a potential attendance of 35 but it has now been decided to run this through the United Pest Control Association. However the syllabus which has been tentatively arranged and the lecturers are to be provided through the Weed Society.

It is also proposed to hold an inspection and discussion of weed control in summer crops in the Narrabri area in November.

Thus the foundations have been laid for a successful year in 1969 following the variety and success of events in 1968.

P. W. Weiss,
Hon. Secretary.

1968 PRESIDENT'S ADDRESS

by Mr. K.A. Watson on the occasion of Annual General Meeting of the Society on 28th February, 1969, (as amended).

WHEAT, WEEDS & WEEDKILLERS

Introduction

An estimated 25 million acres of wheat were grown in Australia in 1968 to produce a record 500 million bushels, worth about \$700 million.

Continued favourable seasonal conditions may result in further increases in both acreage and production. This may mean some form of restriction on wheat production, but a stabilised wheat acreage of 20 million acres, giving a gross return of about \$600 million, may result.

It is appropriate to look at what weeds are costing the Australian wheat farmer.

Weeds and Weed Losses

Reports of the effect of individual weeds on wheat yield are numerous. Percentage yield reductions recorded are as follows:

Capeweed and Fumitory	10%
Skeleton weed	16%
Amsinckia and Wild Oats	30%
Spiny emex	40%

These percentages as such are fairly meaningless as the effect of a weed on wheat yields depends on the level of infestation.

Infestations of 300-400 wild oat seedlings per square yard are not uncommon and up to 2,000 per square yard reported.

Wild oats, which are present in virtually all wheat growing areas, were estimated in 1967 to infest 3 million acres of wheat heavily enough to economically justify spraying. It seems probable that the area of wheat infested with wild oats could easily be of the order of 6 to 9 million acres to some degree.

Cost of Weed Control

It is difficult to assess what weeds are costing the Australian wheat farmer. A 5% yield loss from weeds is probably not unreasonable i.e., in 1968 a loss of 25 million bushels worth \$35 million gross.

Cultivations primarily for weed control could cost \$1.00 per acre, i.e., \$25 million.

Herbicides plus cost of application estimated to average 26 cents per acre i.e., \$6.5 million.

Weed seeds cause dockage and seed cleaning costs, say 1% of the crop, \$7 million.

The above items produce a total cost of \$73,500,000 or about 10% of the annual income of the Australian wheat farmer.

Cost of Herbicides

It might be of interest to indicate how the figure of \$6.5 million for this item was derived.

Cuthbertson presented figures for herbicide usage plus cost of application for Coolamon and Mitchell Shires in 1965-66.

<u>Weed</u>	<u>Acres Treated</u>	<u>Cost of herbicides plus application</u>
Skeleton weed	30,000	\$25,000
Wild oats & rye grass	5,000	\$21,850
Capeweed & fumitory	2,000	\$ 5,300
Total:	<u>37,000</u>	<u>\$52,650</u>

Average cost per acre treated	=	\$1.42
Average cost per acre of wheat grown	=	\$0.27
Proportion of total wheat acreage treated with herbicide	=	18.5%

The Bureau of Agricultural Economics most recent survey of the Australian wheat growing industry includes some data on herbicide and application costs.

On the average acreage of wheat, i.e., 469 acres, herbicides, material and application expenditure was as follows:

Herbicide cost	\$54.00
Application cost	\$67.00

Total: \$121.00

Average cost per acre = \$0.26

The agreement between Cuthbertson and the B.A.E. figures is extremely close.

It is interesting to compare the average Australian and American expenditures on herbicides in wheat:

	<u>Australian</u>	<u>U.S.A.</u>
Cost of treatment per acre	\$0.26	\$0.65
% of total area treated	18.5	36.2

American wheat farmers seem prepared to spend twice as much on herbicides as his Australian counterpart.

CONCLUSION:

The average Australian wheat yield over the last ten years has been about 19 bushels per acre. It would appear that the competition provided by weeds are responsible in part for these low yields. Indirectly weeds cause substantial reduction in wheat farmer's income in the form of cultivation costs to control weeds and dockage for weed seeds.

The use of herbicides to control weeds in wheat in Australia is only about half the American level. Increase in expenditure on herbicides would appear to be the logical way to reduce loss in yield, cultivation costs and losses from dockage.

However there is a need for further economic data on the use of herbicides in wheat before the Australian wheat farmer will accept their use on a wider scale.

ASIAN-PACIFIC WEED SCIENCE SOCIETY - REVIEW OF PROCEEDINGS -
1967 INTERCHANGE.

A comprehensive treatment of the present state of research on weed control in tropical crops is given in a number of excellent papers in a paper-bound volume. This is available at a cost of \$US2.00 from:-

R. Romanowski, Secretary, Asian-Pacific Weed Science Society, Department of Horticulture, University of Hawaii, Honolulu, Hawaii.

Papers in the volume cover a number of broad topics and are listed under several heading groups. The headings used and number of papers in each group are: "General Session" - 9 papers; "New Herbicides for Tropics and Sub-Tropics" - 5 papers; "Weed Control in Rice" - 11 papers; "Weed Control in Agronomic Crops, Pastures and Brushlands" - 9 papers; "Weed Control in Horticultural Crops" - 6 papers; "Soil and Herbicide Physiology" - 6 papers; "General Papers" - 7 papers.

Most papers discuss the use of herbicides, but in the General Session and General Papers other or broader aspects of weed control are discussed.

Contributing authors came from a number of Asian countries and the U.S.A. and covered the various topics in the area concerned.

A copy of the volume is held by Mr. Mears, on behalf of the Society and is available for examination by interested members. It is strongly recommended, however, that the volume would be an important reading addition to Australian herbicide development officers.

A. D. MEARS.

FORTHCOMING EVENTS

A sub-committee has been convened by Mr. Jim Swain of Agserv, Geigy, to plan a two day meeting on "Weed Control in Summer Crops", in early December this year. Suggested venues are Narrabri-Wee Waa for cotton first day, and other crops in the Gunnedah-Quirindi area on the second day.

July 1 - Galvanised Burr Conference - Coonamble.

This conference is sponsored by the Coonamble Branch of the Graziers' Association and New England University. It will examine the present status of knowledge of galvanised burr and suggest research and other actions needed to combat the problem.

Field Officers - Department of Agriculture

In the past 12-15 months the Department of Agriculture has appointed three Field Officers (Weeds) to assist councils with their noxious weed control programmes. These officers are stationed:

Mr. E. Boersma (Senior Field Officer) - Sydney;
Mr. G. Downes (Field Officer) - Orange;
Mr. E. Chaffey (Field Officer) - Tamworth.

It is hoped eventually to make further appointments in country centres.

Contributions to Newsletter

Members of the Society are requested to make contributions to this activity of the Society. These could cover new herbicide registrations, new product recommendations, observations and comments, and other items of interest.

Please give this some thought and put some ideas on paper and send them to us. Don't worry about deadlines, anytime you have a good thought send it in - we will help you if you are worried about your writing.

You will be surprised how easy it is after making the first step - but take it now and make the newsletter what you want it to be.

PERSONAL NEWS:

Mr. Kelvin Green, President of the Society in 1967, has been promoted to Principal Agronomist (Research).

Mr. Jim Strang has been appointed Principal Agronomist (Weeds).

Mr. Ken Watson will be visiting Malaysia in June and will later attend the Second Asian-Pacific Weed Control Interchange to be held at the University of the Philippines.

Mr. Bruce Ramsay has resigned as Technical Officer with Amalgamated Chemicals Ltd., and has left Australia for a working holiday overseas, commencing in South Africa.

Mr. Dick Locke to Singapore.

Mr. D. McNeilly to Du Pont.

Mr. Ian Black, Mr. Fred McDiarmid of Dupont, have been promoted, -- Ian to Sydney, and Fred to European scene.

Mr. David Oliver appointed to Total Vegetation Control work, a new Departmental venture.

NOTE OF INTEREST.

University of Sydney have recently advertised for applicants for position of Lecturer to lecture in the field of Weed Science.

A NEW IMPORTANT WEED

Nodding thistle (Carduus nutans) has recently become of concern in tableland districts of this State. It is a declared noxious weed in several local government areas, New England County, Guyra Shire and Mulwaree Shire.

The thistle is generally thought to have been imported from New Zealand in pasture seed. It has been present in this State for a number of years, but has greatly increased in number and total area of infestation following the recent drought.

The plant has a number of weedy characteristics, free seeder, unpalatable to stock, a biennial, invades high fertility soil in the absence of tussock, forming perennial grasses. Phalaris is useful in restricting its growth, but perennial rye is not suitable.

Control can be achieved by introduction into the pasture of Phalaris, by spraying with 2,4-D, (the ester form seems most useful), clearing crops such as oats, rape and others. The use of 2,4-D is suggested on a basis of economics.

N.B. The above notes are a brief summary of an address given by Mr.H.Wharton, Weeds Officer, Mulwaree Shire, to the May 1969 meeting of Southern Tablelands and South Coast Noxious Plants Committee.

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WEED SOCIETY OF N.S.W.
C/- Department of Agriculture, Sydney.
Newsletter No. 69/2, May 1969.

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