

THE WEED SOCIETY / OF NEW SOUTH WALES

NEWSLETTER

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

Notice of Weed Society Meeting

The next meeting of the Society will be a symposium on

WEEDS IN WHEAT

to be held in co-operation with the Graziers' Association
of N.S.W.

The Discussion Leaders will be

Mr. Allan Mears, Senior Agronomist (Weeds),
Department of Agriculture

Mr. Bill Ridley, Member of the Agricultural Committee,
Graziers' Association of N.S.W.

Where: Conference Room, Department of Agriculture,
Farrer Place, Sydney.

When: Tuesday, 20th September, at 7.15 p.m. preceded
by Buffet Tea at 6.30 p.m.

So that catering can be arranged, please return the slip
at the foot of this page, or telephone the Society, by
Friday 9th September.

Preliminary Notice:

A Field Day will be held near Mittagong to inspect
Serrated tussock infested pastures and their improve-
ment. Full details of this field day will be sent
out under separate cover in the next fortnight.

P. Gregory
Hon. Secretary

The Secretary,
The Weed Society of New South Wales,
C/- Department of Agriculture,
Box 36, G.P.O., Sydney.

Phone B0536, Ext.338

I/we will be attending the WEEDS IN WHEAT Symposium
(and the buffet tea) delete if not applicable. Please reserve
 places.

PRESIDENT'S LETTER

In introducing the first issue of our Newsletter to members, I express your wish that the Newsletter will grow in interest and volume to provide a regular communication between members. Members' interest can be effectively roused, by letters to the Editor, technical notes on weeds and problems; ideas for improving Weed Society meetings and expanding our objectives; details of schools' training methods, experimental techniques, new herbicides and new methods - (personal notes are always of interest!)

Your Programme Committee has aimed to cater this year for quite wide interests and to spread our influence to wider groups, other than our own immediate membership. This approach will be followed by more specialised functions to cater for the specific interests of members.

Your attention and co-operation is invited to the forthcoming field day with the Men on the Land Society, and our Symposium on Weed Control in Cereal Crops.

Members will be delighted to hear of the formation of the Victorian Weed Society. We congratulate our colleagues in Victoria on this move and look forward to long and close association.

A.N. JOHNSTON
President

COMMITTEES

Members of the Society's committees have been mentioned in a report from the Secretary. Other than the Executive Committee, the two major committees are the Programme and Projects Sub-Committees, both of which have held meetings recently, and a report of their activities will be made in the next Newsletter.

Mr. John Fraser has been appointed General Secretary of the Graziers' Association of N.S.W. and his position on the sub-committees has been taken by Mr. Ken Baxter, a Research Officer of the same Association.

FIELD DAY AT HAWKESBURY AGRICULTURAL COLLEGE

The Weed Society's first field day was held at Hawkesbury Agricultural College on 19th May. Opening the field day, Dr. S.L. Macindoe, Chief Research Liaison Officer, N.S.W. Department of Agriculture, remarked on weed research being conducted in Europe and Britain which he had seen recently.

"I might say that the opportunity that I had last year of seeing something of the research work of these chemical companies in Europe and England quite impressed me", Dr. Macindoe said. "I was impressed for example by work being done on spraying techniques, the development of special spraying equipment, the study of factors such as droplet size or different sorts of leaf surfaces, the effect of emulsifiers or spreaders and other means of improving leaf coverage with sprays .

I was impressed by work in progress in residues testing and the care being taken before there is full release of a new chemical to the public. There is a need to conduct long term research to study the effects of herbicides on soil flora and fauna, and to protect the public interest.

Weeds affect our national economy much more than is commonly realised. If we consider the broad field of weeds and their control and the reduction in national output undoubtedly being caused by them we must come to the conclusion that nationally we are falling down badly by failing to supply adequate resources for urgently needed weed research and also for weed control programmes".

Dr. Macindoe suggested that there are instances where the effect of weeds on our economy is a greater threat than that of drought. "It is more insidious and infinitely harder to correct. Take one example, look at the damage being done and the loss in this state from Serrated Tussock. Land carrying 1-2 sheep per acre in its native grass state and capable of carrying double that if improved, can be reduced by tussock infestation to 1 half starved sheep to 10 acres. What drought can do worse in lowering stocking rates than that?

The control of Serrated Tussock has, in my opinion, been the best and most important bit of applied research conducted in N.S.W. over the past 40 years. This is only one weed problem - there are many others waiting solution. To help solve these problems will, I am sure, be one of the purposes for your bringing into existence the Weed Society of N.S.W. I believe it will prove to be an organisation of great national importance".

The President then introduced Dr. P.W. Michael of the Ecology Section, Division of Plant Industry, C.S.I.R.O., Canberra who spoke on

WEED RESEARCH IN JAPAN

Dr. Michael introduced his address with a brief account of the geography and climate of Japan, emphasising the extremes in climate which considerably affected plant growth, especially pastures.

Rice production in Japan is essentially a transplanting culture. Seven million acres of paddy rice are grown on numerous small farms which are found right up to the city boundaries. The Japanese approach to weeds differs to other countries, literally translated, they describe weeds as those plants which appear early in the growth of the crop. Farmers are classified into "good", "medium", or "lazy" according to the weeds on their land. It is not surprising, therefore, to find that from their early schooldays the Japanese are very aware of weeds and other botanical aspects of their environment.

In rice production, 30 per cent of farmers' time was spent on weed control prior to the introduction of herbicides. With the use of 2,4-D, MCPA and PCP only 15 per cent of their time now needs to be spent on weed control. The land area treated with herbicides has increased rapidly. In 1950 140,000 acres were treated with 2,4-D, whilst in 1962 5,440,000 acres were treated with 2,4-D, MCPA and PCP.

Apart from harvesting, weeding is the most time consuming operation in paddy rice production. A farmer survey showed that the time taken for the main operations per quarter-acre were:

Ploughing	10 hrs
Fertilizing	7 hrs
Transplanting	26 hrs
Weeding	27 hrs
Harvesting	38 hrs
Others	65 hrs
<u>Total</u>	<u>173 hrs</u>

Under supervised trial conditions where herbicides were accurately applied at the right time, weeding requirements dropped from 22.5 to 0.5 hours per quarter-acre.

Barnyard grass is the most important weed in rice. Traditionally, it has been controlled by hand weeding. There are a number of different "forms" of barnyard grass found in the rice paddies, one of which became a major problem because it closely resembled rice and was therefore difficult to distinguish when weeding. With the introduction of 2,4-D farmers slackened their efforts to hand weed and the barnyard grass forms which proliferated were more diverse. PCP now gives satisfactory control of barnyard grass, and DCPA also shows promise for future use.

Because of the similarity between rice and barnyard grass seedlings it is easy to transplant the weed by mistake. Drastic yield reductions result from even slight contamination of the paddy field with transplanted barnyard grass, as are shown in the following figures:

<u>Seedlings transplanted</u>		<u>Yield</u>
Rice : Barnyard grass		
5	0	40.4
4	1	9.0
4	0	100%
3	1	70%

Growth of barnyard grass is slower than rice initially, but becomes more rapid at later stages. Early control is therefore desirable and essential. The main broadleaf weeds in rice paddies are Monochoria and Rotala spp.

Dr. Michael referred to the Weed Society of Japan which was formed in 1962. It now has over 2000 members, most of which are from government or regional experiment stations, and some from the universities and industry. The society publishes an annual journal.

Following Dr. Michael's address, field trials being conducted by Mr. P. Rylands, Weeds Research Agronomist were inspected. Trials to screen new herbicides, and studies of weed control in summer legumes, carrots, and onions were seen.

IDENTIFICATION OF WEEDS - ROYAL BOTANICAL GARDENS

On 16th June, a large group of people attended the Royal Botanical Gardens, where the services and facilities of the Gardens were discussed by Dr. Mary Tindale.

Dr. Tindale described the procedures for collecting and submitting specimens for identification, and gave an indication of the large range of species held in the Herbarium. Examples of well prepared specimens, and some which had been delivered in such a poor condition that identification was difficult or impossible were shown.

A point of particular interest was the identification of some plants from stomach samples of stock suspected of being poisoned. Several questions drew attention to the need for information about recognition of weed seedlings, particularly because it is at this stage of growth that herbicides are often applied.

A NOTE FROM VICTORIA

Members of the Weed Society of N.S.W. will be very interested to hear that a meeting has been called for Thursday August 25th at Burnley Gardens to discuss the formation of a Weed Society of Victoria. We would like to wish our Victorian friends great success in this venture. The formation of a Victorian Society is one step closer to a National Society and we hope that other states will soon follow.

THE NEWSLETTER AND YOU

Besides providing a record of the Society's activities the Newsletter can also be a source of current news - and anything to do with weeds is news, all that is needed is that you report it.

Notes on members' work and employment, brief reports on new herbicides or new applications when they are registered, application machinery, and the spread of weed infestations to new areas are matters which interest all members and of which they can be made aware through this publication. Any contribution you can make will add to the scope and value of the Newsletter - the Publicity Officer is waiting for them.