

NEWSLETTER

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SECRETARY: Mike Barrett

TREASURER: Geoff Jacobs

EDITOR: Bob Martin



**THE WEED SOCIETY
 OF NEW SOUTH WALES**



Delegates to the No-tillage Project Team Meeting, Moree inspecting research trials and the "weed detector" prototype on the property of Mr. Ian Forsyth at Croppa Creek.

RESEARCH REPORTS

REDUCED TILLAGE - FUTURE TRENDS IN NORTHERN NEW SOUTH WALES - Warwick Felton

Introduction. During the 1970s there was a significant swing to less aggressive tillage techniques in northern New South Wales. Tined equipment became the dominant implements for both primary and secondary cultivations. Disc ploughs were used a) where weeds, particularly vining types such as wireweed (*Polygonum aviculare*), were abundant, b) where substantial amounts of stubble remained after harvest which is usually because of poor straw spreading rather than a heavy crop, or c) by those growers who are reluctant to any change. There was an increase in the number of farmers who retained rather than burnt stubble as it was recognised how important the soil erosion problem was becoming.

Stubble Retention, is there a Grain Yield Penalty? During the last three seasons "yellow" crops have been common with a range of reasons attributed to the problem. The most popular explanations include:

- a) nitrogen deficiency,
- b) diseases, especially yellow leaf spot,
- c) trace element imbalance,
- d) waterlogging,
- e) herbicide residues,
- f) spray drift,
- g) stubble induced problems - antagonism.

Because the better crops in the district have often been where the stubble was burnt, there has been a swing back to burning. With respect to increasing the potential for severe soil erosion, this is a most undesirable trend.

Research has clearly shown that soil loss can be minimised by retaining a protective layer of residue on the surface and eliminating tillage. However, weed control with such a system becomes very dependent on herbicides, timing of applications and departing from a monoculture. Weeds can be controlled in a continuous wheat rotation but some such as wild oats (*Avena* spp.) are favoured and will become a serious problem if the control measures used are only partially effective. Herbicides will not give complete weed control and will allow sufficient seed production to maintain a population of weeds and an increase can readily occur. Sufficient weeds seed to ensure that a population is maintained even with isolated escapes.

It is a paradox that so much has been said of "conservation farming" at a time when increasing costs and low grain prices have put such a financial strain on farming. Certainly farmers are reluctant to invest in herbicides for a crop six months before planting.

Farmers are Moving Towards Reduced Tillage. There has been wide-scale success and acceptance of applying a knockdown herbicide immediately prior to planting. Low rates of herbicide, e.g. glyphosate, control germinating weeds such as wild oats and eliminates the problem of transplanting weeds in moist conditions. Spraying is quick and can be carried out earlier than cultivating. A further advantage is that moisture is not lost by a pre-sowing cultivation which can be critical in marginal sowing conditions.

I think that we will see more farmers being properly equipped to do their own spraying. There will always be a place for contract spraying, but mainly as a backup for peak periods. This will probably apply to aerial spraying also. Timing the application of sprays can be critical and the cost of good spraying equipment is low compared to some of the other capital items most farmers see as essential. The herbicide that has had a major impact in this region in both traditional and reduced tillage situations is chlorsulfuron (Glean). In some areas this is now the most widely used herbicide. It is effective on many of the important weeds and the residual control has reduced some of the post harvest weed problems.

The residual properties of herbicides such as chlorsulfuron and atrazine have deterred some growers who want to keep as many rotation options open as possible. This is particularly so for those who may want to double crop. There are success stories with opportunity cropping but also as many failures. The herbicides available can fit rotation alternatives if the right rates and sensible plant back periods are used.

Crop/Fallow Management and Profitability. For the future, costs will continue to rise and farmers who cannot achieve yields approaching the potential will either have to revert to some other form of production, e.g. grazing, or go out of business. Farmers who haven't averaged 2 t ha⁻¹ during the last 3 years must seriously question their management strategies. Moisture is the factor that sets yield potential and the other most important factors that operate in achieving this potential are nitrogen status, sowing date and weed control.

It is apparent that inadequate attention has been given by some farmers to early fallow weed control. Moisture lost at this time is critical and has a direct influence on attaining maximum stored sub soil-moisture. The "better" farmers are usually the ones who most successfully control weeds immediately after harvest and maintain this control until sowing of the next crop. Fallowing efficiency by traditional methods of cultivation and reducing the surface residue is usually less than with a no-tillage fallow. If this is so then the yield potential for a no-tillage crop is higher. This has been consistently realised with grain sorghum but not wheat. We are endeavouring to better understand what factors are currently preventing the additional moisture being utilised in the no-tillage system.

Even when the cost of adopting minimum or no-tillage systems is less than for cultivated fallows there will still be a large proportion of growers not prepared to accept the uncertainty of their management ability with these systems. For this reason I think that widescale acceptance of minimum tillage and more particularly no-tillage crop production will be a slow process. However, as particular strategies within these systems evolve there will be adoption of these. For example the winter application of atrazine prior to a grain sorghum crop. We have had excellent results with this technique with both late fallow and in crop weed control. Another example is the use of knockdown herbicides prior to sowing.

Future Trends. There will be new herbicide products released but it is impossible to predict what there will be and what impact they will have in this region. At present there are inadequate reliable herbicides available for use in the range of crops, especially the grain legumes, that are being tested. In general these crops are poor competitors with weeds compared to the cereal crops. It is desirable to have grain legumes in our rotations but at this stage commercial acceptance will be very dependant on improved weed control in these crops.

In the mixed and marginal farming areas there will probably be an increase in grazing enterprises. If this occurs farmers will attempt to reduce their use of herbicides, particularly the expensive ones such as for wild oats. At current prices, use of post-emergence wild oat herbicides will only be justified in crops of high yield potential.

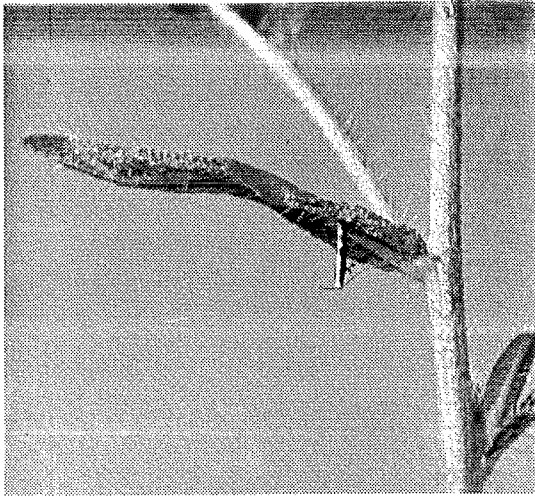
RELEASE OF BIOLOGICAL CONTROL AGENTS FOR *Echium* IN NSW - Dr. John Hosking

Echium leaf miners, *Dialectica scariella* (Zeller), are at present being released for control of *Echium* species (including Paterson's curse) in New South Wales and Victoria. These are the same insects which CSIRO released in 1980. *Echium* leaf miners failed to become established from this initial release. There are many possible reasons for this failure, including the low numbers of moths initially released, a drought occurring at the time and grasshopper attack. An injunction on the CSIRO (July 1980) prevented further releases of this, or any other, biological control of *Echium* species.

Although this injunction still prevents CSIRO from having any involvement in biological control of *Echium*, the Biological Control Act 1984 has left the way clear for other appropriate agencies to become involved.

The Victorian Department of Conservation, Forests and Lands (DCFL) employed an entomologist to collect the *Echium* leaf miners in the south of France. In May 1988 these insects were sent to the Keith Turnbull Research Institute, at Frankston (quarantine facilities of DCFL). The insect was reared through one generation in quarantine to make sure that no parasites were present. Once clear of parasites mass rearing of insects began.

The first *Echium* leaf miner releases were carried in Victoria on Friday, 29th July and the first release in New South Wales took place the following day. Releases in New South Wales to date have been near Young, Albury, Cowra, Trangie and Forbes.



New South Wales Agriculture and Fisheries is now breeding *Ectium* leaf miners at Tamworth and will be breeding leaf miners at Mudgee from Monday, 5th September. Staff of the Department previously involved in breeding insects for control of cactus are now carrying out this breeding program. First releases of *Ectium* leaf miners from material bred in New South Wales will occur early in September. Breeding of insects is being supervised by Dr John Hosking and releases are being co-ordinated, through Departmental district agronomists, by Mr Jim Dellow.

Adult *Ectium* leaf miners (illustrated at left) are small (5mm long) thin, fragile silver-white and gold moths. Its biology is briefly as follows.

The female moth lays eggs on *Ectium* leaves (usually the underside). Eggs hatch in 4-6 days (14-30°C) and larvae bore through into the leaf interior. The larvae feed internally forming mines which turn into blotches during late instars. The last stage larvae spin cocoons and then pupate in the blotch mines. Pupae force their way through walls of the cocoons and the epidermis of the leaves prior to moth emergence. Mean egg-to-adult time varies from 53 days at 14°C to 19 days at 28°C. There are 5-7 generations per year in Mediterranean Europe. The number of generations per year in Australia will vary depending on climate.

ADVISORY NOTES

DODDER ADVISORY GROUP (DAG's) TO BE LAUNCHED - Derek Brown NPAO, Tamworth

Devil's Guts, Golden Horde, Dodder, call it what you will. *Cuscuta* spp., particularly *C. campestris*, is a worldwide curse to farmers who grow a wide range of broadleaf crops. While many herbicides have been trialled for its control, fire with intense heat still appears to offer the best control, particularly for small areas.

Because of the serious problem confronting farmers along the fertile Hunter River and some of the tributaries together with similar problems along parts of the Peel, Namoi and Manilla river systems, is the reason why DAG's evolved. The first phase of DAG's development commenced through local departmental officers of the area; District Agronomists, Special Agronomist (Pastures), Noxious Plant Advisory Officer with some support from the Department of Water Resources, coming together to develop control and awareness strategies as a part of an overall Advisory, Awareness and control Programme. This initial action will be followed by Phase 2: Involvement of local government councils to develop positive regulatory strategies in relation to their noxious plants legislation and also to co-opt farmers, particularly those involved in lucerne production, along the river systems, to develop positive control measures. Phase 3 of the Dodder Awareness and Control Programme involves a general awareness of the whole rural community about the serious dodder problem, the need to prevent its spread and general control strategies. Beginning mid September 1988 Phase 2 will commence with a meeting at Musswelbrook and by late October 1988 it is anticipated the total programme will be in full swing.

While dodder has been prevalent in these river systems for many years it may look as though we are re-inventing the wheel. In the past no action has been taken to develop a total awareness over a total catchment area. Because of the serious problems associated with dodder as a weed and noxious plant, while we realise total control is not possible, by developing a total catchment strategy, we will reduce the problem to where it does not seriously impact upon farmers in the area.

The significance of the programme can be highlighted because of the strategies developed can be used elsewhere should there be a need. In particular the dodder information sheet clearly outlines control and hygiene measures covering all situations. While the dodder poster would have impact anywhere in the state. With everything in place, it now remains to be seen how

effective the programme will be and what self help support will be given by the rural community.

INTERSTATE NEWS

AGRICULTURAL CHEMICALS LEGISLATION IN VICTORIA - J. Burke

A discussion paper on future legislative controls on agricultural chemicals was circulated recently by Evan Walker, Victorian Minister for Agriculture and Rural Affairs, and comments were requested by 30th July 1988.

Revision of the Victorian laws was considered timely following the Victorian Regulation Review Unit's enquiry over the past two years into legislation and administration covering all types of chemicals in the state. At the same time public concern regarding the use of agricultural chemicals continues to increase, and the community is looking for stronger and more comprehensive controls over the application of chemicals.

The main principles adopted by the authors of the paper are stated as:

1. legislative impositions should not go beyond those necessary for the protection of the community and the environment.
2. duplication with other legislation should be avoided. The Department of Agriculture should become the controlling body in:
 - * evaluation, registration and sale of agricultural chemicals.
 - * safe and effective use of chemicals
 - * quality of formulations
 - * labelling of agricultural chemicals
 - * prevention of contamination of produce by residues

Major Changes. Currently agricultural chemicals are registered in Victoria for a 3-year period. It is proposed that this period be extended to 10 years with provision for review/re-evaluation if necessary. Adjuvants and crop markers would have to be registered but dispensation could be given for chemicals which have little potential for causing harm to the environment.

Research and Development. It is proposed that the new legislation will allow adoption of appropriate codes of practice (not elaborated) for research and development studies on agricultural chemicals, including products of biotechnology. The question of whether compliance should be voluntary as now applies for experimental permits, or be made mandatory with appropriate inspection and enforcement, has been left open.

Propriety Rights. Whether propriety rights should be adopted in full or part or not at all has been left open.

Transport and Storage. It is proposed that Victorian should have a permit system to cover unregistered or extremely hazardous products, along similar lines as in NSW.

Application. It is proposed that it will be an offence to use a product on a crop or in a situation other than included in an official use. However minor variations such as spraying for a non registered pest will be allowed.

Because of health and environmental considerations, the use of agricultural chemicals can be limited in specific "hazardous" areas, to be renamed "fragile" or "sensitive" areas.

There may be some hazard to neighbouring crops. Some people may have particular medical sensitivities to some chemicals and may wish to know if a chemical is being used. Under these circumstances provision should be considered of requiring public advertisement of one's intention of applying particular chemicals or large scale applications.

Applicator Training. Proposals are as follows:

The level of training and qualifications required (possibly graded licences) should be increased

for aerial applicators and pest control operators. Similar licensing requirements should be introduced for all people who spray as a business or for direct profit (including their employees).

The relation between a licence or certificate to apply chemicals and the pilot's rating or licence should be clarified. appropriate interstate certificates could also be recognised.

Training and licensing should also be made compulsory for farmers and other private users who wish to use particularly hazardous chemicals.

Provision should be made to prescribe certain chemicals and uses of chemicals for which permits are required .

Permit and licence conditions could include the requirements to wear protective clothing, to keep records of chemicals used and to undertake medical tests from time to time to monitor the accumulation of certain chemicals in the body.

Employees of the crown should be subject to any requirements relating to these matters.

Provision to applicators of data sheets for all chemicals would provide more extensive details on chemicals than current label information, particularly toxic hazards.

CONFERENCE REPORTS

NO-TILLAGE PROJECT TEAM MEETING, MOREE 3 & 4 th AUGUST 1988

Over 60 delegates took part in this very successful 2 day meeting which commenced with an inspection of research trials on the property of Mr. Ian Forsyth at Croppa Creek. The Guest Speaker at the dinner was Dr Kevin Sheridan Director General, NSW Agriculture & Fisheries. Proceedings of the meeting are currently being prepared for printing.

Formal sessions commenced with a review by Dr Peter Cornish of tillage in Australia, past, present and future. Results of tillage research were presented for northern NSW by Warwick Felton and Bob Martin and for Queensland by Rob Locke. Other presentations included; influence of tillage practices on soil structure and erosion - Adrian Harte, residual herbicides - Ian Ferris, knockdowns and mixtures - Ross Fellowes, equipment limitations - Lindsay Ward, plant diseases and varietal adaptation - Lester Burgess, extension problems - John Kneipp, integration of research and adoption - Tim Reeves. The final session was devoted to group discussions, recommendations and summation by Dr Ted Wolfe, Regional Director of Research, NSW Agriculture & Fisheries, NEHM Region. Ted's summation was very comprehensive and the following is my abridged version, Editor.

Summation - Ted Wolfe. The timeliness of the meeting was appropriate. The research team is well advanced with the project, to the point where there is increasing interest from extension workers. A number of constraints to no-tillage have been overcome, there is an increased understanding of factors contributing to the success or otherwise of no-tillage, and there is a greater appreciation on the difficulties of selling and conveying the information gained.

Two of the speakers highlighted the need to segment the market (farmers) and to target specific messages to different segments.

A change in the research approach has taken place over the last few years with an increased effort into inter-relationship of tillage with crop rotations. A good trend has been the increase in the monitoring program of soil water and nitrogen, providing the team with opportunities to come to grips with the constraints to the yield of no-till wheat, in terms of how farmers may capitalise on a higher level of soil water which is stored under no-till fallows. Perhaps earlier sowing will realise yield benefits from no-tillage, perhaps higher rates of nitrogen are required.

Lester Burgess indicated, there is real and increased interest by wheat breeders at Sydney University and at Tamworth in terms of the development of no-tillage types of wheat - it was a pleasure to me to note that such a wheat was defined in terms of certain diseases or pests, and

perhaps an ability to emerge and develop more quickly than the current types of wheat we have. The breeders have acquired a better understanding of what characters to select for. The no-tillage project has also spawned satellite programs such as the work of Ian Ferris on herbicide residues, and there has been encouragement of other groups who have recognised that no-tillage technology will be part of the future in one way or another.

So far as the extension part of the team is concerned, we are at the point where the extension effort must build up. The project has produced results which can be promoted, if not as no-tillage then in the form of reduced tillage. The responsibilities of the researchers is to enunciate principles rather than to provide recipes. It was evident from the group discussions that the extension process will require compromises to be made in order to develop packages suitable for different situations, farms and farmers. It is possible that a full-time extension support person will be located at Tamworth ARC to assist the no-tillage project team in transferring to farmers the principles which have been developed by the project.

WEEDS ON PUBLIC LAND - AN ACTION PLAN FOR TODAY

A detailed report on this Symposium, held at Monash University on 19-20 May 1988, appeared in the July Newsletter of the Weed Science Society of Victoria. Copies of the proceedings (\$15.00) may be ordered from the Weed Science Society of Victoria, Clunies Ross House, 191 Royal Pde., Parkville Vic. 3052

MEMBER'S NEWS

NEW MEMBERS

Applications have been received and accepted for the following new members:

Mr Anthony C. Onley, Field Research Officer, ICI Operations Ltd., Moree. Anthony's interests are in chemical and management techniques for weed control.

Ms Christine Purvis-Jones, Research Fellow, Botany Department, University of New England. Chris's interests include strategic crop rotations for wild oat control.

CAWSS MATTERS

EIGHTH AUSTRALIAN WEEDS CONFERENCE - CAWSS THANKS ORGANISERS

Mike Barrett (Secretary) has received a letter from the Secretary/Treasurer of CAWSS, Ken Watson on behalf of CAWSS, thanking the organising committee and other members who were involved in organising and running such a successful conference.

FOR SALE - CAWSS CONF. PROCEEDINGS

Proceedings of the 6th, 7th and 8th Australian Weeds Conferences are available for sale through the Weed Society of N.S.W. If you would like to purchase copies please contact **Leon Smith P.O. Box K287, HAYMARKET N.S.W. Phone (02)2175040.**

COMING MEETINGS - WORKSHOPS

FIELD TOUR OF WEED AND HERBICIDE RESEARCH TRIALS IN NORTH-EASTERN VICTORIA AND SOUTHERN NSW OCTOBER 6-7 1988

The NSW and Victorian Weed Science Societies are holding a joint tour of weed and herbicide research trials in the border area on October 6-7 1988.

The tour will start at 9.30 am on Thursday October 6 at the Rutherglen Research Institute. We will inspect company herbicide trials and then move to Greg Code's herbicide resistant ryegrass site at Howlong. We will dine and stay overnight at Wagga Wagga and then inspect weed and herbicide research plots at the Agricultural Research Institute, starting at 8.30

am. Transport will be the responsibility of the individual.

Research trials to be inspected include:

- * herbicide resistant ryegrass
- * cultivar screening trials (wheat, barley, field peas, lupins, rape, faba beans, and lentils)
- * comparison of grass-specific herbicides (Fusilade, Verdict, Assure, and experimental compounds)
- * response of silver grass and sub clover to time of application of simazine
- * herbicide evaluations for control of silver grass in pastures
- * effect of pre-cropping management (weed control and tillage) on in-crop weed and disease incidence
- * inspection of annual grass nursery (species and ecotypes)
- * various chemical company field trials

Chemical companies wishing to include trials/demonstrations in the tour should contact **Andrew Leys (069 230999)** or **Greg Code (060 329208)**. Dinner reservations for Thursday night at the Old Wagga Inn can be made by contacting Andrew before September 30.

FELLOWSHIPS, AWARDS AND GRANTS

PH.D. SCHOLARSHIP PHYSIOLOGY AND BIOCHEMISTRY OF HERBICIDE RESISTANCE

Department of Agronomy, Waite Agricultural Research Institute, University of Adelaide, Glen Osmond, S.A. 5064

Biotypes of important Australian crop weeds have developed resistance to herbicides. The Waite Institute has initiated a major multi-disciplinary research programme on these resistant biotypes. Collaborative studies by Drs. Steve Powles and Joe Holtum of the Agronomy Department and Dr. David Liljegen of the Department of Agricultural Biochemistry aim to identify the mechanism of resistance.

We seek an individual with strong interests in plant physiology and biochemistry to study herbicide resistance at the mechanistic level. Supporting physical resources include an automated herbicide spray laboratory, excellent controlled-environment growth facilities and equipment for the extraction, fractionation and analysis of enzymes and metabolites. These physical resources together with a multidisciplinary research team working on herbicide resistance provide an excellent working environment.

Full time salary: \$15,000 p.a. with no allowances (funded by S.A. Barley Research Committee). Potential Applicants should call one of the above people on (08) 372 2444 by November 30th 1988.

CONFERENCE - WORKSHOP CALENDAR

- Sept. 18-23 1988 **Pesticide Application Technology, Course at Q.A.C., Gatton.** Full cost \$850-\$900.
Contact: Plant Protection Department, Q.A.C. Gatton Qld. Phone (075)620281.
- Oct. 2-6 1988 **World Grain Congress, Brisbane, Q**
Contact: Conference Secretariat, World Grain Conference Ltd., P.O. box 136, Toowoomba Q 4350
- Nov. 13-17 1988 **Reducing Uncertainty in Environmental Risk Assessments, Society of Environmental Toxicology and Chemistry (SETAC) 9th annual meeting at Arlington Virginia.**
Contact: SETAC, P.O. Box 4352, Rockville, MD 20850, USA
- Nov. 21-24 1988 **The Brighton Crop Protection Conference-Pests and Diseases 1988** will be held at the Brighton Metropole and the Brighton Centre.
Contact: Mrs. R.A. Bishop, Frank Bishop (Conference Planners) Pty Ltd, 20

Bridport Road, Thornton Heath, Surrey CR4 7QG. Phone 01-683 0087.

- Nov. 28 1988 **Weed Society of N.S.W. Turf Field Day and Annual Dinner**
Pennant Hills Golf Club
Contact: Mike Barrett, 14 Kedron Ave, Beecroft NSW 2119. Ph. (02)875 3087.
- Jan 30-Feb 3 1989 **Communication in Agriculture**, University of New England, Armidale
Contact: Jean Seppelt, Conference Officer, Campus Conference Centre, University of New England, Armidale NSW 2351. Phone (067) 732154.
- April 4-6 1989 **Comparing Laboratory and Field Pesticide Performance a residential symposium** to be held at the University of Kent, Canterbury.
Contact: Dr. C.R. Merritt, International Centre for the Application of Pesticides, Cranfield Institute of Technology, Cranfield, Belford MK43 OAL.
- April 1989 **EWRS 4th Mediterranean Symposium, Problems of Weed Control in Fruit, Horticultural Crops and Rice**. Valencia (SPAIN).
Contact: Mrs. Amparo Caballer, IVIA, Apartado Oficial, E-46071 Moncardia (Valencia) SPAIN
- June/July 89 **Integrated Pest Management Workshop combining researchers, consultants etc.** with field emphasis at Q.A.C.
Contact: (075)620281.
- July 1989 **Alternatives to the Chemical Control of Weeds**, Rotorua.
Contact: Dr. J A Jabkiewicz, Forest Research Institute, Private Bag Rotorua, NEW ZEALAND.
- July 18-22 1989 **Fourth International Conference on Bracken: Biology, economic significance and control**, University of Sydney.
Contact: Prof. J A Thompson, School of Biological Sciences, Macleay Building a12, University of Sydney, NSW 2006.
- Sept. 5-7 1989 **Prospects for Amino Acid Biosynthesis Inhibitors in Crop Protection and Pharmaceutical Chemistry**. A residential conference to be held at Churchill College, Cambridge.
Contact: L.G. Copping, Dow Research, Letcombe Laboratories, Letcome Regis, Wantage, Oxon, OX12 9JT.
- Sept. 11-15 1989 **Nature Conservation-The Role of Corridors**. A conference/workshop to be held at Busselton, WA. Conference fee \$200.
Contact: Miss P. Hussey, Roadside Vegetation Conservation Committee, P.O. Box 104 Como WA 6152.

NEW BOOKS AND JOURNALS

WEED SEEDS IN COMMONWEALTH AND STATES LEGISLATION

Authors: R. J. Turner and G.S. Stevenson

Publisher: Department of Primary Industries and Energy Australian Quarantine Service May 1988.

WEED CONTROL ECONOMICS

Authors: B. A. Auld and K. M. Menz

Publisher: Inkata Press Pty Ltd., 4 Longbourne Ave, North Clayton Vic. 3168

Contents: Introduction; plants as weeds. Aims and methods of weed control. Impact of weeds on agriculture. Weeds in individual fields; an introductory analysis. Weeds in individual fields; long term considerations and other factors. Weeds in a farm system. Weeds in a regional context. Weed control in a social context.

TREASURER'S REPORT**SUMMARY OF CASH FLOW (CHEQUE A/C 86 92376) AS AT 16 AUGUST 1988**

8/1/88 Balance \$421.29

<u>Income Details</u>	\$	<u>Expenditure Details</u>	\$
Interest chq ac	9.09	Tax	0.15
Pesticide School Proceedings	60.00	Australia Post Box	48.00
Subscriptions	703.00	Newsletter Postage	80.64
Cash from Step Ahead	1,800.00	T O'Neill - Logo Design	206.87
A.S.B.	265.50	Secretarial Expenses	217.94
		Comet	69.11
		Dr R. Medd Study Grant	500.00
		D Lemerle Study Grant	500.00
		Sydney Uni. Weed Soc. prize	50.00
		Dr J Strelbig Guest Speaker	400.00
		Paul Cavers Guest Speaker	150.00
		Aust. Post Newsletter Reg.	40.00
Balance in Excess of Expenditure			574.88
	<u>2,837.59</u>		<u>2,837.59</u>
Balance of Account	421.29		
Plus	574.88		
Balance at 16 August 1988	<u>\$ 996.17</u>		

STATEMENT OF ASSETS AS AT 16 AUGUST 1988

Aust. Savings Bonds Series 22	14.75%	3,600.00
Adv. Bank Step Ahead Ac. 2681492*	11.00%	3,684.89
Adv. Bank Term Deposit	13.00%	13,901.10
ANZ Cheque Account		996.17

*N.B. \$3,000 to be transferred to cheque account for payment to Ag. Institute as share of Pesticide School.

SUMMARY OF MEMBERSHIP 16 AUGUST 1988

<u>Paid 1988</u>	<u>Individual</u> <u>Paid 1987</u>	<u>Arrears</u>	<u>Paid 1988</u>	<u>Corporate</u> <u>Paid 1987</u>	<u>Arrears</u>
42	79	33	1	12	0

Geoff Jacobs,
Honorary Treasurer