

PROCEEDINGS OF THE
BRITISH
WEED CONTROL CONFERENCE
1954
Hotel Majestic, Harrogate,
England.
NOVEMBER, 2nd, 3rd, and 4th, 1954

The Conference was organised by the British Weed Control Council which was set up at the business meeting held at the conclusion of the first British Weed Control Conference in November 1953. One of the functions of the Council is "to arrange a Natural Weed Control Conference at such intervals as shall be considered desirable and to publish its proceedings". It was decided by the Council that a second conference should be held in 1954 on similar lines to the 1953 Conference to provide again an opportunity for all those interested in the technology of weed control to hear of the latest developments and to present and discuss the results of their investigations and experience.

PROGRAMME AND TABLE OF CONTENTS

Tuesday Morning, November 2nd, 1954

	<u>Page</u>
President's Opening Address	1
<u>Weed Control in Perspective</u>	
Chairman: The President	
'The Present Position of Herbicides in British Agriculture.' DR. W. G. TEMPLEMAN, Jealott's Hill Research Station.....	3
Discussion.....	12
'Cultivations and Weed Control.' PROFESSOR H. G. SANDERS, University of Reading.....	15
Discussion.....	18
Recent Advances in Weed Control in the United States. DR. C. WARREN SHAW, Agricultural Research Service, United States Department of Agriculture.....	23

Tuesday Afternoon, November 2nd, 1954

Research Reports

Chairman: Dr. E. Holmes

Horticulture

'The Use of Herbicides in Vegetable Crops in Denmark.' H. I. PETERSEN, Statens Ukrudtsforsog, Denmark.....	47
'Contact Pre-emergence Treatment for Vegetable Crops.' H. A. ROBERTS, National Vegetable Research Station.....	57
'The Weed Problem in Bulb Crops.' J. WOOD and P. G. LIME, Ministry of Agriculture, N.A.A.S.	65
'Observations on the Weed Problem of Allotments based on a Survey.' S. J. WILLIS, Shuttleworth Agricultural College, Bedfordshire.....	71
Discussion.....	75

Grassland

'Herbicides as Pre-treatment for Pasture Renovation.' M. NORMAN, Grassland Research Station.....	77
'The Effect of 2, 4-D (amine) on Juncus articulatus.' T. H. DAVIES and R. P. DONEY, Ministry of Agriculture, N.A.A.S.....	85
'Some Problems in the Ecology of Rush infested Pastures.' A. D. Q. AGNEW, University College of North Wales.....	89

'An Experiment in the Control of Creeping Thistle (<i>Cirsium arvense</i>) in Pastures.'	95
S. J. WILLIS, Shuttleworth Agricultural College, Bedfordshire.	
Discussion.	98
<u>Herbage Seed Crops</u>	
'The Problems of Weeds in Herbage Seed Crops.'	
O. G. WILLIAMS, Ministry of Agriculture, N.A.A.S.	101
'Preliminary Observations on the Effect of 2, 4-D on Morphological Development in Grasses.'	
R. S. L. JEATER, National Institute of Agricultural Botany.	111
Discussion.	116
<u>Legumes</u>	
'The Effect of Growth Regulator Weedkillers on Clover. Report on 1954 Experiments.'	
W. OCHILTREE, Plant Protection Ltd.	125
'B.A.C.A./N.A.A.S./A.R.C. Joint Trials on Undersown Clover: Progress Report.'	
S. A. EVANS, Ministry of Agriculture, N.A.A.S.	143
'Weed Control in Peas and Lucerne with ICP and Chloro-I.P.C.'	
L. G. SPENCER, Imperial Chemical Industries Ltd.	151
'Observations on the Control of Weeds in Peas following Experiments carried out from 1948-53.'	
J. M. PROCTOR and J. D. REYNOLDS, Home Grown Threshed Peas Joint Committee, and P. GREGORY, Pest Control Ltd.	157
'An Investigation into the Possibilities of Low Volume Application of Dinoseb for Weed Control in Peas.'	
J. D. REYNOLDS and J. M. PROCTOR, Home Grown Threshed Peas Joint Committee, and P. GREGORY, Pest Control Ltd.	165
'Preliminary Experiments on Chemical Control of Wild Oats in Peas.'	
P. GREGORY, Pest Control Ltd., and J. D. REYNOLDS and J. M. PROCTOR, Home Grown Threshed Peas Joint Committee.	177
Discussion.	185

Control of Grass and Roadside Herbage

'Recent Experiences with Herbicides for the Eradication of Agropyron repens PB.'	
H. OSVALD and E. ABERG, Inst. for Vaxtoldingslara, Sweden.....	187
'Further Developments in the use of T.C.A.'	
S. G. JARY, Pest Control Ltd.....	195
'Chemical Control of Couch Grasses.'	
P. J. K. HOOD, Ministry of Agriculture, N.A.A.S.....	201
'Sward Destruction by T.C.A.'	
J. DAVIES and S. A. EVANS, Ministry of Agriculture, N.A.A.S.....	205
'Observations on the Use of Maleic Hydrazide.'	
G. F. HARDING and G. O. P. EATON, Burt, Boulton and Haywood Ltd.....	213
'Preliminary Experiments on the Effects of Selective Weed- killers 2, 4-D on the Vegetation of Roadside Verges.'	
MISS O. E. BALME, Nature Conservancy.....	219
Discussion.....	229
<u>New Chemicals</u>	
'Effects of Organo Mercury Compounds on Certain Weeds.'	
R. V. BLANDY, F. W. BERK and Co. Ltd.....	231
'The Use of Pentachlorophenol for Pre-emergence Weed Control with particular reference to a 15% PCP miscible oil formulation.'	
A. J. LLOYD, Monsanto Chemicals Ltd.....	237
Discussion.....	247

Wednesday Morning, November 3rd, 1954

Application Problems

Chairman: Mr. F. W. Morris

'The Rotation of Weedkillers.'	
A. L. ABEL, Crop Sprayers Ltd.....	249
Discussion.....	253

	<u>Page</u>
'Spraying Machinery.'	
C. CULPIN, Ministry of Agriculture, N.A.A.S.	257
Discussion.	265
'The Economics of Commercial Application.'	
R. E. LONGMATE, E. C. Longmate, Ltd.	267
Discussion.	271
'The Ministry Approval Scheme for Herbicides.'	
DR. R. DE B. ASHWORTH, Ministry of Agriculture, Plant Pathology Laboratory.	275
'Legal Aspects of Spray Damage.'	
J. HENNIKER SMITH, J. Henniker Smith & Co.	281
Discussion.	286

Wednesday Afternoon, November 3rd, 1954

Weed Seeds

Chairman: Mr. Tom Duke

'Weed Dispersal and Persistence.'	
SIR EDWARD SALISBURY, Director, Royal Botanic Gardens, Kew.	289
'Weed Dispersal by Machinery.'	
F. COLEMAN, Royal Agricultural College, Cirencester.	295
'The Present Position Concerning the Law on Injurious Weed Seeds and Noxious Weeds.'	
J. A. McMILLAN, Ministry of Agriculture, N.A.A.S.	301
Discussion.	304

Mode of Action of Herbicides

Chairman: Dr. E. E. Cheesman

'Selective Weed Control - Some Recent Developments at Wye.'	
PROFESSOR R. L. WAIN, University of London - Wye College.	311
'Adsorption and Growth Regulation.'	
DR. R. C. BRIAN, Imperial Chemical Industries Ltd.	321
Discussion.	325
'Investigations into the Practical Value of MCPB as a Selective Weedkiller in Leguminous Crops.'	
K. CARPENTER and MARGERY SOUNDY, May & Baker Ltd.	327

Thursday Morning, November 4th, 1954

Research Reports

Chairman: Sir William Slater

Experimental Techniques and the Activity of Herbicides

X 'Method and Results of Small Scale Testing of MCPA Derivatives.'
MISS M. C. FROST and A. L. GATHERGOOD, Plant Protection Ltd. 347

'The Value of Different Isomers of Phenoxyacetic Acids and Phenols
and the Effects of MCPA.
E. ABERG, Inst. for Vaxtodlingslara, Sweden. 355

'Techniques for the Rapid Evaluation of Potential New Herbicides.'
K. CARPENTER, May & Baker Ltd. 363

'An Experimental Technique for Investigating Leaching of
Herbicides.'
G. S. HARTLEY and P. O. PARK, Pest Control Ltd. 373

Discussion. 373

X 'Spraying Equipment for the Experimental Application of Herbicides.'
J. D. FRYER and J. G. ELLIOTT, Agricultural Research Council,
Unit of Experimental Agronomy. 375

'Some Observations under Swedish Conditions on the Relationship
of Spraying Techniques and Biological Efficiency.'
H. HELQUIST and A. BENGTSOON, Inst. for Vaxtodlingslara, Sweden. 389

Discussion. 393

Cereals

'Environmental Factors affecting the Response of Barley to
Growth Regulators.'
S. ANDERSEN, Landbrugets Plantekultur, Denmark. 395

'Concerning the Influence of Cold Periods on the Effect of
2, 4-D and MCPA on Oats.'
B. RADEMACHER, Inst. für Pflanzenschutz, Germany. 401

X 'The effects of MCPA (Sodium) and 2, 4-D (amine) applied to
Spring Oats at the 1 to 3 Leaf Stage.'
J. D. FRYER and J. G. ELLIOTT, Agricultural Research Council,
Unit of Experimental Agronomy. 407

X 'The Early Spraying of Spring Oats with MCPA (Potassium).'
T. C. BREESE, Plant Protection Ltd. 415

Discussion. 422

'The Application of Herbicides in Winter-Rye and -Wheat with
special reference to the yield stimulating effect of DNC.'
P. RIEFMA, Centraal Inst. voor Landbouwkundig Onderzoek, Holland. 425

	<u>Page</u>
'The Use of Dinitro Weedkillers on Winter Cereals.'	
P. PFEIFFER, P. GREGORY and H. HOLMES, Pest Control Ltd.	433
Discussion.	445

Row Crops and Flax

'Chemical Weed Control in Sugar Beet. A Report of Experimental Work in 1954.'	
C. PARKER, Norfolk Agricultural Station, Sprowston.	447

'Calcium Cyanamide as a Herbicide in Row Crops.'	
B. RADEMACHER, Inst. für Pflanzenschutz, Germany.	455

'The Use of Sulphuric Acid for Controlling Weeds in Brassica Crops.'	
W. Q. CONNOLD and E. I. PRYTHERCH, Ministry of Agriculture, N.A.A.S.	457

'Weed Control with DNC (Sodium) and MCPA (Sodium) in Fibre Flax in Denmark.'	
I. S. FREDERIKSEN, Dansk Hørforskningsinstitut, Denmark.	467

'Survey of Swedish experiences of chemical weed-killers used in fibre flax during the years 1940-53.'	
K. FROIER and H. ZIENKIEWICZ, Flax Laboratory of the Swedish Seed Association, Svalof.	475

Discussion.	491
------------------	-----

Seed Drill Survey

'The Value of Grain Drill Surveys in Studying Weed Problems in Small Grains.'	
J. D. FORREST, West of Scotland Agricultural College.	493

Thursday Afternoon, November 4th, 1954

Woody Weeds with Particular Reference to The Colonies

Chairman: Mr. F. S. COLLIER

Research Reports

'Some Trials with Defoliant and Arborescences in East Africa.'	
G. W. IVENS, Colonial Insecticide Research Unit. (presented by Professor G. E. BLACKMAN, University of Oxford)	499

'The effects of CMU and PDU on Lalang-Grass (Imperata Cylindrica) in Malaya.'	
H. P. ALLEN, Plant Protection Ltd.	509

Discussion.	515
------------------	-----

	<u>Page</u>
'The Use of 2,4-D. and 2,4,5-T. Brush-Killers for the Control of Weeds on Railway Embankments.'	
K. CARPENTER, May & Baker Ltd.	523
'Some Practical Aspects of the Control of Woody Growth.'	
G. F. HARDING and G. O. P. EATON, Burt, Boulton & Haywood Ltd.	535
Discussion.	540
 <u>Business Matters</u>	
Minutes of the Business Meeting.	543
Treasurer's Report.	546
Constitution of the British Weed Control Council.	547

Report of the Recommendations Sub-Committee.

List of Members.

Index.