

we should support it by acting:

- (1) To provide a uniform code of broad, flexible guidelines specific to the evaluation, labelling, clearance, and registration of herbicides.
- (2) To amend legislation under which herbicides and all agrochemicals are registered so that uniformity becomes a practical reality.

The Australian Weeds Conference 1970 seems a logical forum to debate and initiate further action.

#### HERBICIDE REGISTRATION IN AUSTRALIA - COMPANY PROGRAMMES AND MECHANICAL ASPECTS

B.B. Brett

AVCA, Sydney, New South Wales

L. Campbell-Smith,

Bayer Leverkusen, Botany, New South Wales

#### INTRODUCTION

This paper is complementary to 'Herbicide Registration in Australia - Definitions and Improvements, Past and Potential', by B.B. Brett.

#### REGISTRATION AND COMPANY PROGRAMMES

A registered, labelled herbicide is the first climax of a research and development programme which involves a high degree of corporate planning, organization, coordination, and control on a continuing basis.

Few new herbicides reach the Australian market under 3 years of local evaluation and residue studies. They will have been 5-8 years (half the patent life) in development and have cost 3-6 million dollars.

The registered, labelled herbicide must be conveniently available for end users at the correct time and must be adequately serviced.

Thus a herbicide is a cog in a complex operation involving large total resources - the developing company, dealers, and end users. Progress towards marketing according to a reasonably predictable timetable is vital.

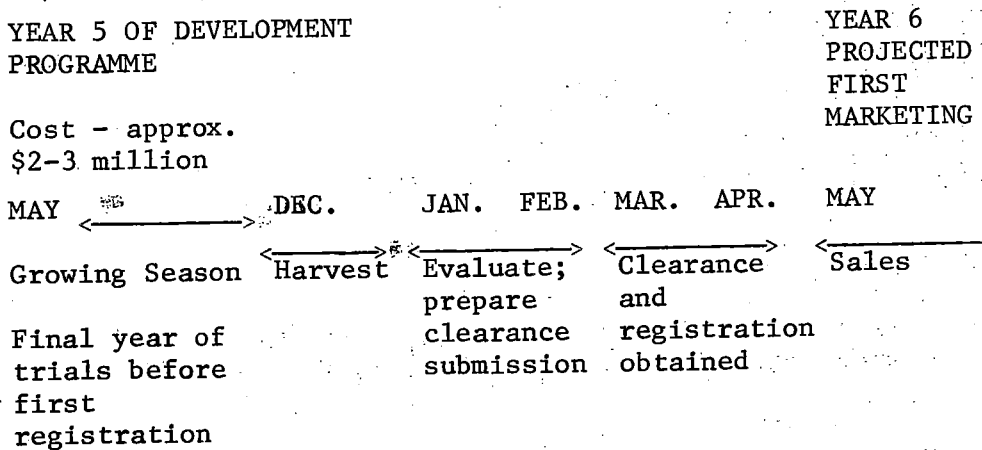
Registration is a key point in this progression. Developers recognize the responsibilities and problems of the authorities but desire to minimize any delays which could cost them dearly.

### MECHANICAL ASPECTS OF CLEARANCE AND REGISTRATION

These have improved significantly in the last 5 years because of better liaison and communication between government and industry. Areas warranting further attention include:

#### (1) Streamlining Clearance and Registration

The very short time available between seasons, as related to marketing situations, is illustrated by a hypothetical herbicide for winter cereals:



This imposes a strain on development personnel and on clearance and registration authorities alike. It has significant economic implications for company and user. All or part of a season's business is at stake for the company, and the farmer may be denied the benefits of the product. A year's delay could cost a company a considerable proportion of its period of patent protection - the marketing advantage it relies on to recoup its research investment.

(2) Grounds for Veto of Clearance

Clearances should be vetoed only on sound scientific grounds. For example, a clearance submission indicates intention to register in one State. It seems unreasonable for other States to veto merely because work was not done within their boundaries. They may legitimately object if they consider the supporting data do not substantiate claims made.

(3) Access to Trial Results

Candidate herbicides may be included in trial programmes of State department officers. Security needs may preclude the release of trial results by these officers to industry. Is there any valid reason why the results may not be made available to other interested State registration authorities?

(4) Label Claims and Directions for Use

Companies operating nationally endeavour to write a label acceptable to all States in which registration is sought. This is extremely difficult when the product use is not applicable to all sections of a particular State. Consider a weed which occurs on the lighter soils of southern Australia and on the heavy clays of north-west New South Wales and southern Queensland.

What are the objections to a label presentation which specifically mentions the weed, the zone or region in which control is claimed, and the directions for use appropriate to that zone or region?

It is legitimate for registration authorities to refuse registration on the grounds that farmers in another region in which the weed occurs may be misled?

(5) New Developments in Weed Control

Do existing procedures adequately provide for clearance and registration of biological control agents as distinct from conventional chemicals?

We must look to the future.

(6) Government-Industry Liaison

It seems reasonable to extend the sound basis which now exists. For example, why not have government and industry meetings define research/extension/market needs in specific areas and relate these to registration requirements?

## CONCLUSIONS

Clearance and registration have strong economic and planning implications for companies developing new herbicides.

Legislation concerned with registration in Australia tends to be complex and inflexible. Delays may be minimized if it is administered in a flexible, positive, constructive manner which recognizes that registration is a key link in making available to primary producers useful management tools - herbicides.

The Australian Weeds Conference provides a forum for a frank, objective discussion, which may serve as a base for further action.

## PRE-EMERGENCE WEED CONTROL IN CEREALS WITH VCS 438

M.W. Barrett and W.C. Stonebridge  
ICIANZ, Victoria

VCS 438 is a novel chemical discovered by the Velsicol Corporation of the USA. In initial screening work at 'Merrindale' Research Station, it showed promise as a selective herbicide for weed control in wheat, when applied after sowing and before crop emergence. As a consequence, field testing of this new material was undertaken in 1968 and 1969, and an outline of some of the results achieved and their possible implications is given in this paper.

Glasshouse tests had indicated that Wimmera ryegrass was particularly susceptible to VCS 438 and, in the single detailed field trial of 1968, this was the dominant weed. On a light Mallee sand rates of 1 and 2 lb a.i. per acre (1.12 and 2.24 kg per hectare) were applied after sowing and before emergence to a site where ryegrass was expected to be a problem.

Insignia wheat had been sown 3 days prior to spraying, which was carried out with an Oxford Precision unit delivering 10 gal. per acre (113.6 litre per hectare).

Counts of ryegrass were made 2 months after spraying, with five random foot-square quadrats (929 sq cm) in each of the