THE FUNCTION OF THE TECHNICAL COMMITTEE ON AGRICULTURAL CHEMICALS IN CLEARANCE OF AGRICULTURAL CHEMICALS FOR REGISTRATION

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Summary. The Technical Committee on Agricultural Chemicals (TCAC) was established in 1969 by the Australian Agricultural Council (AAC) in response to submissions by the agricultural chemicals industry. In keeping with scientific and technological developments data requirements for clearance have been revised several times. The overall function is to co-ordinate the views of the several authorities involved in product evaluation in respect to product clearance, and issue or deny clearance as the case may be. To achieve clearance Industry must have effectively canvassed all relevant issues for the particular product and its proposed use.

INTRODUCTION

The first legislative control over agricultural chemicals in Australia was the Victorian Fungicides Act of 1916. All states have had comprehensive legislation in place for over 40 years and much of this has been updated several times. The State legislation addresses, among other things, the sale labelling, packaging and advertising of chemicals used for the control of pests. The unilateral development of State legislation resulted in variations in requirements between the states and in 1968, discussions between the agricultural chemicals industry and governments (State and Commonwealth) were commened to recommend ways and means of harmonsing the requirements and procedures for registering agricultural chemicals in Australia. Those discussions led, in 1969, to the establishment, under the auspices of the AAC of the TCAC.

DEVELOPMENT

The charter of the TCAC was to act as a central authority to evaluate agricultural chemicals prior to registration, a state legislative function. To assist TCAC to carryout its charter the state authorities agreed that registration of new agricultural chemicals be withheld until clearance had been obtained from TCAC.

To guide applicants in the requirements for clearance of agricultural chemicals, a document was prepared and circulated to Industry. It has since been revised on several occasions; the current document being colloquially known as PB 310 B (May 1985).

The overall requirements of TCAC have changed in the past 16 years. Advancing knowledge has resulted in a considerable increase in the demand for more detailed and complex data to support applications for clearance. Greater concern and care is now exercised over issues relating to toxicology and residues in foods of plant and animal origin, with the result that submissions have much more information to be evaluated.

Developments in technology, both in design of experimentation, specificity of action of chemicals against pests, analytical methodology, and detection of residues etc. have also added to the complexity of submissions and their evaluation and in the requirements of regulatory authorities. Further, the dynamic nature of legislation governing agricultural chemicals, results in a continuing up-grading and expansion of requirements. This is reflected in the

extent and complexity of submissions, and in the attitude of Government authorities to detail, that would not have been considered ten years ago. It also includes a much greater emphasis on environmental implications of agricultural chemicals. As a result, there has been a significant increase in the amount and nature of information covered in submissions, and an expansion of the membership of TCAC to include wildlife, environmental, occupational health and safety, and fisheries expertise to assist in product evaluation.

FUNCTION

It would be simple, in referring to the function of TCAC, to point to the terms of reference of the Committee as set out in PB 310 B - Requirements for Clearance of Agricultural Chemicals. These are as true today as they were in 1969 when they were established. Perhaps what is required on this occasion is to look more closely at the component parts of a submission for clearance, how they dovetail together to provide a complete picture, and how we, as individuals and institutions, industry or government, can ensure that the specific requirements are effectively met.

A submission for clearance is required to provide relevant information in the following areas:

* Toxicology of the technical grade active constituent.
* Toxicology of the end use product.
* Metabolism in plants, animals and, where possible, humans.
* Environmental chemistry or fate.
* Environmental toxicolgy
* Efficacy and phytotoxicity
* Residues (as applicable).

These seven areas are drawn together in a summary volume which also provides a detailed physical and analytical chemical profile of both the technical grade active constituent and the end use product.

I do not intend to spend time discussing any aspects of the toxicological, metabolism or residues requirements, as they will be covered in a paper to be present at this conference by Sargent. Suffice it to say that the toxicological and metabolic data is important not only to the public health authorities, but also to the environmental and occupational health and safety authorities who are now much more closely involved in product evaluation.

Similary, on this occasion I do not wish to discuss the areas of environmental chemistry and fate and environmental toxicology, as it is my belief that the majority of those here today is involved in the areas of field research and development of efficacy and safety (phytotoxicity) data as well as residue data.

Finally, I am not going to get involved in any way in a discussion of the detailed technology for the establishment and conduct of efficacy and residue studies under laboratory, glasshouse, field, cage or broad acre situations. The basic techniques are well known and documented in a variety of publications.

Having told you what I am not going to discuss you may well ask - what is he going to talk about? Well, I want to spend a couple of minutes outlining the function of TCAC and how the respective areas I have referred to above come together to provide a total picture of an agricultural chemical.

Fairly obviously the overall function of TCAC in clearance of agricultural chemicals is to satisfy itself that the product can be safely and effectively used in agriculture in Australia. To do this it has a double role to play as it firstly must seek and co-ordinate the views of public health, occupational health and safety, environmental, wildlife and fisheries interests, and secondly, relate that assessment to that of the agricultural authorities prior to reaching a decision as to whether or not clearance should be issued.

In conclusion, I would like to point out to all who are involved in research and development that it is often necessary to stand away from the particular problem with which you are dealing in order to fully see all the implications. For example, work to control weeds in crops or pastures seems straightforward enough, but, have you examined possible residual effects on following crops, cropping, determined residues in crop stubbles, or pastures which will almost inevitably be grazed? Have you data that shows how animals handle residues of the chemical, or data on residues that might occur in meat, milk, eggs produced after consumption of fodder from treated areas, and so on?

If you have undertaken your developmental work to provide adequate answers to all the questions that could be asked concerning your product, then it could be expected that clearance would be forthcoming with a minimum of questioning from the Committee.