

TOWARDS A NATIONAL APPROACH TO EFFICIENT PESTICIDE USE

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Summary. The National Strategy for Ecologically Sustainable Development requires that Governments *assess the merits of setting indicative national targets for the use of selected agricultural and veterinary chemicals*. These words provide agricultural and veterinary scientists from all disciplines with an opportunity to contribute to debate on this matter, the outcome of which could have profound implications for Australian agriculture. Failure by any group or discipline to take up the opportunity incurs the risk that decisions will be made without their input. This paper describes the environment in which the debate will take place and outlines the role that weed scientists may play in it.

INTRODUCTION

The National Strategy for Ecologically Sustainable Development (ESD) (4) identifies five objectives for the agricultural sector, one of which covers effective and safe management of pesticides. A key strategy for achieving this objective requires that Governments *assess the merits of setting indicative national targets for the use of selected agricultural and veterinary chemicals*.

Given the political dimensions and the policy ramifications of this statement it is imperative that agricultural and veterinary scientists from all disciplines contribute to a rational and informed debate on the issue, weighing the opportunities and potential benefits against the costs. Failure to take up the opportunity incurs the risk that vital decisions will be made in the absence of appropriate input from weed scientists.

TREATMENT OF PESTICIDE IN THE ESD PROCESS

The Commonwealth Government's Working Party that reported on ecologically sustainable development in the agricultural sector (1,2) recognised the concerns expressed by different interest groups about pesticides, including such matters as: consumer health and the safety of workers and people in rural areas; the environmental impact of pesticides in soil and water; and the development of pesticide resistance.

It is clear, however, that the overriding concern was for the need to maintain market access, something that could be jeopardised were Australia to export commodities containing residues of pesticides that are either not approved for use or exceed maximum residue limits in importing countries. This concern is reflected in the recommendation *that targets be set for reductions in use of specific classes of chemicals as a means of encouraging the development of alternatives and ensuring that Australia is in a position to meet changing market requirements for its agricultural products* (2).

The Working Party was not unanimous in its view on establishing targets for pesticide use; some members supported the idea of mandatory targets, others favoured the setting of indicative targets. The National Farmers' Federation (NFF), on the other hand, was opposed to setting any targets without objective scientific data to show that such action would be beneficial to human

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health and safety (2). Debate within the Working Party was constrained by a lack of data on the potential benefits of setting targets for pesticide use in Australia. In the end, the statement incorporated into the National Strategy viz, *Governments will assess the merits of setting indicative national targets for the use of selected agricultural and veterinary chemicals* was, in all probability, the best possible outcome. The ESD strategy now provides weed scientists with an opportunity to contribute to debate on this matter, the outcome of which could have profound consequences for our agricultural industries.

INITIATIVES TO REDUCE PESTICIDE USE

There is a worldwide trend to greater regulation of pesticide use involving, among other things, frequent reviews of registered products and the introduction of progressively more rigorous criteria for assessing the impact of pesticides on the environment. These developments have led to the withdrawal of significant numbers of chemicals from use. For other products, registered uses have been severely restricted. The level of community concern about pesticides was so great that governments in Sweden, Denmark and the Netherlands legislated to reduce their use (6). Several other countries have established voluntary programs with similar objectives (5).

It is important at the outset that Australian agricultural and veterinary scientists understand the environment in which Governments have been prepared to take what some might think to be quite radical steps or, in the case of the Netherlands, draconian measures. These steps have not been taken lightly, and reflect extensive consideration rather than hasty decisions to pacify green lobbies.

The Netherlands ranks only second behind the United States in the value of its exports of agricultural products. It has achieved this position through the development of intensive, highly sophisticated systems of production supported by large inputs of pesticides. To achieve the goal of halving pesticide use in a decade will involve massive restructuring of agriculture. Direct costs to farmers have been estimated at 2.3 billion Dutch florins (AUS\$1.8 billion) and extra costs will run to an estimated annual 830 million Dutch florins (AUS\$660m) in the year 2000 (3). No government could afford to alienate an important and influential sector in this way without compelling reasons and hope to survive. While doubtless there is much disquiet among farmers, it was clear to the Dutch that the agricultural systems they had in place were on a totally unsustainable course and, if the country were to retain its position in world agriculture, quite drastic measures were required (7).

The situations in Sweden and Denmark were quite different. The agricultural sector in neither country is in any way comparable with the Netherlands, yet public concern about the impact of pesticides on human health and safety and the environment were sufficient for the governments in these countries to lead the way in legislating for reductions in pesticide use (6).

The message from this is that each country must assess its own situation and set in place policies directed to pesticide use that will provide the best possible outcome for the community. This is the challenge before us.

REGULATION OF PESTICIDE USE IN AUSTRALIA

Historically, registration of pesticides in Australia has been a state responsibility. Under an agreement developed by the former Standing Committee on Agriculture (now the Standing

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Committee on Agriculture and Resource Management (SCARM)), the Commonwealth undertook clearance of agricultural and veterinary chemicals ahead of the States imposing their requirements for registration and use. The role played by the Commonwealth was formalised with the introduction of the Agricultural and Veterinary Chemicals Act 1988. This is about to change and under an agreement announced in a press release by the Minister for Primary Industries and Energy in 1992, the Commonwealth will take responsibility for registration. This is to be done by a statutory body, the National Registration Authority, but the States will retain responsibility for use of agricultural and veterinary chemicals. Thus any move to establish a national approach to pesticide use will need to be considered in the SCARM arena. SCARM is pivotal because it is one of those committees where business of common interest to the States and to the Commonwealth is dealt with and where national co-ordination is undertaken.

Countries that have moved to reduce pesticide use, by legislation or voluntarily, have used the registration process as an instrument to force change by introducing progressively more rigorous criteria for assessing the impact of pesticides on the environment. If decisions were made to set targets for pesticide use in Australia, the National Registration Authority would play a key role.

Bodies such as the NFF, consumer, environmental and other interest groups will be important contributors from the outset.

A ROLE FOR WEED SCIENTISTS

Weed scientists have a particularly important role in the development of a national approach to pesticide use for several reasons: herbicides are the single most important group of pesticides in use in Australia, representing more than sixty percent of sales; herbicide use has increased as farmers have adopted minimum tillage technology; existing public concern about herbicides contaminating the environment; and the development of herbicide resistant crops will heighten debate on the use of pesticides.

It is critical at the outset that debate is a constructive one and does not degenerate into an exchange of unsupported opinion about what is possible and what is not possible and/or whether, in the view of experts, herbicides pose any or no risk to the environment or to human health and safety. Irrespective of scientific views about the safety of pesticides, serious consumer concerns exist.

With their mastery of the subject, weed scientists have an obligation to package existing information in a way that can be used by non-scientists, particularly those who must advise governments on the issues.

Recognition of the depth of public concern about pesticides and the worldwide trend to seek ways to reduce pesticide use should guide weed scientists when framing their R&D proposals. The objective for their research should be an outcome that provides Australia with substantial national advantage.

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