Australian Government
Department of Agriculture, Fisheries and Forestry

Comments from the Minor Use Liaison Office on the Chemicals and Plastics Regulation Draft Report

The Minor Use Liaison Office (MULO) would like to thank the Productivity Commission for the opportunity to comment on the Chemicals and Plastics Regulation Draft Report (the Draft Report).

In the Draft Report, two strategies are suggested to address the minor use issue:

1. Make assessment processes more cost effective for minor uses
2. Reduce regulatory requirements where minor uses present a lower risk

The MULO believes that these two goals have merit, however our view is that simply addressing those two issues would not solve the minor use issue. It is not only the cost of assessment processes that deters manufacturers from investing in regulatory approvals for specialty crops. The small size of the market and the potential for liability for crop damage resulting from use of these pesticides[1] reduces manufacturer interest in registrations for these high value crops.

However the MULO supports the aim of reducing the costs of assessment processes for minor uses and is working with the APVMA to convert existing minor use permits without additional costs to manufacturers. It is also noted that the cost of applying for a minor use permit is already much lower that the cost of a full registration.

Regarding the second point on reduced regulatory requirements for lower risk minor use products, the MULO is very supportive of this aim. However, the vast majority of specialty crops are fruits and vegetables, which make up an important part of the Australian diet. The risk assessment process currently used by the APVMA does reduce requirements when risks are low, but it cannot be assumed that risks will always be low in specialty crops.

The report also refers to the Discussion Paper released by the MULO in August 2007 and questions whether a $4.5 million per annum 'subsidy' is warranted. The MULO would like to draw a clear distinction between a subsidy and an investment in research. Subsidies support unprofitable industries and distort the market, while investments in research ensure that the utilization of resources by successful businesses is undertaken in the most productive manner possible. The MULO believes that the research program that is discussed in the August Discussion Paper is clearly an example of research investment rather than a subsidy.

The Draft Report also briefly mentions possible externalities that may be associated with minor use and requests that these be more clearly articulated. The MULO is in the process of contracting an economic consultant to undertake a comprehensive cost-benefit analysis of investing in a national minor use research program, however an analysis will not be available in time for consideration by the Productivity Commission for the current report on chemicals and plastics regulation. The MULO notes that a study into

[1] References in this submission to pesticides include insecticides, fungicides and herbicides. Similarly references to pests include diseases, weeds and insects.

the United States minor use research project (IR-4) showed a 500-fold return on investment. The APVMA has provided the Productivity Commission with a copy of this analysis.

The overall economic effect of investing in research of minor use for registration purposes is complex and involves many uncertain statistics. However, the Australian Horticulture Statistics Handbook (2004) shows that in 2001/02 minor crops made up around 40.5 percent of the value of Australian horticultural production. More recent information that includes this level of detail is not publicly available but if we assume this proportion has remained relatively stable we can calculate that current Australian specialty crop production would be worth around $2.8 billion annually (based on an annual value of $7 billion for horticultural production). If even a 1 percent increase in productivity could be achieved in specialty industries from a national minor use research program, then the research would instantly generate an additional $280 million in increased production. This does not factor in many of the benefits that such a program could have in terms of better human health and environmental risk management or externalities associated with other industries.

In the absence of a comprehensive cost-benefit analysis, the MULO has identified a range of minor use impacts that could be addressed by a nationally funded minor use research program and attempted to describe the impacts and the associated costs that arise from not addressing the issue.

1. Lack of regulatory assessment to manage risks

Issue

The regulatory approval of pesticides involves extensive research, a thorough risk assessment and the development of a risk management plan by qualified scientists that addresses any risks to human health and the environment. Relevant directions for use are provided on the product label to ensure that producers are able to meet market access requirements while protecting themselves, consumers and the environment from potential adverse effects of the product.

The lack of an effective range of legal crop protectants places specialty crop producers in a situation where they must choose between high levels of pest damage/crop loss or the use of an unregistered product. In many cases such use will not present undue risk to human health or the environment but the lack of a regulatory assessment means there is potential for loss from unforseen risks.

Cost

The direct costs associated with this issue could be extremely large when a pesticide has a severe effect on human health or the environment. While minor uses are often viewed as having minimal risk due to the small scale of use this may not always be the case as consumer consumption can be significant due to the importance of horticultural produce in our diet, consumer exposure and environmental impact may be significant due to close proximity of production areas to population centres (peri-urban agriculture), and there is a relatively large workforce required to undertake manual labour in many minor use horticultural industries that can be exposed to pesticides in the course of their occupation.

There is also a public cost in that the lack of regulatory assessments can lead to a lack of confidence in the quality of produce . Public concern has led to the establishment of quality assurance programs that include residue testing by marketing authorities and supermarket chains. The costs associated with these programs translate into increased food prices to the consumer.

2. Limitations on industry development and innovation

Issue

Diversification has been, and continues to be, encouraged within agricultural communities to spread the risks associated with agricultural production (eg. commodity price changes, weather variability, exotic pest incursions etc.). However , a lack of effective pest management tools limits production and profitability and stifles industry development. The minor use issue effectively discourages diversification into specialty crops and limits growth of these specialty industries.

Cost

The cost is the lost opportunities for diversification and innovation in Australian agriculture. A monetary value will be difficult to determine for this cost as it involves predicting the future performances of multiple industries so that their relative performance can be compared. Perhaps a better way to express this cost is to consider the loss in resilience in Australian agriculture and regional Australian communities that rely on agriculture to survive.

3. Unnecessary duplication and failure to utilise economies of scale

Issue

In many instances, there is an inefficient use of resources when individual farmers, industry groups, supermarket chains or state governments undertake residue analysis to address perceived risks and concerns associated with the use of pesticides. National registration of minor use pesticides would be much more cost efficient. Even greater cost efficiencies can be achieved through international minor use registrations, however for Australia to participate effectively in such a process, there is a need for a national program that can determine research priorities and generate registration data.

Cost

Direct costs are currently evident where there is duplication and conduct of ineffective research by specialty industries. A national research program could address duplication by coordinating research at a national level and ineffective research could be greatly reduced by using centralized expertise to direct research and compile regulatory submissions. International research with the US and Canada could reduce data generation costs by two-thirds by sharing the cost of conducting this research between three countries.

4. Minor Crops as pest reservoirs.

Issue

Minor crops and weeds are often alternate hosts for pests and diseases. These minor crops or weeds provide the source of pest for subsequent dispersal to crops growing nearby. Most importantly, the presence of these pest populations facilitates the rapid establishment of the pest or disease population in commercial crops after planting and increases the likelihood of economic levels of damage to the crop.

This scenario is clearly demonstrated with populations of Western Flower Thrips in peri-urban production of vegetables and ornamentals.

Cost

The direct costs of this impact are costs associated with the effective management of the pest problems in nearby commercial crops. The indirect costs are more difficult to estimate as the impact may involve increased costs for crop monitoring, increased costs of pesticides for additional pest generations/cycles or loss associated with crop damage due to increased pest pressure.

It is difficult to estimate the exact cost as the number of affected related industries can be large. Frequently the presence of a population of a pest and market requirements results in the need to manage pests or disease in time and space. A simple scenario demonstrating this approach is the management of stripe rust in a triticale crop to avoid subsequent infection of wheat crops grown in the same district. A more complex and costly example is the management of Queensland Fruit Fly in South Eastern Australia where pest populations in navel oranges must be managed constantly throughout the specified zones at all times during the production season to meet “nil-tolerance” market access requirements for the United States of America.

5. Effective Pesticides for IPM & Resistance Management.

Issue

The early generation pesticides were effective against broad ranges of pests In the 1960s and 1970s these pesticides were found to have severe environmental impacts and, due to these problems, these “broad spectrum” pesticides were replaced by specific compounds. These new insecticides were commonly used in combination with a different approach to pest management, Integrated Pest Management (IPM), that utilises an array of complementary methods: mechanical devices, physical devices, genetic, biological, legal, cultural management, and chemical management. Pesticides used in IPM systems must be effective against pests but not harm biological controls agents. Unfortunately, currently available pesticides for specialty crops are older chemistry that is not compatible with biological control strategies. Access to a greater range of pest management tools, including the latest more IPM friendly products, would allow growers to reduce reliance on chemical controls.

In addition , the limited range of legal crop protection tools available for use in specialty industries results in constant and repeated use of these chemistry that results in pesticide resistance. Effective resistance management involves the use of different groups of pesticides in rotation to avoid continuous exposure of the pest to the pesticide and the development of pesticide tolerance in the pest population. Access to novel specific pesticides from differing groups of pesticides provides new solutions to pest management and broadens the range of effective pesticide options. Access to the latest insecticides will also allow the implementation of IPM systems that will reduce reliance on chemicals generally and further decrease the likelihood of pesticide resistance.

Cost

The most significant direct cost is associated with crop loss resulting from reduction of the quality of crops and crop failure due to inability to control a resistant pest. These losses can be substantial in particular

crops and, in some instances, devastating where there is an impact from a resistant pest population across many industries eg. the arrival of resistant Western Flower Thrips in the 1990s caused direct economic loss to Australian the growers in vegetable and ornamental industries. In addition, there are many indirect costs resulting from crop failures that include loss of contracts for production and, in extreme cases, the need to develop and adopt novel pest management systems that are far more expensive. These increased production costs are reflected in increased costs of fresh and processed food to consumers.

6. Phytosanitary market access

Issue

Pesticides are used during and post production of crops to meet quality standards for international and domestic trade. In most cases, there are stringent requirements that produce is free of specified pests and diseases as well as the damage caused by them. Failure to meet these requirements often results in rejection of the product prior to export or on arrival in the importing country. In cases where the requirements are specified for supply to supermarkets the result may be rejection of the produce or cancellation of contracts. Produce is often destined for interstate or foreign markets where breaches of strict phytosanitary requirements (i.e. the produce has no viable pests) can result in costs associated with produce destruction and permanent loss of market access. Other Australian industries can also be affected as they are forced to undertake more extensive testing to prove that their product does not contain any viable pests.

Cost

The direct cost of market access failure is the value of the export consignment but, in some instances, additional costs may be incurred from the disinfestation or destruction of the produce to remove specified pests or diseases at the site of detection. Another likely outcome is that the crop has to be sold at a lower price to what it would achieve in its ideal market and the cost is the price difference between the two markets. Failure by a producer to meet the specified requirements may result in the introduction of more rigorous quality assurance measures and, in extreme situations, may involve the loss of contracts or the permanent loss of access to valuable interstate and overseas markets. The outcome in these scenarios can be devastating and the damage to a producer's reputation or the reputation of a country as a supplier or reliable produce can affect other industries as well.

7. Lack of trading standards

Issue

Domestic and international trade involves testing of produce for pesticide residues. This is currently managed by commercial parties, rather than regulated by governments. The registration process involves the setting of maximum residue levels (MRLs) for pesticides on produce and these are the standards against which produce is tested. Specialty producers who use pesticides for unregistered use patterns encounter problems as there are no established MRLs and any detection is considered to be a MRL violation. As testing technology becomes more sensitive, the chances of residue detections and MRL violations increase.

Cost

MRL violations by a single grower may lead to the loss of a contract or a market domestically. In a worst case scenario, Australia's producers of a commodity, or even a group of commodities (such as all leafy vegetables) could face much higher testing costs overseas or be excluded from an export market altogether.

8. Unfair competition and impacts from imports

Issue

Many specialty crop products are imported as there is not sufficient local supply to meet consumer demand. Successful cost-effective production of these crops is dependent on access to an effective range of crop protection tools. Countries with established minor use programs, such as the United States and Canada have an advantage in terms of the range of tools they can choose between when producing their crops.

Cost

The direct cost is cost incurred with the importation of food and agricultural produce that could have been produced in Australia. This translates into higher domestic food prices. Other effects include a reduction in domestic food security and, in many cases, a reduction in the quality of available produce. Recent reports from the United Nations suggest that international food shortages will worsen in the future, making quality imported food more difficult for Australian consumers to purchase.