# Government Response to the Report of the House of Commons Standing Committee on the Environment and Sustainable Development, *Pesticides: Making the Right Choice for the Protection of Health and the Environment*

Canada

# Table of Contents

## Introduction

The government is pleased to respond to the Report of the House of Commons Standing Committee on the Environment and Sustainable Development, entitled *Pesticides: Making the Right Choice For the Protection of Health and the Environment*.

The Standing Committee is to be commended for addressing the important subject of pesticides and their regulation, and for giving Canadians the opportunity to present their views.

"Pesticide" and "pest control product" are general terms for a wide variety of products designed to control and manage pests. Common examples of pesticides include herbicides to control weeds, insecticides to control insects, fungicides to control certain types of plant diseases, insect repellents, rodenticides to control rats, mice, gophers and other rodents, algicides to control algae in swimming pools, antifouling agents to control organisms that attach to boat hulls, and preservatives to control the decay of wood and other material. A pesticide may be chemical or biological (e.g., bacteria and viruses used as pest control products).

Pesticides are used widely. They are likely to be found in nearly every home and business to control insects and other organisms that may threaten human health. They may also be used around the same settings to control weeds and other lawn and garden pests. Pesticides are used widely in agriculture to control many different kinds of pests, and for similar purposes in other industries such as forestry, lumber and aquaculture. Some pesticides, such as those used to control foreign invading species, may be used to protect parts of our environment.

The types of benefits associated with pesticides vary with their uses. In agriculture, for example, economic benefits derive from their contribution to increasing the supply of safe, low-cost food for a growing world population. Similarly, pesticide use in the forestry and lumber industries can contribute to abundant, durable, attractive, competitively priced wood and wood products. In gardens, parks, playgrounds and golf courses, aesthetic considerations and turf quality are seen by some as important benefits of pesticide use, along with controlling noxious weeds such as poison ivy and those which cause allergies. In hospitals and homes, pesticides are commonly used to protect health by controlling pathogenic bacteria and disease-carrying insects such as mosquitoes.

In preparing its report, the Committee was guided by the following principles:

- to make the protection of human health and the environment the absolute priority in pest management decisions, especially the protection of children and other vulnerable populations;
- to ensure that a precautionary approach is taken in decision making;
- to promote and increase reliance on pollution prevention strategies; and
- to foster public confidence by actively informing and involving Canadians.

The government, like the Committee, believes that its activities, both current and proposed, should be guided by these principles. The Government Response is organized into five sections that outline how the government: places protection of human health and the environment as its top priority in regulating pesticides using a fundamentally precautionary approach; is developing a sustainable pest management approach with its partners; and recognizes the importance of having an open and transparent regulatory system.

The Government Response endorses the Standing Committee's number one priority and first guiding principle, protecting human health and the environment. Section 1.0, *Absolute Priority to Health and Environmental Protection*, shows how the regulatory process, together with high quality science, will continue to focus without compromise on protecting people and the environment from risks associated with pesticides. Section 1.0 also shows how the precautionary approach is fundamental to pesticide regulation. The government welcomes the Standing Committee's emphasis on research. Protecting health and the environment from the hazards associated with pesticides requires high quality science, which relies on solid research. Subsection 1.3, entitled *Making Connections Between Research and Regulation*, indicates that the Standing Committee's research priorities and those of the government correspond in large measure, and outlines how the government will more strongly link its research and regulatory functions.

Section 2.0, *Sustainable Pest Management to Prevent Pollution*, addresses a major theme of the Standing Committee report. The government agrees with the Committee that reduction of risks from pesticides cannot be confined to ensuring the acceptability of individual pest control products. Section 2.0 outlines a broad risk-reduction perspective that combines rigorous health and environmental standards for products and sustainable pest management approaches, including integrated pest management (IPM), to achieve the goals of pollution prevention. Much of the legislative power required to support such approaches lies with provincial/territorial legislatures, not with the Parliament of Canada. Recognizing this, the government will approach pesticide risk reduction in collaboration with provincial/territorial authorities, and stakeholders. Section 2.0 also addresses the Standing Committee recommendations on IPM, organic agriculture and cosmetic uses of pesticides.

Section 3.0, *Fostering Public Confidence*, endorses the Standing Committee's fourth guiding principle, to foster public confidence by actively informing and involving Canadians.

The Standing Committee grouped a number of recommendations under the heading, Institutional Issues. Section 4.0, *Institutional Issues*, addresses the Committee's recommendations. One of the most important of the Standing Committee recommendations addressed in Section 4.0 focusses on the Pest Management Regulatory Agency (PMRA) and its mandate. The ultimate regulatory authority for pest management regulation lies with the Minister of Health. Section 4.0 outlines why the government believes that Canadians would prefer to have major responsibilities for protecting their

health and the environment remain in the hands of Ministers of the Crown, accountable to the public through the House of Commons.

The government has carefully and respectfully reviewed all of the Standing Committee recommendations on legislative change, as indicated in Section 5.0, *Legislation*. The government has a long standing commitment to amend the *Pest Control Products Act*, including commitments in the House of Commons. We remain committed to legislative renewal. Implementing some of the recommendations will be most directly achieved through legislation and specific legislative proposals will be brought forward.

Appendix A, provides the government's response to recommendations that were not covered in the main body of the document.

In October 1999, the Speech from the Throne identified the government's commitment to taking action on the potential risks presented by pesticides in the context of a broad environmental health agenda that focuses on children, clean air, clean water and environmental sustainability. The Standing Committee report, tabled seven months later, has made an important contribution to guiding the fulfilment of this commitment.

## 1.0 Absolute Priority to Health and Environmental Protection

*The government shares the Standing Committee's principle of absolute priority for health and environmental protection.*

*This principle is implemented through the legislation regulating pesticides, and the detailed rigorous assessment necessary before a pesticide can be used, which provides a fundamentally precautionary approach in keeping with another of the Standing Committee's principles.*

The government, like the Standing Committee, makes the protection of human health and the environment the absolute priority for pest management decisions.

### 1.1 Legal Obligations

The *Pest Control Products Act* (PCPA) and its related regulations constitute the legislation that sets out the framework for regulation of pesticides. The legislation requires that absolute priority be placed on protecting people's health and the environment. The legislation does this by prohibiting the registration for use in Canada of any pest control product that may pose an unacceptable risk to people's health or the environment. The legislation also requires that the registrant show that the pest control product is efficacious before it can be registered. A product that poses unacceptable health or environmental risks cannot be registered. A product without pest control value cannot be registered. This helps to minimize risks by limiting the number of registered pesticides to those that are effective in controlling pests and that do not pose unacceptable health or environmental risks.

Fundamentally, the whole approach to pesticide regulation is precautionary. No pesticide may be used in Canada unless its health and environmental risks and its value have first been determined to be acceptable.

The ultimate authority for determining whether the risks and value of a pest control product are acceptable to Canadians is the Minister of Health. As outlined below and in Section 4.0, the Minister's judgement about the acceptability of a pest control product's risks and value is informed by the results of the science-based risk assessment and risk management process undertaken by Health Canada's PMRA and by the results of formal public consultation. The Minister's authority in these matters is normally excercised by the PMRA.

## 1.2 Science-Based Risk Assessment and Risk Management

Assessments are based on evaluation of an extensive array of scientific studies (tests) designed to show whether the product's health and environmental risks and value are acceptable. The studies, procedures, protocols and standards — often referred to as the "data requirements" — reflect an evolving international consensus of Canadian scientists and their peers around the world on the information required to make reliable assessments. This means that the data requirements set out by the PMRA are continually revised in the light of new scientific knowledge. It also means that the PMRA's data requirements are largely the same as those used by the U.S. Environmental Protection Agency (EPA), pesticide regulators in the European Union (EU) and most other Organisation for Economic Co-operation and Development (OECD) countries. Differences in the requirements of various countries generally reflect unique factors such as pests, crops, climate and soils.

*As recommended by the Standing Committee, the PMRA will publish a document by the end of the year outlining its risk assessment and risk management processes.*

### 1.2.1 Assessment of Risks to Health

The data requirements prescribed by the PMRA to assess risks to health are designed to generate a comprehensive set of information on potential hazards of a pesticide, assessment of exposure through various routes (including ingestion, skin absorption, and inhalation) for all potentially exposed population subgroups, and assessment of the risks to determine if there are adequate margins of safety.

Hazard information is derived from a large set of animal studies which include acute, short-term and life-time toxicity studies, as well as studies that examine the potential for causing cancer, damage to genetic material, damage to the nervous system, birth defects or reproductive effects (including the effects of exposure from breast milk), and studies that assess effects on fetal and post- natal development including endocrine disruption.

To assess potential exposure, studies are required to determine the type and quantity of pesticide residues remaining on food crops at the time of harvest or after processing, and in animal meat at the time it is used for food. Residue levels in food generally vary from nondetectable to a few parts per million, and most food tested has no detectable residue. The assessment considers the eating habits of different age groups ranging from infants to adults.

The PMRA also performs assessments of non-dietary exposure to determine the potential exposure to those applying pesticides and re-entering treated areas, and to those inadvertently exposed in residential and recreational settings such as their homes, yards and parks. These exposure estimates determine how much pesticide might enter a person's body from all routes and pathways in a typical day.

Risk assessments combine information from the toxicology or hazard assessment with information on potential routes and levels of exposure, and are consistent with processes and criteria used in other Health Canada activities (e.g., risk assessment for carcinogenicity in Human Health Risk Assessment for Priority Substances, 1994) and by international regulatory organizations (e.g., assessment of neurotoxicity in Interpretation of Cholinesterase Inhibition, World Health Organization, 1998). In some cases, the risk assessment approach is even more conservative (e.g., occupational and bystander exposure assessments as compared to the U.S. EPA).

*Decisions will continue to be based on risk, not on inherent toxicity alone. As with all aspects of the PMRA's science-based activities, the Agency will continue to develop and refine risk assessment approaches in the light of new scientific knowledge.*

The hazard, exposure and risk assessments specifically include consideration of the potential effects of a pesticide on fetuses, infants, children, pregnant women, seniors, applicators or agricultural workers. The toxicology studies are conducted to assess potential effects during preconception, through the reproductive and developmental life cycle, the post-natal period, weaning and through to adulthood. Assessment of children's potential exposure includes direct and indirect skin contact with surfaces treated with pesticides, ingestion through the transfer of residues from the hands to the mouth, soil ingestion and inhalation. Children's unique play and activity patterns, including higher contact with surfaces and increased teething and mouthing activity, and children's unique physiology, are factored into these exposure estimates. The unique food consumption patterns of infants and children are considered, including their consumption of maternal milk, packaged milk and fruit juice.

*Risk assessments will continue to include specific consideration of children, and also of other potentially exposed groups, such as workers. Assessments focussed only on children may not adequately protect other groups. By way of example, a pesticide applied to a food crop must not only be safe for a child eating the food, but also for the workers applying the pesticide.*

Safety factors are applied when interpreting the results of animal tests to potential effects on people. The standard safety factors result in a margin of safety of 100-fold. That is, the potential level of exposure to the pesticide must be at least 100 times less than the dose for which there was no adverse effects in the toxicology tests on animals, or the product will not be registered. This safety factor takes account of the need to extrapolate from animal results to humans, and of differences in sensitivities among human populations. Higher safety factors are used when the potential effects may be more severe.

As indicated above, the data requirements and assessment methods for pesticides continue to evolve as a result of new research, and new methods are regularly incorporated into Canadian requirements. In particular, advances in health risk assessment mandated in the U.S. under the *Food Quality Protection Act*, are being adopted for Canadian assessments.

Particular advances that are or could be adopted, in keeping with the Standing Committee recommendations, include the following.

*Additional safety factors above the 100-fold standard are routinely applied to take into account sensitive subpopulations and severity of potential effects. For example, an additional 10 times safety factor is applied as it is in the U.S. when assessing the risk to children.*

*Canadian regulators will continue to collaborate with their U.S. counterparts in examining further developments in the use of safety factors, to be sure that the most recent scientific views and procedures are utilized for risk assessment of pesticides.*

*The dietary exposure assessment takes into account aggregate exposure. This means that, when a pesticide is proposed for use on a particular crop, the potential exposure from all potential crops treated is assessed, along with the potential exposure through drinking water. The exposure assessments also include available information on exposure from non-dietary sources such as use of the product in and around homes and schools.*

*Methodologies are being developed internationally to assess the potential cumulative effects from pesticides that have a common mechanism of toxicity. These methodologies will be adopted as they are made available for regulatory purposes.*

*Neurotoxicity testing, including developmental neurotoxicity, is currently required under a number of circumstances, i.e., when the pesticide acts by affecting the nervous system; when there is any indication in animal studies of neurological effects; or when there are indications in the animal studies that the young are more sensitive to any effect. The PMRA will work with the U.S. EPA to extend neurotoxicity testing to all pesticides.*

*U.S. EPA and OECD protocols are available and being used to assess pesticide effects on fetal development. Protocols for effects on neurological development developed by U.S. EPA are also being used, and the PMRA will collaborate with the OECD in further refinements of these protocols.*

*Evidence for endocrine disruption effects is obtained using current toxicity studies and reproductive studies. However the science surrounding endocrine disruption is rapidly evolving. The government is working with scientists worldwide on this issue and will adopt more specific test protocols as they are developed and validated.*

*The PMRA will work with other regulators, particularly the U.S. EPA, as well as research scientists both within and outside the federal government and industry task forces, to refine methods and protocols for assessing pesticide exposure, including further development of protocols for bystanders and children.*

### 1.2.2 Assessing Risks to the Environment

The environmental risk posed by a pesticide is a function of its environmental fate — what happens once it enters the environment, and its environmental toxicology — the hazards posed to nontarget plants and animals, both on land and in bodies of water.

Evaluation of extensive environmental fate data makes it possible to determine the behaviour of a pesticide in soil, water and air, the potential for its uptake by plants or animals, and the potential for bioaccumulation in organisms. Laboratory studies of physical and chemical properties indicate the mobility of the pesticide in soil; its potential to move into the air or water, or transfer to organisms; and its propensity to bioaccumulate, persist, or degrade.

Field studies are required to demonstrate fate in the Canadian environment and to substantiate information from laboratory studies on persistence and mobility. The PMRA recognizes that Canadian climatic conditions will affect the persistence of pesticides in the environment and are one of the few countries that require field testing.

Data on environmental toxicology provide the basis for assessing the hazards posed by a pesticide to nontarget plants and animals, both on land and in bodies of water. Companies are required to provide environmental toxicology data on the effects of their pesticides on birds, fish, invertebrates (e.g., earthworms, bees, predatory or parasitic insects and predatory mites) and plants. In addition to toxicity studies, reproduction tests are conducted on birds. Effects on wild mammals are predicted from the detailed mammalian toxicology risk assessment.

Environmental risk assessment integrates the results of the environmental toxicology and environmental fate assessments and decisions are based on potential risk to the most sensitive relevant test species.

Data requirements and study protocols for environmental assessment, continue to evolve with new science and methods. Some of the requirements above have been developed recently with input from other government researchers.

*The government will use its research and regulatory expertise, as well as harmonization activities, to improve practices for the protection of the environment. Immediate priorities include adoption of probabilistic risks assessments, establishing a consistent approach to the determination of buffer zones, improving estimates of pesticide levels in the Canadian environment (e.g., surface water, groundwater, air, fish, sediment); and developing and adopting improved methodologies for assessing risk to nontarget wildlife (e.g., birds). The re-evaluation program could also benefit from increased monitoring of the environmental exposure of pesticides used in Canada.*

*As with human risk assessment, data from reproductive and other studies permit assessment for endocrine disruption, and specific protocols will be adopted as they are developed and validated.*

### 1.2.3 Assessing Value

To be registered, a pesticide must make an acceptable contribution to pest management, for example protecting crops, controlling invading species, or controlling insects that transmit disease. If a pesticide does not contribute to pest management — even if its risks are acceptable — it will not be registered. This helps to minimize risks by limiting the number of registered pesticides to those that are effective in controlling pests as well has having no unacceptable health or environmental risks.

A key part of the assessment of a pesticide's value is based on tests of its efficacy conducted mainly in the field. Using efficacy test data, the PMRA determines the lowest effective rate at which pesticides can be applied. Applications rates approved by the PMRA are often lower than those proposed by the company applying to register its pesticide.

*Since efficacy studies are important to assessing value and to risk reduction, the government will continue to require that they be submitted and reviewed.*

### 1.2.4 Re-evaluation and Special Review

The PMRA and other national regulators have programs for re-evaluating registered pesticides which have been on the market for some time to ensure that their risks and value remain within acceptable levels as standards of health and environmental protection are progressively raised. Examples of information pointing to the need for a re-evaluation: new scientific knowledge of toxicological end points of concern, often combined with new investigative methods; adverse effects reporting, results from epidemiological studies, environmental monitoring and surveys; and the age of the supporting database.

A special review is a targeted re-evaluation of certain data pertaining to a control product in response to specific concerns about health or environmental risks or efficacy. Information important to initiating and conducting re-evaluation and special reviews can come from researchers including government researchers, registrants, foreign regulatory

authorities and published literature. Information specific to Canadian conditions is considered a high priority in re-evaluation and special reviews. *The banning of a pesticide for safety reasons in a OECD country, as recommended by the Standing Committee, is indeed an indicator of the need for a Special Review.*

*The PMRA will develop proposals for a system for collecting information on adverse health and environmental effects and poor performance from registrants, as well as from medical professionals, veterinarians, wildlife specialists and others.*

The re-evaluation process follows the same steps as for the evaluation of a new pesticide with the addition of new information that is developed after registration.

*The government has provided funds in the last two budgets to enable the PMRA to implement an enhanced re-evaluation program*[1]*. The program has been designed to make extensive use of high quality re-evaluations conducted in the U.S. and other OECD countries. The schedule for re-evaluation is being coordinated with the U.S. EPA target of 2005–2006 for re-evaluation of food tolerances for pesticides under the* Food Quality Protection Act.

### 1.2.5 Assessing Pesticide Formulants

The active ingredient in pesticide is the compound which is active in controlling the pest. The other ingredients are called formulants. *The PMRA has proposed significant improvements in restrictions, testing and labelling of formulants*[2]*.* Under the proposed policy, chemicals identified as being of significant concern with respect to their potential adverse effects on health and the environment would need to be removed from products. This would apply to all formulants on U.S. EPA List 1 as well as any that meet specified health or environmental criteria. In addition, registrants would also be encouraged to remove those suspected of being toxic (i.e., EPA List 2). Alternatively, data would need to be submitted to the PMRA demonstrating to the Agency's satisfaction that the health and environmental risks of the formulants were acceptable. Until they were removed or assessed, all of these formulants would need to be disclosed on the label. These requirements would apply to over 125 chemicals which are or have been used in pesticide formulants, and additional formulants could be included as necessary.

The proposed policy also would require registrants to provide health and environmental data for new formulants and subsequently when there are significant new uses of these formulants. As with other data requirements, those established to assess the risks associated with formulants would be sufficient to assess whether the substance will adversely affect human health or the environment. Where concerns are identified in the studies, additional data would be required which may be comparable to that of the active ingredient.

---

1 See the PMRA Regulatory Proposal PRO99-01, *A New Approach to Re-evaluation*, December 3, 1999.

2 See the PMRA Regulatory Proposal PRO2000-04, *Formulants Policy*, May 29, 2000.

### 1.2.6 Increasing Information for Protection of Workers

*The government will consider establishing a system of Workplace Hazardous Materials Information System (WHMIS) equivalency under the PCPA, including WHMIS label standards and requirements for Material Safety Data Sheets (MSDS) to fulfil the objectives of the Standing Committee recommendations.*

This would include review of all MSDS within the PMRA and mandatory disclosure of hazardous formulants. This approach could give workers safety information that together with existing pesticide label information would exceed WHMIS requirements. It is considered to be more effective to implement WHMIS requirements under the PCPA, where they would be tied to registration requirements, than under the *Hazardous Products Act*.

## 1.3 Making Connections Between Research and Regulation

The government shares the objectives of the Standing Committee recommendations concerning the importance of research to effective pest management regulation, especially to its primary goal of health and environmental protection. High quality science is an essential foundation of effective pest management regulation. Regulators need solid information about current and emerging hazards to health and the environment from pesticides, the relative severity of specific hazards, and how to minimize any associated risks. Such information needs to be based on scientific research conducted in accordance with internationally accepted methods. The communication of scientific research and monitoring information on pesticides also contributes to fostering increased public confidence through informing and enabling Canadians to make knowledgeable decisions.

The government has also made strides to improve the way in which research results are fed into science-based decision-making processes. For example, the government has adopted a new *Framework for Science and Technology Advice: Principles and Guidelines for the Effective Use of Science and Technology Advice in Government Decision Making* based on the recommendations contained in Science Advice for Government Effectiveness — a report prepared by the federal Council of Science and Technology Advisors. The principles and guidelines included in this framework cover issues such as early issue identification; inclusiveness in the science advisory process; sound science and science advice; uncertainty and risk; transparency and openness; and review. All federal science-based departments and agencies are currently developing implementation plans which will ensure the application of these principles and guidelines, and improve scientific information transfer between departments and agencies. This framework will be used to implement effective collaboration among the departments involved in pesticides research, monitoring and regulation, and to improve integration of science advice into regulatory decision making.

Like its counterparts in the U.S., the EU and other OECD countries, the PMRA relies on research to continuously improve its capacity to minimize the risks associated with pesticides. The PMRA draws on the best research conducted not only within the federal

government and elsewhere in Canada, but also from around the world. In recent years, the extensive collaboration between scientists in the federal government and their counterparts from other OECD countries in the context of international harmonization has facilitated the flow of information on the latest research on pesticide issues from around the world. It is expected that as information needs increase during the implementation of the enhanced re-evaluation program, the government's reliance on strong, strategic science collaboration and cooperation will also grow.

Canadian scientists, including those in the federal government, in universities and research organizations can take pride in many successful efforts over the years that identified emerging hazards to health and the environment associated with pesticides and led to the development of effective responses. Some of these research programs have been instrumental in bringing about changes in what pesticides are registered and used in Canada resulting in improvements in environmental conditions. For example, we have seen a decline in the levels of DDT in the environment including in mother's milk and are again able to see species that were nearly exterminated during the period of DDT use. However the benefits go beyond removing a hazardous product from the market. The government used the lessons learned from the DDT experience to revise risk assessment criteria to screen for substances that are toxic, persistent and bioaccumulative. These criteria are now the basis for the federal Toxic Substances Management Policy (TSMP).

In the past few years, there have been several activities undertaken by Environment Canada which have resulted in refinement of risk assessment approaches and methods used by the PMRA. These include participation as scientific experts in the development of study protocols both in national and international fora, and aiding in the development of risk assessment approaches. The contributions of these and other federal scientists have improved pesticide regulation not only in Canada, but also in the U.S., other OECD countries and less developed countries as well. By the same token, Canada has benefited from comparable efforts in other countries.

In addition to its collaboration with Canadian and foreign scientists, the PMRA obtains useful indicators of research needs from evaluating the scientific studies submitted by applicants, from reports of adverse effects, re-evaluations and special reviews.

*The government's priorities for research related to pesticides correspond in large measure to those identified by the Standing Committee. These priorities include research on the effects of pesticides on children and other vulnerable populations, endocrine disruption, test protocols, and the behaviour and effect of pesticides in the environment such as those previously mentioned.*

The new *Canadian Environmental Protection Act* (CEPA) now obliges the Ministers of Environment and Health to conduct research on toxic substances in general and specifically identifies research on endocrine disrupting compounds as a mandatory requirement. In addition to those priorities identified by the Standing Committee, the federal government has established a coordinating mechanism through the five Natural

Resource (5NR) departments to identify and develop implementation strategies for priority pesticide research and monitoring in Canada.

*The government intends to rely in substantial measure on its scientists to advise on where it should invest its research resources in the interests of improved health and environmental protection associated with pest management regulation. These scientists are well placed to be aware of relevant research activities and plans in Canada and around the world. They are also well placed to advise on the best ways to generate new research in specific areas of concern.*

### 1.3.1 Coordination of Pesticide Related Research, Monitoring and the Regulatory System

Since the establishment of the PMRA, the Departments of Environment, Agriculture and Agri-food, Natural Resources, Fisheries and Oceans and Health have continued to research a variety of topics concerning health and environmental effects of pesticides. The government recognizes that effective regulations are based on good science, and that strong ties are needed between research and regulation. *To this end, the PMRA and the research Departments will build on current strengths and cooperative efforts to formalize a framework for interaction in keeping with the May 2000 Report of the Commissioner of the Environment and Sustainable Development's directions on enhancing collaborative research and science-policy linkages within the federal government.*

A possible model for this framework could be the Memorandum of Understanding (MOU) on Science and Technology developed by the 5NR departments. This MOU provides for joint programming, strategic priority setting and science-policy linkages.

The development of a framework for research and regulation interaction is particularly timely as the PMRA implements an enhanced re-evaluation program. The re-evaluation of registered products, including special reviews, will incorporate available government research and monitoring results into regulatory decision making. In addition, if research and monitoring indicates that a pesticide poses unacceptable risks, it could trigger a special review, and research and monitoring information would be reported under the adverse effects reporting system, previously mentioned, and used in regulatory decisions.

The PMRA invites other federal departments, provinces and territories to submit data on specific product groups as they come up for re-evaluation or special review. *The PMRA will establish a specific submission category for receiving such information. In this way, research results will be received, tracked and linked with product assessments. Results of re-evaluations and summaries of assessments will be made available, so researchers will be able to see how their work has been used.*

In particular, the framework will address the vital importance for environmental and human health monitoring of registered products. Monitoring for the presence of pesticides in various media can provide particularly useful information for use in refining regulatory risk assessments on registered pesticides under re-evaluation or special review.

To ensure that research and monitoring studies generate data useful for regulatory decisions under the PCPA, common priorities will be established at the planning stage. In particular instances, monitoring studies may be required in connection with new registrations and departments with research responsibilities may play a role in their design.

## 2.0 Sustainable Pest Management to Prevent Pollution

*The government shares the objectives of the Standing Committee recommendations concerning the reduction of pesticide risks (which can include reduction of pesticide use), the importance of IPM and the importance of promoting the awareness of users and consumers of pesticides and the general public of the health and environmental risks that may be associated with them.*

### 2.1 Sustainable Pest Management[3]

The Standing Committee has made several recommendations concerning the development and use of IPM and organic agriculture, and also about the adoption of policies and strategies for pesticide use reduction. At the heart of pesticide use is the need to manage, reduce and control pests. That is, reduction of risks from pesticides can most effectively be pursued within the larger sphere of safe and effective pest management, with a clear acknowledgement that pesticides are but one aspect of pest management.

The government believes that *a key approach to reducing pesticide risk and advancing sustainable pest management is to combine rigorous health and environmental standards for new products and re-evaluation of older products with the development and promotion of the use of practices that emphasize prevention* such as IPM[4] that can lead to a reduced reliance on and use of pesticides. Sustainable pest management shares the same goals as pollution prevention: to prevent the development of threats to health and the environment in the first place and to minimize such threats if they do arise.

---

3 Sustainable pest management systems are ones that meet society's needs for human health protection, food and fibre production and resource utilization; conserve or enhance natural resources and the quality of the environment for future generations; and are economically viable.

4 Integrated Pest Management (IPM) is an approach for planning and managing crops (and other sites) to minimize pest problems and for making decisions about when and how to intervene when pest problems occur. It is a sustainable approach, combining biological, cultural (e.g., seeding depth), physical, and chemical tools to manage pests so that the benefits of pest control are maximized and the health and environmental risks are minimized. A key idea in IPM is to take action against pests only when their numbers or effects warrant it, rather than as a routine measure. IPM extends far beyond the use of pest control products, whether chemical or "alternative," and can include a wide variety of prevention and treatment techniques. IPM reduces reliance on pesticides as the sole approach to pest management.

The Standing Committee recommendations quite rightly acknowledge that pursuit of these objectives involves a number of players and partners, not only within the federal government, but notably in provincial/territorial governments as well as stakeholders involved and interested in pest management.

Federal/provincial/territorial departments, universities and other establishments are undertaking the research needed to develop and improve IPM programs. There are many provincial, territorial and private sector activities that support agriculture, aquaculture and forestry production by providing education, training and operational advice on IPM programs. A variety of agriculture extension services, agricultural organizations and private companies provide services for adoption and use of IPM.

The federal pest management regulatory system recognizes the importance of combining biological, physical, and chemical tools and cultural practices to manage pests so that the benefits of pest control are maximized and the health and environmental risks are minimized. The PMRA has been working actively with user groups and manufacturers to encourage the development of safer products and particularly biopesticides, which often are particularly suited to IPM, and to give them priority in the Agency's evaluation process. As part of its international harmonization activities (see below Section 4.0, *International Harmonization*), the PMRA developed a joint review process with the U.S. EPA. The process allows the two agencies to divide between them the review of applications made simultaneously on both sides of the border for reduced risk pesticides and biopesticides. These initiatives are having an effect. An increasing number of these products are being brought forward for evaluation and registration and it is anticipated that there will be a significant increase in their availability over the next few years.

Through its IPM Partnership Projects and other initiatives, the PMRA is working to help establish IPM as the basis of pest management in a variety of pesticide user sectors. The PMRA's IPM Partnership Projects are developed specifically for particular crops and pests, and rely upon the voluntary, active involvement of growers and expert advisors. Participation of provincial/territorial regulatory agencies, researchers, crop input manufacturers and nongovernmental organizations is also important for project success.

These activities have been extremely useful in allowing the PMRA to explore ways to pursue risk reduction in pest management and link them to the regulatory system, and they can be consolidated and enhanced. *To that end, the PMRA and Agriculture and Agri-food Canada will pursue a common goal of sustainable pest management by working on a risk-reduction strategy for pest management in agriculture*. The risk-reduction strategy would recognize that pest management needs to be integrated with overall crop management strategies on a commodity basis. *Recognizing that while product by product decision making is the approach that is currently feasible, the long term vision would be to make registration decisions on pesticides in the context of commodity-based risk-reduction programs*. Pilot projects will be developed to elaborate elements and approaches consistent with the principles and practices of IPM. Elaboration of the strategy and approaches will require close collaboration with provinces and territories and other stakeholders.

All of these activities and others being used by various partners in pest management provide a solid base for further development and implementation of sustainable pest management practices and IPM to contribute to pesticide risk reduction. *The government will work together with these partners, particularly through the Federal/Provincial/ Territorial (FPT) Committee on Pest Management and Pesticides, to explore how to increase use of sustainable pest management practices. The priority areas and specific mechanisms suggested by the Standing Committee will be included in the options considered.*

### 2.1.1 Pest Management in Urban Landscapes

The government recognizes the concerns that were put forward to the Standing Committee and reflected in its recommendations on the use of pesticides for lawn care and related uses around homes, parks and playgrounds.

The rigorous health and environmental protection demanded by legislation will continue to apply to pest control products proposed for use on lawns and related uses. As described earlier in this response, the potential exposure of applicators, passers-by, and residents, is specifically assessed as part of the premarket approval process for such uses, including specific assessments for children.

*To assure Canadians that registered products can meet the most recent health and environmental standards, the PMRA is undertaking a priority re-evaluation of the most commonly available insecticides and herbicides now registered for lawn and turf, focussing on uses on residential lawns and lawns and turf in parks, playgrounds and playing fields.*

As indicated earlier in this section, reduction of risks from pesticides can most effectively be pursued within the larger sphere of safe and effective pest management. *To that end, the PMRA is working with the FPT Committee on Pest Management and Pesticides to develop and promote approaches to pest management in lawns that emphasize prevention, use of a variety of techniques for pest management, including use of reduced risk products, and application of traditional pesticides only as essential, consistent with the principles of IPM*. A particular focus of this "healthy lawns" program will be to provide to homeowners the basis for making informed choices about managing their lawns and gardens. An objective is to be sure that proposed uses and registration decisions on pesticides are compatible with this approach.

The application of rigorous health and environmental standards to product approval and the promotion of alternative and preventive approaches should make a strong contribution towards achieving the goal of sustainable pest management, while maintaining a choice for Canadians on whether or not to include pest control products as an option for managing pests.

### 2.1.2 Organic Agriculture

In June, 1999, the Canadian General Standards Board and the Standards Council of Canada issued a standard for Organic Agriculture. The Standard indicates that in organic agriculture, "weed, pest and disease management is attained by an integration of biological, cultural and mechanical control methods that include minimized tillage and cultivation, crop selection and rotation, recycling of plant and animal residues, water management, augmentation of beneficial insects to encourage a balanced predator-prey relationship, and the promotion of biological diversity." Therefore, organic agriculture uses an IPM approach to pest management, but is particular in identifying specific management tools (e.g., most pesticides) which should not be used to remain compliant with the Standard. In addition, organic agriculture covers far more than pest management.

The government recognizes the growing importance of the organic sector and encourages it in its development through existing and future research[5] and market development programs and services. *The government will share advice and information as well as services with this relatively new industry in Canada with a view to encouraging continued growth and keeping pace with international production areas and markets.*

*The government supports the development of the organic farm sector in numerous ways.* In addition to support for the organic agriculture standard, programs include safety net programs, the Canadian Rural Partnership Program, the Canadian Adaptation and Rural Development Program, the Agri-Food Trade Program, the Agri-Food Trade Service as well as the Matching Investment Initiative for research and development. *While post-secondary education in organic farming practice is a provincial responsibility, the government will continue to provide information on research development and market opportunities in support of provincial or industry initiatives to encourage more education on organic agriculture*.

*The government supports the concept of research chairs and will investigate their application and benefits relative to the organic agriculture sector*.

*The government is working with the organic agricultural industry on the establishment of internationally recognized Canadian accreditation and certification agencies and supports the sector in updating and maintaining its national standards. We are also supporting the processes necessary to have these agencies, as well as our national organic standards, recognised by the European Union, the U.S., Japan and others, to maintain access and increase exports to these growing markets*.

---

5 Funding programs include National Science and Engineering Research Council (NSERC) research grants, Strategic Project Grants, Collaborative Research and Development Grants, Agriculture and Agri-food Canada-NSERC Research Partnership Agreement, NSERC Research Network and NSERC Scholarships and Fellowships.

Agriculture and Agri-Food Canada will also continue to assess and present Canada's case for market access to other countries by encouraging regular updates of the Canadian national standards and those of our main international partners.

The government has adopted the approach of "de-coupling" support programs from production decisions. With this approach, it does not favour any particular farming practice, whether traditional, organic or another alternative practice. De-coupling, in addition to being economically more efficient, encourages production based on market signals and reduces the possibility of a trend towards monoculture. In practice, it provides incentives to diversify into new practices, niche markets and specialty crops.

With respect to providing selective tax preferences, such measures tend to provide greater benefits to those individuals with high total incomes who are already in a better position to respond to market opportunities and other challenges. The recent federal budgets have provided broad-based tax relief which will benefit all Canadians including individuals and families in rural Canada.

## 3.0 Fostering Public Confidence

*The government shares the objectives of the Standing Committee recommendations for a more open and transparent process.*

The government shares the Committees's goals for a more open and transparent process. The government recognizes that Canadians should have a say about policies and regulatory decisions that concern risks to their health and the environment. Through this means, Canadians could ensure that their views will help to inform the Minister's judgement on the level of risk that they consider to be acceptable.

To provide Canadians with the opportunity to provide input into the requirements, processes and policies for assessing pesticide risks and value, regulatory proposals and consultation documents are made publicly available specifically for that purpose[6].

One of the government's commitments in reforming the pest management regulatory system was to issue Proposed Regulatory Decision Documents (PRDDs) for public comment. PRDDs outline such matters as the characteristics of the candidate pesticides, the results of the PMRA's health risk, environmental risk and value assessments, proposed uses, application rates, label information and the Agency's rationale for its proposed decision. The applicant would have to release any confidential information in the PRDD before it is issued. Comments received from the public are reviewed to determine whether they provide the basis for changing the proposed decision. The issuing of PRDDs is being phased in.

---

6 See PMRA's web site at http://www.hc-sc.gc.ca/pmra-arla for lists and copies of Regulatory Proposals and consultation documents.

However, under the current legislation, issuing of PRDDs depends on the agreement of companies because the documents contain confidential business information.

The current legal limitations on sharing confidential information submitted under the PCPA has also been an impediment to more closely linking federal research and monitoring capacity with the regulatory functions. When the PMRA was created, the responsibility for research and monitoring with respect to pesticides remained with other federal departments. However, the current legal limitations on sharing confidential information submitted under the PCPA has been an impediment to more closely linking federal research and monitoring capacity with the regulatory functions.

*Addressing the availability of information for the public and other government departments, and the opportunity for consultation on regulatory decisions is a key area that could benefit from legislative change.*

## 4.0 Institutional Issues

*The government believes that Canadians prefer to have matters affecting risks to their health and the environment remain the responsibility of Ministers duly accountable to the public through the House of Commons.*

### 4.1 Mandate of the PMRA

The PMRA consists of those Health Canada employees who discharge the responsibilities of the Minister of Health for the regulation of pesticides under the PCPA. In that regard, the PMRA is no different than other portions of the department that administer other health protection legislation. The PCPA is administered in accordance with the statutory mandate of the Minister of Health. Neither the employees nor the portion of the department in which they are employed, the PMRA, have or are intended to have a mandate that is different than, or independent of, the Minister's mandate. Accordingly, neither the PMRA nor the other portions of the department that administer health protection legislation require a statutory mandate.

A statutory agency such as the Patent Office, the example cited by the Standing Committee, is created to receive and exercise powers, duties and functions which are not shared by the Minister named in the statute. While that Minister may have some responsibility for the general direction of that body, and may report to Parliament on its activities, the Minister cannot assume the administrative role which Parliament has given exclusively to the agency or substitute his\her judgment for that of the agency in the making of regulatory decisions.

A key question regarding the regulation of pesticides is who should have the statutory responsibility for determining whether the risks to people and the environment associated with the use of pesticides are acceptable. Should that responsibility rest with the Minister of Health or with an agency? *It is the government's position that the ultimate*

*responsibility for determining the acceptability of such risks must rest with a Minister of the Crown who is fully answerable to the public through the House of Commons.* The public are entitled to rely on the government to protect them from such risks and to be assured that the decisions are made on the basis of by good science in a manner that permits informed public participation.

## 4.2 Advisory Bodies

The *Pest Management Advisory Council*, composed of representatives of stakeholders and other groups with interests and pest management related expertise, advises the Minister of Health. The government believes the Pest Management Advisory Council can continue to play an important advisory role to the Minister and the PMRA in fulfilling their responsibilities for safe and effective pest management.

The Economic Management Advisory Committee advises the Executive Director of the PMRA on certain aspects of the management of the Agency. Part of the Committee's terms of reference state that it will operate during the implementation phase of cost recovery (projected to end in 2002) and that its activities must not encroach on those of the Pest Management Advisory Council. *The role and future of the Committee will be reviewed in light of the Standing Committee's concerns towards the end of this cost recovery implementation phase.*

## 4.3 Intergovernmental Cooperation

The government has always recognized that the provinces and territories have major responsibilities for the safe and effective management of pests. The federal role in pest management regulation is primarily to ensure that pest control products do not pose unacceptable health or environmental risks, contribute to effective, sustainable pest management and to establish mandatory conditions of use. The PCPA regulates the import, manufacture, sale and use of pesticides at the national level. Provincial/territorial legislation complements the PCPA to ensure safe transportation, sale, storage, use and disposal of pest control products.

The FPT Committee on Pest Management and Pesticides, and its predecessor body, established through the combined initiative of all the governments concerned and co-chaired by the PMRA, have provided the basis for effective collaboration on pest management issues of mutual concern for over eight years. Examples of areas of collaboration: enforcement of the PCPA, development and implementation of a national education and training standard for pesticide applicators, IPM initiatives, improvement of pest control product labels, and the development of Canadian positions for international pesticide meetings.

## 4.4 Interdepartmental Cooperation

Before the PMRA was established in 1995, responsibility for pest management regulation was shared among the Departments of Health, Agriculture and Agri-Food, Environment, and Natural Resources, with the Minister of Agriculture and Agri-Food responsible for the PCPA. When the Agency was created, responsibility for the PCPA was transferred to the Minister of Health. Staff and resources related to pesticide regulation by the four departments were transferred to the PMRA. Recognizing that these departments retained complementary responsibilities to the PMRA, such as those relating to environmental monitoring and pest management and pesticide research, the Agency and the departments drew up MOUs to document their respective responsibilities and identify common goals and principles of cooperation. Such MOUs are almost always needed in the wake of any major organizational change. *It is appropriate that they be signed by the head of the organization involved, and periodically reviewed and enhanced where necessary*.

The PMRA and Environment Canada recently committed to a renewed effort towards more effective implementation of their bilateral MOU. This includes implementing the provisions for the joint long-term planning and priority setting of research and monitoring to respond to regulatory information needs. This will result in improved interaction and use of Environment Canada's scientific expertise on specific issues concerning environmental fate, exposure and toxicity. As mentioned in Section 1.3.1, the government will build upon the agreements established in this MOU and those with other departments to enhance science-policy collaboration and communication between the research departments and the regulator.

*The MOU between the PMRA and the Department of Fisheries and Oceans will be concluded and signed by the end of the year.*

The MOUs do not in any way alter the responsibility of the Minister of Health for pest management regulation, nor those of the other ministers for pest management related matters within their mandates — which do not include pest management regulation. *Since MOUs are arrangements to facilitate operations internal to the federal government and do not affect the responsibilities of ministers, the government does not plan to submit them routinely for public comment. MOUs will, however, continue to be publicly accessible*.

*Where arrangements related to product regulation are reflected in MOUs, these should be brought to the public's attention. In these cases, a proposed regulatory directive would be issued for public comment to give the public as well as pesticide users and manufacturers an opportunity to comment before any final decision*.

Current legal obstacles that prevent the PMRA from sharing confidential information with other federal authorities concerned with pest management and pesticides and with provincial/territorial regulators has complicated effective interdepartmental and intergovernmental cooperation to some degree.

The Standing Committee's suggestion for an interim policy for sharing confidential information with other government bodies has been carefully examined. Consideration was given to the common law prohibition against the use of confidential information for any purpose other than that for which it was received; the purposes for which Parliament has authorized the Minister to require the submission of information under the PCPA; the limitations and procedures in the *Access to Information Act* for disclosure of confidential information held by the government; and the absence of case law to support a broadening of the current policy as recommended by the Committee. *The conclusion is that the policy on confidential information, followed for many years, is what the law currently permits*.

Addressing the authority as to the other uses for which information received under the Act could be shared and utilized, including sharing with other federal/provincial/ territorial departments and agencies, is a key area that could benefit from legislation change.

## 4.5 International Harmonization

One of the most beneficial dynamics of the harmonization efforts of the PMRA and other OECD regulators has been a clear tendency to strengthen the level of health and environmental protection. The international pooling of scientific knowledge and regulatory expertise in a concentrated way, particularly over the last half dozen years or so, has led to not only to more rigorous evaluations but also to more intelligent, cost-effective ways to achieve them. Improving standards is not a matter of simply adding to existing requirements or making them more stringent. It is a matter of focussing sharply on the best, most efficient way to minimize health and environmental risks associated with pesticides. This may mean adding requirements for new studies while dropping former, less relevant ones or modifying study protocols.

An important focus of harmonization efforts by the PMRA and the U.S. EPA has been on sharing the review of data on reduced risk pesticides, including biopesticides, for which companies make simultaneous application on both sides of the border. The joint review process that is a product of these efforts allows the PMRA and U.S. EPA to divide the work of evaluating test results. This accelerates regulatory decisions about pesticides that pose lower risks to health and the environment than some registered alternatives. The joint reviews have been expanded to include replacements for organophosphate insecticides and methyl bromide.

A significant benefit of international harmonization for pest management regulation is greater efficiency, and efficiency supports health and environmental protection. With today's significant progress in international harmonization, Canadian pesticide regulators and their counterparts in the U.S. and some OECD countries can achieve efficiencies using evaluations of scientific studies reliably completed by their peers in other countries.

*The process through which progress on international harmonization has been made has operated transparently, often with the active participation of stakeholders. Agenda and results of key meetings have been and will continue to be routinely posted on the PMRA website.*

## 4.6 Funding

When the government made its Throne Speech commitment to take further action on environmental health issues, including the potential risks presented by pesticides, it recognized that additional funding would likely be needed to achieve this goal. The Standing Committee report, through its broad perspective and wide-ranging recommendations, has illustrated that there are many ways to achieve this goal. For example: more environmental monitoring, more Canadian research, tougher enforcement of the PCPA and other legislation, and greater role in risk reduction by registrants and other levels of government. Some of these options may require additional funding, while others may be achieved through improved use of existing resources. Some call for initiatives by the federal government, while others call for initiatives by other governments and the private sector. *The government will take account of the Standing Committee's specific funding recommendations as it continues to strengthen its capacity to protect the health of Canadians and their environment.*

### 4.6.1 Cost Recovery

There are many factors that influence a company's decision to submit an application for registration of a new technology in a given country including cost recovery fees, market size, and the length of time it takes to get a regulatory decision.

The government notes the Standing Committee's concerns about the potential for cost recovery to create a disincentive for companies to apply for the registration of safer and more efficacious products. There has been no indication that this is the case. In the area of biopesticides, there has been a significant increase in applications. Some time ago, the PMRA committed to undertake a comprehensive five year review of the cost recovery program as of March 31, 2002. *Development of the scope of this review will be done in consultation with stakeholders and will begin next fiscal year. The government will address the Committee's concerns as part of the larger review*.

*Fees to review an application to register a pesticide are payable to the Receiver General of Canada — not to the PMRA — whether or not an application is approved.* Neither the PMRA nor the government's balance sheet derive any advantage or disadvantage from a PMRA decision on whether or not to register a pesticide.

## 5.0 Legislation

*The government shares the Standing Committee's view that a strong statutory foundation is essential for rigorous pest management regulation.*

Nearly half of the Standing Committee recommendations concern legislative change. This is a clear reflection of the importance attached by the Committee to strong legislative foundations for pest management regulation. The government shares this concern for strong legislative foundations.

Recommendations for legislative change extend back to the recommendations of the 1990 multistakeholder Pesticide Registration Review (PRR). Since that time, provincial and territorial regulatory authorities and stakeholder organizations, most of which are represented on the Pest Management Advisory Council to the Minister of Health, have worked with federal officials to progressively refine the original PRR recommendations for legislative reform. The Standing Committee recommendations are therefore the culmination of a decade long process to provide recommendations on solid statutory foundations for pesticide regulation.

The government has carefully and respectfully reviewed all of the Standing Committee recommendations on legislative change. Particular attention has been paid to recommendations dealing with openness and transparency of the regulatory system; disclosure of information; and priority for health and environmental protection, particularly protection of children and other subgroups.

Some of the concepts addressed by those recommendations have been dealt with elsewhere in this Response and the specific issue of whether or how they could appear in legislation would be set out through the process of introducing a Bill for consideration by the House of Commons.

The government will give careful attention to the balance that needs to be struck between the matters that need to be addressed through statute, those that should be addressed in regulations, and those that are best left to guidelines. Prominent in the government's thinking is the importance of a strong scientific foundation for pest management regulation and the recognition that scientific knowledge continues to evolve rapidly. The statute should define the framework, principles and basic policies of pest management regulation. Matters that are likely to require frequent change in the light of new scientific knowledge should be reserved for regulations and guidelines. A statute that might reflect the "state of the art" today, runs a serious risk of failing to provide adequate health and environmental protection tomorrow.

The Standing Committee placed a good deal of emphasis on a broad approach to pest management regulation; an approach that is not confined to ensuring the safety of pest control products, but focusses on the safe and effective management of pests. The government shares this approach, which was also put forward by the PRR.

Effective protection from the health and environmental risks associated with pesticides needs to be complemented by a broad risk reduction strategy that extends well beyond ensuring the acceptability of the risks and value of individual pesticides.

The government recognizes, however, that the Parliament of Canada has limited legislative authority to reflect this approach in its statutes. Accordingly, the government will need to continue working collaboratively with its provincial, territorial and international partners and its stakeholders in pursuing the interacting goals of sustainable pest management and pollution prevention.

## 6.0 Concluding Observations

The Standing Committee on the Environment and Sustainable Development has made an important contribution to public debate on pesticide regulation. Informed public debate is important to the government's Throne Speech commitment to take further action on environmental health issues, including the risks of pesticides.

The government appreciates the broad perspective taken by the Committee to pest management regulation — a perspective not confined to the regulation of pest control products.

This response and its key elements provide the basis for an approach to pesticide risk reduction, supported by four pillars:

- product assessment and regulation for health and environmental protection
- scientific research and monitoring to support effective decision making, promote greater awareness and foster public confidence
- sustainable pest management, including the principles and practices of IPM
- user and consumer awareness, involvement and communication.

The pursuit of risk reduction will include but go beyond federal pest management regulation. Most importantly, risk reduction must be conducted within a context of sustainable pest management, which will involve collaboration and consultation with provinces, territories and stakeholders. These partners are already taking actions, some of which are mentioned in this response.

These activities will include and supplement but not replace a strong and effective regulatory system. The government's approach to pest management regulation is consistent with the Standing Committee's guiding principles and recognizes that:

- pest control products can pose risks to our health and the environment
- pest management is important to our quality of life and economic well-being
- pest control products can contribute to pest management

The key elements of the government's approach, outlined in this response to the Standing Committee report, are summarized below.

The requirement that health and environmental protection comes first is enshrined in law. No pest control products may be used in Canada unless the regulatory authority — ultimately the Minister of Health — first determines that the health and environmental risks and value are acceptable.

Increasing openness and transparency of the pest management regulatory process is a goal that the government shares with the Standing Committee.

The regulation of pest control products must be undertaken within the broader perspective of sustainable pest management — which is fully consistent with the principles of pollution prevention and the principles and practices of IPM. This broader perspective depends on maintaining the effectiveness of federal/provincial/territorial collaboration. It also requires well informed users and consumers.

Effective regulation of pest control products, in the context of sustainable pest management, depends on high quality science based on solid research. High quality science offers the best assurance that the most serious health and environmental hazards will be tackled as a matter of priority, and that emerging hazards will be identified promptly. International harmonization offers excellent opportunities to ensure high standards of pest management regulation in Canada and among our main trading partners. It also supports cost-effective regulation, including effective use of scarce scientific resources to protect health and the environment.

The government will continue to work with its key partners to build on actions to date and the momentum generated as a result of the Standing Committee to implement the key elements of pest management regulation and work towards sustainable pest management.

# Appendix A Recommendations Not Addressed in the Body of the Response

The following are the government's response to specific recommendations that were not addressed in the body of the Response. They are ordered as they appeared in the Standing Committee report.

> The Committee recommends that the government fund research on those chemical groups of pesticides whose action and chronic effects on human health are still relatively unknown, such as synthetic pyrethroids and phenoxy herbicides.

*While supporting the importance of research, the government notes that phenoxy herbicides and pyrethroids have been some of the most extensively studied pesticidal compounds, and significant amounts of information is available to regulators. The PMRA is re-evaluating 2,4-D and some other phenoxy herbicides, and pyrethroids will be re-evaluated under the PMRA's re-evaluation program. The government has the authority to request additional data from the registrants if needed.*

> The Committee recommends that Health Canada take the necessary steps to bring about legal recognition of multiple chemical sensitivity syndrome.

*Federal legislation does not define diseases or conditions such as multiple chemical sensitivity (MCS). However, Health Canada is fully supportive of research and policy issues relating to MCS, and the Department has been working with health professionals, physicians, researchers, nongovernment organizations, and advocacy groups in this regard. Health Canada has a working group of experts in this area to advise the Department on how to best promote health professionals' awareness and facilitate research funding on MCS.*

> The Committee recommends that the data quality and integrity systems that would be accepted as equivalent to the OECD good laboratory practices program be clearly defined as a PMRA Regulatory Directive.

*The PMRA's Regulatory Directive on Good Laboratory Practice (*GLP*) (DIR98-01, July 27, 1998) identifies that studies conducted in accordance with GLP standards of the U.S. Environmental Protection Agency and the U.S. Food and Drug Administration also qualify to be submitted for review by the PMRA.*

> The Committee recommends that the formulants should be subject to the same assessment, review and access to information provisions as the "active ingredient," including the requirement that they be listed on the pesticide label. Contaminants including micro-contaminants should be reviewed thoroughly and all toxicity information should be available to the public. These new aspects of the safety assessment should be incorporated into the new Pest Control Act.

See Section 1.0 for a discussion on formulants.

*Contaminants are identified during the premarket assessment of pest control products and it is verified that identified contaminants were also present in the material used to conduct the various safety studies. In that way, the extensive toxicology studies would address potential effects of the contaminants. Specific limits are set for some contaminants of concern. In addition, chemistry data are used to examine the potential for other contaminants of concern to be generated. Results of the assessment are included in the PMRA's assessment reports. As explained elsewhere, these reports are being made available for public review.*

The Committee recommends, given the lack of long-term data on pesticide use on genetically modified plants, that the new Pest Control Act specify that the use of a pesticide on a genetically modified plant require an amendment to the pesticide's registration. The amendment process should necessitate an assessment of the use of that pesticide on the genetically modified plant.

*Where genetic modification of a crop could lead to higher residue levels than those in a corresponding conventional variety, the risk and value assessment and registration process for the pesticide would be specific to that genetically modified crop. To date, herbicides for use on herbicide tolerant plants have been assessed specifically for those varieties. The PMRA will work with its partners involved in regulation of novel plants to formalize this process and develop a procedure for identifying types of genetically engineered crop varieties which would trigger the need for a specific assessment of pesticides used on them.*

The Committee recommends that the Pest Management Regulatory Agency ensure that its implementation document is consistent with the federal TSMP by, among other things, using the exact terms found in this policy.

*As acknowledged by the Standing Committee, the federal TSMP Interdepartmental Forum supported the PMRA's Implementation Strategy as being consistent with the federal TSMP.[7] The concepts expressed in the TSMP have been used for many years in regulating pesticides. Rather than making immediate changes to its regulatory directive, the PMRA will share experiences with other regulatory departments and agencies on practical aspects of the implementation of the TSMP. This collective experience and review will provide a solid base for refining the application of the TSMP in regulatory decision making across government.*

---

7 The *Pest Management Regulatory Agency's Strategy for Implementing the Toxic Substances Management Policy* was published in March 1999 (Regulatory Directive DIR99-03). The strategy addresses active ingredients, formulants and micro-contaminants in both currently registered products and new products.

The Committee recommends that pesticides that contain any Track 1 substances under the federal TSMP not be registered or re-registered.

*The PMRA will follow its regulatory directive and the TSMP in making decisions on persistent bioaccumulative and toxic substances (including contaminants) in pesticides. Decisions will be based on achieving the ultimate reduction of quantity or concentration of the substances in releases to the environment to below the level of quantification, which is the level which can be reliably measured and quantified.*

The Committee recommends that the Pest Management Regulatory Agency improve its inspection and enforcement operations and, in the case of non-compliance, apply the full range of available enforcement penalties.

*The PMRA enforces compliance with the PCPA through the National Pesticide Compliance Program. This is achieved through a full range of compliance techniques and measures. Enforcement actions in response to PCPA violations include: warning or prosecution of violators; seizure and detention, forfeiture, and denial of entry into Canada, of violative products; or cancellation or suspension of the registration status of the product; or a combination of these actions.*

*As noted by the Standing Committee, the PMRA will also enhance its enforcement program by expanding the range of enforcement options available to include administrative monetary penalties (AMPs). AMPs will provide the PMRA with a broader array of options to determine an appropriate enforcement response when non-compliance occurs. The PMRA will have authority to decide when to issue a monetary penalty, and the PMRA officials will be able to act on non-compliance issues more efficiently. Where non-compliance is identified, action may be taken immediately.*

The Committee recommends that the Pest Management Regulatory Agency work with the provinces to investigate the use of pesticides to determine whether users comply with label instructions.

*The PMRA inspectors based in regional offices across Canada have a variety of inspection programs to monitor compliance of pesticide users with label instructions, and to educate them on the importance of doing so. These programs are developed and run in cooperation with provinces, territories and other federal agencies. To make efficient use of resources, they will continue to be focussed on priority areas determined by factors such as health and environmental risks of potential non-compliance and the history of non-compliance.*

The Committee recommends that the government, in cooperation with its provincial/territorial partners, establish a national alternatives-to-pesticides database and that it be made available to the public through an electronic registry.

*Much information that could be part of a national database on pesticide alternatives already exists. The PMRA publishes a series of Pest Notes on important pest problems faced by the public. These Notes include information on prevention, pesticides and alternative management approaches. Provinces and territories have a variety of information sources on pest management and pesticide alternatives. There are numerous other publications on the subject. The government will work with the provinces and territories to explore the feasibility and cost of linking and supplement this information to work towards a national database of reliable pest management information.*

The Committee recommends that the food labelling system be improved to provide consumers with better information on the intrinsic nutritional qualities of food products.

*A policy review has already been undertaken, with a goal to improve nutrition labelling, increase its availability and broaden public education on its use. A policy recommendation is expected before the end of fiscal year 2000–2001.*

The committee recommends that the government introduce a comprehensive national awareness and information campaign on pesticides.

*A national awareness campaign would be a useful contributor to risk reduction. The government will explore opportunities for introducing such a campaign.*

The Committee recommends that the government including departments, federal councils and agencies, Crown corporations listed in Schedule III of the *Financial Administration Act*, federal regulatory agencies, and federal lands pursuant to the new Pest Control Act legislation: report to Parliament on all its uses of pesticides, through the sustainable development strategies, indicating the type and amount of pesticide used, when and where; and establish pesticide use reduction plans.

*As employer for the Public Service of Canada, the Treasury Board provides direction and guidance through policy documents covering a number of areas. Specifically addressing pesticide use, the Pesticides Directive was extensively revised in 1993 to ensure that departments develop IPM principles and practices that reduce the use of broad spectrum pesticides, using alternative control methods, and using pest/target specific control products. Examples of departmental implementation of these pest management programs include:*

- *The Department of National Defence's commitment to reducing pesticides use 50% by 2003 from its 1993 level by implementing IPM plans including increasing naturalized areas, decreasing materials used to maintain artificial conditions, using less intense grooming for roads and lawns, and conforming to long-term vegetation management plans.*

- *Public Works and Government Services's target for the establishment of standards for, and implementation of, IPM plans at all Crown-owned PWGSC facilities.*

- *Parks Canada's National Integrated Pest Management directive, which calls for the use of IPM when making decisions on pest control.*

*The government will review its current activities, policies and directives concerning pesticide use in the light of the Standing Committee recommendations and in keeping with its approach to pesticide risk reduction and use reduction within the context of sustainable pest management. The review will include determining the extent of pesticide use and of adoption of pest management plans. Although reporting on departmental sustainable development strategies are one way that will be used to report on these plans, other avenues may be identified. Reporting on progress will not extend to detailed reporting to Parliament on use of pesticides.*

The Committee recommends that the Minister of Health, solely or jointly with the provincial/territorial Ministers of Health, establish a twenty-four hour medical emergency information service with respect to pesticides and other toxic substances.

*In line with the Standing Committee recommendation, Health Canada is developing a computerized system (ProdTox) for linking Canadian Poison Control Centres as part of the National Health Surveillance Infostructure. In this way, their accumulated knowledge-base may be shared through a bilingual and secure Web-based network. This system will provide Poison Control Centres with information on Canadian commercial products, their composition and corresponding treatment guidelines. A second key objective of ProdTox is to demonstrate the feasibility of linking health-sector users of Poison Control Centres, particularly emergency physicians and nurses, with one Poison Control Centre, allowing them to more effectively manage patient threats requiring immediate intervention. This system is expected to provide an efficient basis for providing key information on products involved in poisonings to medical personnel who need it. In addition, recent advances in security features of such systems may provide the basis for effectively providing confidential information on product composition.*

The Committee recommends that the Minister of Health, in partnership with the provincial/territorial Ministers of Health, the governing bodies for medical practitioners and the national, provincial/territorial medical associations:

- ensure that health care professionals are given the necessary education and training to identify and treat illnesses caused by, or involving exposure to, pesticides and other toxic substances; and
- encourage health care professionals to report cases of adverse effects to the Pest Management Regulatory Agency for inclusion in the adverse effects database recommended by the Committee.

*The FPT Advisory Committee on Health Human Resources has been asked to consider the recommendation related to education of health care professionals. As indicated in Section 1.2.4, medical professionals would be encouraged to report adverse effects of pesticides under the proposed adverse effects reporting system.*

# List of Abbreviations

| | |
|---|---|
| 5NR | five natural resources departments (Agriculture and Agri-Food Canada, Natural Resources Canada, Department of Fisheries and Oceans, Environment Canada and Health Canada) |
| AMPs | administrative monetary penalties |
| CEPA | *Canadian Environmental Protection Act* |
| EPA | Environmental Protection Agency |
| EU | European Union |
| FPT | Federal/Provincial/Territorial |
| GLP | Good Laboratory Practices |
| IPM | integrated pest management |
| MCS | multiple chemical sensitivity |
| MOU | Memorandum of Understanding |
| MSDS | Material Safety Data Sheets |
| NSERC | National Science and Engineering Research Council |
| OECD | Organisation for Economic Co-operation and Development |
| PCPA | *Pest Control Products Act* |
| PMRA | Pest Management Regulatory Agency |
| PRDD | Proposed Regulatory Decision Document |
| PRR | Pesticide Registration Review |
| PWGSC | Public Works and Government Services Canada |
| TSMP | Toxic Substances Management Policy |
| U.S. | United States |
| WHMIS | Workplace Hazardous Materials Information System |