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Pest Management Regulatory Agency

Annual Report

2014–2015

YOUR HEALTH AND SAFETY... OUR PRIORITY.

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Executive Summary

Health Canada's Pest Management Regulatory Agency (PMRA) is pleased to present the 2014–2015 Annual Report to Parliament, which details PMRA's accomplishments and activities over the last fiscal year.

Health and environmental protection continue to drive our core activities, including prioritizing lower-risk registrations, taking a risk-based approach to compliance and enforcement activities, and refining re-evaluation and special review approaches to improve the timeliness of decisions. All PMRA decisions are based on the best available science.

In order to be effective in the face of evolving science, changing pest pressures and the expansion of global markets for treated Canadian commodities, the Canadian pesticide regulatory system must be at the leading edge of change. In 2014–2015, PMRA co-led the development of an OECD integrated approach to acute mammalian toxicity tests, which will reduce the need for animal testing. PMRA also continued to play a significant role in national and international efforts to identify and reduce risks to pollinators.

PMRA's approach to pesticide regulation continues to evolve in tandem with increasing international regulatory cooperation. Joint reviews, piloted, refined and expanded by PMRA over the last decade, are becoming the norm among our major trading partners. Canada continues to participate in the development of international protocols and agreements related to pesticides, including joint re-evaluations, the establishment of maximum residue limits and new approaches to risk assessment and risk management. PMRA has also been preparing to modernize its IM/IT framework to provide a more integrated network of information that is compatible with those of our international partners.

Through a variety of consultations, committees and reviews, PMRA has the opportunity to hear and respond to the needs and expectations of Canadians. For example, in 2014–2015, consultations on the modernization of the Cost Recovery regime and the statutory review of the *Pest Control Products Act* provided PMRA with targeted insight into stakeholder priorities. The Minister of Health's Pest Management Advisory Council is also a valuable source of broad input into various priorities and activities. This critical information allows PMRA to continually reinforce the framework required to run a world-class pesticide regulatory system, to the benefit of all Canadians.

About PMRA

PMRA is a branch of Health Canada and is responsible for regulating pest control products under the federal authority of the *Pest Control Products Act*. Our mandate is to prevent unacceptable risks to people and the environment from the use of these products. We also encourage the development and application of sustainable pest management strategies and facilitate access to lower risk pest control products. We use modern scientific assessment techniques to assess human and environmental health risks when evaluating and re-evaluating pest control products. PMRA endeavours to address public and stakeholder concerns, as well as to develop mechanisms to facilitate access to newer and safer products.

New Pesticide Registrations

Pesticides are regulated in Canada by Health Canada, reflecting the importance placed on human health and environmental protection in the regulation of these products. The *Pest Control Products Act* governs how pesticides are risk-assessed and risk-managed, before and after they are registered for use.

Before a pesticide can be sold in Canada, pesticide registrants are required to provide PMRA with large volumes of data to show that their product does not pose unacceptable risks to health and the environment, and that the product has value. These data are reviewed by PMRA scientists to determine whether a product is acceptable for registration in Canada.

PMRA's science-based risk assessment includes the following:

- an examination of all sources and routes (oral, dermal, inhalation) of potential exposure to a given pesticide, including exposure through diet, from drinking water and from contact with treated areas like lawns and gardens;
- an estimation of the amount of pesticides that people, including children, may come in contact with, both during and after a pesticide application;
- a human health risk assessment with a particular focus on vulnerable populations, including children; this considers the potential for a pesticide to cause adverse health effects such as cancer, birth defects and endocrine disruption, and allows registration only for those pesticides with exposures well below levels that cause adverse effects;
- an assessment of the movement, persistence and transformation (fate) of a pesticide in the environment;
- an environmental risk assessment that considers risks to plants, birds, mammals, beneficial insects, aquatic organisms as well as fate in the environment; and,
- a value assessment that considers the contribution of the product to pest management, as well as its health, safety and environmental benefits, and social and economic impact.

The studies required to be submitted by applicants for registration depends on various factors such as the nature of the product, the intended use, and the type of registration (for an overview of product submission types, please see Appendix Table 1). PMRA follows timelines and standards for these evaluations as outlined in the "Revised Management of Submissions Policy" (Regulatory Directive DIR2013-01). The number and type of submissions reviewed by PMRA can vary significantly by year, as shown in Appendix Figure 1. Despite these annual shifts, PMRA has consistently met review timelines for most submission types over the last 3 years (Appendix Figure 2).

New Active Ingredients Registered in 2014–2015

In 2014–2015, 14 new active ingredients (i.e. the substance with the pesticidal effect) were registered for use in Canada, resulting in the registration of 25 new end-use products (i.e. different formulations of products containing the active ingredient). Of the 14 new active ingredients, five were biopesticides and nine were conventional (i.e. chemical) pesticides (Appendix Figure 3).

Two of the new actives were registered conditionally, a status granted when the review of the data is sufficient to determine that the risks of a pesticide are acceptable, but additional confirmatory data is required. PMRA continues to move away from granting this type of registration. There are currently 80 conditionally registered products, representing approximately 1% of all registered products, down from 13% in 2006–2007.

Please see Appendix Table 2 for a full list of new active ingredients registered, and their uses.

Joint Reviews

Joint reviews are pesticide assessments conducted in cooperation with other jurisdictions. In the last two decades, Canada has progressed from developing pilot pesticide joint review approaches with the U.S., to conducting international joint reviews as a primary course of business. As of 31 March 2015, 14 new active ingredients were under joint review, including five conventional chemicals under global joint review.

Minor Uses

A minor use is a necessary use of a pest control product for which the anticipated volume of sales is not sufficient to persuade a manufacturer to register and sell the product in Canada. PMRA regularly meets with Agriculture and Agri-Food Canada's (AAFC) Pest Management Centre to provide regulatory advice that supports growers and grower associations in a collaborative process to identify priorities for new minor uses in Canada. PMRA also works directly with the provinces to help address regional minor use needs. The Canadian Grower Priority Database enables stakeholders to communicate their pest control product priorities while providing PMRA with a vehicle for monitoring progress in bridging the technology gap. In 2014–2015, PMRA reviewed minor use submissions from AAFC and the provinces and made 106 regulatory decisions resulting in the registration of 621 new minor uses of which 13 were joint reviews or workshares.

Emergency Registrations

A pest control product can be registered for up to one year for the emergency control of pest infestations for which no other effective method of control exists. The product must be already registered for another use, must be effective, and the human health and environmental risks must be acceptable.

Emergency registrations are not intended as a solution to an ongoing pest-management problem. However, they may be reconsidered if the emergency situation exists in subsequent years and there is evidence that users and the sponsoring agencies are actively working towards satisfying the data requirements for registration.

The number of emergency requests that PMRA receives can vary from year to year, depending on pest outbreaks, environmental conditions and the availability of alternative products and methods. In the 2014–2015 fiscal year, PMRA granted 14 emergency registrations.

Generic Registrations

Regulatory provisions for the protection of test data are intended to encourage the introduction of new pesticides by protecting the innovator's substantial investment in a supporting database. At the same time, established limits on the data protection period allow for timely introduction of equivalent products by generic manufacturers, thus enhancing market competition to the benefit of users, including growers.

These regulations are important to innovators, generic companies, and to growers. PMRA is continually seeking ways to improve the efficiency, effectiveness and predictability of generic applications for applicants/registrants and PMRA. Throughout the past year, consultations with stakeholders helped identify opportunities for process improvements.

PMRA published and implemented changes to the generic application review process in 2014. The intent of these changes are to make the process more transparent and predictable, to streamline the application process, to decrease the time to complete these assessments, to resolve operational challenges in processing these applications, and to improve the tracking and reporting on performance.

In 2014–2015, 34 generic products were registered, including 22 technical or manufacturing products and 12 end-use products. Some examples of generic active ingredients registered for agricultural use include, chlormequat chloride, chlorpropham, diquat, mancozeb, and quinclorac.

Grower Requested Own Use

Grower Requested Own Use (GROU) is an initiative that aims to make it easier for Canadian growers to import less expensive, equivalent pest control products available in foreign jurisdictions. Prior to 2014 this program was based on policy, however in August 2014, GROU was formalized in the *Pest Control Products Regulations*. Through continued support from not-for-profit national grower associations, growers are able to request product nominations for the program. Growers with an approved import certificate can legally obtain an equivalent version of a Canadian-registered product from outside Canada. Please see Appendix Table 3 for a list of approved GROU products for 2014–2015.

Regulation of Pesticides on the Market

Once a pesticide has been granted registration status, it becomes subject to a system of post-market risk management controls under the *Pest Control Products Act*. This includes re-evaluations and special reviews of registered pesticides, compliance and enforcement activities, and response to health and environmental incidents. This section will also describe activities addressing pollinator mortality, efforts to help growers transition from obsolete products to different pest management approaches, and outreach activities targeted at users.

Re-evaluation / Special Review Program

Under the *Pest Control Products Act*, re-evaluations of pesticide registration decisions are initiated at least every 15 years. Regulatory Directive DIR2012-02, *Re-evaluation Program Cyclical Re-evaluation*, outlines the process for considering any changes in the information required, or to the procedures used, to evaluate the health and environmental risk or value of a pesticide or group of pesticides since the last major regulatory decision. This ensures that registered pesticides continue to meet modern standards for health and environmental protection. In addition to cyclical re-evaluation, special reviews are another mechanism under the *Pest Control Products Act* to determine the continued acceptability of registered pesticides where the review is focussed on addressing specific aspects of concern (for example, concerns raised by an Organisation for Economic Cooperation and Development (OECD) member country decision to prohibit all uses of an active ingredient).

During fiscal year 2014–2015, 11 re-evaluations and 3 special reviews were completed with final decision documents published resulting in improved product use conditions to further protect human health and the environment. This corresponds to 83 end-use products affected. Consultations on 6 proposed re-evaluation decisions and 3 proposed special review decisions were conducted during this fiscal year. Appendix Table 4 provides an overview of the numbers of re-evaluation and special review decisions made in 2014–2015 with further details described in Appendix Table 5. In addition, 10 re-evaluation and 3 special reviews were initiated in accordance with the *Pest Control Products Act*.

While progress has been made in initiating new re-evaluations under the cyclical program, there have been challenges to completing the re-evaluations initiated under the previous program, consisting of 401 active ingredients registered before 1995. Overall, 88% (354) of these re-evaluations have been completed, with the following outcomes:

- 214 required implementation of new/revised conditions of use
- 12 required cancellation due to unacceptable risks to human health and/or the environment
- 106 voluntary discontinuations by the manufacturer
- 12 continue to meet current scientific standards
- 10 were not required due to lack of registered pesticides

During the course of any re-evaluation, interim regulatory actions such as additional risk reduction measures may be required to further protect human health and/or the environment. Such actions have been implemented for 18 of the 47 remaining active ingredients from the 401 group.

As part of our commitment to improve transparency, PMRA recently developed a risk-based integrated 3-year work plan for all re-evaluation and special review activities. This work plan was presented to the Pest Management Advisory Council (PMAC) in February 2015 and subsequently published.

Also of note, PMRA published a Regulatory Directive (DIR2014-01) outlining the requirements for special reviews as set out in the *Pest Control Products Act* as well as the general approach for special reviews relating to preliminary analysis, initiation, assessment and decision-making steps.

Pesticide Compliance and Enforcement Program

PMRA's Pesticide Compliance and Enforcement Program plays an important role in the protection of human health and the environment by promoting compliance with the *Pest Control Products Act*, and its regulations, among all regulated parties (registrants, distributors, growers, importers, manufacturers, formulators and users). This is done through robust and risk-focused compliance promotion, monitoring and inspection programs, and enforcement responses. These activities are conducted in partnership with Health Canada's Regions and Programs Bureau (RAPB), and in collaboration with federal and provincial partners. This program is an important mechanism for post-registration pesticide risk reduction.

Compliance promotion and inspection activities are prioritized annually on the basis of an assessment of risks to the health of Canadians and the environment. This is done through consultations within PMRA and with RAPB regional managers, who in turn consider information from provinces and territories. Upon approval of the National Pesticide Compliance Plan, RAPB implements this plan across the country, in close coordination with PMRA.

PMRA and RAPB also respond to reported incidents of suspected non-compliance, and complaints received from the public and regulated parties. If instances of non-compliance with the *Pest Control Products Act* are detected, measures are taken appropriate to the circumstances and the risks involved. Enforcement responses can include enforcement letters, denials of entry into Canada, seizures and detentions, forfeitures, product registration amendments or cancellations, compliance orders, and administrative monetary penalties under the Agriculture and Agri-Food *Administrative Monetary Penalties Act*. Violators may also be subject to criminal prosecution under the *Pest Control Products Act*. PMRA's laboratory in Ottawa supports this work by analysing samples collected in the field for compliance with the *Pest Control Products Act*.

In 2014–2015, PMRA delivered four national compliance promotion programs to measure and promote awareness about requirements under the *Pest Control Products Act* and its regulations. Approximately 133 planned compliance promotion activities were conducted. Examples include:

- Promoting proper use of personal protective equipment, in particular for migrant workers who may be at risk due to lack of awareness of label requirements related to post application protective measures.
- Informing growers and providing guidance on how to better utilise their spray technology to reduce pesticide spray drift and help ensure neighbourhood safety.
- Informing provincial and municipal public health inspectors on issues such as rodenticide and insecticide use in restaurants and rental housing, as well as inspections of public swimming pools.

In 2014–2015, 15 planned monitoring programs were delivered. These inspections covered a wide range of sectors, including registrants, retailers, commercial pest control operators, and other pesticide users. Approximately 1500 planned inspections were conducted, with more than 299 additional inspections conducted in response to complaints and incident reports. Examples of inspections conducted include:

- Phosphine fumigant users for adherence to the fumigation management plan and other precautionary measures as directed by the re-evaluation process.
- Rodenticide users in commercial and/or agricultural areas, including oil fields, field crops, and horse barns for the adherence to label restrictions and new mitigation measures as directed by the re-evaluation process.
- Structural pest control operators continued, with a focus on residential uses such as against bedbugs.
- Pesticide importers targeted through customs data related to pesticides received daily from the Canada Border Services Agency.
- Pesticide retailers for sale of unregistered pesticides and other pesticides not permitted to be sold.

In total, 319 soil, plant, tissues or other samples were submitted by regional inspectors to the PMRA laboratory to verify compliance with the *Pest Control Products Act*. In addition, 811 samples were collected in response to bee-related incidents and to help with analysis of bee health issues.

Most of the monitoring activities found high levels of compliance. In 2014–2015, most of the detected instances of non-compliance involved the possession of an unregistered product, as well as the sale, import, and use of unregistered products or use contrary to the label approved by the PMRA.

In 2014–2015, PMRA carried out approximately 1619 enforcement responses aimed at correcting non-compliance within the regulated community. Enforcement responses included 93 denials of entry into Canada for unregistered pesticides, and 484 education and enforcement letters targeting the misuse of pesticides by users. There were also 16 notices of violation issued under the *Agriculture and Agri-Foods Administrative Monetary Penalties Act* to five different violators. Notices of violation were issued to address distribution of unregistered pest control products, improper packaging and misuse of pest control products by pest control operators, and for advertising contrary to the conditions of registration.

Certain regulated parties and individuals who have previously been known to be non-compliant with the *Pest Control Products Act* and its regulations, and for whom the risks of re-offense were significant, were followed up through 66 surveillance inspections in 2014–2015. As of 31 March 2015, 72 percent of these inspections found a return to compliance. Health Canada is taking active steps, including application of escalated enforcement measures, to compel the remaining regulated parties and individuals to fully comply with the *Pest Control Products Act*.

PMRA also continued preparing for implementation of the Federal Government's Single Window Initiative under the Beyond the Border Action Plan, which was launched on March 28, 2015. In 2014-2015, this included working with other Health Canada branches and key stakeholders to get acquainted with the Electronic Integrated Import Declaration and the different electronic reporting tools that will eliminate paper-based interactions. Consultations, outreach, and training activities were conducted to inform stakeholders of key aspects of the Single Window Initiative. A strategy is in place to better identify and monitor volumes of pest control products crossing the border, including enhanced use of customs information from the Canadian Border Services Agency. PMRA is also working on an agreement for sharing compliance information with the U.S. Environmental Protection Agency.

Finally, PMRA joined the Organisation for Economic Co-operation and Development (OECD) network for fighting the international trade of illegal pesticides (ONIP), and continued to collaborate with its international regulatory partners to share and exchange compliance and enforcement information on pesticides under the OECD's Network of Officials for Pesticide Compliance and Enforcement.

For additional information, including published Enforcement Bulletins, please refer to the National Pesticide Compliance Program webpage on Compliance and Enforcement at www.hc-sc.gc.ca/cps-spc/pest/part/protect-proteger/compli-conform/index-eng.php.

Incident Reporting

PMRA's Pesticide Incident Reporting Program has been collecting incident reports since April 2007. Incident reports are vital for detecting adverse effects, including those that are not evident during the initial registration of a pesticide.

PMRA uses incident report data to identify and characterize potential risk to humans, domestic animals and the environment from the use of pesticides. Incident report assessments are prioritized based on the type of incident. Serious adverse effects (such as death) are evaluated immediately and mitigation measures are put into place if warranted. If a potential risk is identified, it is investigated and protective action may be taken, such as changes to how a pesticide is manufactured, packaged, labelled, or used. Incident report data also informs risk assessments for new registrations and re-evaluations. Monitoring incidents for unanticipated effects is an ongoing process that includes re-assessing previous conclusions, as necessary. In cases where mitigation strategies have been adopted, PMRA also monitors incident report data to determine if the actions were effective in managing the identified risk.

In the 2014–2015 fiscal year, 1863 incident reports were filed, 1303 of which occurred in Canada. Details of these reports can be found on the Health Canada website at http://pr-rp.hc-sc.gc.ca/pi-ip/disclaimer-avertissement-eng.php. PMRA took appropriate actions following evaluation of incident reports, for example:

- The conditions of use on the label of personal insect repellant devices containing metofluthrin were modified to prevent misuse and potential adverse effects from direct contact with the product.
- A warning statement was added to the label advising users to exercise caution when applying the fleas and ticks shampoo product to young and small animals.

Pollinators

PMRA Strategy to Address Pollinator Mortality

In 2012 and 2013, Health Canada's PMRA received numerous reports of honeybee mortality incidents. These incidents occurred mainly in intense corn growing regions of Ontario, with fewer in corn growing regions of Quebec and Manitoba. A vast amount of information was evaluated, collected through beekeeper questionnaires, symptom observation, samples collected for pesticide residue analysis, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) bee health inspections, and surveys of detailed agricultural practice information surrounding affected bee yards. The weight of evidence indicated that exposure to dust generated during planting of neonicotinoid treated corn and soybean seed contributed to bee mortalities in 2012 and 2013.

In response to these incidents, Health Canada's PMRA announced the following measures to reduce pollinator exposure to dust generated during the planting of treated corn and soybean seed:

- The New 2014 Requirement when using Treated Corn / Soybean Seed of a dust-reducing seed flow lubricant.
- Best Management Practices for Protecting Pollinators during Pesticide Spraying and an update on best practices for Pollinator Protection and Responsible Use of Treated Seed.
- Enhanced warnings and directions on pesticide and seed package labels on how to protect bees.

Before the 2014 planting season began, PMRA, OMAFRA, the Canadian Seed Trade Association, CropLife Canada, and pesticide registrants collaborated to help ensure that risk mitigation measures were communicated to growers across Canada and that the dust-reducing lubricant was readily available. This outreach campaign was successful. Seed dealers/retailers verified that the new lubricant, seed tags, labels and best management practices were provided to growers when they purchased treated seed, and sales and distribution data suggest the fluency agent was used extensively.

With these measures in place, the numbers and severity of incidents reported in 2014 during planting were lower than in 2012 and 2013, with a 70 percent reduction in incidents during planting in 2014 compared to 2013. The wet, cold spring in Southwestern Ontario may also have contributed to the decrease.

As in 2012 and 2013, each incident reported in 2014 was investigated through a collaborative effort between PMRA, RAPB, and the provinces. Each investigation included evaluating hive health, collecting samples (dead bees, pollen and nectar) for pesticide residue analysis, and gathering as much information as possible about the bee yard management practices of bee keepers and the surrounding agriculture. The assessment of these incidents is ongoing, and the samples collected are being analysed for pesticide residues and bee viruses.

Working with Stakeholders in Canada and Internationally

PMRA continued to actively work with many stakeholders in Canada and internationally to address the global concern regarding bee health.

In addition to working collaboratively with the provinces during the incident investigations, PMRA, RAPB, and some provinces monitored selected bee yards throughout the 2014 corn and soybean growing season. Selected bee yards were monitored in Ontario, British Columbia, Manitoba, Quebec and the Atlantic region to help understand whether there are any differences between bee yards that have incidents and those that do not when located close to corn or soybean fields. At each yard, bee samples, bee hive samples (pollen and nectar), environmental samples (vegetation, soil, water) and samples from an agricultural field (soil, vegetation) near the bee yard were collected for pesticide analysis. Agricultural surveys were also completed to provide a detailed analysis of the surrounding agricultural practices. Additionally, in Ontario, in cooperation with the province, an extensive bee health inspection was conducted at each monitored yard. This included collecting samples for virus/disease analysis. Analysis of the data collected is currently underway. The project will be continued in 2015 in Ontario and Quebec which will allow a direct comparison year to year for the same bee yards.

In 2014, PMRA became an active participant in AAFC's newly established Bee Health Roundtable in which stakeholders (including grower and beekeeping groups, the seed trade, pesticide and equipment industry associations, and federal and provincial governments) work together to find comprehensive solutions that will improve pollinator health in Canada. This initiative broadly considers all aspects of

pollinator health, including agricultural pesticide use practices, with the goal of promoting pollinator health and positive interactions between the agricultural and beekeeping industries.

PMRA continued to be involved in international efforts to identify and reduce risks to pollinators. This included participation in international working groups such as the Organisation for Economic Cooperation and Development working group on pesticides: Pesticide Effects on Insect Pollinators (co-led by Canada, the United States and Germany); and the International Commission for Plant-Pollinator Relationships Bee Protection Group. Within these groups, PMRA is working on various aspects dealing with pollinator risk, including communication of pollinator incidents, mitigation measures for pollinator risks and development of test guidelines and risk assessment guidance.

Support for Research
PMRA continued to actively support efforts to generate new research and monitoring information concerning pollinators. This includes work by other federal departments, including AAFC, Environment Canada and the Department of Fisheries and Oceans, as well as the provinces, academia, and industry. This ongoing research aims to, among other things, gain additional monitoring data in soil, surface waters and other environment compartments; further characterise potential effects of neonicotinoids on pollinators and other organisms (such as aquatic organisms and birds); and better understand the state of bee health in Canada.

Re-evaluation of Neonicotinoids
PMRA continues to work collaboratively with the United States Environmental Protection Agency (USEPA) and the California Department of Pesticide Regulation (CDPR) on the re-evaluation of neonicotinoids. The re-evaluation will focus on the value and the potential for effects on pollinators from all agricultural uses of these pesticides. This assessment will be completed by 2017/2018 using an improved pollinator risk assessment approach (pollinator risk assessment guidance (http://www2.epa.gov/pollinator-protection/pollinator-risk-assessment-guidance) which was developed in cooperation with the USEPA and CDPR) to better understand pollinator exposure to neonicotinoids and potential short- or long-term effects. Along with available scientific research, the re-evaluation will also consider new pollinator-related data being generated by the registrants on neonicotinoids, including measurement of actual exposure levels in pollen and nectar and the potential for long-term effects. Interim reports of significant findings and any proposed actions will be made available in 2015.

Transition Strategies

The cancellation and phase-out of an active ingredient or use may present a number of complicating issues, which include a lack of viable alternatives, the loss of uses with a high value to public health or the economy, and a significant impact on a specific sector. For critical uses, these factors can present challenges to the timely transition away from using these products. To address this, PMRA organizes and facilitates a forum for growers, registrants, provincial coordinators and other stakeholders to discuss and develop transition strategies toward alternate lower-risk pest management tools.

During 2014–2015, transition strategies for seven prioritized crop/pest combinations were submitted to PMRA for review and an additional product was registered for two crop/pest combinations.

Outreach Activities

PMRA's outreach program has three main functions: to develop and distribute material to professional and consumer audiences on all aspects of responsible pesticide use; manage a 1-800 information line and e-mail service to respond to enquiries on pesticides and pest management; and provide support and advice for the participation of regional pesticide managers and officers at fairs, exhibits and other opportunities through the use of displays, didactic tools and printed material.

In 2014–2015, working closely with PMRA scientific teams, the outreach team produced and disseminated a variety of materials in response to current and emerging needs. Of particular note this past year, PMRA produced an animated video as an extension of the poster on pesticide safety for seasonal and migrant workers. This short video conveyed the importance of hygiene with respect to pesticide safety. Information for the protection of pollinators, including best management practices conveyed on the Health Canada web site, fact sheets describing other mitigation measures were distributed to growers. The Pest Management Information Service responded to over 3000 calls and e-mails from the public on a broad range of questions relevant to pest management and responsible pesticide use. Regional compliance officials were able to attend numerous fairs/exhibits across Canada, to engage the public in discussion about consumer pesticide products, and more specialized audiences such as grower groups and provincial partners.

Keeping Pace with Change

Globalization, rapid technological advances, evolving science and economic pressures and various other challenges and opportunities require a pesticide regulatory system that is flexible and responsive to change. PMRA is continuously modernizing risk assessment and risk management approaches, refining business practices to ensure the needs of all stakeholders are met, and responding to major scientific and environmental developments, in Canada and abroad.

Canadian Scientific Developments

PMRA is continually seeking ways to develop and use new science to refine risk assessment and risk management approaches to improve health and environmental protection.

Habitat Protection
PMRA currently protects non-target habitats from pesticides by establishing no-spray buffer zones, and using hazard statements on product labels to identify substances that may leach or be transported in surface run-off. However, stakeholders have expressed concern that the current approach towards habitat protection may be acting as a disincentive to the protection of existing habitats, and the creation of new habitats, in agricultural areas. As a result, PMRA is investigating ways in which policies can be amended to respond to stakeholder concerns while continuing to protect non-target areas from the effects of pesticides. In 2014–2015, PMRA made progress on refining the science driving protective measures, exploring potential adjustments to mitigation measures based on land management practices, and incorporating more site-specific information in the establishment of mitigation requirements.

No-Spray Buffer Zones
To respond to the needs of the pesticide applicator community, PMRA has been developing strategies to address the restrictions that no-spray buffer zones have on agricultural operations. In 2011, PMRA launched the drift mitigation webpages, which provide information on spray drift and a No-Spray Buffer Zone Calculator. In 2014–2015, PMRA drafted a new section on Best Management Practices for Agricultural Spraying which details the best practices to use in managing spray drift. This section will published on the Health Canada website in early 2016. Additionally, the United Kingdom Chemicals Regulation Directorate of the Health and Safety Executive shared data on their drift reducing nozzle categorization framework so that PMRA could incorporate it into our No-Spray Buffer Zone Calculator. This framework will allow applicators to choose nozzles which are readily available in the marketplace to help reduce the amount of off-target drift.

Wood Preservatives and Protection of Aquatic Habitats
PMRA is developing internal guidance to improve the efficiency and consistency of its environmental risk assessments. In 2014–2015, one focus was on the development of guidance to assess environmental risks to aquatic habitats related to the use of wood treated with heavy duty wood preservatives. Wood preservative active ingredients may enter the environment directly (by leaching from treated wood used in direct contact with water) or indirectly (leaching and runoff from treated wood used in the vicinity of water). PMRA used the OECD Exposure Scenario Document for Wood Preservatives (http://www.oecd.org/chemicalsafety/pesticides-biocides/emissionscenariodocumentforwoodpreservatives.htm) as a basis for developing Canadian guidance on how to characterize exposure, as well as providing direction for the use of laboratory leaching study results. A tool has also been developed to facilitate the risk assessment for different

exposure scenarios, for both the application of pesticides to wood and for wood used in-service. PMRA defined several aquatic exposure scenarios that will be used and established a risk assessment framework. Internal written guidance on how to conduct an environmental risk assessment under the new framework and the use of the calculation tool are currently under review. This initiative will be completed in the next fiscal year.

Other Scientific Development Projects

***Estimating Dislodgeable foliar residues and turf transferrable residues in Occupational and Residential Postapplication Exposure Assessments* (SPN2014-02)**, provides values that are used by PMRA when calculating postapplication worker exposure for agricultural and residential risk assessments. Dislodgeable foliar residues (DFR) and turf transferrable residues (TTR) are measurements of pesticide residue on foliage and turf that can be transferred to human skin and clothing. They are used by PMRA when determining postapplication human exposure and risk to pesticides. The United States Environmental Protection Agency (USEPA) recently revised their DFR and TTR default values based on a large, robust database of studies. PMRA has similarly updated the Canadian default DFR and TTR values for use when chemical-specific DFR or TTR studies are not available.

General Exposure Factor Inputs for Dietary, Occupational, and Residential Exposure Assessments (SPN2014-01) describes exposure factors used by PMRA when calculating exposure for dietary, occupational and residential risk assessments. Exposure factors are data related to human behaviour and physiological characteristics, such as body weight, food and drinking water consumption, inhalation rates, body surface area, and life expectancy, that help determine an individual's exposure to an agent. These factors are used in combination with pesticide-specific data to estimate pesticide exposure to the population. PMRA has updated a number of exposure factor inputs used in dietary, occupational, and residential exposure assessments. This was done in consideration of recent changes to the United States Environmental Protection Agency (USEPA) Exposure Factors Handbook, the Dietary Exposure Evaluation Model - Food Consumption Intake Database (DEEM-FCID), and the USEPA Standard Operating Procedures (SOPs) for Residential Pesticide Exposure Assessment.

Regulatory Proposal PRO2014-02, Updated Agricultural Transfer Coefficients for Assessing Occupational Postapplication Exposure to Pesticides provides the transfer coefficients used by PMRA when calculating postapplication exposure to agricultural workers. Transfer coefficients (TCs) are used by PMRA when calculating postapplication exposure to agricultural workers for human health risk assessments. The United States Environmental Protection Agency (USEPA) recently developed a database of TCs based on data presented by the Agricultural Re-entry Task Force to the United States' Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel in 2008.

International Scientific and Regulatory Cooperation

Canada's internationally respected regulatory model has allowed Canada to form strong partnerships, and to play a significant role in developing collaborative approaches to joint pesticide reviews, promoting international regulatory alignment, and addressing barriers to agricultural innovation and trade. This leadership role has also afforded Canada the capacity to ensure that terms of trade are compatible with Canada's unique market conditions, and our commitment to health and environmental protection.

Maximum Residue Limits (MRLs)
A Maximum Residue Limit (MRL) is the maximum amount of residue that is expected to remain on food products when a pesticide is used according to label directions, and these are set at levels well below the amount that could pose a health concern. MRLs are established around the world for each combination of pesticide and treated agricultural product, whether domestic, imported or exported. International differences in MRLs are due to many variables, such as risk assessment and MRL-setting methodologies, and data available to regulators at the time of MRL establishment. Though MRL differences rarely reflect a difference in risk, these discrepancies can cause barriers to the movement of treated agricultural products around the world. Furthermore, if a pesticide is not registered in a given jurisdiction because it is new, or has no domestic utility, an MRL for that pesticide may not exist, and can block the import of safe and valuable treated commodities.

The demand for better global alignment on MRLs is an increasingly important issue around the world. Work includes ensuring that all MRLs are protective of health and the environment, establishing MRLs for incoming and outgoing commodities that are lacking them, and identifying and resolving international discrepancies that can result in barriers to trade. Horizontal and international collaboration is critical in resolving these issues, which are of high importance to registrants, growers, and the Canadian economy. PMRA has and will continue to work with its international partners in North American Free Trade Agreement (NAFTA), OECD and the Codex Alimentarius Commission to better collaborate on science policy and establishing MRLs internationally, thus reducing non-tariff trade irritants.

PMRA supports AAFC by providing specialized, scientific knowledge and expertise to assist in resolving market access irritants related to MRLs. PMRA also addresses pesticide MRL-related inquiries from the World Trade Organization's Sanitary and Phytosanitary Committee, and is an active participant on Canada's Interdepartmental and Industry-Government Working Group on Pesticide MRLs. Both of these working groups have been established to further enhance communication and collaboration between government departments, grower groups and pesticide registrants. In addition, a key function of these working groups is to identify and prioritize trade irritants related to pesticide MRLs in a timely manner.

Through its involvement in the **Regulatory Cooperation Council (RCC)** initiative, PMRA is analyzing new scientific methods and process improvement strategies to further streamline data requirements for establishing MRLs between jurisdictions. The recommendations stemming from this work have been shared with OECD and Codex, in support of further alignment of MRLs for major and minor uses of pesticides.

Revisions and Updates to Specific Residue Chemistry Crop Groups (DIR2014-02)
PMRA also continues to participate in the development of harmonized residue chemistry crop groups in collaboration with the US EPA and the International Crop Grouping Consulting Committee. Crop groups enable the registration, expansion and establishment of MRLs for groups of similar crops based on residue data from certain representative commodities, they simplify the commodity terminology for establishing MRLs, promote more extensive use of crop groupings for MRL setting purposes and facilitate the availability of pesticides for minor crop uses. The most recent revision was published as **DIR2014-02** for residue chemistry crop groups 4 and 5, Leafy Vegetables (except Brassica vegetables) and Brassica (Cole) Leafy Vegetables, respectively.

Aligning Buffer Zone Requirements
In 2014–2015, PMRA continued its collaboration with the US and Australia to generate further data on pesticide spray-drift-reducing technologies, with the goal of aligning the various approaches. PMRA also participated in the development of policies regarding spray drift management and drift reduction by the Australian regulatory agency.

International Guidance for Pesticide Field Dissipation Studies and Ecoregion Crosswalk
PMRA is co-leading the development of an OECD project on "Harmonized international guidance for conducting pesticide terrestrial field dissipation studies and a Geographic Information System-based ecoregion crosswalk model that allows comparison of North American & European eco-regions". The results of this project will allow regulatory agencies in various countries to use field studies on pesticides conducted on both continents, thus strengthening regulatory decisions and reducing regulatory burdens for both registrants and regulators.

In July 2014, PMRA in collaboration with the US EPA and European Food Safety Authority, released draft guidance documents and the associated ecoregion crosswalk model for public consultation (http://www.oecd.org/chemicalsafety/testing/draftguidanceandreviewdocumentsmonographs.htm). Upon completion of commenting period in April 2015, the guidance documents and model will be finalized and published by the OECD.

Water Modelling
PMRA continues to improve the tools used to predict concentrations of pesticides in sources of drinking water, as well as in water inhabited by aquatic organisms. PMRA works in close collaboration with the US EPA to regularly update and revise the computer models that estimate the amount of pesticides that may leach into groundwater or that may enter surface water when pesticides are applied according to the label directions. In 2014–2015, PMRA began using the Surface Water Concentration Calculator, a model that coordinates Canadian and US EPA approaches. Combining this with the groundwater model harmonized in 2012-2013 (PRZM-GW), has resulted in better alignment of Canadian and US risk assessment approaches, while continuing to protect human health and the environment.

Integrated Approaches to Testing and Assessment (IATA)/21st Century Alternative Testing Methods
The goal of the IATA project is to develop common approaches to the application of testing to the human health and ecological risk assessment of pesticides. IATA combines data from existing laboratory animal studies, *in vitro* high throughput screening assays (HTS), predictive models, mechanistic studies and other data to refine, reduce or even replace standard targeted laboratory animal studies for risk assessments, without compromising health and environmental protection.

PMRA is co-leading the development of an OECD *Guidance for Waiving or Bridging Mammalian Acute Toxicity Tests* based on PMRA guidance document on the same topic, with the goal of applying IATA to the human health and ecological risk assessment of pesticides. Use of this guidance will reduce animal testing while still providing a scientifically valid approach to hazard assessment.

PMRA continues to support and collaborate in a number of other initiatives related to the investigation and application of updated conventional testing protocols such as the OECD Extended One-Generation Reproductive Toxicity Study, (Q)SAR predictions, genomics; and other alternative methods, such as the waiver guidance document for acute studies.

Stockholm and Rotterdam Conventions
Canada is a party to the Stockholm and Rotterdam Conventions, which address international management of chemicals. Canada's overall objective is to work cooperatively with other parties to advance/adopt key priorities while ensuring that Canada's interests are served by the decisions taken. Canada's active participation in these conventions directly supports our commitment to protect the health of Canadians and the environment.

The Stockholm Convention is a legally binding international treaty that addresses international management of chemicals with the focus on production and use of persistent organic pollutants (POPs).

PMRA collaborated with other federal partners in the development of Canadian positions and submissions to the POPs Review Committee (POPRC) and the Conference of the Parties (COP) of the Stockholm Convention and by providing the Canadian technical expert to the POPRC. PMRA is the responsible federal authority for meeting the obligations and for ongoing participation at the Stockholm Convention as it pertains to pesticides.

In 2014–2015, PMRA contributed to the drafting of the risk management evaluation for pentachlorophenol (PCP), a wood preservative registered in Canada, and the screening assessment for dicofol, an agricultural pesticide, no longer registered for use in Canada. At the annual meeting, the POPRC adopted the risk management evaluation of pentachlorophenol (PCP), a wood preservative registered in Canada, and recommended the listing of PCP with exemptions to the COP. The Committee also decided that dicofol met the screening criteria of the Convention and that a risk profile will be drafted.

The Rotterdam Convention promotes information exchange and informed consent in the international trade of chemicals, with the aim of protecting human health and the environment. PMRA participated at the Convention's annual technical committee meeting, where two pesticides (methamidophos, and severely hazardous pesticide formulations containing fenthion, neither of which are registered in Canada) were recommended for addition to the Convention's prior informed consent requirements for imports.

PMRA collaborates with federal partners in administering Canada's obligations, codified in the *Canadian Environmental Protection Act*, concerning import and export of all pesticides subject to the Rotterdam Convention and assessment and management of all pesticides subject to the Stockholm Convention.

Cost Recovery

Work continued in 2014–2015 to modernize PMRA's Cost Recovery regime, which has not been updated since 1997. Following the publication of the Pesticide Cost Recovery Proposal in March 2014 for consultation, stakeholders acknowledged our achievements, particularly in the areas of international regulatory cooperation and our performance against published timelines for processing complex applications. However, concerns remain regarding our ability to sustain and expand international regulatory cooperation and support for trade goals, science policy, electronic infrastructure, timeliness of decisions, and outreach under our current regime.

In December of 2014, PMRA published the Pesticide Cost Recovery Pre-Proposal Notice, outlining proposed fee revisions that better reflect current costs and help address priorities of both government and stakeholders. Service standards and performance measures affiliated with the new fees were also proposed. This document also addressed comments and concerns made during the Pesticide Cost Recovery Proposal phase. The responses to the Pre-Proposal notice were addressed through bilateral consultations, allowing PMRA to proceed with finalizing the Parliamentary Proposal for tabling early in the 2015–2016 fiscal year.

This proposal would allow PMRA to meet the needs of all Canadians through a pesticide regulatory system that continues to prevent unacceptable risks to human health and the environment, and is modern, efficient and economically sustainable.

Pest Control Products Act Review

In December 2014, the House of Commons Standing Committee on Health (HESA) undertook a statutory review of the *Pest Control Products Act,* as required every 7 years. PMRA presented evidence that the *Pest Control Products Act* provides the flexibility to regulate pesticides in a rapidly evolving regulatory and scientific environment, while maintaining health and environmental protection and meeting stakeholder needs and expectations. Several stakeholder groups participated in the review, including grower groups, registrant groups, and environmental organizations. Concerns raised during the hearing included application of the precautionary principle, conditional registrations, assessing risks of new technologies, PMRA's limited role in supporting government trade goals, and openness and transparency to Canadians. Recommendations based on the review were to be presented in a HESA report to Parliament early in 2015–2016.

Financial Profile

Financial Profile (in millions of dollars)

A-Base	27.9
Revenue	7.9
Growing Forward	3.7
Chemicals Management Plan	5.0
Total	**44.5**

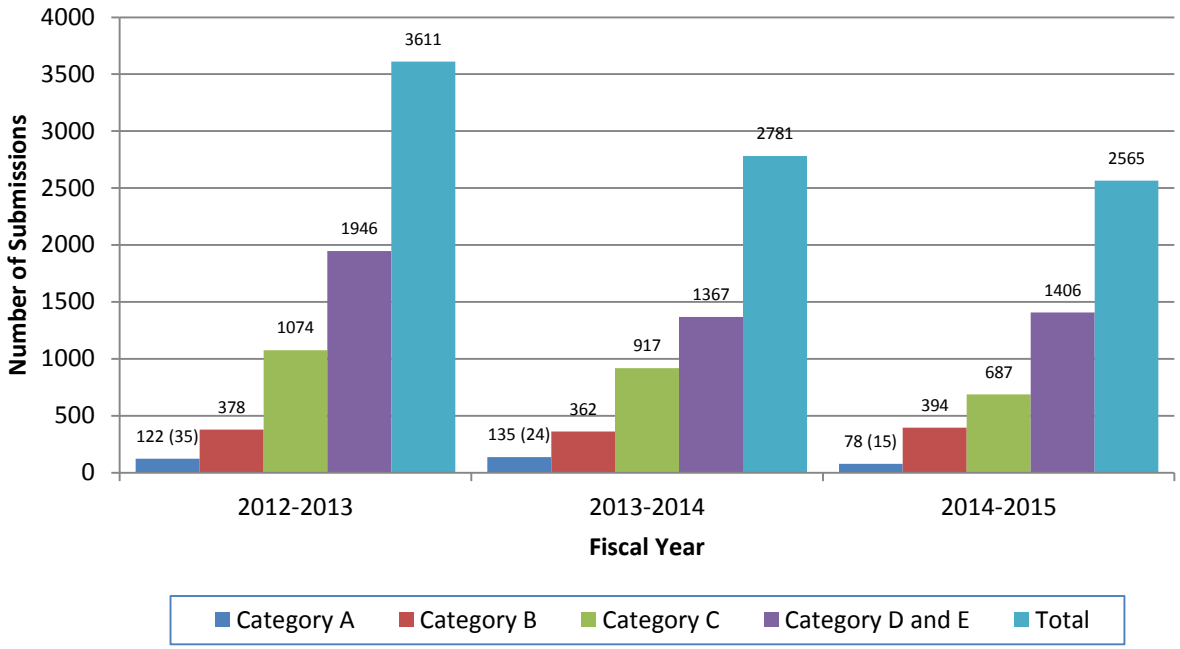
PMRA received $3.7M through the Growing Forward initiative to support the registration of minor use products. Through Canada's Chemicals Management Plan, PMRA is receiving $25M for fiscal years 2011–2012 to 2015–2016 to re-evaluate older pesticides, improve risk-management approaches through Incident Reporting and Sales Reporting regulations, and contribute to the development of scientific and regulatory approaches with other jurisdictions on high-priority issues. For more information, please consult the Chemicals Management Plan webpage at http://www.chemicalsubstanceschimiques.gc.ca/plan/index-eng.php.

Appendices

TABLE 1 PRODUCT SUBMISSION CATEGORIES

Category A	Submissions to register new active ingredients and their companion end-use product(s); applications to add a major new use to a registered pesticide; submissions to establish a maximum residue limit for a previously non-assessed active ingredient; and submissions for user requested minor use registrations. Category A submissions require a full, supporting data package.
Category B	Submissions to amend a product label (for example, changes in application rates, timing of applications, new pests, changes to precautionary statements) or to change the product chemistry. Supporting data must be provided.
Category C	Submissions to register or amend a product label (add pest, use or change application rate) or change a formulation based on previously established precedents, or those that have reduced data requirements.
Category D	Submissions to register or amend products within particular programs such as the Import for Manufacture and Export, Own-Use Import, Grower Requested Own Use program, Master Copy, Private Label, User Requested Minor Use Label Expansion and renewal of registration.
Category E	Submissions for research authorizations and research notifications, when the research is carried out in Canada.

FIGURE 1 NUMBER OF SUBMISSIONS COMPLETED BY PMRA FROM APRIL 1, 2012 TO MARCH 31, 2015



Trends and Limitations:

- Represents 12-month period
- Most Category A and many Category B submissions have >12 month timelines (therefore received in previous years)
- Number of submissions completed does not include pre-submission consultations, and includes Registered, Withdrawn and Rejected
- For Category A the number in parentheses reflects the number of new active ingredients completed

FIGURE 2 PERFORMANCE AGAINST REVIEW TIMELINES FOR CATEGORY A, B AND C SUBMISSIONS COMPLETED FROM APRIL 1, 2012 TO MARCH 31, 2015

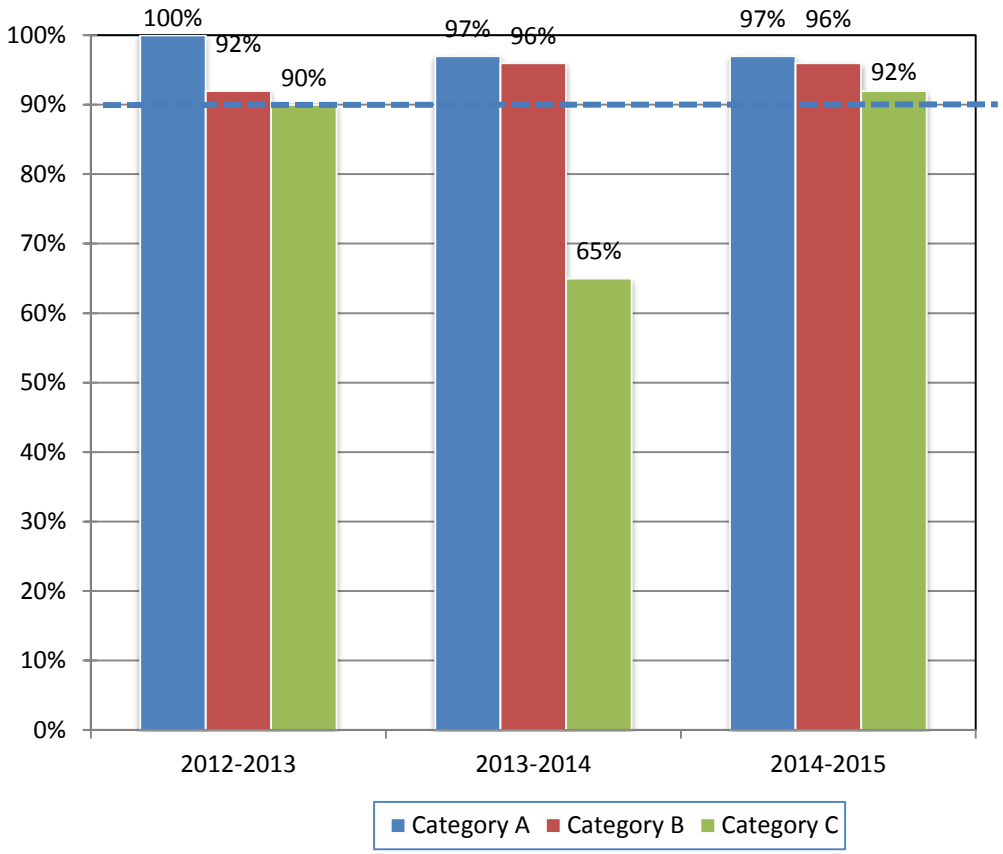


FIGURE 3 NUMBER OF NEW ACTIVE INGREDIENTS REGISTERED BY PMRA FROM APRIL 1, 2012 TO MARCH 31, 2015

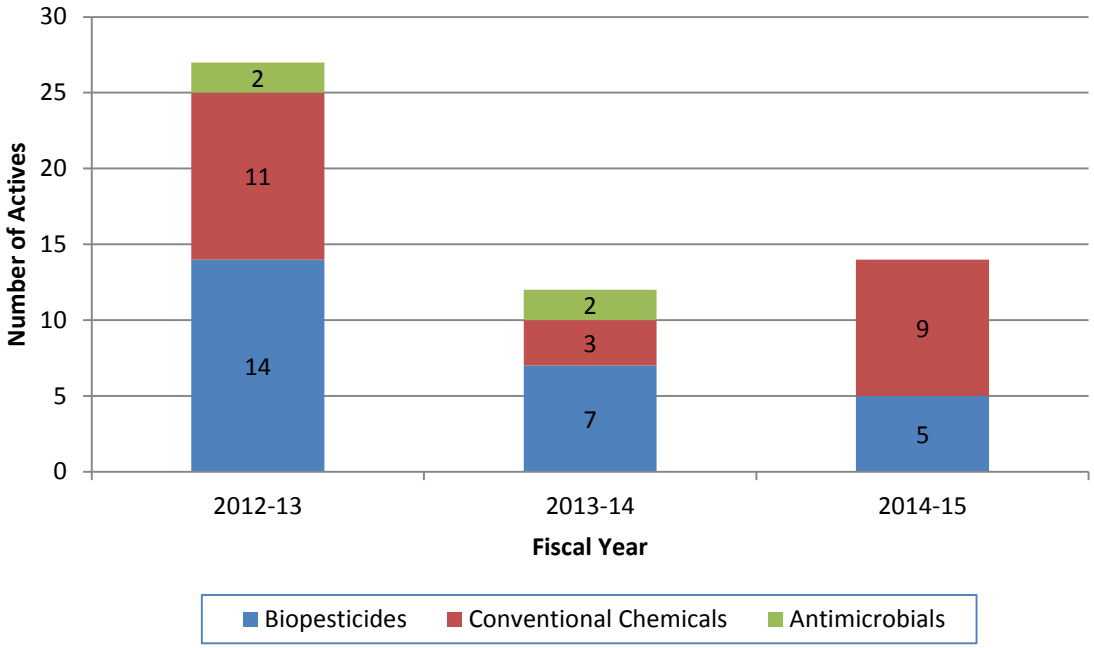


TABLE 2 NEW ACTIVE INGREDIENTS REGISTERED IN 2014–2015

No	Active Ingredient	End-Use Product (s)	Product Type	Registration Status	Product Category	Uses/Sites
1	Aminocyclopy-rachlor	DPX-MAT 28 HERBICIDE	Herbicide	Full	Conventional Chemical	Non-crop areas such as utility rights of way, roadsides, industrial sites, fence lines
		DUPONT TRUVIST HERBICIDE	Herbicide	Full	Conventional Chemical	Private, public and military lands as follows: uncultivated non-agricultural areas (such as airports, highway, railroad and utility rights-of-way, sewage disposal areas, etc.); uncultivated agricultural areas - non-crop producing (such as farmyards, fuel storage areas, fence rows, non-irrigation ditchbanks, barrier strips, etc.) and industrial sites – outdoor (such as lumberyards, pipeline and tank farms, etc.).
		DuPont NAVIUS HERBICIDE	Herbicide	Full	Conventional Chemical	Non-crop areas such as rights of way, roadsides, industrial sites, fence lines and other non-crop areas.
		DUPONT REJUVRA XL HERBICIDE	Herbicide	Full	Conventional Chemical	Pasture, rangeland and non-crop areas such as utility rights of way, roadsides, industrial sites, fence lines.
		DuPont NAVIUS VM HERBICIDE	Herbicide	Full	Conventional Chemical	Non-crop areas such as rights of way, roadsides, industrial sites, fence lines and other non-crop areas.
2	*Bacillus thuringiensis* ssp. *aizawai* Strain ABTS-1857	XenTari WG Biological Insecticide	Insecticide	Full	Biopesticide	Apples; pears; broccoli; cabbage; cauliflower; Chinese cabbage; bok choy; Chinese broccoli; Asian radish; grape; hops; Fruiting Vegetables - tomato, pepper, eggplant ; leek; artichoke; canola. Greenhouse Uses: Fruiting Vegetablies - tomato, pepper, eggplant ; cucumber: Leafy Vegetables – lettuce; Greenhouse Legumes – beans; Ornamentals – carnation, chrysanthemum, geranium, gerbera, hibiscus, kalanchoe, rose.
3	*Beauveria bassiana* Strain ANT-03	BIO-CERES G WP	Insecticide	Full	Biopesticide	Greenhouse tomatoes, cucumbers and ornamentals.
		BIO-CERES G WB	Insecticide	Full	Biopesticide	Greenhouse tomatoes, cucumbers and ornamentals.
4	Bifenthrin	CAPTURE 240 EC	Insecticide	Conditional	Conventional Chemical	Potatoes and raspberries
5	Cyflumetofen	NEALTA Miticide	Insecticide	Full	Conventional Chemical	Grape; strawberry; tomato; Pome Fruits (Crop Group 11-09) – Apple, Asian pear, azarole, Chinese quince, crabapple, Japanese quince, mayhaw, medlar, pear, quince, tejocote.

No	Active Ingredient	End-Use Product (s)	Product Type	Registration Status	Product Category	Uses/Sites
6	Ethaboxam	INTEGO Solo Fungicide	Fungicide	Full	Conventional Chemical	Crop Group 15: Cereal Grains (except rice, sorghum and wild rice) – Barley; buckwheat; millet, pearl; millet, proso; oats; rye; teosinte; triticale; wheat. Corn (sweet and field), popcorn; Crop Group 6: Legume Vegetables (succulent or dried except cowpea and field pea) - Bean (*Lupinus*) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (*Vigna*) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (*Fava*); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea (*Pisum*) (includes dwarf pea, edible-podded pea, English pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean; soybean (immature seed); sword bean. Crop Group 20A (Rapeseed Subgroup) - Rapeseed, Canola Varieties Only: Borage; carinata; crambe; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed (including canola); sesame; sweet rocket; cultivars, varieties, and/or hybrids of these.
7	Flutriafol	FULLBACK 125 SC Fungicide	Fungicide	Full	Conventional Chemical	Apples, grapes, strawberries, dry soybeans.
8	Halauxifen	Pixxaro A Herbicide	Herbicide	Full	Conventional Chemical	Spring wheat (including durum), winter wheat, and spring barley in the prairie provinces and Peace River region of British Columbia and in eastern Canada.
		Paradigm Herbicide	Herbicide	Full	Conventional Chemical	Spring wheat (including durum), winter wheat, and spring barley in the prairie provinces and Peace River region of British Columbia.

No	Active Ingredient	End-Use Product (s)	Product Type	Registration Status	Product Category	Uses/Sites
		GF-2685 HERBICIDE	Herbicide	Full	Conventional Chemical	Spring wheat (including durum), winter wheat, and spring barley in the prairie provinces and Peace River region of British Columbia and in eastern Canada.
9	Isofetamid	Isofetamid 400SC Fungicide	Fungicide	Full	Conventional Chemical	Grapes; lettuce head and leaf; Oilseed Crop Subgroup 20A - Borage; crambe; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed (*Brassica napus*, *B. campestris*, and *Crambe abyssinica* (oilseed-producing varieties only which include canola and crambe)); sesame; sweet rocket; and cultivars, varieties, and/or hybrids of these. Low Growing Berry, Crop Subgroup 13-07G - Bearberry; bilberry; blueberry, lowbush; cloudberry; cranberry; lingonberry; muntries; partridgeberry; strawberry; and cultivars, varieties, and/or hybrids of these. Turfgrass on golf courses and sod farms.
10	Momfluorothrin	Momfluorothrin Flying And Crawling Insect Killer Spray	Insecticide	Full	Conventional Chemical	Indoor use in: homes, apartments, basements, attics, garages, kitchens, bathrooms, and other household areas Outdoor use: exterior surfaces of building(s), tree trunks, patios and other outdoor surfaces.
		MGK 29871	Insecticide	Full	Conventional Chemical	Outdoor uses: spot or crack and crevice treatment under eaves, near window frames, doorways, building surfaces protected from rainfall / run-off, carports, picnic areas, and outdoor play areas. Indoor uses: spot or crack and crevice treatment inside homes.
		MGK 29872	Insecticide	Full	Conventional Chemical	Outdoor uses: spot or crack and crevice treatment under eaves, near window frames, doorways, building surfaces protected from rainfall / run-off, carports, picnic areas, and outdoor play areas. Indoor uses: spot or crack and crevice treatment inside homes.
		MGK 29831	Insecticide	Full	Conventional Chemical	For indoor use in residential areas (e.g., apartments and homes). may also be used to treat linen/clothes storage areas (e.g., chests, closets), furniture and rugs. For outdoor use as a spot or crack

No	Active Ingredient	End-Use Product (s)	Product Type	Registration Status	Product Category	Uses/Sites
						and crevice treatment to outdoor structural surfaces including building surfaces protected from rainfall/run-off, screens, doors, under eaves, door frames, window frames, foundations, patios, garages, refuse area or other similar places where insects may enter or congregate.
11	*Phlebiopsis gigantea* strain VRA 1992	ROTSTOP C	Fungicide	Full	Biopesticide	Conifer species.
12	Pyraflufen-Ethyl	PYRO HERBICIDE	Herbicide	Conditional	Conventional Chemical	Wheat (spring, durum, and winter); field corn; soybean.
13	Thyme Oil	TyraTech Drain Fly Killer	Insecticide	Full	Biopesticide	Indoors and outdoors around commercial, institutional and industrial structures including restaurants, kitchens, hospitals, schools, daycare facilities, hotels, nursing homes, commercial dining rooms, food processing plants, warehouses, lavatories, offices, multi-family housing and veterinary clinics
		TyraTech Techdust	Insecticide	Full	Biopesticide	In and around commercial, industrial, institutional and residential structures such as hotels, hospitals, multi-family housing, schools, nursing homes, offices, restaurants, kitchens, laboratories, factories, slaughter-houses, production facilities, modes of transport (not to include airplane cockpits), garages, storage units and other areas of human habitation or activity.
14	*Trichoderma harzianum* Rifai strain T-22	TRIANUM P Biological Fungicide	Fungicide	Full	Biopesticide	Greenhouse - Lettuce, tomatoes, cucumbers and ornamentals. Outdoor – Turf, field lettuce and field carrots.
		TRIANUM G Biological Fungicide	Fungicide	Full	Biopesticide	Greenhouse - Lettuce, tomatoes, cucumbers, carrots and ornamentals. Outdoor – Turf, field lettuce and field carrots.

TABLE 3 APPROVED GROU PRODUCTS 2015

In 2014–2015, 21 products were available under the Grower Requested Own Use (GROU) Program:

- Ridomil Gold 480SL Fungicide (Registration Number 28474) (expires December 31, 2017)
- Assail 70 WP Insecticide (Registration Number 27128) (expires December 31, 2017)
- Tattoo Fungicide (Registration Number 29554) (expires December 31, 2016)
- Quadris Flowable Fungicide (Registration Number 26153) (expires December 31, 2016)
- Elevate 50 WDG Fungicide (Registration Number 25900) (expires December 31, 2017)
- FirstRate Herbicide (Registration Number 26697) (expires December 31, 2016)
- Oracle Dicamba Agricultural Herbicide (Registration Number 26722) (expires December 31, 2015)
- Apollo SC Ovicidal Miticide (Registration Number 21035) (expires December 31, 2014)
- Agri-mek 1.9% EC Insecticide/Miticide (Registration Number 24551) (expires December 31, 2015)
- Pursuit 240 (Registration Number 23844) (expires December 31, 2015)
- Pursuit Herbicide (Registration Number 21537) (expires December 31, 2015)
- B-Nine WSG (Registration Number 17465) (expires December 31, 2015)
- SePRO A-Rest Solution (Registration Number 16393) (expires December 31, 2017)
- SUMAGIC Plant Growth Regulator (Registration Number 25781) (expires December 31, 2016)
- Bonzi Plant Growth Regulator (Registration Number 25453) (expires December 31, 2017)
- Assure II Herbicide (Registration Number 25462) (expires December 31, 2017)
- Reglone Desiccant (Registration Number 26396) (expires December 31, 2016)
- Reflex Liquid Herbicide (Registration Number 24779) (expires December 31, 2015)
- Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide (Registration Number 27487) (expires December 31, 2015)
- Banvel II Herbicide (Registration Number 23957) (expires December 31, 2015)
- Basagran Liquid Herbicide (Registration Number 12221) (expires December 31, 2015)

TABLE 4 RE-EVALUATION/SPECIAL REVIEW ACTIVITIES IN 2014-2015

Description	Final[1] Decisions	Proposed[2] Decisions	Pending[3] Publication	Total
Active ingredients reviewed	14	9	12	35
Discontinued/withdrawn by registrant	1	0	0	1
Phase-out required(or proposed for phase-out) as a result of PMRA review	0	1	0	1
Registration continued—label modifications	11	5	12	28
Registration continued—no label modifications	2	3	0	5

[1] PMRA has finalized decisions for active ingredients.
[2] PMRA has published proposed decisions for active ingredients.
[3] Assessments have been completed and decisions proposed, but PMRA has not yet published the proposed decisions for active ingredients.

TABLE 5 RE-EVALUATION/SPECIAL REVIEW DECISIONS IN 2014–2015

No	Active Ingredient	Publication Type	Summary of Decision or Proposed Decision (as contained in PRVD, RVD or REV note)
1	Propoxur	RVD2014-01	**Final Decision:** Acceptable for continued registration for certain uses. All pet collar, indoor domestic-class products (except bait trays), and application of commercial-class products in indoor residential areas are cancelled due to unacceptable risks. Mitigation for the remaining uses includes new/revised label statements to further protect human health and the environment.
2	Amitrole	RVD2014-02	**Final Decision:** All uses are cancelled, except use in spruce bareroot nursery stock (seedbeds), due to unacceptable risks. Mitigation for the remaining use includes new/revised label statements to further protect human health and the environment.
3	Compound 1080 (special review)	RVD2014-03	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect the environment.
4	Clofentezine	RVD2014-04	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.
5	Paclobutrazol	RVD2014-06	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.
6	Nucleopolyhedrovirus for Gypsy Moth Larvae	RVD2014-07	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.
7	p-Chloro-m-cresol	RVD2014-08	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.
8	Sodium p-Chloro-m-cresolate	RVD2014-08	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.
9	Isoxaben	RVD2014-09	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.

No	Active Ingredient	Publication Type	Summary of Decision or Proposed Decision (as contained in PRVD, RVD or REV note)
10	Flumetsulam	RVD2014-10	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.
11	1,4-Bis(bromoacetoxy)-2-butene	RVD2015-01	**Final Decision:** Acceptable for continued registration. Mitigation includes new/revised label statements to further protect human health and the environment.
12	Aminopyralid (special review)	REV2014-04	**Final Decision:** Acceptable for continued registration.
13	Dimethoxane	REV2015-01	**Final Decision:** All products have been discontinued by the registrant.
14	Difenoconazole (special review)	REV2015-02	**Final Decision:** Special review has been withdrawn as criteria for initiating a special review pursuant to subsection 17(2) of the *Pest Control Products Act* are not met.
15	Dimethoxane	PRVD2014-02	**Proposed Decision:** Proposed for continued registration with implementation of new/revised mitigation measures to further protect human health and the environment.
16	Metiram	PRVD2014-03	**Proposed Decision:** Proposed cancellation of all uses due to health and environmental risk concerns.
17	Isoxaben	PRVD2014-04	**Proposed Decision:** Proposed for continued registration with implementation of new/revised mitigation measures to further protect human health and the environment.
18	Flumetsulam	PRVD2014-05	**Proposed Decision:** Proposed for continued registration with implementation of new/revised mitigation measures to further protect human health and the environment.
19	Triflusulfuron-methyl	PRVD2014-06	**Proposed Decision:** Proposed for continued registration with implementation of new/revised mitigation measures to further protect human health and the environment.
20	1,4-Bis(bromoacetoxy)-2-butene	PRVD2014-07	**Proposed Decision:** Proposed for continued registration with implementation of new/revised mitigation measures to further protect human health and the environment.
21	Aminopyralid (special review)	REV2014-01	**Proposed Decision:** Proposed for continued registration.
22	Imazapyr (special review)	REV2014-03	**Proposed Decision:** Proposed for continued registration.
23	Quintozene (special review)	REV2014-07	**Proposed Decision:** Proposed for continued registration.