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The North American Initiative

Milestone Report

A Report of the North American Free Trade Agreement Technical Working Group on Pesticides

CICOPLAFEST

This report was produced cooperatively by the following agencies:

Pest Management Regulatory Agency, Canada

Comisión Intersecretarial para el Control del Proceso y Uso de Plaguicidas y Sustancias Tóxicas, Mexico

Environmental Protection Agency, United States of America

Cover photo: "Greeness" map derived from advanced very high resolution radiometer satellite data, United States Geological Survey.

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Perspectives

Throughout this report you will see boxes like this one, which contain the perspectives of various key stakeholders who have been involved with the TWG. These perspectives were provided during interviews, and do not necessarily represent the views or opinions of the TWG Executive Board, the editors of this report, or any agency engaged in the work of the TWG. We would like to thank the following people for providing their perspectives for this report:

Jo-Ann Buth, Canola Council, Canada

Julia Langer, World Wildlife Fund, Canada

Karen Pither, Bayer Corporation, United States

Amada Vélez, Secretariat for Agriculture, Mexico

List of Acronyms

AMIFAC	Asociación Mexicana de la Industria Fitosanitaria, A.C.
CEC	Commission for Environmental Cooperation
CEC SMOC	CEC Sound Management of Chemicals
CICOPLAFEST	Comisión Intersecretarial para el Control del Proceso y Uso de Plaguicidas y Sustancias Tóxicas (Mexico)
CUSTA	Canada-United States Trade Agreement
DDT	Dichlorodiphenyltrichloroethane
EPA	Environmental Protection Agency (U.S.)
EPA OPP	EPA Office of Pesticide Programs (U.S.)
IPM	Integrated Pest Management
IWG	Industry Working Group
MRLs	Maximum Residue Limits
NAFTA	North American Free Trade Agreement
NAFTA TWG	NAFTA Technical Working Group on Pesticides
OECD	Organization for Economic Cooperation and Development
PCBs	Polychlorinated Biphenyls
PESP	Pesticide Environmental Stewardship Program
PMRA	Pest Management Regulatory Agency (Canada)
USDA	U.S. Department of Agriculture
USDA IR-4	USDA Interregional Research Project Number 4
USMPIE	U.S./Mexico Pesticide Information Exchange Program

Letter from the Executive Board

We are pleased to present to you the *Milestone Report* for the NAFTA Technical Working Group on Pesticides. For the last few years, this workgroup has been involved in activities that are really a step outside of the normal day-to-day business of a federal government, namely attaining the goals of the North American Initiative.

Through this initiative, the early signs of a North American market for pesticides are emerging: North American governments have made a concerted effort to reach over their common borders to make pest control tools more consistently available across Canada, Mexico, and the United States; companies are submitting pesticide applications to Canada and the United States simultaneously, with some joint submissions including Mexico; and many maximum residue limits (MRLs, or U.S. tolerances) have been harmonized, thereby removing trade barriers. The Technical Working Group has succeeded in laying the foundation for a North American framework for regulating pesticides.

This work ensures a stringent regional standard for protecting human health and the environment, while making pest control tools available to growers across North America. In broadening the dialogue on pesticides, we have succeeded in making pesticide risk assessments more openly understood and scientifically sound. As such standards continue to evolve, this initiative can increase agricultural prosperity and the security of our region's food supply.

This report serves two purposes: first, it highlights the numerous accomplishments the TWG has made over the last several years; second, it provides a valuable perspective for setting our agenda for the future of the TWG. Please join us in congratulating all those involved in making the first years of the TWG a success. We hope that you, the reader, will join us in making the upcoming years even more successful.

Sincerely,

Claire Franklin, Ph.D.
Executive Director
Pest Management Regulatory Agency
Canada

Carlos Santos Burgoa, Ph.D.
Director of Environmental Health
Ministry of Health
Mexico

Marcia E. Mulkey
Director
Office of Pesticide Programs
United States

Introduction: Looking Beyond Borders

Political boundaries can cut across mountains, run through bodies of water, and separate two farms growing the same crop. Just as a political boundary will not curtail the wind or rain, it cannot thwart pests, filter out pollutants, or stop the dispersion of pollen. These borders, however, can affect the free flow of trade and have an impact on food and pesticide markets.

When the U.S. and Canadian governments entered into a free trade agreement in 1988 (the Canada-United States Trade Agreement, or CUSTA), they realized that differences in their regulatory structures and requirements could inhibit trade. For example, differing tolerances (maximum pesticide residue limits on food products) could prevent farmers growing the same crops in the same geographic region from using the same pesticides. This led to the establishment of a pesticide working group, whose task it was to find ways of alleviating trade barriers posed by such regulatory differences without compromising public health and environmental standards.

By the time the North American Free Trade Agreement (NAFTA) was completed in 1994, it was clear that tolerances were not the only trade barriers. If agricultural goods were to pass freely through the channels of trade among the United States, Canada, and Mexico, North American governments needed to address a number of issues, such as differing data requirements for pesticide registration, dissimilar formats for data submissions, and disparate scientific assessments of pesticide data. Thus, the NAFTA Technical Working Group (TWG) on pesticides was created in 1996 to build on the work of the CUSTA TWG and to move forward on the full range of issues with all three governments of NAFTA.

The North American Initiative

In June 1997, the NAFTA TWG on pesticides restructured its operational framework by establishing four technical subcommittees (see below), and by articulating a clear vision for the future. This vision included two goals:

1) By 2002, make work sharing the way of doing business among Canada, Mexico, and the United States.

2) Develop a North American market for pesticides, while maintaining current high levels of protection of public health and the environment and supporting the principles of sustainable pest management.

The NAFTA TWG outlined this vision, and a proposal for reaching these goals, in a document entitled "The North American Initiative," or NAI. In this document, the TWG established the following objectives to achieve the above goals:

- A pesticide product designed with the North American market in mind;
- A common data submission and format for country data reviews;
- A coordinated review process, utilizing each country's reviews to the fullest; and
- A minimization of trade problems resulting from different Maximum Residue Limits (MRLs) on agricultural commodities traded among the three countries.

Achieving these objectives would allow the North American countries to maximize their efficiency by sharing the work of pesticide registration, while minimizing trade barriers. To meet these objectives, the NAFTA TWG identified specific areas that needed to be addressed:

- data requirements
- relevant test protocols
- data submissions (dossiers) and study report formats (monographs)
- data review and risk assessment practices
- regulatory decision making
- administrative processes and procedures

The NAFTA TWG began addressing these issues on a project-by-project basis. Each project is categorized under one of four subject areas: regulatory capacity building, risk reduction, joint review of chemical pesticides, and food residues. For each category, the NAFTA TWG established a subcommittee to coordinate work on the respective projects.

In addition to progressing towards the goal of establishing a North American market for pesticides, the work of the NAFTA TWG accomplishes a variety of benefits for North American governments, stakeholders, the pesticide industry, and the general public. These benefits include the following: using existing resources of both governments and industry more effectively; increasing overall availability of resources needed to manage issues unique to national interests; facilitating access to a wider range of safe and effective pest management tools; minimizing barriers to the trade in food resulting from differences in pesticide residue levels; and ensuring greater consistency between regulatory decisions and the broader environmental and sustainable development goals of NAFTA.

NAFTA TWG Partners

The NAFTA TWG subcommittees are not the only ones working towards the goals of the North American Initiative. Grower groups and the pesticide industry have played an important role in the process of harmonization, by identifying trade barriers, supporting harmonization projects, contributing scientific expertise, and providing resources for reviewing pesticides. Public interest groups also participate by commenting on proposed policies relevant to human health and environmental risks. The following organizations have actively worked with the NAFTA TWG on a regular basis:

- The NAFTA TWG works closely with the Commission for Environmental Cooperation (CEC), which was created to implement the environmental side agreement to NAFTA. Canada, Mexico, and the United States, working with CEC's Working Group on the Sound Management of Chemicals (SMOC), have taken action on a regional basis to reduce the use of and reliance on two pesticides: DDT and chlordane. These were identified as priority persistent and toxic substances for joint attention due to their potential risks. Another pesticide, lindane, is under consideration for regional action.

- In 1998, the American Crop Protection Association, Asociación Mexicana de la Industria Fitosanitaria, A.C., and the Canadian Crop Protection Institute formed a NAFTA Industry Working Group (IWG) to enhance communication between the NAFTA TWG and the pesticide industry. The NAFTA IWG is dedicated to providing expertise and assistance on projects, presenting the industry's needs and concerns, and helping to resolve NAFTA issues.

- Mexico and the United States have also established an important forum for promoting an ongoing exchange of technical information on pesticide statutes, regulations, policies, procedures, and enforcement practices between Mexican and U.S. Federal and border State pesticide agencies. Called the U.S./Mexico Pesticide Information Exchange Program, or USMPIE, the program functions by hosting conferences, seminars, training sessions, and work exchanges.

- Another important partner working with the NAFTA TWG is the Interregional Research Project, Number 4 (IR-4). IR-4 is a government- and university-sponsored program that develops the data necessary to support registration of pesticides for use on minor crops, which EPA policy has defined as pesticides used on crops grown on fewer than 300,000 acres. Examples of minor use pesticide registrations include many pesticide uses on fruit and vegetable crops and uses on commercially grown flowers, ornamentals, trees, and turf grass. IR-4 is beginning to play a major role in helping North American minor-use

growers access effective pest control tools.

- Additionally, in 1999 growers in all three countries established a trinational group, the NAFTA Grower Network, to ensure grower input and representation in the NAFTA process and to facilitate collaboration among growers on certain issues, such as potential trade barriers or alternative pest control products. The group represents people growing various commodities, such as barley, corn, soybean, canola, horticulturals, pulse crops, rye, and oats.

Perspectives Amada Vélez works in Mexico's Secretariat of Agriculture, one of four agencies involved in regulating pesticides in Mexico. For Vélez, the prospect of harmonization promised relief from the difficulties that Mexican growers frequently encountered when trying to export commodities that had pesticide residues not in accord with U.S. pesticide regulations.

Working with the TWG has been a very positive experience for Vélez, but quite frustrating as well. That four separate agencies in Mexico are responsible for regulating pesticides makes coordinating work and establishing a uniform regulatory framework for pesticides difficult. She indicated that Mexico may establish one agency dedicated to regulating pesticides in the near future, a development that would truly help Mexico participate in the work of the NAFTA TWG.

Nevertheless, over the years she has seen more growers in Mexico become interested in the work of harmonization. Harmonization will allow growers to sell their commodities on a larger market, access the same low-risk pesticides available to U.S. and Canadian growers, and gain important training on how to minimize the risks of working with pesticides.

The pesticide industry, too, stands to benefit from the work of the NAFTA TWG. The residue zone maps currently being developed will allow the companies to obtain MRLs for the United States and Canada, while conducting field trials in Mexico and vice versa.

Over the next few years, Vélez would like to see Mexico become more active in the TWG. Vélez would also like the TWG to continue harmonizing tolerances with Mexico and establishing IPM programs for Mexican growers. Vélez has very high expectations for the TWG, and she looks forward to working with the TWG to produce tangible results.

Working with Neighbors to Protect Human Health and the Environment

The Technical Working Group on Pesticides provides an important forum in which the North American governments have the opportunity to work together to establish a solid framework for protecting public health and the environment on a regional and global scale. The TWG has used the opportunity to strengthen working relationships and scientific exchanges among the three countries, as well as to collaborate in other international fora. Through this process, regulators, growers, and the pesticide industry in each country have gained a clearer understanding of the needs of their counterparts in the other NAFTA countries. Moreover, as the activities described below demonstrate, protecting human health and the environment is an integral part of the NAFTA TWG's work.

- The NAFTA TWG, in coordination with the USMPIE, held a week-long training workshop for Mexican pesticide officials in March 2000 in the United States. During the workshop, U.S. scientists provided training on risk assessment methodologies and registration processes used to assess pesticides to help officials in Mexico manage potential risks from pesticides.

- Members of the TWG have met on various occasions to share data, learn from one another, and engage in open dialogue. Annual meeting places rotate throughout North America, giving participants an opportunity
to visit new places and gain a better understanding of their neighbors. Additionally, participants have had the opportunity to visit farms and laboratories in neighboring countries, giving them important real-world perspectives.

- In June 2000, Mexico and the United States initiated a new bilateral project on agricultural worker protection. The goal of this project is to coordinate activities and integrate programs that promote the safe and proper use of pesticides, reduce human exposure to pesticides, and strengthen coverage of pesticide risk education efforts. The target population includes occupational users of pesticides (i.e., farmworkers and their families, farm owners, ranchers, and agricultural pesticide applicators). Mexico and the United States are working to establish national Train-the-Trainer networks for pesticide safety educators, and both countries will pilot harmonized programs in early 2002.

- The United States and Canada are developing a joint pesticide applicator core examination to measure the competency of a pesticide applicator. The pesticide applicator certification and training program aims to reduce risks to human health and the environment by providing pesticide users with the knowledge needed to use products safely and effectively.

- In Canada and the United States, the TWG has facilitated the development of low-risk alternative pesticides, such as pheromones and microbials, by agreeing to similar data requirements for their registration. OECD countries have used this work to help guide their own harmonization efforts.

- On numerous occasions, scientists in Canada, Mexico, and the United States have come together to compare approaches, share data, and understand the pivotal studies for assessing the risks from specific pesticides in each country. These discussions help ensure regulators are basing their decisions on the most current and relevant data. In addition, there have been scientific personnel exchanges in corresponding regulatory offices, thereby giving scientists valuable, first-hand experience with their peers.

- In collaboration with the California EPA, the TWG has developed harmonized guidelines for the measurement of post-application exposure in agricultural and residential settings. These studies can help ensure a consistent, stringent standard for protecting the health and safety of farmworkers.

- Under the Joint Review Program, efficacy data reviews determine the lowest rates of use at which a pesticide is still effective. These reviews, along with reviews of human health and environmental data, help regulators ensure that pesticides do not pose unreasonable risks to human health and the environment

Perspectives Julia Langer began following the work of the TWG actively under the CUSTA. Representing the World Wildlife Fund Canada, Langer has participated in many TWG meetings.

Langer sees in the TWG the potential to reduce the use of pesticides, increase the accessibility of information across North America, and adopt the highest human health and environmental protection standards. Unfortunately, this potential has not been realized, said Langer, because the TWG has disproportionately devoted its resources to harmonization of regulations and residue limits at what she fears is the lowest common denominator and not on pesticide reduction.

"Environmental protection must go hand-in-hand with liberalized trade, something that Canada, the U.S., and Mexico reaffirmed in signing the NAFTA side agreement on environmental protection," said Langer. Rather than focusing on facilitating trade, Langer believes that the TWG needs to work on raising environmental standards and reducing reliance on pesticides in all three countries.

For the future, Langer would like to see the TWG work more closely with the Commission for Environmental Cooperation, devote more time to addressing the sustainable development goals of NAFTA, and work on minimizing, not just harmonizing, pesticide residues. To achieve these goals, Langer said, the TWG needs to include more voices and perspectives than those of the pesticide regulators currently represented.

Increasing Regulatory Efficiency

The process of harmonization has not only provided an opportunity for the North American governments to work together, but it has also allowed them to streamline their regulatory processes. Efficient harmonization of pesticide regulatory procedures and requirements is an ultimate goal of the North American Initiative. The TWG has been working on a number of projects to realize this goal. Through joint review and worksharing, countries have shared the work of reviewing pesticides; many registration requirements have been harmonized, facilitating the submission of simultaneous pesticide applications; and North American countries have started accepting electronic pesticide applications.

- Canada and the United States have completed joint and workshare reviews of numerous pesticides, such as zoxamide for use on potatoes and grapes; fenhexamid for use on grapes, strawberries, and ornamentals; Virosoft CP4 for coddling moths; and flucarbazone-sodium for use on wheat. Numerous other pesticides are currently undergoing the joint/workshare review process. (See appendix II for more detailed information.)

- Canada, Mexico, and the United States have completed residue zone maps that are based on scientifically defined common crop zones not affected by political borders. These zones will facilitate the development of residue data for major and minor use crops, as well as prevent the duplication of trials in each of the three countries, thereby reducing the cost for industry to develop data and the unnecessary release of pesticides into the environment.

- Canada and the United States have developed guidance and protocols for submitting pesticide applications electronically. One of the NAFTA projects ensures coordination of electronic submission and review initiatives. Several companies have already submitted electronic submissions to Canada and the United States. Initial experience has been that electronic submission expedites government review.

- OECD countries have agreed on common submission format, or "dossier," and a common review format, or "monograph." Both Canada and the United States accept submissions in this format (which is available at www.oecd.org/ehs/PestGD03.htm).

Ensuring North American Growers Have the Tools they Need

Many growers use pesticides to help control devastating pests and produce a bountiful harvest. Certain barriers, however, can prevent or hinder farmers from accessing the pest control tools they need. The NAFTA TWG has worked closely with the pesticide industry and grower groups to ensure that growers have access to effective pest control products. The TWG has organized workshops and meetings wherein growers identified difficulties and discussed possible solutions; supported the development of low-risk alternative pesticides; and provided guidance for safeguarding the efficacy of existing pest control tools.

- Over the last few years, IR-4 has held annual workshops to facilitate the development of pesticide data for minor use crops. During the workshops, representatives of PMRA, EPA, U.S. and Canadian minor use growers, CICLOPLAFEST, and AMIFAC identified minor uses for which data can be developed jointly among NAFTA countries. For example, certain minor crop–such as papaya and broccoli–data that would otherwise be too expensive to develop have been supported by IR-4. Such data are critical for evaluating the safety of pesticides and to bringing new, low-risk alternatives to the market.

- In April 2001, the NAFTA IWG hosted a workshop in Missouri. The workshop allowed representatives of the Canadian, Mexican, and United States governments, grower groups, and registrants to discuss and recommend strategies for achieving common goals in harmonizing NAFTA registrations for pesticides. The workshop also addressed a number of issues, including support for minor-use pesticides, equal access to pest control products, and the need to enhance education and communication among all parties involved in the TWG.

- Pesticides can gradually lose their effectiveness due to the development of resistance by pests. In an attempt to maintain effectiveness of the products, users may increase rates and frequency of application. This approach can further limit the effectiveness of the pesticide, while increasing exposure risks. Canada and the United States have worked collaboratively to provide voluntary labeling guidelines that will help pesticide applicators prevent the onset of pest resistance.

- Canada and the United States have produced crop matrices showing the registration status and MRLs of products that are registered for use on either side of the border. Using these matrices and other resources, U.S.

and Canadian growers are identifying their critical needs, on national and bilateral bases, and providing the regulatory agencies and registrants with clear grower priorities.

- The TWG has eliminated a number of trade barriers by establishing common MRLs for 12 pesticide/crop combinations that had been identified by commodity groups as causing trade disruptions (i.e., compliance violations at the border). Growers are working together with registrants to identify and prioritize work on pesticide/crop combinations that have the potential to disrupt trade.

Perspectives Jo-Ann Buth is the Vice President for Crop Production for the Canola Council, based in Canada. Buth began working on harmonization efforts early in the life of the TWG. She has found her experience working with the TWG quite positive, finding that members on all sides have been very open.

She noted that the TWG has succeeded in registering additional pesticides in the United States to be used on canola, which allows Canadian growers continued access to pest control tools for crops that will be exported to the United States. This reduces the threat of trade action from the United States. Additionally, Buth has been impressed by the TWG's progress in harmonizing registration requirements for biologicals. One source of frustration, however, has been the lack of resources available to agencies involved with the TWG.

Looking ahead, Buth would like to see more resources allocated to agencies involved in harmonizing standards to help expedite the review of NAFTA registration and MRL applications. In addition, she would like the TWG to work on mechanisms for addressing older pesticides, especially on a larger international scale; that is, she would like to see the TWG work more with OECD and the European Union.

Partnership Solutions

By working in partnerships, growers, industry, and government are able to coordinate solutions to agricultural challenges more quickly and effectively. For example, growers are generally the first to encounter difficulties posed by trade barriers, which can cause economic hardship for those unable to access effective and affordable pest-control tools. The pesticide industry is well situated to respond to the needs of growers. Thus, both groups can provide a valuable perspective on the TWG's priorities and workload.

- The IWG and the TWG cooperatively hosted an international seminar on preparing OECD-formatted dossiers and electronic submissions to help lay the groundwork for a NAFTA-wide submission.

- The TWG, with support from PESP, has begun implementing a North American integrated pest management production system for canola. Representatives of major canola growers in Canada and the United States, as well as the World Wildlife Fund Canada, academia, and extension services, have participated in this project.

- The IWG has convened country-specific industry/grower meetings in which growers have presented their concerns and priorities to industry. Through these meetings, the pesticide industry has seen the level of interest and participation on behalf of the grower community increase.

- The pesticide industry has actively supported the development of low-risk alternative pesticides by making the development of such products a priority. As part of this process, they have played a key role in identifying the older, riskier pesticides that can be replaced by the new alternatives.

- The TWG has fashioned a common and sustainable approach to managing cranberry production in the United States and Canada. The TWG worked with numerous organizations, such as the Cranberry Institute (which is supported by PESP), representatives of the crop protection industry, grower groups, and academic researchers from Canada and the United States to create an IPM strategy. While this strategy helps to protect crops, it also minimizes environmental impact.

- In a coordinated effort, Canada, the United States, canola growers, and the pesticide industry have facilitated the registration of alternatives to

lindane through the joint review process. Lindane was registered for canola seed treatment in Canada but not in the United States, thereby inhibiting trade. The pesticide industry voluntarily phased out the use of lindane on canola seed in Canada while developing alternatives. This allowed Canadian canola growers to sell seeds to the United States. Through worksharing, Canada and the United States have made alternative products for use on canola available in both countries.

- Representatives of government, grower groups, pesticide manufacturers, and research scientists from Canada and the United States developed an IPM strategy to control new strains of potato late blight fungus that were becoming resistant to fungicides. The IPM strategy helped farmers avoid fostering resistance among the new strains of the fungus and provided effective control of the pest.

Perspectives Karen Pither, Manager of NAFTA and International Regulatory Affairs for Bayer Corporation, United States, co-chaired the IWG until April 2001.

Although the process of harmonization can be difficult at times, overall Pither said that she has been impressed with the progress the TWG has made, especially in regard to the harmonization of study protocols.

Pither sees a number of benefits to the process of harmonization: it will make markets that had been cost prohibitive more accessible; it will make alternative pest control tools more affordable to growers; and it will streamline the process of developing new products–all of which helps to make the lives of growers a little easier.

Looking ahead, Pither would like to see the TWG work on harmonizing environmental guidelines and protocols, continue working with Mexico to make it a true North American system, refine the electronic submission process, and harmonize submission formats to eliminate country-specific requirements. She is committed to harmonization and looks forward to continuing an open dialogue with the TWG and grower groups.

Looking Ahead

The Technical Working Group on Pesticides has gained significant momentum in achieving the goals of the North American Initiative. There remains more work to be done, however, to ensure equitable access to the safest and most effective pesticide products within the North American market for pesticides.

The horizon for the TWG has always been the continent of North America. Many of the projects, however, have primarily involved Canada and the United States. Thus, harmonization with Mexico will be a significant priority over the next few years. Additionally, the horizon for harmonization continues to expand as the TWG works with OECD and the European Union.

The TWG will continue to work with growers, the pesticide industry, and other key stakeholders to identify and avoid trade barriers and develop low-risk alternative pest control products and solutions. Central to this process is the development of IPM programs and new low-risk products such as microbials and semiochemicals.

The TWG is working to make electronic submissions a fundamental part of registering pesticides. Electronic submissions have the potential to dramatically reduce the amount of paper generated for pesticide applications, as well as facilitate the sharing of information among regulatory agencies.

The TWG has also begun to explore the concept of a NAFTA label and has piloted this idea with a Joint Review biopesticide. The TWG is now expanding the pilot NAFTA label project to include chemical pesticides and is actively soliciting registrants to work with us to further develop a NAFTA label.

A true North American market for pesticides will allow growers in all three countries to access the same pest control tools. Working toward this goal, Canada, Mexico, and the United States will continue to harmonize pesticide regulations, strengthen public health and environmental standards, and build a sustainable agricultural system across North America. The TWG will continue to rely on growers, academia, extension specialists, public interest groups, the pesticide industry, and the general public to help ensure all decisions are appropriate and scientifically sound.

Appendices

Appendix I	Accomplishments and Next Steps
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Appendix I-Accomplishments and Next Steps

Area	Accomplishments*	Next Steps
Data Requirements	☑ Residue chemistry data requirements harmonized–06/98. 🇨🇦 🇲🇽 🇺🇸 ☑ Data requirements for residue field trials harmonized–06/99. 🇨🇦 🇲🇽 🇺🇸 ☑ Data requirements for seed treatment and terrestrial food uses harmonized–06/00. 🇨🇦 🇲🇽 🇺🇸 ☑ Residue Zone Maps defining common crop zones completed–08/01. 🇨🇦 🇲🇽 🇺🇸 ☑ Data Requirements for pheromones (semiochemicals) and microbials harmonized–04/00. 🇨🇦 🇺🇸	Complete project, "Definition of Acceptable Protocols for Residue Trials." Harmonize non-target plant testing and terrestrial field dissipation study protocols.
Test Protocols	☑ Environmental fate and toxicology protocols harmonized–03/00. 🇨🇦 🇺🇸 ☑ Canada accepts all U.S. protocols for pheromones and microbials–04/00. 🇨🇦 🇺🇸 ☑ Food residues and product chemistry study protocols are harmonized in the field of mammalian toxicology. 🇨🇦 🇺🇸 ☑ Guidelines for residue chemistry studies are harmonized-06/98. 🇨🇦 🇺🇸	
Dossiers & Monographs	☑ OECD-formatted registration submissions for chemical pesticides now accepted–03/01. 🇨🇦 🇺🇸 ☑ Data Evaluation Record templates for each scientific discipline harmonized–12/00. 🇨🇦 🇺🇸	Develop an OECD format for microbial and pheromone submissions and reviews. EPA is currently piloting the food residues and occupational exposure templates. Develop templates for conditionally required studies.
Data Review and Risk Assessment	☑ "Procedures for Joint Reviews of Biopesticides"–07/97. 🇨🇦 🇺🇸 ☑ "Revised Procedures for Joint Reviews of Biopesticides"–10/98. 🇨🇦 🇺🇸 ☑ "Procedures for Joint Reviews of Microbials and Semiochemicals"–05/99. 🇨🇦 🇺🇸 ☑ Methodologies for dietary risk assessment (acute and chronic exposure) harmonized–06/99. 🇨🇦 🇺🇸 ☑ "Procedures for Joint Review Applications for Chemical Pesticides" revised to include products not qualifying for EPA's Reduced-Risk Program but that do qualify as OP alternatives or NAFTA priority chemicals–08/99. 🇨🇦 🇲🇽 🇺🇸 ☑ "Post-Application Exposure Monitoring Guidelines," released for comment –09/98. 🇨🇦 🇺🇸	Revise procedures to reduce timelines for pheromone joint reviews. Develop country-specific subsets of data, e.g., percent crop treated. Revise procedures for Joint Review applications for chemical pesticides to include pesticides that do not qualify as reduced-risk or OP alternatives. Revise to incorporate comments.

*The date given is when the project was completed. Flags represent those countries that participated in the project. There are three represented above, Canada [🇨🇦], Mexico [🇲🇽], and the United States [🇺🇸].

Appendix I-Accomplishments and Next Steps

Area	Accomplishments	Next Steps
Regulatory Decisionmaking	**Completed Joint Reviews** ▶ Fenhexamid, a fungicide registered by Tomen/Bayer, for use on grapes, strawberries, and ornamentals–05/99. ▶ Eastern Pine Shoot Borer, a pheromone, registered for use against forest insect pests–04/99. ▶ Cyprodinil, a fungicide registered by Syngenta, for use on fruit–04/98. ▶ Virosoft CP4, a bio-insecticide, registered for use on apples against the coddling moth–06/00. ▶ Diflufenzopyr, an herbicide registered by BASF, for use on field corn and nonagricultural sites–02/99. ▶ Zoxamide, a fungicide registered by Rohm & Haas, for use on grapes and potatoes–05/01 🇨🇦 03/01. 🇺🇸 **Completed Workshares** ▶ Flucarbazone-sodium, an herbicide registered by Bayer, for use on wheat–03/00 🇨🇦 09/00. 🇺🇸 ▶ Thiamethoxam (includes fludioxonil, mefenoxam, difenoconazole), an insecticide and fungicide registered by Syngenta, for use on canola in Canada, and canola, mustard, barley, cotton, sorghum, and wheat seed treatment in the U.S.–12/00. ▶ Sulfosulfuron, an herbicide registered by Monsanto, for use on wheat–03/99 🇨🇦 05/99. 🇺🇸	
Admin. Processes & Procedures	▶ U.S. Import Tolerance Guidance document completed–06/00. 🇺🇸 ▶ Procedures for the Identification and Resolution of NAFTA Pesticide Trade Irritants, version 2, released–12/98.	Prepare guidance document for all NAFTA countries.

Resolved MRLs

Country of Origin	Pesticide and Crop Combination*
Canada	▶ Permethrin residues on spinach and lettuce. 🇺🇸 ▶ Acephate residues on beans, peppers, cranberries, celery, and soybeans. 🇺🇸
United States	▶ Clethodim residues on potatoes. 🇨🇦 ▶ Dimethoate residues on blueberries. 🇨🇦 ▶ Glyphosate residues on oats. 🇨🇦 ▶ Prometryn residues on carrots. 🇨🇦 ▶ Chlorothalonil residues on non-bell peppers. 🇨🇦

*Flags represent countries with which the trade barrier was resolved.

Appendix II-Ongoing Projects

- Reassess wood preservatives (pentachlorphenol, creosote, chromated copper arsenicals (CCA)) (Canada and the United States).
- Coordinate work on lindane and organotin antifoulant paints (Canada and the United States).
- Coordinate work on health and safety of farmworkers (Mexico and the United States).
- Refine electronic tools for the assembly and evaluation of pesticide registration submissions (Canada and the United States).
- Develop pilot NAFTA labels for biopesticides and conventional chemical pesticides (Canada, Mexico, and the United States).
- Harmonize evaluation of non-agricultural (antimicrobial) pesticides (Canada and the United States).
- Develop NAFTA Import Tolerance Guidance Document (Canada, Mexico, and the United States).
- Complete field testing of and finalize core examination to assess competency of pesticide applicators (Canada and the United States).
- Assess feasibility of probabilistic tools and methods for ecological assessments (Canada and the United States).
- Develop an IPM manual for cranberry growers in the Eastern North American Region, as was already completed for the Western Region (Canada and the United States).
- Implement integrated pest management for canola (Canada and the United States).
- Conduct workshop on the registration of biopesticides, 13-15 November 2001, in Arlington, VA (Canada and the United States).
- Harmonize non-target plant testing requirements (Canada and the United States).
- Harmonize guidelines for conducting terrestrial field dissipation studies (Canada and the United States).
- Continue to coordinate on reregistration, Food Quality Protection Act (FQPA) and the Re-evaluation Process (Canada and the United States).

Pesticides Currently Under Joint Review or Workshare

Group 1A: Reduced Risk

–Pyraclostrobin, a fungicide from BASF.
–EH-2001, a rodenticide from Exit Holdings, LLC.

Group 1B: Negotiated Reduced Risk

–Acetamiprid, an insecticide from Aventis.
–BAS 510, a fungicide from BASF.

Group 2: Non-Reduced Risk Chemicals*

–Clothianidin, an OP replacement insecticide from Bayer.

Group 3: Negotiated Joint Review

–Famoxadone, a fungicide from Dupont.

Microbials and Semiochemicals

–Virosoft BA3, a microbial from Biotepp.
–Sporodex, a biofungicide from Plant Products.
–Chondrostereum, a biofungicide from Mycologic.

Parallel and Workshare Reviews

–Sulfonylureas, an herbicide from Aventis.
–Import tolerance for Iprovalicarb, a fungicide from Bayer.
–Import tolerance for Tolyfluanid, a fungicide from Bayer.

Minor Use Joint Review Pilot Project

–Fenhexamid, a fungicide from Bayer/Tomen, for use on raspberries.

*Organophosphate (OP) alternatives and other NAFTA priorities.

Appendix III-Contacts

On the Internet

PMRA, Canada
www.hc-sc.gc.ca/pmra-arla

CICOPLAFEST, Mexico
www.sagarpa.gob.mx
www.ssa.gob.mx
www.ine.gob.mx
www.secofi.gob.mx

EPA, U.S.
www.epa.gov/oppfead1/international/naftatwg/

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