



**International Public Health
Pesticides Workshop:
*Pesticide Regulatory Panel
Discussion***

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Outline of Presentation

- EPA Recent History
 - Public Health Pesticides
 - Global Harmonization & Joint Reviews
- Agricultural Model
- Application to Public Health
- Issues
- Summary

EPA & Public Health Pesticides

- U.S. facing lack of tools for public health
 - Food Quality Protection Act (1996)
 - Environmental/NGO issues
 - Lack of focus on public health pesticides
- Plans for the future
 - More focus
 - Public Health Pesticide Officer now in the Registration Division
 - Plans being developed for a unit focused on pesticides for public health uses
 - Although not an EPA position, in a related effort IR-4 is establishing a Public Health Pesticide Program to assist in public health pesticide registrations
 - More engaged in international issues of public health pesticides

EPA & International Registration Activities

- Leadership
 - Promote joint registration reviews and harmonization efforts internally and externally
- Advocacy/Championship
 - Identify opportunities for collaboration and cooperation
- Foster Communication
 - Promote dialogue between regulatory authorities
 - Promote dialogue with and **among all stakeholders**

Origins of This Workshop

- Suggested by registrants familiar with
 - Harmonization efforts for agricultural chemicals
 - Global joint reviews used for agricultural pesticides
- Considerable parallels between regulatory issues for public health pesticides and regulatory issues faced for agricultural pesticides 15 years ago
 - Especially similarities with issues for minor uses
- Regulatory issues surrounding public health pesticides might benefit by focus from major regulatory authorities

Transferring Agricultural Pesticide Model to Public Health

- Very successful harmonization & global joint review processes have been established for agricultural chemicals
 - Can this model be used for public health pesticides?
 - If so, how can it be adapted for use in the public health pesticide arena?
 - What needs to be done to make this happen?
 - What are the limitations/issues?
 - How might a global registration process fit into the existing international framework, e.g., the WHOPES process?
 - What are the incentives provided to manufacturers & might these contribute to development of new public health pesticides?

Agricultural Model

- History
 - Harmonization
 - Worksharing
 - Global Joint Reviews
- Not Sequential
 - Processes that build upon themselves
 - More countries
 - More registrants
 - More uses
 - International organizations (Codex/JMPR)
 - Recent focus on minor uses/developing countries
 - Available processes used in different ways at different times and by different countries
 - Worksharing
 - Global Joint Reviews

Definitions

- **Global Joint Review:** several national authorities evaluate a pesticide active ingredient at the same time-- they receive the same submission at the same time, develop a schedule, and divide the work; at the conclusion each makes its own independent regulatory decision with the goal of harmonization of endpoint selection and MRL establishment.
- **Work Sharing:** one national authority has completed work on the chemical and other national authorities subsequently use the completed reviews in completing their reviews on their own schedule.

History—Early Efforts

- OECD
 - Early initiatives
 - Development of tools
- NAFTA (North American Free Trade Agreement) Joint Reviews and Work Sharing
 - Since 1997 joint reviews have taken place within NAFTA countries

OECD: Early Initiatives

- OECD sponsored workshop held in Washington, DC in 1991; pilot project compared several pesticide active ingredients that had been reviewed by multiple national authorities examining:
 - studies reviewed
 - results
- OECD/Working Group on Pesticides & the Registration Steering Group (organized in early 1990s) conducted several similar projects
- Results of early projects showed:
 - similar data bases were reviewed by each national authority
 - similar conclusions were reached
- 2004 OECD vision statement developed

The OECD Vision

- By the end of 2014:
 - Levels of risk arising from pesticide use is minimized
 - Regulatory system for agricultural pesticides is harmonized and data reviews are in a standard format (OECD has developed review templates)
 - Preparation of dossiers is coordinated globally by industry and work sharing opportunities are maximized
 - Work sharing arrangements between regulatory authorities in OECD countries are routine
 - Generation of a single monograph for each active substance becomes commonplace
 - Countries ensure that benefits derived from work sharing are taken into other international forums (e.g., JMPR/Codex, etc.)

OECD: Tool Development

- Harmonization of data requirements (OECD)
- Submissions: Single formatted dossier including all studies generated and acceptable to all national authorities (OECD dossier format)
- Reviews: Standard review format used by all national authorities participating in the review:
 - standard templates for study reviews
 - monograph for risk assessment (OECD format)
 - results in outputs that can easily be shared

NAFTA Work Sharing/Joint Review: Results

- First NAFTA Joint Review 1997
- Use of Joint Reviews and Work Sharing has expanded to include:
 - Addition of new uses (especially for minor uses)
 - Re-evaluation of older chemicals
- It is now the routine way of doing review for new active ingredients

Beyond NAFTA

- NAFTA joint review program has become very efficient, popular, and successful
- Benefits of joint reviews and work sharing clearly recognized
 - By chemical registrants
 - By national authorities
- Numerous discussions with industry on expansion of joint reviews beyond NAFTA
- Global Reviews began — and are fast becoming the way of doing business for new pesticide active ingredients
- Global work sharing also continues to expand
- Use expansion for active ingredients reviewed jointly

How Global Reviews Work

- The next several slides provide some detail on the joint review/global review process as it has been worked out over the years
- There are still improvements to be made (lessons learned workshops continuing)
- Development and building of working relationships among the scientists and risk managers of the various national authorities is very important and is continuing to expand and grow

Pre-Submission

- Pre-submission consultations between participating countries and prospective registrant to discuss:
 - the new active ingredient and the global review process
 - data submission/data requirements
 - potential review timelines
- Lead country (the review coordinator) selected
- Work split negotiated between participating countries (primary reviewers selected and possible peer review countries identified)
- Review teams in participating countries created
- Review project plan developed

Examples of Work Splits on Global Reviews

Chemical	Toxicology	Residue Chemistry	Eco-toxicology	Environmental Fate	Product Chemistry
Pyrasulfatole	Australia	Canada	United States	United States	Australia
Pyroxsulam	United States	Australia	Australia	Canada	United States
Chlorantraniliprole	United States	Australia	United Kingdom	Ireland	Canada
Spirotetramat	United States	Canada	Austria	Austria	Canada
Thiencarbazone/ Cyprosulfamide	United Kingdom	United Kingdom	Canada	United States	United Kingdom
Saflufenacil* <small>*Australia was also a partner on secondary reviews</small>	Canada	Canada	United States	United States	United States
Fluopyram	Germany	United States	United States	Canada	Germany
Pyroxasulfone	United States	United States	Australia	Australia	Canada

Registration Package

- The exact same (single) dossier, in the OECD format, is submitted to all regulatory authorities at the same time
- Data screening is conducted by all countries to ensure completeness and quality

Scientific Evaluation

- Data reviews conducted by the primary reviewer according to the negotiated work split
- Reviews of data are posted for comments by secondary (peer) reviewers
- After addressing all comments, final data summaries are posted by the primary reviewers

Risk Assessments/Monograph

- Selection of harmonized regulatory endpoints (*goal*)
- Participating countries independently conduct risk assessments for human health and environment
- Assessment results are exchanged
- Monograph drafted; reviewed; and finalized

Regulatory Decisions

- **Each national authority makes its own independent regulatory decisions, however, there is consultation between participants to try and reach**
 - **common definition of the pesticide residue and harmonized Maximum Residue Limits (MRLs) for treated crops**
 - **harmonized regulatory decision**
- **Each national authority issues a regulatory decision within approximate same time period**

Results--Outcomes

- Generally: Same scientific conclusions arising from same data
- Completed work shows high percentage of agreement in:
 - toxicological endpoints selected
 - MRLs established
- Additional national authorities and companies becoming involved—the next slides explain why

Benefits of Global Reviews— Regulatory Authorities

- Complete data submissions – all data required for each country sent to all countries
- Sounder scientific conclusions (that serve as a basis for more timely regulatory decisions)
- Fewer resources required for evaluation of data submissions and for peer review
- Additional resources available for problem-solving
- Harmonized MRL's to a large extent
- Strengthens international working relationships and cooperation on pesticide issues (not just specific chemical registrations)

Benefits of Global Reviews— Registrants

- Time, costs and uncertainty associated with new chemicals, new uses, and defending existing products in re-registration programs is minimized
- Ability to submit one uniform package (application) to multiple regulatory authorities saves resources
- Earlier access to global market for new products
- Easier introduction of new lower risk chemicals: growers less likely to use new chemicals if they cannot export their products due to lack of registrations/MRLs in other countries

Benefits of Global Reviews— Growers & the Public

- Growers:
 - Able to use to new, lower risk chemicals on exported commodities
 - Countries adopt harmonized MRLs which minimize trade barriers
- Public:
 - Higher degree of public confidence in the regulatory system
 - Efficient use of limited resources
 - Lower risk chemicals used world wide sooner

Results— Completed and Current Global Reviews

- **Completed:**
 - Pyrasulfatole: first trilateral joint review completed August 2007; Australia, Canada, U.S.
 - Pyroxsulam: Australia Canada, U.S.
 - Chlorantraniliprole: Australia, Canada, Ireland, United Kingdom, U.S.
 - Spirotetramat: Canada, Austria, U.S.
 - Thiencarbazone: Canada, United Kingdom, U.S.
- **Current:**
 - Fluopyram: Canada, Germany, United States (Japan – peer reviewer)
 - Pyroxasulfone: Australia, Canada, United States
- **Planned Submissions: 2009-2011**
 - **10-12 Conventional Pesticides**
 - Minimally trilateral reviews
 - Some global submissions include global residue program
 - **4 Biologicals**
 - **1 Antimicrobial**

Bilateral Initiatives

- Japan:
 - Sharing of reviews for chemicals with MRLs on Positive List
 - Global joint review partner
- Brazil:
 - Global joint review partner
- China:
 - ICAMA and Ministry of Agriculture Study Tour in US – September, October 2008.
 - Further cooperation efforts planned in 2009-2010
- Taiwan:
 - Sharing of reviews for MRLs under review in their new standard setting program

International Standard Setting Organization:

Codex: JMPR/CCPR

- **Codex: Establishes MRLs (maximum amount of pesticide residue allowed on food) for Use in International Trade**
- **JMPR (Joint Meeting on Pesticide Residues)**
 - Risk assessment work by FAO/WHO expert groups
 - Make recommendations to the CCPR
- **CCPR (Codex Committee on Pesticide Residues)**
 - Risk management work (most countries represented)
 - Make recommendations to the Codex Alimentarius Commission (CAC) for establishment of Codex MRLs

Codex: Issues and Progress

- **Issues**
 - **Slow**
 - **Abandoned by registrants**
 - **Standards not accepted by many developed countries**
- **Nevertheless**
 - **Relied upon by developing countries**
 - **Place to resolve international harmonization issues because it is the only truly international forum**

Codex: Issues and Progress

- **Progress**
 - **Work share projects have resulted in JMPR considering reviews done by national authorities on a routine basis**
 - **Continuing work on pilot of a new process to allow JMPR to conduct evaluations in parallel with global joint review teams & recommend MRLs before, or at the same time, as national governments involved in global joint reviews**
 - **Global Joint Review to develop JMPR monograph as an output**

Codex: Issues and Progress

Progress

- Committee adopted and now regularly uses an accelerated MRL elaboration process
 - Greatly speeded up process for MRL establishment (from an approximately 6 year process to a 9 month process)
- Committee developed new rules for decision making
 - Clear processes
 - Issues are decided and not allowed to languish

Possible Advantages of Global Process for Public Health Pesticides

- Speed
- Resource savings for
 - Regulatory authorities doing their own reviews
 - International standard setting bodies
 - Registrants
 - Regulatory authorities relying on reviews of others
- Harmonization of outcomes (goal)
- Encourages regulatory “mind-set” in international standard setting organizations
 - Clear guidance
 - Transparent decision making
 - Established timelines
 - Communication with all stakeholders

Possible Applications of Global Process for Public Health Pesticides

- Review of new active ingredients or new use for an already registered active ingredient
- For data:
 - Development of data requirements
 - Development of guidelines for conduct of studies
 - Development of review templates
- For risk assessment:
 - Development of and/or agreement on models and their use

Possible Applications of Global Process for Public Health Pesticides

- For Capacity building:
 - Involvement of countries in global review process as participants, peer reviewers, observers

Summary

- Encourage you to creatively consider the opportunities provided by global harmonization, work sharing, and joint reviews now being used for agricultural pesticides
 - Can the processes be extended to public health pesticides?-- new active ingredients; new uses; new products
 - What steps need to occur to make this work and encourage development of new public health pesticide tools?