

## **National Progress in Reducing Pesticide Risks, Responses to Questionnaire for the 2004 Meeting of Environment Ministers**

In preparation for the April 2004 meeting of the Environment Ministers, OECD's Environment Policy Committee has asked the Secretariat to prepare a paper on progress made since the "*OECD Environmental Strategy for the First Decade of the 21st Century*" was adopted by Ministers in 2001. In order to prepare the section on progress across all OECD countries in pesticide risk reduction (the Strategy's Objective 2 Decoupling Environmental Pressures from Economic Growth, Agricultural National Action 6), a questionnaire was sent to member governments, requesting them to:

- describe progress made by OECD countries since 2001 in reducing health and environmental risks resulting from pesticide use, and
- highlight major successes and challenges.

Responses were received from 13 members: Australia, Canada, Denmark, the European Commission, Finland, Japan, New Zealand, Portugal, the Slovak Republic, Sweden, Switzerland, the United Kingdom, and the United States.

Australia

## National Actions for Pesticide Risk Reduction.

1. *National program for pesticide risk reduction – Progress in implementing a national program.*
  - Continuous improvement of Australia’s National Registration Scheme, established in 1995, for regulation of agricultural and veterinary (agvet) chemicals.
  - Implementation of recent amendments to the agvet legislation which, importantly, includes a key change requiring registrants to provide the APVMA with relevant new information whilst an application is being assessed.
  
2. *Pesticide registration – Progress in elimination of undesirable pesticides and registration of safer pesticides.*
  - The Australian Pesticides and Veterinary Medicines Authority (APVMA) has powers to conduct reviews of registered chemicals that allow the reconsideration of registrations for existing chemicals, and to require relevant information to be provided. Outcomes of a review may include the suspension or cancellation of a product registration.
  - Since the inception of the review program, the APVMA has completed 25 reviews involving 39 chemicals and 290 products, with 46 current chemicals under review.
  - The recent amendments to Australian agvet legislation also allow the APVMA to vary conditions of registration for an existing product.
  
3. *IPM – Progress in promoting integrated pest management (IPM) or other pest control approaches that reduce dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.*
  - Whilst Australia’s agvet legislation does not include regulation of IPM strategies, the APVMA does, where possible, support IPM in its regulatory approach. For example, initiatives have been developed with relevant government authorities to implement resistance management strategies that incorporate IPM, and to include reference to such strategies on relevant product labels.
  
- 4 & 5. *Water and Wildlife Protection – Progress in reducing pesticide contamination of water sources, including both ground water and surface water, and in the reduction of risks to wildlife.*
  - Australian agvet legislation requires the APVMA to be satisfied that registered chemicals will not result in undue risk to the environment.
  - To meet these legislative requirements, continued registration may require environmental monitoring for ground and surface water contamination by pesticides, for example endosulfan. This enables implementation of measures to reduce water contamination, for example tighter controls and restrictions on product use resulting in the adoption of improved agricultural practices and hence environmental protection.
  - Continuous improvement of this scheme has required some cases of monitoring and investigation of non-target impacts upon wildlife by pesticides. Outcomes have included the nomination of responsible pesticide for review, investigation of use patterns, or compliance action.
  
6. *Data Collection – Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.*
  - Australian recently conducted a strategic review of agvet chemicals management. The review, amongst other things, recommended that Australia develop a cost

effective, comprehensive and integrated pesticide use reporting system to provide a clear understanding of what and where chemicals are used, which would assist development of consistent monitoring priorities. Work has commenced on identifying appropriate mechanisms to achieve these objectives.

- Australian governments have begun an initiative aimed at improving outcomes measurement. The APVMA is implementing an adverse experience reporting program for agricultural chemicals to collect information on suspected adverse reactions from the use of pesticides in Australia, which will significantly improve health monitoring.

7. *Trends in Pesticide Use and/or Risk – Progress in reducing total pesticide use and/or risk.*

- The strategic review of agvet chemicals management in Australia identified a priority need to collect information on quantitative usage of chemicals by crop/species and region. The review recommended that a cost effective, comprehensive and integrated pesticide use reporting system be developed. Such a system enables a clear understanding of what and where chemicals are used.
- This information will also enable the risks from pesticide usage to be better identified, and so improve the ability to address potential health and environmental impacts.

8. *Other – nil response*

9. *Success and challenges – Describe the important successes and/or challenges you have had in reducing pesticide risks.*

- The strategic review of agvet chemicals management in Australia, examined the current registration and compliance system for agvet chemicals. Various successes and challenges were identified through this review. The review concluded that the current registration system is effective and should be retained. However, it also identified challenges that need to be addressed over the next 15 years to meet the future requirements. Federal, state and territory governments are now progressing the recommendations of the review.
- The review identified the strengths of the APVMA, which include independent decision making supported by a strong legislative framework; a sound performance leading to 'worlds best' outcomes in terms of food safety and efficiency of process; and science based risk assessment and marketing authorisation with strong linkages to the Control of Use functions exercised by state and territory governments. These have contributed to the successful regulation of agvet chemicals in Australia thereby reducing pesticide risks.

Canada

Risk reduction activities	PMRA's risk reduction programs and progress since 2001
<p>National program for pesticide risk reduction - progress in implementing a national program</p>	<ul style="list-style-type: none"> <li>• An initiative was launched in May 2002 to encourage pesticide manufacturers to seek registration in Canada of reduced-risk pesticide products, including reduced risk chemical pesticides and biopesticides . This initiative complements the existing Canadian-US EPA joint review program for reduced risk products. The US EPA reduced-risk criteria was adopted to determine eligibility for the program and recognize US EPA's biopesticide designation. The impact of the reduced risk initiative and its contribution towards pesticide risk reduction will be measured in future years.</li> <li>• The development of agricultural risk reduction strategies for various commodities (eg. potatoes, pulses) was initiated. In collaboration with stakeholders, information on pests and pest management issues is gathered, crop profiles are created, and sustainable strategies are developed, implemented and evaluated.</li> </ul>
<p>Pesticide registration - Progress in elimination of undesirable pesticides and registration of safer pesticides</p>	<p>Registration of safer pesticides</p> <ul style="list-style-type: none"> <li>• Prioritized reviews including reduced-risk joint reviews between Canada and the US EPA.</li> <li>• Special presubmission consultation procedures for newer, smaller companies and atypical types of reduced risk products in order to establish appropriate reduced data requirements.</li> <li>• Developed a program to ensure that formulants, in addition to active ingredients, are assessed to protect human health and the environment. The final directive represents another step in harmonization of pesticide regulation and will be published in the near future.</li> <li>• Launched a regulatory initiative to encourage pesticide manufacturers to seek registration of reduced-risk pesticide products in Canada.</li> <li>• With the US EPA, developed and implemented new risk assessment approaches and methods in line with the US <i>Food Quality Protection Act</i>.</li> <li>• Published a decision framework outlining risk assessment and risk management procedures used in regulatory decision making.</li> </ul> <p>Re-evaluation</p> <ul style="list-style-type: none"> <li>• Finalized the guidelines to the re-evaluation program and published a regulatory directive.</li> <li>• Continued the phase-out of all remaining lindane products, and provided access to lindane alternatives.</li> <li>• Completed a re-evaluation of chlorpyrifos resulting in limited use to ensure maximum protection for children.</li> <li>• Discontinued the use of the heavy duty wood preservative CCA on wood for consumer use by Dec. 31, 2003. Conducted priority reviews of replacement products for CCA.</li> <li>• Continued the re-evaluation of residential lawn and turf pesticides. Phased-out the residential turf use of chlorpyrifos and diazinon; the broadcast treatment of turf with malathion is to be phased out.</li> <li>• Consulted on the phase-out or mitigation measures proposed for organophosphate pesticides.</li> <li>• Determined the conditions of continued use for DEET personal insect repellents.</li> </ul>
<p>IPM - Progress in promoting integrated pest</p>	<ul style="list-style-type: none"> <li>• Developed an Action Plan for Urban Use Pesticides, which includes registration of new reduced risk products, priority re-evaluation for</li> </ul>

<p><b>Risk reduction activities</b></p> <p>management (IPM) or other pest control approaches that reduced dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.</p>	<p><b>PMRA's risk reduction programs and progress since 2001</b></p> <p>common lawn and turf pesticides, and the development of a Healthy Lawn Strategy. Implementation is underway.</p> <ul style="list-style-type: none"> <li>Continued work with stakeholders on many IPM projects, such as cranberries, apples, canola, methyl bromide alternatives and sea lice in salmon aquaculture.</li> </ul>
<p>Water Protection - Progress in reducing pesticide contamination of water sources, including both ground water and surface water.</p>	<ul style="list-style-type: none"> <li>Contributed to the Marine Environmental Protection Committee of the International Maritime Organization in discussions to phase out the use of organotin antifouling paints used on ship hulls (2000-01). As of January 2003 these paints are no longer registered for use in Canada.</li> <li>Developed a comprehensive and refined modelling method for the prediction of pesticide concentration in drinking water sources (ground water and surface water).</li> <li>Published a regulatory proposal outlining the current approach for estimating the water component of a dietary exposure assessment.</li> <li>Established a Federal/Provincial/Territorial drinking water monitoring working group for improved sharing of monitoring information.</li> <li>Contributed to the National Agri-environmental Health Analysis and Reporting Program on risk indicators for surface water quality and ground water quality.</li> </ul>
<p>Wildlife Protection - Progress in reducing risks to wildlife caused by pesticide use.</p>	<ul style="list-style-type: none"> <li>Developed more accurate drift functions for predicting drift and deposit to wildlife habitats.</li> <li>Continued development of a policy allowing pesticide applicator refinement of labelled buffer zones based on local application conditions and habitats.</li> <li>Participated in the development of a risk reduction strategy for the control of the Richardson's Ground Squirrel which takes into account wildlife protection.</li> <li>Re-evaluated the insecticides terbufos and phorate, resulting in a future phase out of use due to concerns regarding their very high risk to nontarget organisms.</li> </ul>
<p>Data Collection - Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.</p>	<ul style="list-style-type: none"> <li>Developed a pesticide sales database framework, which will provide better estimates of pesticide exposure and risks to humans and the environment, assist in set priorities for reevaluation, and determine the extent of use of reduced risk products. Tested the analysis and reporting systems with voluntarily-submitted sales data. A proposed regulation to require the mandatory reporting of annual sales data is under consultation.</li> <li>Increased funding was secured to expand research and monitoring activities, the results of which will better enable the identification of potential problems and allow for the refinement of risk characterization methods. Long term results and the implementation of adverse effects tracking will provide a better gauge for the success of risk reduction efforts.</li> <li>Collaborated with Federal departments and stakeholders to find ways to obtain commodity-based pesticide use data.</li> </ul>
<p>Trends in Pesticide Use and/or Risk - Progress in</p>	<ul style="list-style-type: none"> <li>Information collected through the data collection initiatives mentioned above will enhance the PMRA's ability, and that of the</li> </ul>

Risk reduction activities	PMRA's risk reduction programs and progress since 2001
reducing total pesticide use and/or risk.	<p>provinces/territories, to set priorities and to assess and mitigate health and environmental risks, and is essential to track the effectiveness of risk reduction efforts.</p> <ul style="list-style-type: none"> <li>• Evaluated pesticide risk indicator (PRI) models from OECD work. Work is ongoing to adapt/customize a PRI for the Canadian context, which will provide risk trends by commodity at local, provincial or national levels and harmonize indicator characteristics with other OECD countries.</li> <li>• Formed a Federal/Provincial/Territorial Working Group on Pesticide Risk Indicators in April 2003 and held a workshop on risk indicators in October 2003.</li> </ul>
<p>Other</p> <ul style="list-style-type: none"> <li>• Measures to reduce worker risks</li> </ul>	<ul style="list-style-type: none"> <li>• Developed and consulted on a proposal to implement elements of the Canadian Workplace Hazardous Materials Information System for pesticide products.</li> <li>• Participated in the development of a Canadian position with respect to the Globally Harmonized System (GHS) of labelling, and in the first discussions regarding implementation in Canada.</li> </ul>
<p>Successes and challenges - Describe the important successes and/or challenges you have had in reducing pesticide risks.</p>	<ul style="list-style-type: none"> <li>• The <i>Pest Control Products Act</i> (PCPA) is the primary federal legislation to control the import, manufacture, sale and use of all pesticides in Canada. Royal Assent for a new PCPA in December 2002 was the culmination of an extensive, multi-year review of pesticide regulation in Canada.</li> <li>• The new PCPA will strengthen Canada's rigorous safeguards against risks to people and the environment from the use of pesticides. Canadians will have access to more information and new opportunities for input into major pesticide registration decisions. A modernized, strengthened and clarified law on pesticide regulation will provide the solid legislative foundation needed to reduce risks posed by pesticides and facilitate the availability of newer, safer products and the removal of older products that might pose greater risks.</li> </ul>

Denmark

## Progress in Pesticide Risk Reduction across OECD Countries

**Background:** In preparation for the April 2004 meeting of the Environment Ministers, OECD's Environment Policy Committee has asked the Secretariat to prepare a paper on progress made since the "*OECD Environmental Strategy for the First Decade of the 21st Century*" was adopted by Ministers in 2001. One small portion of that paper (two pages at most) will summarise progress across all OECD countries in pesticide risk reduction. It should:

- describe progress made by OECD countries since 2001 in reducing health and environmental risks resulting from pesticide use, and
- highlight major successes and challenges.

The purpose will be not be to highlight any particular country, but to describe progress, successes and challenges in general across OECD. To help us respond to that assignment, we need input from Member countries.

**Instructions:** Please describe the programs your government has implemented, goals you have set, and/or progress you have made since 2001 in the areas below. Your input should be factual (if possible) but short (responses in the form of bullet points would acceptable). Reply only in the areas that are relevant.

**Responses:** Send your response by no later than **31 October 2003**, to [Jennah.Huxley@oecd.org](mailto:Jennah.Huxley@oecd.org) .

### INPUT ON NATIONAL ACTIONS FOR PESTICIDE RISK REDUCTION

1. National program for pesticide risk reduction – Progress in implementing a national program. Pesticide Action Plan II 2000 to 2002. To be substituted by Pesticide Plan 2004 – 2009, which was finalised October 2003.

Pesticide Action Plan II 2000 to 2002 contains goals with regard to:

- Reducing the Frequency of Application (FA) in agriculture (goal for 2002 average FA < 2,0)
- 20.000 ha unsprayed bufferzones along lakes and streams by the end of 2002
- Additional 170.000 ha under organic production by the end of 2003
- Revision of the approval scheme in accordance with new knowledge, e.g. depending on ongoing and coming initiatives on auxiliary substances, endocrine disrupters and evaporation.

2. Pesticide registration – Progress in elimination of undesirable pesticides and registration of safer pesticides.

The Danish re-evaluation of pesticides was finalised around 1997. Of the 216 active substances included in the re-evaluation:

- 60 were not applied for
- 26 were rejected due to insufficient documentation
- 78 were approved
- 16 approvals/applications were withdrawn
- 30 were prohibited or strictly regulated

Since 2001 two pesticides have been banned.

3. IPM – Progress in promoting integrated pest management (IPM) or other pest control approaches that reduce dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.

Denmark has not developed guidelines for IPM, but pest control approaches that reduce dependence on, pesticide use and thus risks are the basis for the reduction goal set in Pesticide Action Plan II. The methods include monitoring, warning systems, reduced dosages, resistant varieties and mechanical weeding. A reduction target has been set for herbicides, insecticides, fungicides and growth regulators for all main crops which adds up to the reduction target on national scale.

Pesticide reduction plans and follow-up plans have been established on roughly 9000 farms in the years 2000-2002.

4. Water Protection – Progress in reducing pesticide contamination of water sources, including both ground water and surface water.

- Strict approval scheme
- Establishment of a warning system, where leaching of approved pesticides are monitored in field tests which provides feedback to the evaluation of leaching that takes place within the approval scheme
- Establishment of unsprayed buffer zones along lakes and streams

5. Wildlife Protection – Progress in reducing risks to wildlife caused by pesticide use.

Reduction of the Frequency of Application and establishment of unsprayed buffer zones will help to reduce the risks to wild life.

6. Data Collection – Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.

A statistic on total sales of pesticides and the yearly Frequency of Application in agriculture, defined as average number of pesticide applications per year, provided a fixed standard dose is used is published yearly.

A project within the Pesticide Research Programme has established a relation between the spraying intensity and risks to flora and fauna in agricultural fields. (Effects of reduced pesticide use on flora and fauna in agricultural fields, 2002. Esbjerg, Peter; Petersen, Bo Svenning; Jensen, Anne-Mette M. Johnsen, Ib; Navntoft, Søren; C. Rasmussen; S. Rasmussen)

7. Trends in Pesticide Use and/or Risk – Progress in reducing total pesticide use and/or risk.

The Frequency of Application has been reduced from 2,33 in 1999 to 2,04 in 2002.

8. Other

Pesticide Plan 2004 – 2009 sets a reduction target for the Frequency of application of 1,7 by the end of 2009 and states that pesticide free cultivation shall be enhanced. By the end of 2009 25.000 ha unsprayed bufferzones along lakes and streams shall be established.

The plan does also include risk reduction goals for fruit and vegetable growing, amenity use and use of pesticides in private gardens.

9. Successes and challenges -- Describe the important successes and/or challenges you have had in reducing pesticide risks.

### Successes:

Setting reduction targets for herbicides, insecticides, fungicides and growth regulators in all main crops which adds up to the reduction target on national scale, has made it possible to transform the reduction goal at national level to a tangible reduction goals, which can be understood and implemented at farm level.

Establishment of reduction plans on farm level where extension officers and farmers work out how the reduction goal can be achieved at particular farm. On average the Frequency of Application was reduced to a level below the 2002 goal on farms which participated in the project. As an added bonus lots of useful information on pesticide use can be extracted from the project as farmers participating in the project report use data anonymously to the Danish Agricultural Advisory Service. The project is financed by the pesticide tax.

Establishment of a warning system, where leaching of approved pesticides are monitored in field tests which provides feedback to the evaluation of leaching that takes place within the approval scheme. So far 24 pesticides has been included whereof two showed unacceptable leaching, the registrations of those two has been adjusted accordingly.

### Challenges:

To continue the effort to reduce the Frequency of Application.

Approximately 8.000 ha of the 20.000 ha unsprayed bufferzones along streams and lakes which was the 2002 goal has been established by the end of 2002. In order to promote additional bufferzones counselling on bufferzones, including possibilities for compensation (set aside, organic farming and EU's agri-environmental measures) will be built into on farm extension.

# The European Commission

## Progress in Pesticide Risk Reduction across OECD Countries

**Background:** In preparation for the April 2004 meeting of the Environment Ministers, OECD's Environment Policy Committee has asked the Secretariat to prepare a paper on progress made since the "*OECD Environmental Strategy for the First Decade of the 21st Century*" was adopted by Ministers in 2001. One small portion of that paper (two pages at most) will summarise progress across all OECD countries in pesticide risk reduction. It should:

- describe progress made by OECD countries since 2001 in reducing health and environmental risks resulting from pesticide use, and
- highlight major successes and challenges.

The purpose will be not be to highlight any particular country, but to describe progress, successes and challenges in general across OECD. To help us respond to that assignment, we need input from Member countries.

**Instructions:** Please describe the programs your government has implemented, goals you have set, and/or progress you have made since 2001 in the areas below. Your input should be factual (if possible) but short (responses in the form of bullet points would acceptable). Reply only in the areas that are relevant.

**Responses:** Send your response by no later than **31 October 2003**, to [Jennah.Huxley@oecd.org](mailto:Jennah.Huxley@oecd.org) .

### INPUT ON NATIONAL ACTIONS FOR PESTICIDE RISK REDUCTION

1. National program for pesticide risk reduction – Progress in implementing a national program.
2. Pesticide registration – Progress in elimination of undesirable pesticides and registration of safer pesticides.
3. IPM – Progress in promoting integrated pest management (IPM) or other pest control approaches that reduce dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.
4. Water Protection – Progress in reducing pesticide contamination of water sources, including both ground water and surface water.
5. Wildlife Protection – Progress in reducing risks to wildlife caused by pesticide use.
6. Data Collection – Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.
7. Trends in Pesticide Use and/or Risk – Progress in reducing total pesticide use and/or risk.
8. Other
9. Successes and challenges -- Describe the important successes and/or challenges you have had in reducing pesticide risks.

## INPUT FROM EUROPEAN COMMISSION

1. **Program** - The EU Commission adopted in July 2002 a Communication entitled 'Towards a Sustainable Use of Pesticides', the first step in the adoption process of a set of measures to achieve a significant overall reduction in risks and of the use of pesticides, consistent with the necessary crop protection, in particular through these specific objectives :

- (i) to minimise the hazards and risks to health and environment from the use of pesticides;
- (ii) to improve controls on the use and distribution of pesticides;
- (iii) to reduce the levels of harmful active substances including through substituting the most dangerous with safer (including non-chemical) alternatives;
- (iv) to encourage the use of low-input or pesticide-free crop farming, in particular by raising users' awareness, by promoting codes of good practices, and promoting consideration of the possible application of financial instruments;
- (v) to establish a transparent system for reporting and monitoring progress in the achievement of the objectives of the strategy including the development of suitable indicators.

The Communication launched a wide Stakeholders consultation<sup>1</sup>. The results of this consultation are now evaluated in view of proposing concrete measures.

2. **Pesticide registration** – The EC does not have a classification of pesticides as 'not safe', 'safe' or 'safer'. All pesticides are evaluated and decided upon on a case-by-case basis. However, newer pesticides are conventionally viewed as being safer and since 2001, the number of substances included in the positive list increased from 5 to 45. At the same time, evaluations of existing substances resulted in an increase of positive decisions from 7 to 33. During this period, decisions were taken to remove 450 active substances from the market. This represents a 50% decrease compared to the number of substances that were available in 1993.

3. IPM

4. **Water Protection** – Implementation measures according to the Water Framework Directive 2000/60/EC are currently under development both for groundwater (proposal for a new (daughter) directive<sup>2</sup> has been recently adopted by the Commission) and for surface water (in particular emission controls measures regarding priority substances and priority hazardous substances).

5. Wildlife Protection – Progress in reducing risks to wildlife caused by pesticide use.

6. **Data Collection** – Eurostat, the European office for statistics is gathering sales data for plant protection products in cooperation with industry (on the basis of voluntary agreement) since several years. The above mentioned Thematic Strategy will most likely intend to establish an integrated data collection on uses (from retailers and users).

7. **Trends in Pesticide Use and/or Risk** – There are no clear trends to be seen on the basis of available data on EU as whole. Thematic Strategy would address this surveillance by developing a common set of

---

<sup>1</sup> See website <http://www.europa.eu.int/comm/environment/ppps/home.htm>

<sup>2</sup> COM (2003)550

indicators to be used by Member States for reporting purposes. Results of the OECD risk indicators groups will be considered as a working starting point.

8. Other

9. Successes and challenges -- Describe the important successes and/or challenges you have had in reducing pesticide risks.

Finland

## Progress in Pesticide Risk Reduction across OECD Countries

**Background:** In preparation for the April 2004 meeting of the Environment Ministers, OECD's Environment Policy Committee has asked the Secretariat to prepare a paper on progress made since the "*OECD Environmental Strategy for the First Decade of the 21st Century*" was adopted by Ministers in 2001. One small portion of that paper (two pages at most) will summarise progress across all OECD countries in pesticide risk reduction. It should:

- describe progress made by OECD countries since 2001 in reducing health and environmental risks resulting from pesticide use, and
- highlight major successes and challenges.

The purpose will be not be to highlight any particular country, but to describe progress, successes and challenges in general across OECD. To help us respond to that assignment, we need input from Member countries.

**Instructions:** Please describe the programs your government has implemented, goals you have set, and/or progress you have made since 2001 in the areas below. Your input should be factual (if possible) but short (responses in the form of bullet points would acceptable). Reply only in the areas that are relevant.

**Responses:** Send your response by no later than **31 October 2003**, to [Jennah.Huxley@oecd.org](mailto:Jennah.Huxley@oecd.org) .

### FINLAND

#### INPUT ON NATIONAL ACTIONS FOR PESTICIDE RISK REDUCTION

##### 1. National program for pesticide risk reduction – Progress in implementing a national program.

Finland has practised actions aiming at pesticide risk reduction since 1992, first in the Rural Environment Programme, although the draft program was never officially approved of. Today actions aiming at reduction of risks connected to the use of plant protection products form part of the Horizontal Rural development programme (a financial support program).

The Rural Environment Programme set a specific target of halving pesticide use by the mid-1990's from an average amount sold (2000 tons) in 1987-1991 (i.e. to a level of 1,000 tons of active ingredient per year which was achieved in 1995). The programme also focused on minimising risk, through the following targets:

- to change farming habits so that spraying occurs only after the need is verified
- to increase farmers expertise in estimating the need for pest control using thresholds and pest prognoses
- to ensure that pesticides do not enter agricultural products or the environment
- to test all plant protection spraying equipment and to retest all sprayers every 5 years
- activities to educate pesticide users about good agricultural practice and safe pesticide use already existed but was to be increased
  - o distributing publication and leaflets on good agricultural practice including biological and integrated control methods and safe use of pesticides

- training for users of specially hazardous pesticides, who have to pass a special examination and receive a certificate that enables them to buy and use these products

The first financial support program to cover actions aiming at reducing risks connected with pesticides was the agri-environmental program that covered the years 1995-1999. The second covers the years 2000-2006 and is called the Horizontal Rural Development Program. The goals of these programs are to reduce the environmental load caused by agriculture, especially the load on surface and groundwater as well as air. The aim is to reduce the damage caused by the use of pesticides and other agricultural inputs, increase the biodiversity and take care of the rural landscape. Actions used are for example obligatory testing of spraying equipment every fifth year and obligatory training for the farmers every fifth year.

The agri-environmental programs have been a success by reaching over 90 % of the farmers and by covering more than 95 % of cultivated land.

## 2. Pesticide registration – Progress in elimination of undesirable pesticides and registration of safer pesticides.

The Finnish legislation on plant protection products is laid down in the following legislative papers and their amendments: The Act on Pesticides (327/1969), The Regulation on Pesticides (792/1995), the Decision of Council of State on the Prohibition of Certain Active Substances and several Decisions and Regulations of the Ministry of Agriculture and Forestry. The EU directive (91/414/EEC) concerning the placing of plant protection products on the market is implemented by this legislation.

The basis of our legislation is that a pesticide can be used in Finland only if it is registered and approved as a pesticide. Our location in the north asks for careful environmental risk assessments of the properties of a pesticide before it can be approved.

The authority responsible for approval of pesticides is the Pesticide Commission, which is an expert body working in connection with the Ministry of Agriculture and Forestry. The Commission has a chairman and a vice chairman who both have to be independent or neutral in questions concerning plant protection products. Further the commission has six members representing various authorities to ensure that all relevant views are taken into consideration in the decision-making procedure. The authorities are the Ministry of Agriculture and Forestry, the Ministry of Social Affairs and Health, the Finnish Environment Institute, the National Food Administration, the National Product Control Agency for Welfare and Health and the Plant Production Inspection Centre. The members of the Commission are to represent agriculture, crop protection, environmental protection, health care, food control and operator safety.

The plant protection products are approved for a maximum of ten years and the approval can be extended on application. However, the approval can be reconsidered whenever if something alarming comes up. The application for extension has to be made 12 months before the approval expires.

We have 390 registered pesticides in Finland containing 180 active substances. Among the pesticides 250 are plant protection products.

The Pesticide Commission has prioritised the approval of new products to be able to substitute old and possibly more harmful products by new and possibly less harmful ones. We do, for example, not have any products approved that contain active ingredients on the HELCOM negative list.

3. IPM – Progress in promoting integrated pest management (IPM) or other pest control approaches that reduce dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.

The agri-environmental program focuses on training for farmers. One part of the training is a project on producing crop protection handbooks. A group of scientists, advisers, industry and administration jointly produced booklets on "A Balanced Crop Protection". Booklets for 23 different crops were made (A Balanced Crop Protection on wheat, on barley, on potatoes etc.) and one booklet for a group of minor crops as well as one book on crop protection in ecological farming. Every farmer has to have the booklets for the crops he grows. The booklets cover crop protection measures in a wide sense starting from the selection of the right variety, the right field, the right crop rotation, through using the right cropping techniques to actual chemical crop protection.

The fruit and berry growers' association has published IPM guidance for apples as well as for several berries and vegetables. Furthermore the industry buying vegetables and berries (especially currants) have made contracts with the farmers, where the farmers are obliged to follow the IP guidelines for the crops they grow. Approximately 2/3 of the apple producing area is grown according to IPM guidelines.

4. Water Protection – Progress in reducing pesticide contamination of water sources, including both ground water and surface water.

The authority responsible for approval of pesticides in Finland is the Pesticide Commission, which is an expert body working in connection with the Ministry of Agriculture and Forestry. When approving a pesticide the Pesticide Commission also decides on the entire label text of the pesticide with binding advice on use, amount of use as well as use restrictions to the farmer. Through use restrictions the use of certain pesticides is directed in a safer way. Use restrictions can be put according to the hazardous properties of the substance, e.g. use is allowed only every second year on the same field for slowly degrading substances or use is not allowed on classified ground water catchment areas or in buffer zones, depending on the aquatic toxicity of the substance.

The use of pesticides is controlled. The Plant Production Inspection Centre (the KTTK) is the official national control organisation in the field of agricultural production inputs in Finland. They supervise the manufacture, import, trade in, storage, transport and use of pesticides as well as the supervising of other regulations issued on pesticides. The KTTK makes an annual control plan and the inspectors of the Rural Departments of the Employment and Economic Development Centres do the actual inspections. They report back to the KTTK.

The EU water framework directive is being implemented in Finland.

5. Wildlife Protection – Progress in reducing risks to wildlife caused by pesticide use.

Through restrictions on certain pesticides concerning for example the use on flowering crops the protection of bees is enhanced.

The use of pesticides is controlled. The Plant Production Inspection Centre (the KTTK) is the official national control organisation in the field of agricultural production inputs in Finland. They supervise the manufacture, import, trade in, storage, transport and use of pesticides as well as the supervising of other regulations issued on pesticides. The KTTK makes an annual control plan and the inspectors of the Rural Departments of the Employment and Economic Development Centres do the actual inspections. They report back to the KTTK.

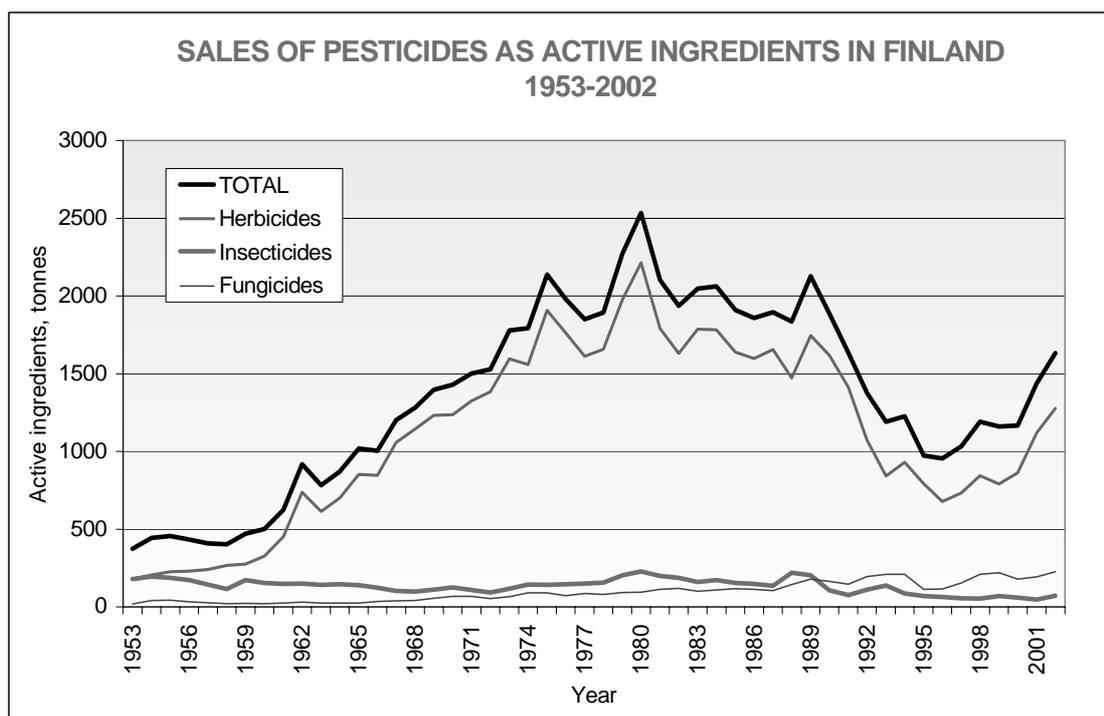
6. Data Collection – Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.

Statistics on the sales of pesticides have been collected in Finland since 1953. The data covers the amount of active substances and the amount of products sold every year. The data is published every year. In the future, from the beginning of the year 2004, the summary of the statistics is available in PDF – format in the following websites: [www.kttk.fi](http://www.kttk.fi)

The data on use is not regularly collected. In the evaluation of the Horizontal Rural Development Program data on use have, however, been collected for certain areas.

7. Trends in Pesticide Use and/or Risk – Progress in reducing total pesticide use and/or risk.

The sales of pesticides went down for several years in Finland and reached a level of about 1000 tonnes of active substance per year, which corresponded to a use of approximately 0,5 kg/ha. This level was achieved in 1995, the year Finland joined the European Union. The sales have, however, risen during the last years to a use of approximately 0,7 kg/ha of active substance in 2002 (total amount 1600 tonnes of active substance). Changes in crops grown (more grain, less grass), changes in cropping techniques (more mini-tillage), suitable weather for glyphosate application after harvesting in autumns, and falling prices for



glyphosate have been suggested as reasons for the growing trend.

On the other hand risks connected to the use of pesticides have been reduced due to the agri-environmental program and the Horizontal Rural Development Program as all spraying equipment is tested every five years, the farmers attend environmental courses every five years and they have specific crop protection handbooks for the crops they grow.

#### 8. Other

The sale of specially hazardous plant protection products is allowed only to persons that hold a special certification that allows them buy and use these products.

#### 9. Successes and challenges -- Describe the important successes and/or challenges you have had in reducing pesticide risks.

The agri-environmental program and the Horizontal Rural Development Program have been a success by reaching over 90 % of the farmers and by covering more than 95 % of cultivated land. This has meant that more than 90 % of the farmers attend training courses every five years, that all spraying equipment used on more than 95 % of the cultivated land is tested every five years and that the farmers have specific crop protection handbooks for the crops they grow.

One of the challenges is the rising trend in pesticide use.

Japan

## Progress in Pesticide Risk Reduction across OECD Countries

**Background:** In preparation for the April 2004 meeting of the Environment Ministers, OECD's Environment Policy Committee has asked the Secretariat to prepare a paper on progress made since the "*OECD Environmental Strategy for the First Decade of the 21st Century*" was adopted by Ministers in 2001. One small portion of that paper (two pages at most) will summarise progress across all OECD countries in pesticide risk reduction. It should:

- describe progress made by OECD countries since 2001 in reducing health and environmental risks resulting from pesticide use, and
- highlight major successes and challenges.

The purpose will be not be to highlight any particular country, but to describe progress, successes and challenges in general across OECD. To help us respond to that assignment, we need input from Member countries.

**Instructions:** Please describe the programs your government has implemented, goals you have set, and/or progress you have made since 2001 in the areas below. Your input should be factual (if possible) but short (responses in the form of bullet points would acceptable). Reply only in the areas that are relevant.

**Responses:** Send your response by no later than **31 October 2003**, to [Jennah.Huxley@oecd.org](mailto:Jennah.Huxley@oecd.org) .

### INPUT ON NATIONAL ACTIONS FOR PESTICIDE RISK REDUCTION (Japan)

1. National program for pesticide risk reduction – Progress in implementing a national program.

#### 1) Background

It is stipulated in the Agricultural Chemicals Regulation Law (the Law) that any person/party (i.e. manufacturers, importers, etc), who would like to sell an agricultural chemical in Japan, shall obtain registration of a pesticide from the Minister of Agriculture, Forestry and Fisheries prior to its marketing.

The Law was established in 1948 and has thereafter contributed to make agricultural production stable and prevent any adverse effect to human health and environment caused by agricultural chemicals uses.

Recently, it happened that some retailers were found to have been importing and selling unregistered agricultural chemicals in Japan and this fact has increased public concern for food safety. Consequently, to cope with these situations and reduce the risk to health, the Law was amended on December 11, 2002 and enacted on March 10, 2003.(In the case of the following 2)(4), it was amended on June 11, 2003 and will be enacted on June 10, 2004)

#### 2) Main points of the amendment

- (1) Revision of the registration system in relation to the manufacture or importation of agricultural chemicals
- (2) Revision on the notification system relating to the distribution of agricultural chemicals
- (3) Reinforcement of the restriction of deceptive advertisement by persons who act as agency for the importation of the agricultural chemicals
- (4) Obligation of mentioning in the label that any herbicide for non-agricultural use shall not be used for agricultural purposes.
- (5) Reinforcement of the prohibition of the use of agricultural chemicals
- (6) Increase of penalty fee, etc

2. Pesticide registration – Progress in elimination of undesirable pesticides and registration of safer pesticides.

See 1

3. IPM – Progress in promoting integrated pest management (IPM) or other pest control approaches that reduce dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.

The approach of the establishment of pest control methods, (e.g. natural enemy, pheromones, attractants, microbial pesticides and light trap, etc), are also considered.

4. Water Protection – Progress in reducing pesticide contamination of water sources, including both ground water and surface water.

In the regulatory system for agricultural chemicals, the aquatic risk assessment procedure was improved on March 2003, from the viewpoint of preserving aquatic ecosystem.

5. Wildlife Protection – Progress in reducing risks to wildlife caused by pesticide use.

—

6. Data Collection – Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.

—

7. Trends in Pesticide Use and/or Risk – Progress in reducing total pesticide use and/or risk.

—

8. Other

—

9. Successes and challenges -- Describe the important successes and/or challenges you have had in reducing pesticide risks.

—

New Zealand

## New Zealand Progress in Pesticide Risk Reduction

### 1. Progress in implementing a national program.

New Zealand does not have a dedicated pesticide risk reduction programme. In April 2002, we released a discussion paper canvassing opinion on the need for such a programme, possible goals and objectives, and how these might be achieved. Some 111 detailed submissions were received. The government decided to first improve the workability of our legislative and institutional framework for managing hazardous substances, that is, industrial chemicals as well pesticides. Issues raised in the pesticide risk reduction discussion paper will be revisited in 2004/05.

### 2. Progress in elimination of undesirable pesticides and registration of safer pesticides.

Concerning the elimination of “undesirable” pesticides, there are several regional-level programmes collecting unwanted pesticides from farms. At the national level, sodium monofluoroacetate (1080), a pesticide used to control the Australian brush-tail possum and sometimes aerially-applied, is about to undergo a process of reassessment. No implication should be taken that the government has already formed a view that 1080 is “undesirable” or that existing controls need to be changed. An expert body will determine these matters.

NZ has ratified both the Stockholm & Rotterdam Conventions, these conventions being another route that could potentially result in elimination of pesticides.

Concerning the registration of safer pesticides, our initiative to improve the workability of our legislative and institutional framework for managing hazardous substances, should encourage the substitution of new pesticides for old, by lowering regulatory barriers

### 3. Progress in promoting integrated pest management

There are no policy initiatives directly aimed at promoting IPM, but such approaches are supported in the allocation of science funding. Exporting sectors such as the apple industry are actively promoting programmes such as EUREPGAP, Tesco’s Natures Choice, and organic certification such as Bio-Gro/IFOAM.

### 4. Progress in reducing pesticide contamination of water sources,

Contamination of water by pesticides is not a significant issue in New Zealand. There is periodic monitoring of groundwater and traces of pesticides are occasionally discovered. Attention is being given to improved management at possible point sources of contamination of aquifers such as sprayer filler stations. Contamination of surface water appears to be even less of an issue.

### 5. Progress in reducing risks to wildlife caused by pesticide use.

NZ has a sharp geographic division between conservation environments (where pesticide use, apart from poisons used for vertebrate pest control, is negligible), and managed environments such as farmland, where pesticides are routinely applied. In biodiversity protection, our policy focus has been the protection of indigenous biodiversity rather than total biodiversity. We have a number of indigenous species resident in conservation environments that are endangered because of predation and competition for habitat from exotic vertebrate pests such as the brush-tail possum.

While there has been little policy interest in the protection of diversity of (exotic) flora and fauna within farmland habitats, there is no evidence that populations are being impacted by pesticide use in any event.

#### 6. Progress in collecting data on pesticide use.

New Zealand has good agriculture pesticides sales data for 1998 and some information for 1986. We have a data collection in progress at the moment, with a report to be published in late 2004. We hope to repeat such data collections at no more than 5-yearly intervals.

#### 7. Progress in reducing total pesticide use and/or risk.

Our 1998 collection indicated that total pesticide use in NZ was static or even in decline. There had been marked substitution of “soft” pesticides for “hard”. These results (and our conclusions) have previously been reported to OECD. We will provide an update when our 2003 sales data figures are to hand.

#### 8. Other

Nil.

#### 9. Successes and challenges.

We have had considerable success in risk reduction in our export horticulture and processed vegetable sectors, albeit driven by the certification requirements of overseas buyers. In the pastoral sector, use of herbicides is low on per hectare basis, but quite significant in total. The sector has not yet accepted the need for change from existing practice.

We have very little information on non-agricultural use of pesticides such as in lawn care and in and around buildings such as homes and schools. Although total use is probably low, health and environment adverse effects have been reported.

In Risk Reduction Steering Group (RRSG) meetings, other countries have described their programmes. If the New Zealand government decided there was a need for a risk reduction programme, we would probably favour public-private partnerships rather than a policy instrument such as a pesticides tax. Additionally, it is unlikely that we would confine the scope of such a (hypothetical) programme to agriculture alone. Non-agricultural uses of pesticides would also need to be addressed.

#### 10. Summary

Three summary points we would like to see carried over to the paper to OECD’s Environment Policy Committee:

- New Zealand does not have a dedicated pesticide risk reduction programme although we do have a number of government and private sector initiatives aimed at achieving risk reduction outcomes;
- We have a pesticide sales data collection in progress at the moment, with a report to be published in late 2004.
- We will reassess the need for further policy intervention in 2004/05, in the light of trends in pesticide sales and any other new information.

Portugal

## Progress in Pesticide Risk Reduction across OECD Countries

**Background:** In preparation for the April 2004 meeting of the Environment Ministers, OECD's Environment Policy Committee has asked the Secretariat to prepare a paper on progress made since the "*OECD Environmental Strategy for the First Decade of the 21st Century*" was adopted by Ministers in 2001. One small portion of that paper (two pages at most) will summarise progress across all OECD countries in pesticide risk reduction. It should:

- describe progress made by OECD countries since 2001 in reducing health and environmental risks resulting from pesticide use, and
- highlight major successes and challenges.

The purpose will be not be to highlight any particular country, but to describe progress, successes and challenges in general across OECD. To help us respond to that assignment, we need input from Member countries.

**Instructions:** Please describe the programs your government has implemented, goals you have set, and/or progress you have made since 2001 in the areas below. Your input should be factual (if possible) but short (responses in the form of bullet points would acceptable). Reply only in the areas that are relevant.

**Responses:** Send your response by no later than **31 October 2003**, to [Jennah.Huxley@oecd.org](mailto:Jennah.Huxley@oecd.org) .

### INPUT ON NATIONAL ACTIONS FOR PESTICIDE RISK REDUCTION

1. National program for pesticide risk reduction – Progress in implementing a national program.

See points below.

2. Pesticide registration – Progress in elimination of undesirable pesticides and registration of safer pesticides.

All EU decisions of non inclusion of active substances in Annex I of Directive 91/414/EEC have been or are being implemented, leading to a phasing out of plant protection products (PPP) containing those actives. A national review programme for PPP is also put in place to review the authorised conditions of use related to the actives that were included in Annex I.

In the Portuguese registration programme, priority is given to the registration of new active substances, which have a more specific mode of action and are safer.

The Directive 1999/45/EC on classification, labelling and packaging of dangerous preparations, is being implemented and it is foreseen that labels conforming that directive will be on the market not later than the deadline set in it.

3. IPM – Progress in promoting integrated pest management (IPM) or other pest control approaches that reduce dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.

Since 1994, structures, measures and conditions for the implementation of IPM were created in Portugal, namely through the appropriate setting of public and private bodies, demonstration fields and training courses for technicians and farmers.

In the present, 104 farmer organizations, corresponding to 10.000 farmers, assisted by 430 technical advisors, are carrying out IPM in the following crops: stone fruit, pome fruit, grapevine, citrus, olive and horticulture. The area involved is 127.234 ha.

### **Use of pesticides in IPM**

Pest control is vital in any farming system. For that aim, priority must be given to cultural, biological, genetic and biotechnical methods of pest control.

Pesticides available in Portugal are classified as permitted and not permitted for IPM and can be identified in the “List of pesticides advised for IPM”.

The following criteria should be taken into account for that classification of pesticides:

- i) toxicity to man;
- ii) toxicity to key beneficials;
- iii) toxicity to other beneficials;
- iv) contamination of ground and surface water;
- v) persistence in soil;
- vi) selectivity.

### **Measures taken to pesticide risk reduction**

**Field measures:** during training, farmers are advised to spray accurately:

- accurate placement of the correct dose in the target area;
- reduce run-off and spray drift;
- prevent operator and bystander exposure.

It's a legal obligation for all farmers to keep records of:

- data obtained by regular fields monitoring;
- data on pest problems;
- pesticide application data (identification of PPP, dose, volume, n.º and date of applications)

**Control measures:** the occurrence of pesticide residues at the harvest must be controlled to verify if PPP not recommended in IPM were applied. Control is made in 10% of total farmers doing IPM.

Good agricultural practises are also controlled through the inspection of the PPP stored: recommended/not authorised products, storing conditions and disposal.

## **4. Water Protection – Progress in reducing pesticide contamination of water sources, including both ground water and surface water.**

Based on monitoring residue studies conducted at regional or national level, restrictions on the use (n.º of applications, dose-rate, crops/enemies) of PPP are being implemented for those compounds with leaching properties and possibility of groundwater contamination. Besides, some PPP are also not allowed to be used in some vulnerable conditions, i.e. sandy soils. To reduce the potential of surface water contamination buffer zones are always established whenever necessary for the protection of aquatic organisms.

A national monitoring programme is now being implemented to evaluate the quality of water intended for human consumption. This programme takes into consideration the use of PPP at regional scale.

## **5. Wildlife Protection – Progress in reducing risks to wildlife caused by pesticide use.**

The risk assessment procedures for main target species have been quite improved in the recent years as well as the restrictions associated with the use covering terrestrial and aquatic organisms. Thus risk mitigation measures including buffer zones, reduced dose rates and number of applications, specific

advices for bees and other non target arthropods, and also restrictions to aerial applications are being implemented in a common basis.

6. Data Collection – Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.

Pesticide use data has being collected in the IPM framework as mentioned before (point 3).

To reduce the risks for human beings, including farmers and applicators, and for the environment, a national legislation was developed which considers the training of the operators, farmers and technical advisors as mandatory. Besides, very strict controlled and inspected conditions of marketing and use were considered.

From the water monitoring programmes implemented through the Ministry of Environment, conclusions are taken to restrict the use of PPP whenever necessary.

7. Trends in Pesticide Use and/or Risk – Progress in reducing total pesticide use and/or risk.

In the period 2001-2003, 36 active substances were withdrawn from the market out of 277 actives authorised in Portugal.

8. Other

NA

9. Successes and challenges -- Describe the important successes and/or challenges you have had in reducing pesticide risks.

In the last 10 years new legislation was enforced. More strict requirements and criteria for evaluation and decision-making have allowed to place on the market safer pesticides to humans and the environment.

The challenge is the implementation of the new legislation on the marketing and use of PPP.

# The Slovak Republic

## Progress in Pesticide Risk Reduction across OECD Countries

**Background:** In preparation for the April 2004 meeting of the Environment Ministers, OECD's Environment Policy Committee has asked the Secretariat to prepare a paper on progress made since the "OECD Environmental Strategy for the First Decade of the 21st Century" was adopted by Ministers in 2001. One small portion of that paper (two pages at most) will summarise progress across all OECD countries in pesticide risk reduction. It should:

- describe progress made by OECD countries since 2001 in reducing health and environmental risks resulting from pesticide use, and
- highlight major successes and challenges.

The purpose will be not be to highlight any particular country, but to describe progress, successes and challenges in general across OECD. To help us respond to that assignment, we need input from Member countries.

**Instructions:** Please describe the programs your government has implemented, goals you have set, and/or progress you have made since 2001 in the areas below. Your input should be factual (if possible) **but short** (responses in the form of bullet points would acceptable). Reply only in the areas that are relevant.

**Responses:** Send your response by no later than **31 October 2003**, to [Jennah.Huxley@oecd.org](mailto:Jennah.Huxley@oecd.org) .

### INPUT ON NATIONAL ACTIONS FOR PESTICIDE RISK REDUCTION

*note: new pesticide legislation = ACT NO. 471/2001 Coll. OF THE NATIONAL COUNCIL OF THE SLOVAK REPUBLIC on Plant Health Care, DECREE of the Ministry of Agriculture of the Slovak Republic No. 23322/3/2001-100 of 21st January 2001 laying down details concerning plant protection products*

1. National program for pesticide risk reduction – Progress in implementing a national program.

Ongoing project - Initial assistance to the Slovak Republic to meet its obligations under the Stockholm Convention on Persistent Organic Pollutants (POPs), Inventory of obsolete stockpiles in the Slovak Republic

2. Pesticide registration – Progress in elimination of undesirable pesticides and registration of safer pesticides.

the Directive 91/414/EEC was approximated into Slovak legislation and directives concerning to the concerning the non-inclusion of certain active substances into Annex I to Council Directive 91/414/EEC too. The steps which are coming from these ones are: withdrawal of authorisations for plant protection products containing these active substances

the directive 79/117/EEC as last amended was approximated too

3. IPM – Progress in promoting integrated pest management (IPM) or other pest control approaches that reduce dependence on, and risks due to, pesticide use. Increase in number of farmers using such approaches.

4. Water Protection – Progress in reducing pesticide contamination of water sources, including both ground water and surface water.

the pesticide registration certificate and label are accompanied by restrictions of pesticide using close to the sensitive areas intended for growing products for baby meal production or buffer zones or water reservoirs

5. Wildlife Protection – Progress in reducing risks to wildlife caused by pesticide use.

thank to registrations done according to the new pesticide legislation the packagings intended for non-professional users- the reduction of risks for wildlife animals have occurred

6. Data Collection – Progress in collecting data on pesticide use and/or risks, or establishment of programs to collect such data.

1. the responsible authority for pesticide registration Central Control Testing Institute of Agriculture collects the data regarding to the pesticide application, consumption of pesticides during the year, data concerning to the amount of pesticides placed on the Slovak market i.e. export, import  
this one is legally stipulated by new pesticide legislation
2. information concerning to the composition of pesticides placed on the market in Slovak Republic, their MSDS must be submitted by registration holders to the Toxicological Information Centre  
this one is legally stipulated by new pesticide legislation

7. Trends in Pesticide Use and/or Risk – Progress in reducing total pesticide use and/or risk.

Progress in reducing of risks:

1. according to the new legislation any machinery used for the application of plant protection products is subject to compulsory testing, except for that referred to in Article 7 (3) and the machinery and equipment used for the protection of plants and plant products intended for personal consumption only
2. COMMISSION REGULATION (EC) No 2076/2002 of 20 November 2002 extending the time period referred to in Article 8(2) of Council Directive 91/414/EEC and concerning the non-inclusion of certain active substances in Annex I to that Directive and the withdrawal of authorisations for plant protection products containing these substances will be in force in Slovak Republic from date of accession to the EU. This legislation is under preparation now.

8. Other

there was applied for Phare project concerning to the pesticide registrations according to the Directive 91/414/EEC and project is especially intended for implementation of Directive 97/57/EC (UNIFORM PRINCIPLES FOR EVALUATION AND AUTHORIZATION OF PLANT PROTECTION PRODUCTS) too

9. Successes and challenges -- Describe the important successes and/or challenges you have had in reducing pesticide risks.

the harmonization of Slovak legislation with EU legislation

Sweden

## **National Plan for Pesticide Risk and Use Reduction in Sweden – 15 years of experience**

### **Background**

National risk reduction programmes on pesticides have been in force since 1987 in Sweden. Up to now, three stages covering 5 years each have been completed and a new 5 year long programme has recently been proposed to the Government. Responsible agencies are the Swedish Board of Agriculture and the National Chemicals Inspectorate. The programmes have been performed in consultation with the Swedish Environmental Protection Agency, the National Food Administration and the Swedish Work Environment Authority.

### **Targets and results**

<b>Period</b>	<b>Targets</b> (compared to the base period 1981-85).	<b>Results</b>
1987-1990	Target: 50 % use reduction	49 % use reduction achieved.
1991-1996	Target: 75 % use reduction	64 % use reduction achieved.
1997-2001	No use target, but further reduction in risks expressed by indicators	Based on environmental and human health risk indicators the reduction was 63 and 77 % respectively (year 2000).

In the first two stages of the Swedish risk reduction programme on agricultural pesticides, the following measures were included:

- changeover to pesticides and authorisation provisions which implies less risks
- safer handling of pesticides, improvement of regulation, training and information activities
- reduced use of pesticides

The latter was expressed in each stage; as to reduce by half the quantity of active substances used over the period covered, 1986-1990 and 1991-1996 respectively. Accordingly, the two-fold halving added up in a goal of 75 percent reduction in 1996 compared with the average use during 1981-85. However, this goal was not possible to achieve. In 1996 the reduction in sold quantities was 64 percent.

In the recently completed third stage of the programme, no quantitative goal targeting on further use reductions was proposed. Instead, risk indicators were used to follow up progress. In 2000 the reduction did account for approximately 63 and 77 percent respectively, when the calculation was based on environmental and human health risk indicators<sup>1</sup>.

---

<sup>1</sup> Published in: OECD (1999), "Results of the OECD Survey of National Pesticide Risk Indicators", Second OECD Workshop on Pesticide Risk Indicators, Braunschweig, Germany 1-3 June 1999.

## Examples of key elements

### *Pesticide regulation*

- Extensive review of all existing pesticides during 1990 to 1994.
- The use of comparative assessments, the precautionary principle and decision-making criteria<sup>2</sup> to facilitate prompt and easy authorisation procedures. About 80 out of 180 existing active substances were removed from the market during the review period.
- Phase out activities on certain unacceptable pesticides considered to be indispensable.
- A new regulation on the handling of pesticides came into force in 1997.

### *Additional instruments and activities*

- Mandatory training. A four-day long training course is required for all farmers using pesticides professionally.
- Advisory service focusing on integrated and need based crop protection. Examples of areas covered are:
  - pest forecasting and warning services
  - demonstration trials (for example on unsprayed edge zones) and field courses
  - information on possibilities to reduce the dose rates
- Research and development on need based crop protection, organic farming, spraying techniques etc.
- Programme for voluntary testing of spraying equipment.
- Voluntary information campaign “Safe Pesticide Use” launched by the Federation of Swedish Farmers in a jointly collaboration with the Crop Protection Industry, the Board of Agriculture, the Chemicals Inspectorate, and the Environmental Protection Agency.
- Monitoring programmes on pesticide residues in food and water.
- Environmental levies (20 SEK per kg active substance).

## Experiences reached

Important factors that have contributed to the success of the Swedish risk reduction programme on pesticides.

- Integration of and balance between mandatory and voluntary elements.
- A variety of additional activities performed at different levels (local to national) and driven by different stakeholders (farmers, authorities, research institutions).
- Full support on the programme from the Federation of Swedish Farmers (80 percent of the farmers are members of FSF).
- A close and encouraging contact between authorities under the Ministry of Agriculture and the Ministry of Environment. The mission to develop the programme was given as a shared task to the Swedish Board of Agriculture and the National Chemicals Inspectorate.

Circumstances interfering with the programme objectives.

---

<sup>2</sup> Andersson L *et al.* (1992), ”Principles for Identifying Unacceptable Pesticides”, The Swedish National Chemicals Inspectorate, KEMI Report No 4/92.

- A high dependency on chemicals still remain in food production.
- The fully harmonised EU legislation on pesticides is setting barriers for individual member state programmes aiming at a reduction in chemical dependency by regulatory means.
- It is not possible to involve all farmers. A small number of them can be described as notorious wrongdoers. They are not open for information on risk reduction possibilities and they are not prepared to change their manner.

### **Proposal for the next stage of the programme**

The overall aim with the proposed fourth stage of the programme (2002-2006) will be to continue the successful activities already implemented. More focus will be given to a number of selected use areas, which require particular attention. Several of these concern the contamination of surface water and groundwater.

- Mixing, loading and cleaning of the spraying equipment.
- Spraying in vulnerable areas.
- Weed control in sandy soils and in row sown crops.
- Late autumn and early spring (spring crop) applications.

More attention will also be given to pesticide risks in the horticultural sector compared to the earlier stages.

- Frequent applications in strawberries, apples and potatoes.
- Air blast spraying technique in fruit orchards.
- Direct or indirect exposure to (re-entry) workers from treated plants in glasshouse production.

Grower associations are prepared to take a more active part in the programme, for instance by defining a national standard for Good Plant Protection Practice.

### *Risk indicators*

The present national Pesticide Risk Indicators (PRI) will be refined to better reflect risk trends.

<b>Present PRI</b>	<b>Proposed new PRI</b>
Based on (for each active substance): <ul style="list-style-type: none"> <li>• sold quantity</li> <li>• current hazard classification (including also persistence, bioaccumulation and mobility properties)</li> </ul>	Based on (for each active substance): <ul style="list-style-type: none"> <li>• the theoretically maximum number of hectare doses</li> <li>• current hazard classification (including also persistence, bioaccumulation and mobility properties)</li> <li>• exposure related factors such as formulation type, presence in water, application method and frequency</li> </ul>

Two types of indicators are used; one related to environmental risks and one to human health risks.	Two types of indicators are proposed; one related to environmental risks and one to human health risks.
Has been in use since 1997	Will be used from 2003 and onwards.

A new set of indicators to be used at farmer level will also be developed. The aim is to use a more realistic approach by defining local exposure conditions. Another important aspect is that by using these tools, farmers can check their individual progress in relation to risk reduction. On a long term, the intention is to aggregate results from the farmer level indicators so they also can be used to express risk trends at the national level.

### Contacts

Else-Marie Mejersjö  
 Swedish Board of Agriculture  
 S-551 82 Jönköping  
 Sweden  
 tel: +4636-15 51 67  
 e-mail: [else-marie.mejersjo@sjv.se](mailto:else-marie.mejersjo@sjv.se)

Peter Bergkvist  
 National Chemicals Inspectorate  
 P.O. Box 1384  
 S-171 27 Solna  
 Sweden  
 tel: +468-783 1209  
 e-mail: [peter.bergkvist@kemi.se](mailto:peter.bergkvist@kemi.se)

Switzerland

-----Original Message-----

**From:** Roland.vonArx@buwal.admin.ch

**Sent:** 31 October, 2003 5:26 PM

**To:** HUXLEY Jennah, ENV/EHS

**Subject:** AW: Input to Paper for Environment Ministerial

On May 21 this year the Swiss Federal Council has decided a national pesticide action program to

- assess pesticide use data,
- to develop pesticide risk indicators and
- to lay down risk reduction targets

(see report in French and German)

<http://www.umwelt-schweiz.ch/buwal/fr/medien/presse/artikel/20030521/00739/index.html> (French)

<http://www.umwelt-schweiz.ch/buwal/de/medien/presse/artikel/20030521/00739/index.html> (German)

This is to be able to evaluate environmental and agricultural policies with regard to pesticides use.

Kind regards

Roland von Arx

Dr. Roland von Arx  
Bundesamt für Umwelt, Wald und Landschaft  
Sektion Boden und allgemeine Biologie  
CH-3003 Bern

Tel. +41 31 322 93 37; Fax: +41 31 324 79 78

<mailto:roland.vonarx@buwal.admin.ch>

Website <http://www.buwal.ch/stobobio>

# The United Kingdom

-----Original Message-----

From: Popple, Sue (PSD)

Sent: 31 October, 2003 12:51 PM

To: HUXLEY Jennah, ENV/EHS

Cc: Tuffnell, Son (PSD)

Subject: Input to Paper for Environmental Ministerial

To: Jennah Huxley, OECD

Richard Sigman's request of 17th September to members of the Working Group on Pesticides refers. In his note Richard asked for details of any national actions on pesticide risk reduction. Please find below, in the suggested form of bullet points, the response for Great Britain.

- The development of indicators by the Pesticides Forum to reflect the changing environmental impact of pesticides.
- Work has recently started on a draft National Pesticide Strategy that will augment and bring together existing policies and schemes with a view to driving down the negative impacts of pesticide use.
- GB continues to carry out, and publish, regular direct surveys on the use of pesticides by farmers. The UK also has a good record in terms of monitoring of water for pesticide residues with annual reports being published by the Environment Agency.

I trust that the above is helpful.

Sue Popple

\*\*\*\*\*

Sue Popple

Policy Director

Pesticides Safety Directorate

Department for Environment, Food and Rural Affairs (Defra)

Phone: 01904 455921 GTN 5138 5921

Fax: 01904 455763 GTN 5138 5763

Email: sue.popple-official@psd.defra.gsi.gov.uk

The United States

## **U.S. Environmental Protection Agency Efforts to Reduce Risk from Pesticide Use**

- **Pesticide Registration** - In Fiscal Years 2002 and 2003, the U.S. Environmental Protection Agency (EPA) registered a total of 57 new pesticide active ingredients. EPA has emphasized the importance of the registration of "safer" pesticides that may serve as alternatives to older chemistries that often have the potential to pose greater risk to human health and the environment. Over half of the new pesticides registered during Fiscal Years 2002 and 2003 are classified as either biopesticides, which generally pose less risk to human health and the environment than conventional chemistries, or as conventional "reduced-risk" pesticides. EPA has in place a program to screen potential new conventional pesticides and new uses of already-registered pesticides to determine if they meet "reduced-risk" criteria. If so, expedited review priority is given to candidates which meet the criteria.
- **Reregistration and Tolerance Reassessment** - EPA is mandated statutorily through the Food Quality Protection Act to complete tolerance reassessment by August 3, 2006. EPA is anticipating completion of its reregistration program for food use pesticides within the same timeframe. Significant risk reduction has taken place through the tolerance reassessment and reregistration process. In Fiscal Years 2002 and 2003, EPA completed a total of 64 risk management decisions on individual chemicals through the reregistration process. Many of these decisions contain specific measures aimed at reducing potential risks from pesticides that include cancellation of uses, reducing application rates and number of applications, establishing buffer zones around water bodies, requiring closed mixing/loading systems to protect workers who handle and apply pesticides, among others. In addition, EPA continued its tolerance reassessment efforts and by end of Fiscal Year 2003 (October 31, 2003), had completed reassessment of a total of 6,626 out of 9,721 (just over 68%) tolerances that are required to be reassessed by August 3, 2006. Significant risk reduction is achieved through the reassessment process which ensures that pesticide levels remaining in or on foods meet high safety standards.
- **Cumulative Risk Assessment** - In December 2001, EPA issued a "Preliminary Organophosphorus Cumulative Risk Assessment" that established new methods for analyzing data regarding the cumulative risk from organophosphate pesticides. In June 2002, a "Revised Organophosphorus Cumulative Risk Assessment" was issued that incorporated comments from stakeholders and the Federal Insecticide, Fungicide and Rodenticide Act Scientific Advisory Panel. The revised risk assessment describes potential cumulative risks of exposure to organophosphate pesticides by presenting a range of estimates that reflect variation inherent in such an assessment. This cumulative risk assessment is the very first ever produced that analyzes risks resulting from a whole group of pesticides that share a common mechanism of toxicity. Important risk reduction measures were established for each individual organophosphate pesticide leading up to the combined cumulative assessment of all the organophosphates. EPA has identified additional common mechanism groups of pesticides that will be analyzed using cumulative risk analysis methodology.
- **Pesticide Environmental Stewardship Program** - EPA's Pesticide Environmental Stewardship Program (PESP) is a voluntary program that forms partnerships with pesticide users who become members to reduce the health and environmental risks associated with pesticide use

and implement pollution prevention strategies. Integrated Pest Management (IPM) plays an integral role. The PESP Strategy process uses a goal-oriented approach to keep all participants focused on the goal of pesticide risk reduction. A Strategy is intended to serve the following purposes: to encourage members to think about risk reduction in a consistent, goal-oriented way; to elicit from members information that measures their progress toward risk reduction; to keep EPA focused on helping members achieve risk reduction goals; and to achieve these purposes with minimal burden. PESP members develop strategies to reduce pesticide risks by adoption of lower risk alternatives such as biopesticides, adoption of IPM practices, and implementation of training programs and demonstrations about ways to lower pesticide use and potential risks. For example, in 2002, 69 percent of those members who submitted strategies included some aspect of IPM training and pesticide risk reduction for the members of their organizations. Over 79 percent included an element of reducing pesticide use in their strategies by utilizing non-chemical pest management methods, phasing out use of certain classes of chemicals and by applying pesticides to more targeted areas as opposed to larger broadcast sprayings. Since the PESP program was established in 1994, it has grown from 16 to 136 members. Because the membership is much larger and more diverse today, EPA recently grouped the members into sectors comprised of members which share similar concerns and interests which will allow for more effective management and dissemination of information as well as networking among members to enhance IPM and risk reduction activities.

· **Harmonization/Joint Review Efforts** - EPA is active in a number of scientific harmonization and regulatory coordination efforts through international and regional organizations, and directly with other countries, in order to develop common or compatible international approaches to pesticide review, registration and standards-setting. EPA believes that making pesticide regulatory programs more consistent internationally will maintain high standards for the protection of human health and the environment, promote benefits from shared scientific and technical expertise, lessen the resource burden on governments and the regulatory community, and minimize trade problems. From a more regional perspective, EPA has joined bilateral efforts with Canada's Pest Management Regulatory Agency (PMRA) on pesticide regulatory harmonization since the early 1990s. Through the sharing of scientific data and expertise, pesticide risk reduction brought about through joint review and harmonization is now accomplished on a wider, more regional basis. In Fiscal Years 2002 and 2003, a total 9 pesticides with over 100 food uses have been registered through the NAFTA joint review process. This includes a rodenticide classified as a reduced risk chemical and a new biopesticide for control of powdery mildew on roses and cucumbers, both registration actions a result of joint review efforts with Canada's PMRA. It also includes some uses that are alternatives to organophosphate uses.

· **Phase-out of Tributyltin Antifouling Paints** - Tributyltin (TBT) is a pesticide used in antifouling paints to prevent the buildup of organisms such as bacteria, algae, and mollusks on ships' hulls. TBT antifouling paints are associated with adverse effects in marine life, particularly shellfish. EPA has worked with pesticide registrants to promote the voluntary cancellation of antifouling paint registrations and to register alternative products that may pose less risk to unintended marine organisms. In FY2002, EPA registered 16 antifouling products that serve as TBT alternatives. In FY2003, voluntary cancellation requests were received from

the two companies which produce manufacturing use products for TBT end use products.

· **Strategic Ag Initiative** - In 1998, EPA established through its Headquarters and Regional Offices the Strategic Agricultural Initiative (SAI) to aid minor use growers as they transition to reduced risk pest management strategies as required under the 1996 Food Quality Protection Act. With the goal of promoting risk reduction for minor use crops, the SAI builds partnerships with producers, commodity groups, universities and agricultural stakeholders and shares information and lessons learned about Integrated Pest Management as well as coordinate with the U.S. Department of Agriculture's (USDA) Regional Pest Management Centers. Feedback about producers' pest management needs is provided to EPA and USDA. In Fiscal Year 2002, EPA joined forces with the Columbia Basin Processing Vegetable Council to refine pest identification by consultants in the field, in this case between the corn earworm (pest) and the false corn earworm (not a pest) and the need for pesticide applications. Pesticides were being applied based on combined catch of both species. With refined pheromone trapping technique, pesticide treatments were reduced by 50 percent. Also in Fiscal Year 2002, EPA joined forces with USDA, the American Farmland Trust and the World Wildlife Fund to help growers with more than 10,000 acres of Wisconsin potatoes reduce pesticide risk by 46 percent over the course of 4 years. As a result, the growers are implementing an environmental risk index and increasing adoption of bio-intensive IPM practices. In Fiscal Year 2003, EPA's Region 3 awarded a grant to the Pennsylvania Department of Agriculture for a Greenhouse IPM Program in the Amish and Mennonite communities of Lancaster County. Through this program, Amish and Mennonite greenhouse growers learned proper pest scouting and identification techniques and, as a result, reduced their use of traditional pesticides by 50 percent.