

Overview Assessment:

Implementation of OSPAR Recommendation 2000/1 on Best Environmental Practice (BEP) for the Reduction of Inputs of Agricultural Pesticides to the Environment through the Use of Integrated Crop Management Techniques



**OSPAR Commission
2007**

The Convention for the Protection of the Marine Environment of the North-East Atlantic (the “OSPAR Convention”) was opened for signature at the Ministerial Meeting of the former Oslo and Paris Commissions in Paris on 22 September 1992. The Convention entered into force on 25 March 1998. It has been ratified by Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland and the United Kingdom and approved by the European Community and Spain.

La Convention pour la protection du milieu marin de l'Atlantique du Nord-Est, dite Convention OSPAR, a été ouverte à la signature à la réunion ministérielle des anciennes Commissions d'Oslo et de Paris, à Paris le 22 septembre 1992. La Convention est entrée en vigueur le 25 mars 1998. La Convention a été ratifiée par l'Allemagne, la Belgique, le Danemark, la Finlande, la France, l'Irlande, l'Islande, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni de Grande Bretagne et d'Irlande du Nord, la Suède et la Suisse et approuvée par la Communauté européenne et l'Espagne.

© OSPAR Commission, 2007. Permission may be granted by the publishers for the report to be wholly or partly reproduced in publications provided that the source of the extract is clearly indicated.

© Commission OSPAR, 2007. La reproduction de tout ou partie de ce rapport dans une publication peut être autorisée par l'Editeur, sous réserve que l'origine de l'extrait soit clairement mentionnée.

ISBN 978-1-905859-48-1

Publication Number: 309/2007

contents

Executive Summary/ <i>Récapitulatif</i>	4
1. Introduction.....	5
1.1 OSPAR Recommendation 2000/1	5
1.2 Implementation reporting.....	5
1.2.1 <i>General reporting requirements</i>	5
1.2.2 <i>Reporting requirements under OSPAR Recommendation 2000/1</i>	5
2. Overview of compliance.....	5
3. Overview of effectiveness	6
3.1 Cultural controls	6
3.2 Mechanical controls.....	7
3.3 Biological controls	7
3.4 Advice on when to use a pesticide.....	7
3.5 Pesticide use	7
3.6 Use of technology transfer	7
3.7 Surveys of uptake of ICM by farmers.....	7
4. Assessment.....	7
Annex 1: Individual implementation reports on Recommendation 2000/1	9

Executive Summary/Récapitulatif

This document provides an overview and assessment of the implementation of OSPAR Recommendation 2000/1 on Best Environmental Practice (BEP) for the Reduction of Inputs of Agricultural Pesticides to the Environment through the Use of Integrated Crop Management Techniques in the OSPAR Convention area. It is based on national implementation reports from eight of the 15 Contracting Parties which were requested to submit reports on the national measures taken, and their effectiveness, to give effect to the provisions of the Recommendation in their territories. Reports had been due in the 2005/2006 meeting cycle, but because of the small number of Contracting Parties reporting, OSPAR 2006 agreed to publish the overview assessment prepared by the United Kingdom in 2006, but extended the reporting round to 2006/2007.

Le présent rapport comporte un récapitulatif et une évaluation de la mise en œuvre de la Recommandation OSPAR 2000/1 relative à la meilleure pratique environnementale (BEP) en vue de la réduction des apports de pesticides agricoles à l'environnement par l'application des techniques de gestion intégrée des cultures dans la zone de la Convention OSPAR. Il se fonde sur les rapports nationaux de mise en œuvre communiqués par huit des quinze Parties contractantes. Ces dernières sont tenues de communiquer, des rapports sur les mesures nationales qu'elles ont prises ainsi que sur leur efficacité afin d'appliquer les dispositions de la Recommandation dans leur territoire. La notification de mise en œuvre devait être présentée durant le cycle de réunions 2005/2006. OSPAR 2006 a convenu de publier l'évaluation générale préparée par le Royaume-Uni, mais a prolongé le cycle de notification jusqu'à 2006/2007, en raison du nombre réduit de pays ayant présenté une notification.

Due to the fact that only eight Contracting Parties have provided implementation reports on Recommendation 2000/1, the picture of the application of Best Environmental Practice (BEP) through the use of integrated crop management techniques is rather limited.

On ne dispose que d'un tableau d'ensemble limité sur l'application de la BEP au moyen de techniques de gestion intégrée des cultures dans la mesure où huit Parties contractantes seulement ont communiqué leurs rapports de mise en œuvre.

However, the reports show that each country that reported is actively implementing the measure through a wide range of initiatives designed to promote integrated crop management.

Cependant les rapports indiquent que la mise en œuvre de cette mesure est en vigueur dans les pays qui ont communiqué leur rapport, ceci par le biais d'une vaste gamme d'initiatives destinées à promouvoir la gestion intégrée des cultures.

OSPAR 2007 agreed that those Contracting Parties who had reported may cease implementation reporting in future. OSPAR invited Denmark, Ireland, Luxembourg, Portugal and Switzerland to submit implementation reports by 30 September 2007 and the UK to update this overview assessment for the meeting of the Hazardous Substances Committee (HSC) in 2008.

OSPAR 2007 a convenu que les Parties contractantes qui ont présenté une notification peuvent cesser la notification de mise en œuvre à l'avenir. OSPAR a invité le Danemark, l'Irlande, le Luxembourg, le Portugal et la Suisse à soumettre leurs notifications de mise en œuvre avant le 30 septembre 2007 et a invité le Royaume-Uni à actualiser ce rapport d'évaluation pour la réunion du Comité substances dangereuses (HSC) en 2008.

1. Introduction

1.1 OSPAR Recommendation 2000/1

The use of some agricultural pesticides, although necessary to agriculture, poses a threat to the marine environment. Reducing such risks requires a change in the practices of pesticide use. A key way to this is the use of integrated crop management (ICM). This means an approach to agricultural production which integrates a range of farming practices focusing on crop protection with measures to preserve and enhance the environment.

OSPAR Recommendation 2000/1 applies to agricultural pesticides used as part of an integrated approach to arable and horticultural production and requires Contracting Parties to provide guidance on best environmental practice and the adoption of ICM practices and techniques. As ICM is a dynamic, whole-farm process which is not only crop-specific but also location/site-specific there are no set rules about how it should be implemented. The Recommendation therefore gives only general guidance on elements that could be included in national guidance on BEP and ICM.

1.2 Implementation reporting

1.2.1 General reporting requirements

Under Article 22 of the OSPAR Convention, Contracting Parties shall report to the Commission at regular intervals on the national measures (legal, regulatory, or other) taken by them to implement the provisions of the decisions and recommendations adopted under the OSPAR Convention and on the effectiveness of these national measures. This implementation reporting forms the basis for OSPAR to assess the compliance by Contracting Parties with the Convention and ultimately to evaluate the effectiveness of programmes and measures under the Convention.

Detailed provisions on implementation reporting and related assessments by OSPAR are laid down in OSPAR's Standard Implementation Reporting and Assessment Procedure (reference number 2003-23, update 2005). Unless stated otherwise in the OSPAR instrument concerned, the practice has been in general that an implementation report should be submitted to the appropriate OSPAR subsidiary body in the intersessional period four years after the adoption of a measure and every four years thereafter until fully implemented. Implementation reporting does not apply to Contracting Parties with reservations (or non-acceptance) on an OSPAR measure unless and until the reservation (or non-acceptance) is lifted.

1.2.2 Reporting requirements under OSPAR Recommendation 2000/1

This assessment gives the first overview of the implementation of OSPAR Recommendation 2000/1. It is based on implementation reports supplied via the OSPAR Secretariat to the UK by Belgium, Finland, France, Germany, the Netherlands, Spain, Sweden, Iceland (oral report) and the UK. The individual implementation reports as supplied by these Contracting Parties are at Annex 1. Iceland informed HSC 2007 verbally that pesticide use on crops was very limited in Iceland and integrated crop management has not been considered specially; therefore the Recommendation had not been implemented.

Reports had been due in the 2005/2006 meeting cycle, but because of the small number of Contracting Parties reporting, OSPAR 2006 agreed to publish the overview assessment prepared by the United Kingdom in 2006, but extended the reporting round to 2006/2007.

2. Overview of compliance

No reports were received from Denmark, Ireland, Luxembourg, Portugal or Switzerland. It therefore only represents a very limited picture of implementation in the Convention Area. Table A provides a summary of those Contracting Parties who have submitted implementation reports and the means of implementation.

Table A: Overview of Implementation on OSPAR Recommendation 2000/1 on Best Environmental Practice (BEP) for the Reduction of Inputs of Agricultural Pesticides to the Environment through the Use of Integrated Crop Management Techniques

* **Contracting Parties in bold type** have supplied no evidence to date (by HSC 2007) that this measure has been implemented

Contracting Party	Reservation	Report sent	MEANS OF IMPLEMENTATION		
			Legislation	Administrative action	Voluntary agreement
Belgium		x	x	x	
Denmark					
Finland		x	x	x	x
France		x	x	x	x
Germany		x	x	x	x
Iceland		x (verbal)			
Ireland					
Netherlands		x		x	x
Norway ¹					
Portugal					
Spain			x	x	x
Sweden		x	x	x	
United Kingdom		x		x	
Luxembourg					
Switzerland					

Countries use their own individual mix of regulations, national policy strategies and plans, codes of practice, and advisory publications and training programmes. See the individual country reports for details.

3. Overview of effectiveness

In the implementation report for Recommendation 2000/1, Contracting Parties are required to provide information on the steps taken in their country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM, and are requested to provide brief details of particular initiatives relating to seven categories (cultural controls, mechanical controls, biological controls, advice on when to use a pesticide, pesticide use, use of technology transfer, and surveys of uptake of ICM by farmers). An overview of information from the national reports is given below for each section.

3.1 Cultural controls

Contracting Parties reporting mention support for organic farming systems to reduce reliance on synthetic pesticides and the use of crop-free strips of land along surface water with wild herbs that provide a habitat for beneficial insects and/or natural enemies of harmful insects. Providing nesting boxes for beneficial birds is also mentioned. Germany reports that research programmes to help crops develop resistance to various pests and diseases are underway. In France the Government supports conversion to organic farming and

¹ Norway reported that they have no specific legislation on ICM/IPM as this is taken forward through a series of voluntary measures backed up by statutory and non-statutory codes of practice. General legislation on pesticides is however in place which requires compliance with requirements for approved labels and that uses of pesticides must be such that they cause least possible risk of adverse effects for environment and human health.

replacement of chemical weeding by thermal weeding, and in Belgium the build-up of natural populations of beneficial insects is encouraged.

3.2 Mechanical controls

Contracting Parties reporting mention research on improved mechanical treatment of weeds and the provision of advice to farmers to prepare, calibrate and maintain pesticide spraying equipment correctly, so that it is ready to use safely in order to prevent damage to the environment and wildlife. Regular inspection of sprayers is also used in some countries. Use of mechanical as opposed to chemical weeding is also encouraged.

3.3 Biological controls

Contracting Parties report that biological controls are encouraged and are widely used. In the Netherlands biological control is applied on a considerable scale mainly in glasshouses, and on a minor scale in fruit culture. The UK has adopted a system of reducing the charge for applications of biological controls as plant protection products which has been helpful to the horticultural industry. UK mentions a significant £1.5 million Research and Development programme looking at alternatives to chemical control. Germany reports that bacteria pathogenic to pests are used in fruit, vegetable and wine production, and that insect pheromones in traps are used. Several countries support conversion to organic farming.

3.4 Advice on when to use a pesticide

Several Contracting Parties promote services to help farmers become more aware of which weather conditions are best for spraying, and when particular pests are best targeted. In the UK, a text messaging system and web-based reports have been introduced to help farmers make better decisions in this area..

3.5 Pesticide use

Contracting Parties mention advice, publications and demonstration programmes which help farmers to choose the right dose of a pesticide for a particular need and application. Some impose restrictions regarding when and how spraying can take place (e.g from aircraft), and particular distances which must be respected when spraying near water. In the UK farmers and growers are encouraged to consider the preparation of Crop Protection Management Plans to ensure that plant protection products are used efficiently and effectively. In Belgium, Spain and Finland, farmers are obliged to comply with the dose instructions mentioned on pesticide labels. France has introduced taxes on pesticides related to their toxicity.

3.6 Use of technology transfer

The Netherlands report that the link between the research and farming world is strong with developments finding their way to agricultural vocational training and practice. Increasing productivity is a major driver. Several Contracting Parties mention either voluntary or compulsory training programmes on integrated control methods and user safety and the use of both publications and demonstration farms to show farmers what new methods and technologies can achieve. The development of computer-assisted expert systems is also reported.

3.7 Surveys of uptake of ICM by farmers

France, Belgium and Spain have carried out surveys on the uptake of ICM by farmers. The Netherlands are planning a survey to assess the implementation of the Covenant on Sustainable Crop protection in 2006, and Finland is considering a future initiative as part of its national action plan

4. Assessment

Only 8 Contracting Parties have provided implementation reports on this measure, and therefore the picture of the application of Best Environmental Practice (BEP) for the Reduction of Inputs of Agricultural Pesticides to the Environment through the Use of Integrated Crop Management Techniques is not totally representative of the Convention Area.

However, the reports received are generally of good quality and show that each country is actively implementing the measure through a wide range of initiatives designed to promote integrated crop management.

The application of the integrated crop management techniques described by Contracting Parties is expected to reduce considerably the amount of toxic, persistent and bioaccumulating pesticides which could adversely affect the marine environment.

In view of the fact that the Contracting Parties who have reported appear to have broadly implemented Recommendation 2000/1, it is recommended that it would not be necessary for them to report again on this measure.

OSPAR 2007 agreed that those Contracting Parties who had reported may cease implementation reporting in future. OSPAR invited Denmark, Ireland, Luxembourg, Portugal and Switzerland to submit implementation reports by 30 September 2007 and the UK to update this overview assessment by HSC 2008.

Annex 1: Individual implementation reports on OSPAR Recommendation 2000/1

Appendix 1: The Netherlands (October 2005)

I. Implementation Report on Compliance

Country	Netherlands		
Reservation applies	NO		
Is measure applicable in your country	YES		
Means of Implementation:	Legislation	Administrative Action	Negotiated Agreement
	NO	YES	YES

Please provide brief details on such means.

The current basis for crop protection policy is the recently adopted national policy document 'Nota Duurzame Gewasbescherming' ('Sustainable Crop Protection'). The basic philosophy is the stimulation of integrated crop protection. Much of the contents of earlier policies have been incorporated, but new, quantitative targets have been agreed upon, and the partners of the 'Convenant Gewasbescherming' (Agreement on crop protection), i.e. the agricultural sector and crop protection industry, are now responsible for the implementation of related measures. The effect of the Convenant will be evaluated in 2006.

In the Netherlands no comprehensive BEP-codes have been laid down in a formal way, nor a code of good practice for agricultural production or specific agricultural sectors. However certain components of crop protection practice have been regulated.

Please provide information on:

- a. specific measures taken to give effect to this measure;

In the Netherlands no specific sets of BEP-codes for the behaviour of individual farmers and/or for different agricultural activities have been laid down in a formal way, with the exception of a limited number of general rules for agricultural discharges under the Surface Water Pollution Act.

Pesticide use in agriculture is liable to regulations concerning minimum distance between crops and surface water, spraying devices, etc. Only certified spraying equipment for fields and orchards may be used. Periodically farmers have to take their equipment to a testing-station.

Farmers must have a licence for using plant protection products. The licence is obtained based on formal training concerning, among other things, integrated control methods. (Details see Part B)

Education and advice are used to enhance environmentally conscious behaviour. In the near future only voluntary actions are foreseen.

Both government and farmers organisations provide substantial support to research on ICM. Over the last five years almost all research on crop protection has focused on the development of non-chemical control methods, and to some extent on fine-tuning chemical control in order to reduce emissions and obtain better results.

- b. any special difficulties encountered, such as practical or legal problems, in the implementation of this measure;

The lack of formal status of BEP or a code of good agricultural practice is a handicap in enhancing ICM practice.

Although research produced promising new methods concerning ICM, for many of them cost effectiveness and acceptance by farmers remain crucial problems in applying them in practice. In the difficult economic situation of European farming, most farmers are neither able nor willing to accept any extra cost or risk.

- c. the reasons for not having fully implemented this measure should be spelt out clearly and plans for full implementation should be reported;
- d. if appropriate, progress towards being able to lift the reservation.

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

- (i) Cultural control;

Under temporary programmes, subsidies are provided for keeping crop-free strips of land along surface water with wild herbs that provide a habitat for beneficial insects and/or natural enemies of plague insects.

- (ii) Mechanical control;

Research is being performed aiming at improved mechanical weed combating. Research resources are being provided by the government or farmers associations.

- (iii) Biological control;

Biological control is applied on a considerable scale mainly in glasshouses, and on a minor scale in fruit culture.

- (iv) Advice on when to use a pesticide;

Farmers make use of weather services and related advice provided by private services.

- (v) Pesticide use;

By government decision (Decision on open air crop culture and cattle farming) certain restrictions are imposed on pesticide application, with respect to spraying distances from surface water and aircraft spraying.

- (vi) Use of technology transfer;

Agricultural research has a long history in the Netherlands, which resulted in a strong tradition of innovation. The link between the research and farming world is strong, developments finding their way to agricultural vocational training and practice. Farmers associations and the ministry provide transfer of novel methods to individual farmers. Understandably the aim of increasing productivity usually prevails. More focus on integrated crop management has grown but putting it in practice is still hampered by the economical constraints mentioned in Part A.

Since 1996 farmers must have a licence for using plant protection products. The licence is obtained based on formal training and is valid for five years. If the license holder attends a pre-set number of training events during these five years he may apply for a licence renewal without passing a new exam. Training focuses on integrated control methods, on user safety and on the avoidance of environmental effects of use

- (vii) Surveys of uptake of ICM by farmers.

Such a survey will be part of the evaluation of the implementation of the "Covenant on Sustainable Crop protection" planned for 2006, which will be performed with the co-operation of the signatories of the Covenant.

Appendix 2: Sweden

I. Implementation Report on Compliance

Country	Sweden		
Reservation applies	No		
Is measure applicable in your country	YES		
Means of Implementation:	Legislation	Administrative Action	Negotiated Agreement
	YES	YES	NO

Please provide brief details on such means.

Legislation: Environmental Code (Swedish Code of Statutes, 1998:808), Pesticides Ordinance (Swedish Code of Statutes, 1998:947), Swedish Environmental Protection Agency's Regulation 1997:2 about handling of pesticides.

Please provide information on:

- a. specific measures taken to give effect to this measure;

The Swedish programme (from 1987-) has the aim of reducing the risks to human health and the environment from the use of pesticides in agriculture and horticulture. The programme comprises the following measures: changeover to pesticides with less risk, regulation of the handling of pesticides, training and information in safer handling of pesticides and control of pesticide residues in food and water.

Sweden's existing GAP (Good Agricultural Practices) according to the definition in the "Environmental and Rural Development Plan for Sweden 2000-2006" also covers the aspects of environmental management of agriculture. Very much of what Sweden defines as good environmental practice of agriculture is regulated in the existing legislation.

The Swedish farmers' association and several companies have developed different codes of GEP (codes of Good Environmental Practice). These codes are generally more specific and related to different kinds of farming systems.

An information campaign called "Safe Pesticide Use" was launched in 1997 on the initiative of the farmers' organisation. The decision-taking authorities – The National Chemicals Inspectorate, Swedish Environmental Protection Agency, Swedish Board of Agriculture and Swedish Work Environment Authority all take part in the information campaign.

- b. any special difficulties encountered, such as practical or legal problems, in the implementation of this measure;
- c. the reasons for not having fully implemented this measure should be spelt out clearly and plans for full implementation should be reported;
- d. if appropriate, progress towards being able to lift the reservation.

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

One of the essential parts of the Swedish pesticide programme is weed and pest control with doses adjusted to the need. Among the aspects taken into account are the possibilities of alternative methods. Sweden has five regional plant protection centres to promote integrated crop protection with chemical control adjusted to need. They work on pest prognoses and early warning services, strategies to combat pests, reports, development and some experimental work. An advanced information system has been established with target groups including advisory officers in state, private and commercial organisations. The Swedish Environmental Programme (in accordance with the regulation 207//92/EEC) includes different measures such as environmental aid and training for farmers to help them fulfil the criteria of the environmental aid.

As a part of the Swedish Environmental Programme the Swedish Board of Agriculture has in various ways initiated and given support to the advisory service in the different counties. Demonstration experiments, field courses etc. have been important elements in focusing on the possibilities of reducing dose rates, which farmers have adopted. The ideas have been easy to implement, mainly because it is economically beneficial to the farmers. During recent years information about new technology, environmental and personal protection, and flora and fauna, has also been important.

The Swedish Board of Agriculture also has some regional expert personnel to promote organic farming and as a part of that inform and give advise of cultural, mechanical and biological controls of weed and pests.

There are no surveys made only on the uptake of ICM practices and techniques. The National Chemicals Inspectorate present annually numbers of how much pesticides have been sold and for what purpose (i.e. industry, agriculture, forestry).

- (i) cultural controls;
- (ii) mechanical controls;

One of the essential parts of the Swedish pesticide programme is weed and pest control with doses adjusted to the need. Among the aspects taken into account are the possibilities of alternative methods. Sweden has five regional plant protection centres to promote integrated crop protection with chemical control adjusted to need. As a part of the Swedish Environmental Programme the Swedish Board of Agriculture has in various ways initiated and given support to the advisory service in the different counties. Demonstration experiments, field courses etc. have been important elements in focusing on the possibilities of reducing dose rates, which farmers have adopted.

- (iii) biological controls;

The Swedish Board of Agriculture also has some regional expert personnel to promote organic farming and as a part of that inform and give advise of cultural, mechanical and biological controls of weed and pests.

- (iv) advice on when to use a pesticide;
- (v) pesticide use;

The National Chemicals Inspectorate present annually numbers of how much pesticide has been sold and for what purpose (i.e. industry, agriculture, forestry).

- (vi) use of technology transfer;
- (vii) surveys of uptake of ICM by farmers.

There are no surveys made only on the uptake of ICM practices and techniques. The National Chemicals Inspectorate present annually numbers of how much pesticides have been sold and for what purpose (i.e. industry, agriculture, forestry).

Appendix 3: United Kingdom

I. Implementation Report on Compliance

Country

Reservation applies

Is measure applicable in your country

Means of Implementation:	Legislation	Administrative Action	Negotiated Agreement
	YES / NO*	YES / NO*	YES / NO*

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

- (i) cultural controls;
- (ii) mechanical controls;
- (iii) biological controls;
- (iv) advice on when to use a pesticide;
- (v) pesticide use;
- (vi) use of technology transfer;
- (vii) surveys of uptake of ICM by farmers.

The UK promotes the control of pesticides by farmers using integrated Farm Management Practices through a number of relevant codes of practice and publications. Some key ones are listed below.

(i) cultural controls

(ii) mechanical controls

Is your sprayer fit for work?

Advice from Defra's Pesticides Safety Directorate on how to prepare, calibrate and maintain pesticide spraying equipment correctly, so that it is ready to use safely in order to prevent damage to the environment and wildlife.

Code of practice for the safe use of pesticides on farms and holdings

A new edition of what is known as the "Green Code", jointly prepared by MAFF, the Health and Safety Commission, and the Department of the Environment, Transport and the Regions.

Code of practice for suppliers of pesticides to agriculture, horticulture and forestry

A new edition of what is known as the "yellow code", including new sections on the decontamination of stores, and on best practice for the transportation of pesticides.

Appendix 4: Germany

I. Implementation Report on Compliance

Country

Reservation applies

Is measure applicable in your country

Means of Implementation:	Legislation	Administrative Action	Negotiated Agreement
	YES	YES	YES

Please provide brief details on such means.

In the Federal Republic of Germany, integrated crop management techniques, especially integrated plant protection was embodied in law as a basic strategy through the Plant Protection Act of 1986. The aims of this plant protection policy are:

- *to practise the authorization of plant protection products on a high level;*
- *to orientate the range of active substances (in the authorization procedure) to the latest scientific knowledge through new assessments at regular intervals in each case - this also includes taking the non-active substances into consideration*
- *to ensure that plant protection is carried out in observance of the use instructions of the products as stated in the authorization and only according to good professional practice.*

Good professional practice means that the principles of integrated plant protection (IPP) are observed. IPP means a combination of procedures which restrict the use of chemical plant protection products to the extent necessary with priority regard to biological, biotechnical and plant breeding measures as well as measures relating to cultivation techniques.

Article 6 of the Plant Protection Act stipulates that plant protection products may only be used according to good professional practice. This includes the observation of the principles of integrated plant protection. Plant protection products may not be used in cases where the user must expect that their use shall have harmful impact on the health of man or animals or on groundwater or any other major harmful impact, particularly with regard to the natural balance. Integrated plant protection is a combination of methods in which, with particular attention being paid to biological, biotechnical, plant-breeding and cultivation-related measures, the use of chemical plant protection substances is limited to the essential minimum. Thus, non-chemical plant protection measures are favoured, putting chemical plant protection measures at the end of a chain of preventative and non-chemical protective measures. Integrated plant protection is one of the most important methods of reducing and avoiding risks through plant protection products which might remain despite authorization. The further development and the widespread implementation of integrated plant protection have a high priority in the Federal Republic of Germany.

The restriction to the extent necessary is supported by:

- *measures at the preceding stage (quarantine provisions, healthy propagation material)*
- *a special duty of care for use in a particular case (ban on use if harmful effects must be expected on human and animal health or on the groundwater or other substantial harmful effects, especially on the natural balance),*
- *the restriction in principle of plant protection product use to production areas provided that plant protection products are to be used on areas outdoors,*
- *the strict ban on use of plant protection products in or directly alongside surface waters and coastal waters.*

To accompany and safeguard these objectives

- *plant protection products may only be used in enterprises of farming, including horticulture and*

forestry, if the user has special knowledge. The actual restriction to the extent necessary is directly dependent on the level of education and knowledge of users,

- by using plant protection equipment of high quality,
- through regulations concerning the use of plant protection products, such as purchase of very toxic or toxic products, transport, storage and removal of residues of plant protection products or empty packages,
- by strengthening the development of non-chemical plant protection alternatives through research and model projects for application in practice.

The authorization and marketing of plant protection products in the Federal Republic of Germany are subject to very strict guidelines. Products have to be authorized by the Federal Biological Research Centre for Agriculture and Forestry (German initials, BBA). In matters of health, permission must be obtained from the Federal Institute of Consumer Protection in Health Care and Veterinary Medicine. The Federal Environment Agency is responsible for granting permission under the aspects of prevention of the pollution of water and air and the prevention of contamination of refuse. Moreover, prior to the authorization of a plant protection product, a hearing must be held by an expert committee.

Authorization of a plant protection product may only be granted if, among other things, examination of the plant protection product shows that the plant protection product is sufficiently effective (in the light of scientific knowledge and technique) and does not have any harmful impact on human and animal health or on groundwater, and does not have any other impact, particularly with regard to the natural balance, which in the light of the present state of scientific knowledge is not justifiable. The criteria used by the BBA to test whether the plant protection product fulfils authorization requirements are determined according to BBA directives which encompass internationally recognised directives of the FAO, OECD, and WHO.

IPP as one of the most important components of ICM is promoted and realised through a large number of programs and activities of the Federal Government, the Laender (Federal States) and other organisations. In addition, there is also an initiative by various cultivation organisations (e.g. fruit, vegetables, wine, hops) which have the implementation of integrated plant protection procedures checked voluntarily.

Please provide information on:

- a. specific measures taken to give effect to this measure;

To promote IPP, beginning in the year 2002, the Federal Ministry for Food, Agriculture and Consumer Protection (BMELV) initiated the development of the "Program on the Reduction of Chemical Plant Protection". The programs' development was embedded in a comprehensive process of participation and cooperation of all social, scientific, governmental and economic interest groups and stakeholders. The "Program on the Reduction of Chemical Plant Protection" was published in 2005. It will entail a number of measures to be taken in the years to come. From 2006 on, with the introduction of the EU-Cross Compliance regulations the use of chemical plant protection products (CPPP) will be controlled more strictly. The program will give assistance to farmers and agricultural extension services. The aim of the new program is to reduce stricter than before the application of CPPP to the necessary extent and to promote the application of non-chemical plant protection measures. The program consists of 19 components.

- b. any special difficulties encountered, such as practical or legal problems, in the implementation of this measure;

The difficulties encountered in the implementation of IPP as described in the above mentioned program are more of a practical than of legal character concerning the inspection of the application of IPP. This is due to the lack of transparent criteria of IPP which can be scrutinized by the controllers. The responsibility for controlling the application of CPPP in the Federal Republic of Germany is in the responsibility of the Laender. There also is an evident lack of inspectors due to the shortages in public households of the Laender.

- c. the reasons for not having fully implemented this measure should be spelt out clearly and plans for full implementation should be reported;

The application of methods of the IPP and ICM instead of using CPPP might bring in some cases economic disadvantages to the farmers, which are not yet compensated. There is also a need to develop the methods of ICM (as forecast systems and especially resistance breeding) as well as to develop the extension and education of the farmers to a higher level of competence with regard to ICM.

With the under a) mentioned program the necessary steps to improve the situation is clearly planned and described (see under www.bba.de).

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

- (i) cultural controls;
- (ii) mechanical controls;
- (iii) biological controls;
- (iv) advice on when to use a pesticide;
- (v) pesticide use;
- (vi) use of technology transfer;
- (vii) surveys of uptake of ICM by farmers.

Examples of Laender-programmes:

Reduction of the use of chemical plant protection products:

This is monitored by the competent authorities of the Laender

- *Regular technical inspection of field sprayers:*
Inspection of field sprayers is carried out every two years by officially authorized service stations. The inspections are monitored and controlled by the local plant protection authorities.
- *Prohibition of application of plant protection products in surface waters and coastal waters or in the immediate vicinity of such waters: The reduction of contamination of waters is monitored by the competent authorities of the Laender.*
- *Development and use of methods for forecasting of harmful organisms:*
Assistance is provided by the local plant protection services involved. The application of the relevant methods is enforced by the responsible authorities of the Laender.

During recent years, particular activities have been undertaken by the research institutions of the Federal Government together with those of the Laender in the following fields:

Resistance breeding: Resistance breeding is concentrated primarily on economically important pathogens, viruses, bacteria and fungi. Success has been achieved in the producing of plant varieties showing multiple resistances. Resistance research is a particular focal point in the Federal Republic of Germany. For the breeding of new varieties with the desired characteristics, methods of traditional cultivation as well as gene technology are currently being applied.

Diagnosis, Damage thresholds and Forecast systems are used to predict as accurately as possible, at short notice, the course of the epidemic, the level of damage and primarily the economic necessity of disease control. At present, in Germany damage thresholds and control values for numerous harmful organisms exist, particularly for weeds in farming, fruit growing and horticulture.

Conservation and promotion of beneficial organisms: Within the structural development programmes as well as the agri-environmental programmes (second pillar of the Common Agricultural Policy - CAP) particular attention is paid to the positive aspects of beneficial organisms. Other examples are the installation of protective, nesting and breeding places, the building of perches for predatory birds and other ecologically oriented governmental measures.

*Biological control methods: In Germany, several preparations containing the bacterium *Bacillus thuringiensis* (Bt), which is pathogenic on insects, are sold. Bt preparations are especially used in fruit, vegetable and wine growing to combat phytophagous larvae of butterflies, as well as to combat the larvae of the Colorado beetle in potatoes.*

The use of insect pheromones in special traps is also common. In viticulture, substances are used in the so-called "confusion method" which interferes with the larval development and thus effectively controls the larvae of certain harmful butterflies. Financial support and further research activities have proven necessary in biological plant protection and are therefore sponsored by the Federal Government, the Laender Governments especially under the new Risk Reduction Program) and by private organisations.

Duty of care of the user: Some important aspects of duty of care required of the user are, besides observing the use instructions (storage, handling, transport, taking into account special risks to humans, animals,

groundwater and the natural balance on his farm and avoiding drift.

Plant protection equipment testing: The passing of examinations by plant protection equipment in use in large crop areas is to be indicated by an examination seal, on which the date on which the equipment is due for its next inspection must be given. Testing takes place every two years.

Monitoring of legal regulations on plant protection

In Germany, the monitoring of the observance of the Plant Protection Act and of the relevant legal regulations is in the responsibility of the competent Laender authorities.

Research and development

Research is conducted both by the plant protection industry as well as by governmental organisations. Besides research into the effects of the use of certain plant protection products on humans, animals and the natural balance, the investigation of non-chemical procedures and further procedures of integrated plant protection receive particular attention in Germany. These particularly include the following procedures:

- Biological plant protection;
- Conservation and promotion of beneficial organisms;
- Mechanical and physical procedures for weed control;
- Biotechnical procedures for the control of harmful organisms and for monitoring;
- Development of decision aids for a well-aimed and timely use of plant protection products;
- Diagnosis and Forecast systems;
- Control thresholds;
- Development of computer-assisted regression and simulations on the basis of weather information;
- Development of computer-assisted expert systems.

Information, expert knowledge, and further training: A great number of training programs (e.g. winter training courses in plant protection), events and meetings contribute to the further education of the user, also with regard to the chance of integrated plant protection. In the Federal Republic, the Federal Government and the Laender have created special facilities which process and publish this knowledge. The plant protection services of the Laender contribute to the introduction of innovative strategies such as integrated plant protection into practice.

Appendix 5: Belgium

PLEASE NOTE THAT THE FOLLOWING INFORMATION DOES NOT INCLUDE A CONTRIBUTION FROM THE WALLOON REGION. ADDITIONAL INFORMATION WILL BE SUBMITTED TO THE SECRETARIAT AS IT BECOMES AVAILABLE.

I. Implementation Report on Compliance

Country	Belgium		
Reservation applies	YES/ NO		
Is measure applicable in your country	YES / NO		
Means of Implementation:	Legislation	Administrative Action	Negotiated Agreement
	YES / NO	YES / NO	YES / NO

Please provide brief details on such means.

Legislation:

Elements of the Recommendation are addressed by the National Reduction Plan on the use of agricultural pesticides and biocides, which is process of implementation, and the of to the first reduction program of agricultural pesticides and biocides (Royal Decree of 22 February 2005) of which 2006 is the year of the implementation.

The Decree of 1 April 2004 related to the pesticides use restriction by the managers of green public areas establishes measures in the Brussels-Capital Region (MB 26/04/2004).

The Flemish government passed several pieces of legislation relevant to the use of Best Environmental Practice for the Reduction of Inputs of Agricultural Pesticides to the Environment through the Use of Integrated Crop Management Techniques, which are listed here below. They mainly relate to the use of integrated production techniques in fruit crops and mechanical weed control techniques.

- besluit van de Vlaamse Regering van 26 maart 2004 tot erkenning van de geïntegreerde productiemethode voor pitfruit en van de producenten die volgens deze methode telen (vervangt het koninklijk besluit van 22 januari 1996 tot erkenning van de geïntegreerde productiemethode voor pitfruit en van de producenten die volgens deze methode telen, zoals gewijzigd door het koninklijk besluit van 19 december 2001), Belgisch Staatsblad van 10 juni 2004;
- ministerieel besluit van 13 februari 2003 tot vaststelling van het lastenboek en het veldboek betreffende de geïntegreerde productiemethode van pitfruit (Belgisch Staatsblad van 7 maart 2003), zoals gewijzigd door het ministerieel besluit van 17 september 2004 (Belgisch Staatsblad van 15 oktober 2006);
- ministerieel besluit van 3 oktober 2003 betreffende de toekenning van subsidies voor het toepassen van de geïntegreerde productiemethode voor pitfruit met toepassing van het Vlaams Programma voor Plattelandsontwikkeling, Belgisch Staatsblad van 23 oktober 2003; (vervangt ministerieel besluit van 7 april 1999 houdende de invoering van een steunregeling voor agrarische bedrijfshoofden die zich ertoe verbinden om de geïntegreerde productiemethode voor pitfruit in te voeren of toe te passen gewijzigd bij het ministerieel besluit van 21 december 2001);
- ministerieel besluit van 19 december 2003 betreffende de toekenning van subsidies voor mechanische onkruidbestrijding met toepassing van het Vlaams Programma voor Plattelandsontwikkeling, Belgisch Staatsblad van 24 februari 2004 (vervangt het ministerieel besluit van 18 mei 2001).

Administrative action

The Flemish government also introduced several measures on the administrative level, relevant for the Recommendation, which are listed here below. They mainly relate to the development of a Code of Good Practices in Agriculture, regarding the use of pesticides (of which a revised version was published in 2006), to the development of communication and cooperation schemes and to the support of various communication projects, amongst which projects for the promotion of the reduction of the use of pesticides.

- *Uitwerking in 1999 van de Code van goede landbouwpraktijken Bestrijdingsmiddelen (CGLB). Deze code werd in 2000 herwerkt en heruitgegeven. In 2006 wordt de code opnieuw herwerkt en heruitgegeven. Naast informatie over meer algemene maatregelen voor een verminderd en verantwoord gebruik van bestrijdingsmiddelen is in deze code uitgebreide informatie terug te vinden voor de volgende teelten: maïs, grasland, aardappelen, granen, suikerbieten, fruitteelt, aardbeienteelt, groententeelt en sierteelt;*
- *ondersteunen van systemen van “waarnemen en waarschuwen” voor de volgende teelten: fruit, suikerbiet, chicorei, aardappel, graan, spruitkool, witloof, hop en boomkwekerij;*
- *jaarlijkse betoelaging demonstratieprojecten waaronder verschillende projecten die een verminderd gebruik van gewasbeschermingsmiddelen nastreven.*

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

In the Brussels-Capital Region (i) to (vi) are addressed by the Decree of 1 April 2004 related to the pesticides use restriction by the managers of green public areas in the Brussels-Capital Region (MB 26/04/2004). There are only a few farmers in the Brussels-Capital Region. New measures will be applied with the Plan.

The National Reduction Plan on the use of agricultural pesticides and biocides, of which implementation is in progress, addresses elements under (i) to (vii).

- (i) cultural controls;

The Flemish Region developed measures taken regarding the integrated fruit cultivation.

*On the national level the build-up of natural populations of beneficial insects is encouraged: the registration process of pesticides includes the evaluation of the impact on beneficial arthropods, such as *Aphidius*, *Typhlodromus*. Pesticides having a negative impact of more than 30% on the beneficial capacity of these arthropods are not authorized.*

- (ii) mechanical controls;

The Flemish Region supports the use of mechanical weed control techniques.

- (iii) biological controls;

- (iv) advice on when to use a pesticide;

The development of communication and cooperation schemes is promoted by the Flemish Region.

On the national level, where a forecasting system for a certain disease has been established, it is indicated in the authorisations of the pesticides that can be used against that disease (and therefore on the label of that pesticide), that the product can only be used following a warning issued by the forecasting.

- (v) pesticide use;

Choosing the right product: for crops for which a legal framework for ICM has been established, only products that are fully compatible with ICM will be authorised for use in these crops.

Using the minimum effective dose: the applicant for an authorisation has to demonstrate with experiments that the dose he applies for is the minimum effective dose. This dose is laid down in the authorisation and has to be mentioned on the label of the pesticide. The maximum number of treatments is also laid down. It is an infringement to use a higher dose than the one on the label or to use the product more frequently than prescribed; it is possible to use a lower dose, but this does not entitle the user to increase the treatment frequency.

Timing the application correctly: where relevant, the correct timing is laid down in the registration and has to be mentioned on the label of the pesticide. Compliance with this timing is mandatory. Generally, the timing is defined through the crop stage (for instance: during tilling); in some cases the stage of the harmful organism is also laid down (for instance: treat during larval stage).

Improved spraying techniques such as the development of low drift spray equipment: where necessary, only the use of low drift spray equipment is authorised for certain uses. Again, this information has to be mentioned on the label and compliance is mandatory. Generally, this measure is taken in order to protect water organisms.

Observing the specific need to protect watercourses: the evaluation of the exposure of water organisms is part of the evaluation procedure. Where necessary, a no-spray buffer zone is established along water bodies. The width of the buffer zone is established during the evaluation and has to be mentioned on the label. Compliance is mandatory. These buffer zones can be combined with the mandatory use of low drift spray equipment.

(vi) use of technology transfer;

The Flemish Region supports various communication projects

(vii) surveys of uptake of ICM by farmers.

Number of applications for support in the integrated production techniques of fruit crops and the monitoring of the use of pesticides in surface waters are monitored by the Flemish Region.

Appendix 6: Finland

I. Implementation Report on Compliance

Country

Reservation applies

Is measure applicable in your country

Means of Implementation:	Legislation	Administrative Action	Negotiated Agreement
	YES	YES	YES

Please provide brief details on such means.

Legislative: Pesticides Act and Decree lay down the principles and basic rules for proper use of PPP. The national legislation is under development currently: proposal for the new PPP Act was given to the Finnish Parliament in September 2006.

Administrative action: Decisions of the Pesticides Board: approvals of PPPs contain restrictions of use from environmental reasons, e.g. required buffer zones along water courses or restrictions of use in ground water protection areas.

Agri-Environmental Programme for the years 2006-2010 has been set to reduce agricultural load to the environment, increase biodiversity, and promote the quality of agricultural landscape. Joining the programme is voluntary for farmers, but if it is adopted, several criteria have to be fulfilled, including a farm environment management plan, fertilizing base levels, inspection of pesticide spraying equipments, buffer strips on fields, maintaining adequate plant cover, and landscape preservation. The Ministry of Agriculture and Forestry together with the Ministry of the Environment is responsible for formulating the programme. Ca. 95 % of farmers join the Agri-Environmental Programme.

Negotiated agreements: Voluntary agreements among certain producers and food industry, e.g. Quality Assurance Programs in farm scale.

Please provide information on:

a. specific measures taken to give effect to this measure;
Controls of fulfilling the conditions of agri-environmental support in farm scale, e.g. following the environmental use restrictions of PPPs used, record keeping of pesticide applications, participation in training courses, certified spraying equipments.

b. any special difficulties encountered, such as practical or legal problems, in the implementation of this measure;

ICM programs are under development but are only used in practice on a few crops yet. The work is ongoing in Agricultural Research Centre MTT currently, but needs still lots of research in Finnish conditions. Implementing the ICM recommendations for all commonly grown crops need also a lot of advisory efforts until they are largely followed in practice in farm scale.

c. the reasons for not having fully implemented this measure should be spelt out clearly and plans for full implementation should be reported;

d. if appropriate, progress towards being able to lift the reservation.

c + d. More research and training is needed considering a wide range of crops. The work should be continued. It is foreseen that the reservation may be lifted in future when the thematic strategy and the framework directive of sustainable use of pesticides will be adopted within EU and the measures are fully implemented into the Finnish legislation. This is an area which certainly needs to be considered when the National Action Plan has to be developed according to the draft framework directive. According to it the deadline for implementing the IPM standards within EU would be by year 2014.

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

(i) cultural controls;

(ii) mechanical controls;

(i) and (ii): Agricultural Research Centre MTT currently develops ICM guidelines for different crops. Most progress has been made with cultivation of apples and berries by now, but other crops are also under development. The agricultural advisory organisations tightly cooperate with the researchers in order to get the recommendations in practical use among the farmers as soon as possible.

(iii) biological controls;

Some biological PPPs are on the market for certain crops and their use is recommended by the advisors. The use restrictions needed for protecting the environment, if any, are slighter for these products than for the chemical alternatives.

(iv) advice on when to use a pesticide;

Practical guidance documents of Good Agricultural Practices have been published for different crops, and the farmers are obliged to purchase these documents as a part of requirements of Agri-Environmental Support Program. The advisory organisations also organise training for the farmers on proper pesticide use, and participation in the training course is obligatory at least once during the Support Program period.

(v) pesticide use;

As conditions of approval of PPPs may be set restrictions of use, and are put in the label and must be followed obligatorily. Record keeping on sprayings on each separate field parcel must be maintained on farms for at least three years and are controlled as a part of the Agri-Environmental Support Program.

(vi) use of technology transfer;

Testing and certification of the spraying equipments is obligatory as a condition of the Agri-Environmental Support Program.

(vii) surveys of uptake of ICM by farmers.

No surveys on uptake of ICM have been performed yet, but are considered in future as a possible part of National Action Plan to be implemented according to the draft EU framework directive of sustainable use of pesticides.

Finnish Environment Institute yearly calculates the Environmental Risk Indicator of PPPs, which is based on the yearly sales amount of plant protection products and is published in Ympäristö, vol. 6/2006 (publication of Finnish Ministry of the Environment and Finnish Environment Institute, ISSN 1237-0711, www.ymparisto.fi/ymparistolehti). The sales amount of PPPs has not decreased in recent years, and a slight increase of environmental risks was found in 2005. The yearly sales statistics of PPPs in Finland are published at www.evira.fi.

Appendix 7: France

I. Implementation Report on Compliance

Country

Reservation applies

Is measure applicable in your country

Means of Implementation:	Legislation	Administrative action	Negotiated agreement
	YES / NO	YES / NO	YES / NO

Please provide brief details on such means.

Legislative and administrative action:

The actual legislative and reglementary device imposes result objectives, and not means objectives.

It particularly defines environmental quality standards (possibility to define quality standards and restoration measures by the way of decret – L. 211-2 of the Environmental Legislation).

It however imposes rules about marketing and use of pesticides :

- *Ban of using non authorized products (Rural Legislation, L251-8, L253-1 to L 253-17, and R253-1 to R253-84);*
- *Imposed standards for good spraying techniques of pesticides (Interministerial decree, 06.09.12).*

Negotiated agreement (encouraging measures):

There are two types of encouraging measures:

- *Contractual economic incentives : agricultural – environmental measures (AEM), implemented in the “National Rural Development Plan” (NRDP) ; financial subsidies of the Local communities or the “Water agencies”,*
- *Information assured, as far as public action is concerned, by government administration (distribution of the bulletin “Avertissements agricoles” by the regional Government administration in charge of crop protection ; coordination of local actions through the “Regional groups for pesticide action”).*

These measures are detailed in the part II (Implementing rapport).

Please provide information on:

- a. specific measures taken to give effect to this measure;

Economic incentives and associated controls.

- b. any special difficulties encountered, such as practical or legal problems, in the implementation of this measure;

- From a technical point of view: there remain many deficiencies concerning the existence of alternative techniques for chemical pest control (particularly for fungicides, but also for herbicides and insecticides), the technical mastery of the farmers is still a limiting factor, the mastery of integrated pest management requiring greater technical skills. Training at all levels (shop assistants, advisors, farmers, Territorial communities...) is consequently a key point in the evolution of the farming practices).

- From an economical point of view: the context in which the farmers are working, essentially determined by the Common Agricultural Policy (CAP), remains in favour of an intensification of the production systems, and therefore of an increasing use of pesticides.

- From a cultural and communication point of view: the changes of farming practices are dependant on an innovation dynamic force. There are still few collective actions for these changes. The confusion between the

notions of pest management or farming “integrated” and “reasoned” induced a muddled message in favour of a less consuming pesticides agriculture.

c. the reasons for not having fully implemented this measure should be spelt out clearly and plans for full implementation should be reported.

The present measure is completely applied, in spite of difficulties, as seen in b.

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

The following description summarizes the measures which have been implemented until 2006, and gives a point of view about the provided clauses for the 2007-2013 period. It only concerns the action led especially by the Government administration, without considering the action – very important -, led by the professional farming structures.

⇒ Concerning the realised actions until the present period (2006):

The provided measures are described within three action frameworks:

➤ *legislative and administrative actions;*

➤ *Economic incentives:*

● *Mobilization of European financing tools, in the National Rural Development Program (NRDP 2000 – 2006): agricultural - environmental measures (AEM) implemented within “Territorial Farming Contracts”, then “Sustainable Farming Contracts”. These agricultural-environmental measures have been financed in association with the Ministry of Agriculture. In the following description, they are in the NRDP numerical classification system;*

● *Qualification device of the farms on reasoned farming, put in place in 2004. The national part of the reference document, on which is based that qualification system, includes 18 demands, for a total of 98, which especially concern the pesticides. The approved regional parts of the reference documents concern the pesticides in four regions. The encouraging character of this device is based on the qualification of the farms, which is supposed to ensure a higher value of the production. Moreover, the Ministry of Agriculture has decided a subsidy of 1000 euros for each qualified farm for the reasoned farming;*

➤ *Other initiatives: It particularly concerns actions of communication:*

- *“Avertissements agricoles” bulletin : distribution by the way of subscription, of an information and advice bulletin in the ground of the crop protection, managed by the Ministry of Agriculture (Regional administration for the Crop Protection), used by the professionals in or out of the farming domain (farming advisors and farmers, territorial communities);*

- *“Regional groups for pesticide action” : regional networks driven by the Ministries of Ecology and Agriculture, gathering regional departments, Water Agencies, research establishments (Cemagref...), and different partners concerned by the “pesticides pollution” subject. They are responsible for regional leading, for territorial diagnosis (especially at the spatial level of catchment areas), management of sensibilisation actions, organisation of coordinated actions for development of Integrated Crop Management, for the reduction of pesticides pollutions. Financing for the action of these regional groups are mainly provided by the regional departments of the Government administration in charge of Ecology and Water agencies, within the framework of their 8th intervention programme (2003-2006).*

For example, in 2004, the “regional groups for pesticide actions” have been able to manage monitoring in 108 catchment areas in relation with the North-East Atlantic, including the realisation of a action programme for 55 % of them.

⇒ Concerning planned actions for the 2007-2013 period:

Measures are described at three levels:

- *Legislative and administrative measures.*

- *Economic incentives implemented with the Hexagonal Rural Development Plan (HRDP). The Water Agencies will finance some of the action those listed in the HRDP.*

- *Other actions (research and development, sensibilisation...), in particular of the Interministerial Plan of Pesticides Risks, decided in June 2006.*

II – 1 – Actions implemented until 2006

(i) cultural controls;

Are presented in that group physical methods (thermal weeding, for example) which are not cultural controls, sensu stricto;

➤ *Economic incentives:*

AEM (2000-2006):

Contractualisation between Government administration and farmers for the following measures:

- *0803A: Sowing a grass cover under perennial cultures,*
- *21: Conversion into organic farming;*
- *0808A: Replacement of a chemical weeding with a thermal weeding;*

(ii) mechanical controls;

AEM:

- *0804A: Replacement of a chemical weeding with a mechanical weeding;*

(iii) biological controls;

➤ *Economic incentives*

AEM:

- *0802A: Using the biological controls;*
- *21: Conversion into organic farming.*

➤ *Other actions: Communication – Information;*

- *“Avertissements agricoles” bulletin:*

Diffusion of an information about using biological control methods, and their insertion in a global Integrated Crop Management.

(iv) advice on when to use a pesticide;

➤ *Economic incentives:*

- *AEM: no measure;*
- *Qualification of the farms as such as reasoned farming: demand of the reference document n° 40: “To subscribe to a technical advice, independent of the marketing of pesticides”.*

➤ *Other actions: communication – information:*

- *“Avertissements agricoles” bulletin : it diffuses messages about timing the actions for crop protection, using collection of meteorological and bioclimatical data, monitoring networks for pests observation, and using modelisation of the development dynamic of pests.*

(v) pesticide use;

➤ *Legislative and administrative measures:*

- *Standards about pesticides use (interministerial order of the 06.09.12), in particular:*

- *specific arrangements about limitation of ponctual pollutions (such as: dilution factor imposed for spraying and emptying bottom of tanks on the ground),*
- *use of no-spray zones along the rivers, on a width of 5, 20, or 50 meters (possibly 100 meters or more), according to the use of pesticides, and the presence of vegetal structures along the rivers.*

- *Implementation, since January 2006, of the cross-compliance of the agricultural economic incentives: use of only pesticides with a marketing authorisation, abiding by the reglementary texts imposing standards for pesticides use.*

- Incentives measures:

France has introduced taxes on pesticides² with the objective of reducing the use of pesticides in general.

France has classified all active substances in 7 categories depending on their toxicity/ecotoxicity. Taxes vary from 0 to € 1.67/kg and are part of a larger system of "General taxes of polluting activities", which covers also areas such as waste, atmospheric emissions, detergents, noise from airplanes and lubricants.

➤ Negotiated agreement (encouraging measures).

- AEM:

- 0801A: reasoned protection.

- 0807A: replace atrazine with less polluting products

- 0811A: locate pesticides treatments.

- No treatment with pesticides harmful to plants or birds to be protected, on meadows.

- Qualification of the farms on reasoned farming: demands n°:

29: no chemical weeding on the ditches of the farm,

30: crop monitoring and crop diagnosis, to be interpreted with technical bulletins, before eventual treatments.

33: have a special local for the storage of pesticides.

38: to know the obligatory precautions of use (timing the application correctly, existence of non treated areas), to reduce pollution risks.

➤ Other actions: communication – Information:

- "Avertissements agricoles" bulletin: diffusion of advices, to ensure crop protection with respect of good crop management practices (encouraging the use of crop management practices and production systems reducing the use of pesticides: reasoned chemical protection and use of Integrated Crop Management).

- Conception and implementation by the "Regional Groups for Pesticide Action" of action plans, to reduce the use of intrans and change the protection crop practices.

(vi) use of technology transfer

Demonstration actions organized by the "Regional Groups for Pesticide Action".

(vii) surveys of uptake of ICM by farmers.

- Survey " Farming practices" by Central Department of Surveys and Statistical Studies of the Ministry of Agriculture. It aims to achieve a better point of view about farming practices, for each arable production, at national and regional scales.

Two surveys have been realized in 1994 and 2001. A survey is actually carried out (2006).

Data obtained concern crop protection: nature of pesticides, dates and cultural stages for application of products, quantities sprayed...

II -2 – Planned actions for the 2007-2013 period.

(i) cultural controls;

Planned measures within HRDP:

Installation of vegetal or biodegradable cover on vegetable crops.

(ii) mechanical controls;

AEM engaged on territories where there is a risk of pesticide pollution, including the following unit engagements:

- No chemical weeding,

² Study on the Economic and Environmental Implications of the Use of Environmental Taxes and Charges in the European Union and its Member States. ECOTEC Research&Consulting, Brussels, April 2001
(see : http://europa.eu.int/comm/environment/enveco/taxaction/environmental_taxes.htm)

- No use of chemical pesticide,
- Progressive reduction of the number of treatments with herbicides, till 60 %,

(iii) biological controls;

Planned measures within HRDP:

AEM including the following unit engagements:

- Using the biological controls,
- Creation and maintenance of zones of ecological regulation (encouraging the build-up of natural population of beneficial insects, aiming at achievement a reduction of pesticides using);

(iv) advice on when to use a pesticide;

Planned measures within HRDP: AEM including the following unit engagements:

Training actions "ICM" or "Reasoning for the use of pesticides", obligatory for the contractualisation of territorial AEM, to reduce the impact of the pesticides on water resource;

(v) pesticide use;

↳ *Planned measures within HRDP:*

- "Vegetal Plan for the Environment", permitting to give subsidies for agro-equipments with an recognized environmental impact : equipment for mechanical controls, thermal weeding...).

- *AEM including following unit engagements:*

- Implantation of insert crops during risk periods (limitation of the erosion and of the soil leaching with adsorbed pesticides).
- Annual assessment of strategy for crop protection (reaching control of the previous results, definition by the farmer of a global strategy for crop protection, valuation of the pertinence of choices concerning crop protection and environmental efficiency),
- Progressive reducing of the number of treatments with herbicides, till 60 %
- Progressive reducing of the number of treatments with pesticides , till 40 %

↳ *Legislative and reglementary measures.*

- "Law on water and aquatic environments" (December 2006);

Creation of a tax collected on pesticides sale enterprises, as a substitute for General Tax on Polluting Activities, applied to pesticides. This tax, collected by Water Agencies, will aim at achieving the financing of economic incentives for less polluting practices.

This law decides a reorganisation of the Government departments for the Water Right ("Water policy") in only one departmental service, searching a higher efficacy of the Water Policy, and making easier controls about the use of pesticides.

- *Actions of the 'Interministerial Plan for the Reduction of Risk Pesticides (PRRP):*

- Partnership with non agricultural enterprises using pesticides (Railways administrators, roads administrators, territorials collectivities, ..) or selling pesticides (garden centres...);
- Better formation for the farmers;

(vi) use of technology transfer;

In the PRRP:

- *Inventory of cultural systems using alternative solutions as substitute at the use of pesticides (leaded by the CORPEN);*

- *Research program leaded by INRA and Cemagref, for increasing cultural systems, with a lighter use of pesticides;*

- *Structuring of a network for the acquisition of environmental, technical and economical references about these production systems;*

(vii) surveys of uptake of ICM by farmers;

In the PPRP: engagement of research work leaded by INRA, to define an indicator of the frequent using of pesticides, to observe the realised progress and to estimate progress possibilities.

Appendix 8: Spain

I. Implementation Report on Compliance

Country

Reservation applies

Is measure applicable in your country

Means of Implementation:	Legislation	Administrative Action	Negotiated Agreement
	YES	YES	YES

Please provide brief details on such means.

Main and general use of pesticides with a possible risk for the marine environment are generally applied in agricultural areas, in which applied pesticides can reach the marine environment through two main routes: a) after direct application in flooded agricultural fields located near the sea (i.e., rice crops) and b) transported adsorbed to the soil through run off processes.

*General regulations applicable in this field are the **Royal Decree 2163/1994** that transposes UE Directive 91/414 about pesticides, the **Royal Decree 1054/2002** that transposes UE Directive 98/8 biocidal products, the **Law 43/2002** on Plants Health and the **Royal Decree 1201/2002** regarding "Integrated agricultural production". This law harmonises different regulations with the priority goal of obtaining high quality agricultural products by using agricultural practices which can assure the protection of both, the environment and the consumer health.*

*Voluntary agreements such as those promoted by **ATRIAS** (Associations for integrated treatments in Agriculture). The program ATRIAS has been working in Spain since the eighties with the aim of implementing the Best Environmental Practice for the use of agricultural pesticides giving priority to cultural or biological measures instead of the use of chemical treatments.*

*The Asociación Española de Agricultura Ecológica (SEAE) (**Spanish Society on Ecological Agriculture**), gives information and participates in seminars promoting the use of ecological agricultural practices, avoiding the use of chemical pesticides.*

*The "**Libro Blanco de la Agricultura y el Desarrollo Rural**" ("**Spanish White Paper on Agriculture and Rural Development**") (2003). Published by the Spanish Ministry of Agriculture, Fish and Food), which includes several aspects to be developed with the main goal of getting an agricultural production system friendly with the environment. According to this White Paper the Ministry will develop reference tools to get the objectives:*

- *A Good Agricultural Practices Manual, which will be compulsory to all farmers;*
- *An Strategic Plan on Ecological Agriculture. Among the main measures should be considered, the promotion of production, transformation and processing of agricultural products according to the principles of the ecological agricultural practices.*

This White Paper would include the level of information of these techniques among farmers.

*The **National Implementation Plan on POPs (NIP)**, which is expected to be approved by the Spanish Government during autumn 2006, and has just been developed and agreed by all possible affected actors, includes criteria for the selection of those pesticides with less hazardous properties and lower environmental risk. As a general rule, and whenever possible, the criteria of the NIP gives priority to the use of those methods and techniques that do not imply the use of chemicals.*

Please provide information on:

- a. specific measures taken to give effect to this measure;

The publication of the White Paper on ARD and the NAP.

Some years ago, and specially regarding amenity areas, some municipalities, like Barcelona, have adopted a strategy for an integrated pest control based on the use of natural plant products and avoiding the use of chemical products. In this sense, Professional Schools are developing Technological Norms for the maintenance and conservation of amenity areas.

- b. any special difficulties encountered, such as practical or legal problems, in the implementation of this measure;
- c. the reasons for not having fully implemented this measure should be spelt out clearly and plans for full implementation should be reported;
- d. if appropriate, progress towards being able to lift the reservation.

II. Implementation Report on Application and Effectiveness

Please provide information on the steps taken in your country on the elaboration of BEP for reducing inputs of agricultural pesticides through the use of ICM. Please provide brief details of particular initiatives:

- (i) cultural controls;

ATRIAS programme.

- (ii) mechanical controls;

ATRIAS programme.

- (iii) biological controls;

ATRIAS programme.

- (iv) advice on when to use a pesticide;

The training requirements are established in connection with the use of pesticides. Operators need to have a specific accreditation to manage pesticides.

Pesticides are generally used following the criteria "the minimum necessary amount applied", following the conditions specified in the product authorisation and with the instructions reflected in the label of the product (dosage, necessary interval between applications...etc).

The following issues are also taken into account: the precautionary measures for operators, the access of people and animals to the treated area, means and measures of decontamination and way to clean the equipments and handling of products.

- (v) pesticide use;

Previous answer would fit also here. Moreover within the National Action Plan on POPs. Same as previous point

- (vi) use of technology transfer;

- (vii) surveys of uptake of ICM by farmers.

Regarding olive trees, ATRIAS has promoted and Integrated Production Association (Asociación de Producción Integrada_API) with the final goal of getting a product respectful with the environment at the maximum level. A technician from ATRIAS carries out a weekly monitoring of the olive tree fields, giving information to the farmers on the best time, best environmental practice and, if necessary, appropriate active substance to be applied.

The Spanish Society on Ecological Agriculture, gives seminars and workshops on these topics.

Information can be obtained on different webs-sites, held by the Ministry, Autonomous Governments and several agricultural Associations.