SESSION 2C

NEW EU ENVIRONMENTAL POLICIES: ISSUES FOR PESTICIDES STAKEHOLDERS

Chairman:	Professor Barry Dent *Chair, Voluntary Initiative Steering Group, UK*
Session Organiser:	Kerry Hutchinson *Pesticides Safety Directorate, York, UK*
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EU Strategy on the sustainable use of pesticides

E Liégeois
European Commission – DG ENVIRONMENT – Brussels, Belgium
Email: eric.liegeois@cec.eu.int

ABSTRACT

In the European Union, the regulatory framework concerning Plant Protection Products comprises Directive 91/414/EEC on the placing on the market of plant protection products, and several Directives on residues in food and feedstuffs. These Directives will be revised during 2003, in order to improve their effectiveness in the light of the experience gained over the last years. In fact these regulations focus particularly on the beginning and the end-of-life stages of such products. However, the actual use phase in the life-cycle of plant protection products, which is a central key element for the determination of the risks they pose, is not sufficiently addressed by the existing regulatory framework. On 1st July 2002, the Commission launched a broad consultation of all stakeholders and European Institutions with the adoption of a communication entitled 'Towards a Thematic Strategy on the Sustainable Use of Pesticides'. The results of this broad consultation are hereby presented and commented. The latest developments will be reported during the BCPC Conference as the process is currently ongoing.

INTRODUCTION

Sustainable use of pesticides is not a new concept. It was already addressed in earlier action programmes. Moreover several studies were initiated by Member States, and national action programmes were put in place. Among the most important initiatives the main ones were: studies for the development and evaluation of future strategies for plant protection products, which were guided by a Steering Committee established by the Commission and the Dutch authorities, the 5th Environment Action Programme as revised in 1998, the Cardiff process for 'environmental integration and sustainable development in the Common Agricultural Policy'. Finally, with the adoption of the 6EAP, the Council and the Parliament called for the elaboration of this Thematic Strategy on the Sustainable Use of Pesticides and determined the goalposts and objectives of such a new tool.

THEMATIC STRATEGIES, NEW HORIZONTAL TOOLS

In its Communication 'Towards a Thematic Strategy on the Sustainable Use of Pesticides' of July 2002, the Commission launched the broad consultation of all stakeholders and institutions. The Communication noted the shortcomings of the current situation with regard to plant protection products and proposed tracks and possible measures to inverse negative trends by addressing the use stage more specifically. Other thematic strategies will be developed in the same time and some are particularly relevant to tackle complementary aspects of the safe use

and surveys of the impacts of plant protection products, like the strategies for soil protection, for the marine environment, the Environment and Health Strategy.

OBJECTIVES OF THE THEMATIC STRATEGY

According to the 6EAP, the main objective of the Thematic Strategy is to reduce the impacts of pesticides on human health and the environment and more generally to achieve a more sustainable use of pesticides as well as a significant overall reduction in risks, but also a reduction of the use of pesticides consistent with the necessary crop protection.
In particular, the objectives of the thematic strategy, as defined in the 6EAP, are the following:

(1) to minimise the hazards and risks to health and environment from the use of pesticides.
(2) to improve controls on the use and distribution of pesticides.
(3) to reduce the levels of harmful active substances, in particular by replacing the most dangerous by safer (including non-chemical) alternatives.
(4) to encourage the use of low-input or pesticide-free crop farming.
(5) to establish a transparent system for reporting and monitoring progress including the development of appropriate indicators.

RESULTS OF THE BROAD CONSULTATION ON THE COMMISSION COMMUNICATION

The consultation organised by the Commission and based on indications and possible measures presented in the Communication, encompassed the Council, the European Economic and Social Committee, the European Parliament and the general public. More than 150 contributions from diverse stakeholders were received (via the Internet and via a Stakeholders Conference in November 2002). Several representatives from candidate countries were actively participating to the Stakeholders Conference.

Opinions submitted are available at:
For the **stakeholders** http://www.europa.eu.int/comm/environment/ppps/home.htm
For the **Council** (Council Environment, 9 December 2002) at: http://register.consilium.eu.int/isoregister/frames/intromnfsEN.htm

For the European Economic and Social Committee, the **EESC** (NAT session, 23 January 2003 – Rapporteur Staffan Nilsson) at: http://www.esc.eu.int/scripts/avis.asp?type=en
For the **Parliament** (Plenary session, 27 March 2003 – Rapporteur Kathleen Van Brempt) at: http://www3.europarl.eu.int/omk/omnsapir.so/pv2?PRG=CALDOC&FILE=030327&LANGUE=EN&TPV=PROV&LASTCHAP=24&SDOCTA=22&TXTLST=1&Type_Doc=FIRST&POS=1

The objectives and many of the possible measures, as outlined in chapter VI of the Communication, were broadly supported by the consulted stakeholders and institutions.
In the following the main results from the consultation will be presented.

THE SCOPE OF THE THEMATIC STRATEGY

Despite the call addressed to the Commission (in particular by the Parliament) to also include biocides, the Commission will focus its first actions on plant protection products (used to protect plants and plant products against harmful organisms), for the reasons outlined in the Communication (legal references set up in the 6EAP, state of play with the Biocides Directive). However, uses outside the agricultural sector will also be taken into consideration. In other words, biocides are in a first instance not addressed by the Thematic Strategy.

Measures discussed in the Communication and reactions from the stakeholders

DG Environment is currently in the process of preparing the most adequate proposals regarding these measures. Different scenarios and flexible content could be envisaged for each measure. They could range from a highly prescriptive, legislative approach at Community level to a de-centralised (subsidiarity) approach leaving full flexibility to Member States. This project will be based on the results of the extensive consultation with key stakeholders including EU Member ad Candidate States as well as industry, environmental, farming and consumer organisations. An extensive impact assessment, meaning study or estimate of impacts on economic, social and environmental aspects will be conducted for each new proposal. Here again the participation of the authorities and the concerned stakeholders will be determining.

THE FORM OF THE STRATEGY

The 6th Environment Action Programme does not define the legal form of the Thematic Strategy. The Commission therefore has full flexibility to choose the most appropriate form. In the Communication, the Commission considers that *in implementing the strategy, the Community and the Member States could use many different instruments: legally binding measures, (economic) incentives, research or voluntary measures. Combination of all types of instruments is also possible. Many measures could most effectively be integrated in already existing or currently developing related policy areas.*

From the consultation, one observed that, if the Council calls for coherence with the revision of Directive 91/414/EEC while taking into account the principle of subsidiarity, the EESC considers that this strategy should operate as an umbrella framework and include existing legislation, probably also proposing new legislation.
The EP favours a more centralised approach, stresses the need for urgent and mandatory complementary action in addition to Directive 91/414/EEC and calls on the Commission to develop binding and effective measures. The EP urges the Commission to co-ordinate the internal work on drawing up the proposals for a thematic strategy and an amended Directive 91/414/EEC.

National Action Plans

The Commission considers the establishment of national action plans to be the central piece of the thematic strategy because they will offer the necessary flexibility for Member States while ensuring overall coherence. For this aspect again, the consultation reveals a clear opposition between the Council asking for maximum subsidiarity for Member States and the Parliament calling for mandatory (combined with voluntary) measures established on a Community basis.

The Council would like to see the Commission's role limited to providing only guidance for certain key measures. The Parliament asks for binding and effective goals and timetables to be established for each Member State via national reduction plans that will cover the following aspects:
assessment of existing situation at Member State level
awareness rising campaigns
designation of vulnerable zones
monitoring in environmental media
regular progress reports by Member States on the implementation of reduction programmes
crop protection licenses, drift reduction measures, disease prevention measures, use and approval of spraying equipment.

The EESC supports the establishment of national action plans and common EU criteria, guidelines and other parameters for the measures to be taken to avoid distorting competition in the internal market.

Improved systems for the collection of information on distribution and use and enhanced compliance/monitoring schemes including annual reporting

In the Communication, the Commission proposed relevant mandatory requirements within two years of the adoption of the thematic strategy for the reinforcement of ongoing work on the collection of data concerning use (quantities of PPPs applied per crop, product, area, time of application). The Commission also proposed that compliance is assured through adequate monitoring measures via relevant mandatory requirements. The Council has not addressed this issue. The EP stresses the need to collect, in an harmonised way, sales and use data for all user categories as well as import and export data, and to make publicly available all information per active ingredient. The EP also calls for regular reports to be submitted by the Member States on the implementation of national action plans. The EP urges the Commission to set up EU-wide databases containing all national monitoring data.

The EESC considers that it is important not to build up reporting systems and administration ('red tape') with the associated costs unless there is a clear benefit to be gained from them. The information to be provided by users should be of such a kind that they feel it is worthwhile in production terms to collect the information. The EESC does not yet take a view on reinforced 'cross compliance' as it is necessary to get a clearer idea of how such rules would be framed.

Training of users, standards for spraying equipment and collection of containers and obsolete pesticides

The Commission has been broadly encouraged by the consulted Institutions and by all stakeholders to develop requirements regarding a) the training of professional users and the improvement of the awareness of non-professional users; b) the establishment of quality standards and the associated suitable control system of spraying equipment (based on the current harmonisation work of CEN) because they are considered potentially as important source of diffuse pollution (exceeded doses applied); c) the collection of empty containers and obsolete pesticides at farm level, because they are considered as potentially important source of point pollution.

Measures to promote low-input farming and cross-compliance for CAP support measures

In its Communication, the Commission encouraged the use of low-input or pesticide-free crop farming particularly by raising user's awareness, promoting the use of codes of good practices and consideration of the possible application of financial instruments. From the consultation, the Council supports this objective and calls on the Commission to include a proposal for an EU framework for the development of Integrated Pest Management (IPM) and Integrated Crop Management (ICM), in order to develop EU guidelines, including a definition and essential requirements of IPM/ICM.

The Parliament considers moreover that Member States should exploit fully the provisions laid down in Regulation 1259/1999 establishing common rules for direct support schemes under the Common Agricultural Policy. The Parliament insists that financial incentives for conversion to low-input and organic agriculture should be strengthened. The EESC is open to the idea of supporting a whole range of practices that in different ways reduce both utilisation and risks through a number of possible ways of taking better account of environmental aspects in agricultural policy. The "second pillar" of the CAP will give Member States the opportunity to compensate farmers who succeed in reducing the risks involved in their use of chemical plant protection products.

A strong position was adopted by the environmental NGO's, in particular Pesticide Action Network (PAN) which calls for setting targets and timetables and establishing the right incentives to shift into less intensive pesticide use practices and pesticide-free alternatives. PAN asks for a clear definition of ICM and a general obligation to use ICM as the minimum standard for CAP payments. Before taking any new initiatives, the Commission will carefully analyse the results of the first survey on the implementation of Regulation 1259/99/EC, which is expected to be published during the second half of 2003.

INDICATORS

In the Communication, the Commission proposed that Member States report regularly on progress with national risk reduction programmes. Pending the development of harmonised indicators, they should report on progress by using the most suitable indicators currently available to them. The Commission announced that itself and the Member States should actively contribute to the international development of indicators (in particular within the OECD) and their subsequent use. The Council, Parliament, EESC, and other stakeholders were all supportive of developing suitable indicators to measure the progress on national risk reduction plans. Such indicators shall take into account the work done by Member States and the OECD. Indicators may also take into account the specific risks of plant protection products and national risk mitigation measures and the Commission should therefore develop a system leading to comparable statistics on pesticides.

OTHER POTENTIAL MEASURES TO BE DEVELOPED

Other potential measures, which, albeit considered being part of the Thematic Strategy and addressing its general objectives, could probably best be implemented in other already existing legislation. This is namely the case for measures targeting:

- the enhanced protection of the aquatic environment which is clearly addressed by the Water Framework Directive and its daughter Directives (like the Groundwater Directive, which will be adopted soon)

- a better monitoring or more epidemiological surveys regarding the exposure of the consumers and the environment from the use of plant protection products : the Commission is actually considering that the annual residue monitoring programmes for instance could be extended (more intense or better orientated sampling programme). This could be tackled via the existing (or the newly proposed) residue legislation. Other tracks will be studied later when the objectives and content of the Strategy on Environment and Health will be defined.

- An overall reduction of the levels of harmful active substances, in particular by replacing the most dangerous by safer (including non-chemical) alternatives. This is the famous concept of comparative assessment. Generally supported as a principle by all stakeholders and institutions consulted, there were only very few comments on practical implementation.

- Comparative assessment: The Commission is reflecting on a new proposal in the framework of the modification of Directive 91/414/EEC to insert this comparative assessment concept. This could be done in an equivalent manner as already included in the existing article 10(5) of the Directive 98/8/EC on the placing on the market of biocides. The Commission will try to apply the substitution principle extensively where relevant, where practically feasible and economically viable. It will consider a priori all products, various stages of the authorisation process (Community or national level, decisions taken by the authorities or by farmers). It has to take duly account of resistance management and of the results of the current review process under Directive 91/414/EEC for old active ingredients. A priori this could not exclude any potential alternatives (organic, biological/microbials, GMOs)

- the harmonisation of VAT via an amendment of the relevant regulation, as it was generally supported by the consulted institutions as an important tool avoiding illegal import from Member States applying a smaller VAT rate.

CONCLUSIONS

The Thematic Strategy on the Sustainable Use of Pesticides will represent with the revision of the Directive 91/414/EEC and the new Regulation on the establishment of Maximum Residue Limits the third main cornerstones of the future regulatory framework for the Plant Protection Products. If the two latter legal instruments are to be 'only' revised, based on the acquired experience. The Commission has to develop a broad range of instruments and tools to achieve the objectives of reducing risks for the consumer, user and the environment. This challenge appears to be very complicated and will be impossible to realise without the good co-operation of authorities, stakeholders and users. Therefore, every new measures proposed by the Commission will be first extensively assessed for its potential impacts. This is the task of the next coming months. More details could be communicated during the Conference and discussed with the key stakeholders present. The proposal for the Thematic Strategy will come after these extensive impact assessments, as announced in the course of 2004.

The impact on pesticide use of the water framework directive

A Croxford, A S Chapman
NCEHS, Environment Agency, Howbery Park, Wallingford, Oxon, OX10 8BD, UK
Email: andy.croxford@environment-agency.gov.uk
D Foster
Environment & Heritage Service (Northern Ireland), Calvert House, 23 Castle Place, Belfast, BT1 1FY

ABSTRACT

The Water Framework Directive (WFD) is the most significant piece of European water legislation for over twenty years. This paper sets out the main requirements of the Directive and looks at its potential impact in the UK (in particular England and Wales) on pesticide use and management. Relevant ongoing and future work by the Environment Agency for England and Wales aimed at WFD implementation is summarised, and initial conclusions are made on the likely effect of the Directive on future UK water management.

INTRODUCTION

The bulk of the European Community's water policy legislation was developed in the mid 1970s and the early 1980s, followed by further Directives in the early 1990s. These existing water quality Directives address specific substances (such as pesticides), sources, uses or processes. This has been accepted as a piecemeal and inconsistent approach with differing and sometimes conflicting methods, definitions and aims, compounded by inconsistent implementation of various directives throughout the EU. On 26th February 1997, the European Commission published a proposal for a "Council Directive establishing a Framework for Community Action in the field of water policy" (Anon., 1998). More commonly known as the Water Framework Directive (WFD), it came into force with its publication in the Official Journal of the European Commission on December 22nd 2000 (Anon., 2000). The WFD will resolve the piecemeal approach to European water legislation, which has developed since 1975. However, the significance of the Directive, its scope and the amount of work involved in successfully achieving its objectives should not be underestimated. This paper outlines the principal theoretical and practical elements of the WFD with particular reference to its potential impact on pesticides, both in terms of their use and their environmental impact.

OUTLINE OF THE WATER FRAMEWORK DIRECTIVE (WFD)

Objectives and key elements of the WFD

The WFD provides an integrated and co-ordinated approach to, and represents an important step forward for, water management in Europe. It rationalises and updates existing water legislation by setting common EU wide objectives for water. Its key objectives are to prevent further deterioration and to protect and enhance the status of aquatic ecosystems and associated

wetlands, to promote sustainable water consumption, and to contribute to mitigating the effects of floods and droughts.

The WFD aims to take a holistic approach to water management, as water flows through a catchment from lakes, rivers and groundwaters towards estuaries and thence the sea. Surface and groundwater are to be considered together, in both qualitative and quantitative terms. The overriding objective of the Directive is that Member States will be required to achieve "good surface water status" and "good groundwater status", and to prevent deterioration in the quality of those waters which are already "good". The Directive also provides for protection to higher standards of waters with specific uses or vulnerabilities, for example water supply, recreation, nutrient sensitivity or nature conservation areas via the designation of Protected Areas. The major change in this Directive is that as well as chemical quality, ecological quality is a key means by which surface waters in particular will be assessed against "good status". There will be limited exceptions to achieving these objectives: for example, extreme weather conditions such as floods or droughts, or where the initial status of the water body is so poor that true "good" status would be technically impossible to achieve. The WFD will apply to all inland surface waters, ground waters, transitional water (including estuaries and coastal lagoons) and coastal waters (to one nautical mile from the baseline). The WFD prescribes an objective based approach to drive improvements to and maintain the current status of water bodies. An important benefit of this is the integration of both water quality and quantity issues for surface and ground waters.

These improvements in water status are to be achieved through a system of analysis and planning based upon the river basin, called the River Basin Management Plan (RBMP). RBMPs set out Programmes of Measures for the achievement of "Good Status" within river basin areas. These measures are subject to public consultation, thus introducing an element of participation and transparency. This is the key mechanism identified in the Directive for the delivery of environmental objectives. The WFD replaces a number of existing water quality Directives, including those for Surface Water Abstraction (Anon., 1975), Freshwater Fisheries (Anon., 1978), Shellfish Waters (Anon., 1979a), Groundwater (Anon., 1980) and Dangerous Substances (Anon, 1976a). These form an important constituent of UK water management practice, for which the Environment Agency is a Competent Authority. Their repeal will be phased to ensure that at least the same level of protection is afforded to water quality.

Assessment of surface water and groundwater status

Surface Water Status is assessed using two components: Chemical (pollutant) Status and Ecological Status.

Chemical Status will be assessed by a combination of emission limit values (ELVs), which regulate the concentration of hazardous substances discharged into surface waters, and European wide Environmental Quality Standards (EQSs) which specify the concentrations of hazardous substances allowable in surface and groundwaters. The establishment of an EQS for a particular substance is based on a wide range of background data (chemical and physical properties, behaviour, fate and concentration in the environment etc.) combined with a range of toxicity tests on key flora and fauna. EQSs are derived for both acute (maximum allowable concentration of a substance in the aquatic environment) and chronic exposure (annual average concentration). To achieve "Good Chemical Status" both the ELV and the EQS must be met.

Ecological Status will be assessed using biological, hydromorphological, and physico-chemical measurements of quality. Natural ecological variability does not allow absolute EU-wide standards to be established, therefore biological quality (based on aquatic flora, macroinvertebrates and fish) will be judged against deviation of observed conditions from those expected in the absence of anthropogenic influence. Although the Directive will not set standards for the hydrological and morphological condition of water bodies elements as such, it will require monitoring and management of the water body to ensure conditions consistent with the survival and reproduction of the biota associated with good biological quality. There will be three physico-chemical aspects of ecological quality (Table 1), each being assessed differently.

Table 1 – Physico-Chemical Parameters.

	Areas of Concern	Standards
General	Temperature, Oxygenation, Salinity, Nutrient Status, Acidification Status	Set by MS to protect biological conditions
Pollutants not on the Priority List	Lower toxicity chemicals – similar to List II substances under 76/464/EEC	Set according to EU wide protocol specified in Annex V of the proposal
Priority List Pollutants *	Higher toxicity chemicals – similar to List I substances under 76/464/EEC	Set according to EU wide protocol specified in Annex V of the proposal

*Priority list pollutants are primarily dealt with under the provisions for Chemical Status as opposed to physico-chemical aspects of Ecological Status. This additional provision requires Member States to set more stringent standards for priority list pollutants in specific circumstances where the EU standard would be insufficient to protect the ecology of the water body due to the high sensitivity of the constituent organisms to the pollutant concerned.

Groundwater Status is assessed by Quantitative Status and Chemical (pollutant) Status. Of the total annual recharge volume to a groundwater body a portion is needed to achieve the ecological quality objectives for connected surface waters or associated terrestrial systems such as wetlands. Only the volume above that required to sustain surface water ecology is available for abstraction. As groundwaters are generally not polluted, setting EQSs for groundwaters would suggest there is a level of pollution up to which Member States can allow polluting activities to continue. Therefore, a precautionary approach is taken. Direct polluting discharges to groundwaters are prohibited and groundwaters must be monitored for changes in chemical composition; any significant and sustained upward trend in a pollutant must be reversed. In addition, a separate groundwater "daughter" Directive is being prepared by the European Commission.

PRACTICAL IMPLEMENTATION OF THE DIRECTIVE

The river basin management planning cycle

One of the underpinning principles of the WFD is that of integrated river basin management (IRBM). The Directive sets out arrangements for river basin administration and planning, based on, *inter alia*, common objectives for water status, and common monitoring and assessment strategies. This section examines the various components of IRBM and their implications.

The first activity which the WFD requires is that the Member States identify and assign water bodies to River Basin Districts (RBDs) based on hydrological catchments, with coastal and

ground waters being assigned to the most appropriate District. The Environment Agency has been proposed as the Competent Authority for the 11 proposed RBDs in England and Wales (one is partially in Scotland) to co-ordinate the implementation of the Directive within them, including the production of the River Basin Management Plan for each RBD. In Scotland the Scottish Environmental Protection Agency (SEPA) is the proposed Competent Authority, whilst in Northern Ireland the Department of the Environment, through its Environment and Heritage Service (EHS) is the proposed Competent Authority. The River Basin Management Plan (RBMP) is the main mechanism for achieving the Directive's environmental objectives within a RBD. This requires an analysis of the RBD to be carried out to determine the factors influencing water quality and water quantity in both surface and groundwaters. This includes an assessment of the inherent natural characteristics of each basin (location and type of water bodies, geology, climate, biodiversity and so on), the impact of human activity (point and diffuse sources of pollution, abstractions and flood defence) and the economic usage of water within the basin. In the case of groundwater, additional data such as the environmental pressure to which groundwaters are being subjected, the overlying geology and rates of exchange between ground and surface water bodies are required.

Having characterised the RBD the next task is to analyse the impact of human activity on the waterbodies within it, particularly the pressures that activities such as sewage treatment, abstractions or land management might be causing. The Environment Agency is developing a series of models assessing the impact of land use on water quality to assist this process. On the basis of this information, the Environment Agency is then required to establish the environmental objectives for each water body, namely "good status", "prevent deterioration" or "good ecological potential". This will involve both establishing reference conditions for each waterbody type and defining "good status" using data provided in the WFD, after which identification of those water bodies at risk of failing to meet these objectives (i.e. "good status" not likely to be met) will take place. The information will then be used to design the monitoring programmes required by the WFD to determine if the objectives are actually being met or not.

Monitoring

The first deadline in the Directive relating to monitoring is the end of 2006, by which time monitoring programmes will have been defined and be ready to commence. River Basin Management takes place on a 6 year cycle, with the first plan published 9 years after adoption of the Directive, and reviewed every 6 years thereafter to account for further measures needed to meet the environmental objectives for any particular water body.

The main objectives of surface water monitoring programmes are to provide a comprehensive overview of ecological and chemical status of an RBD and to classify water bodies into five classes ranging from high to bad. There are three types of surface water monitoring. First, surveillance monitoring, to be carried out for 1 year in 6, to validate the impact assessment, assess long term changes in the RBD and provide information to inform the second, operational monitoring programme. This will be carried out for 5 of the 6 years of the programme and will establish the actual status of water bodies identified as at risk of failure to meet environmental objectives. Finally, investigative monitoring will be carried out where the reasons for a failure of the environmental objectives are unknown or to ascertain the impacts of accidental pollution. For groundwater, Member States are required to establish a groundwater monitoring network. This will provide a reliable and comprehensive assessment of both quantitative status and

chemical status, enable detection of long-term anthropogenically induced upward trends in pollutants via both surveillance and operational monitoring programmes.

Programme of measures

Having determined the status of water bodies within a RBD, the Competent Authority is obliged to use this information to develop an integrated Programme of Measures (Figure 1) to meet the WFD's environmental objectives, particularly "good water status", within the basin. These will be made up of compulsory basic measures which include, *inter alia*, meeting the requirements of other relevant Directives* and the licensing of discharges and abstraction. Compulsory measures can be complemented by supplementary measures where they are insufficient to meet the environmental objectives.

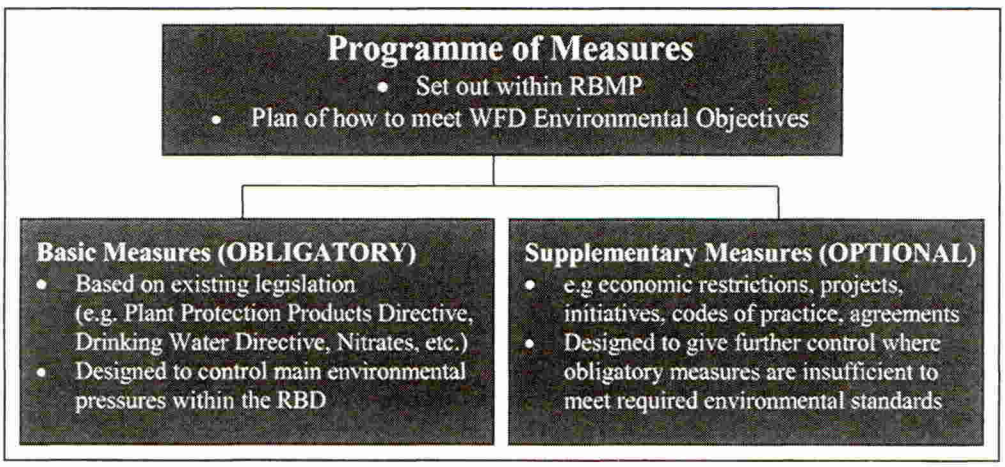

Figure 1 – Structure of Programmes of Measures.

PESTICIDES AND THE PRIORITY LIST

One objective of the WFD is to eliminate dangerous substances from the aquatic environment and to reduce their levels in marine waters to near background by the year 2020 (Chave, 2001; Anon., 2001). Although the Dangerous Substances Directive (Anon., 1980) will be repealed, similar provisions are made within the WFD. These include the establishment of a list of priority substances, which should be reduced to EQS level by 2020 and priority hazardous substances, for which the target is cessation of use and elimination from water bodies by 2020. In this context, hazardous substances are defined within the WFD as "substances, or groups of substances that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equal level of concern". To this end, the WFD introduces a scientific methodology for the selection of priority substances, a combined modelling-based and monitoring-based priority setting (COMMPS) scheme. Using this procedure a first list of 33 substances or groups of substances has been selected, which replaces

*Relevent Directives: Bathing Water (EEC, 1976b), Birds (EEC, 1979b), Environmental Impact Assessment (EEC, 1985), Drinking Water (EEC, 1989), Nitrates (EEC, 1991a), Urban Waste Water Treatment and Sewage Sludge (EEC, 1991b), Plant Protection Products (EEC, 1991c), Habitats (EEC, 1992), Integrated Pollution Prevention and Control (EEC, 1996a) and Major Accidents (EEC, 1996b),

the previous list of dangerous substances established in 1982 (Anon., 2001). A list of the pesticides identified as Priority Substances using the COMMPS procedure are given in Table 2.

Table 2: Pesticides and related materials classified as Priority Substances in the WFD

Priority Hazardous Substances	Priority Substances subject to review to Priority Hazardous Substances	Priority Substances
Hexachlorobenzene	Atrazine	Alachlor
Hexachlorocyclohexane	Chlorpyrifos	Chlorfenvinphos
	Diuron	
	Endosulfan	
	Isoproturon	
	Simazine	
	Trifluralin	

The COMMPS selection procedure is intended to be a dynamic instrument for the prioritisation of hazardous substances in the aquatic environment. It is intended to be open to development and improvement, with a review of the priority list on a four-yearly cycle. It is essential for the success of the selection procedure that all known and licensed substances available within the EU are included in the selection procedure. Over several reviews it is anticipated that substances will be removed due to a decreased presence in the environment and/or their banning in future legislation and substances will be added that have yet to be licensed or are identified in the WFD monitoring programme as an increasing presence in surface and/or ground waters.

PESTICIDE USE UNDER THE WATER FRAMEWORK DIRECTIVE

Though relatively few of the total number of pesticides available within the EU are currently on the priority list of substances (Table 2) those listed are among the most widely used within the EU. Many, such as diuron, isoproturon and simazine are soluble and mobile and are widely found as pollutants of surface and ground water. Any future restrictions or bans in usage will affect the agricultural industry most significantly, as Competent Authorities seek to achieve their remit of the reduction or elimination of priority hazardous pesticides in water bodies. Whether the phasing out of one substance results in the adoption or development of another remains to be seen. Where this results in the greater use of a less mobile or less ecotoxic substance, or possibly a general reduction in pesticide use, the process is to be welcomed and would be at least in part a vindication of the WFD. Where the alternative substance is subsequently found during the monitoring programme, the success of eliminating the original substance would be limited. This is an important justification of the continuing process of monitoring and review of the WFD. The broader economic implications to the agricultural industry (potential for decreased yield, increase or decrease in costs of pesticides, change of management practices) also need to be considered, as do external influences on the use of different products, such as Common Agricultural Policy reform and changes in cropping regimes.

IMPLEMENTATION TIMETABLE

In summary, the timetable for the implementation of the directive is given below. Despite what might at first glance seem a lengthy deadline for meeting the environmental objectives (end 2015), the earlier part of this paper, detailing what is required in the river basin management planning process, should indicate that timescale set out in the Directive is challenging and will require considerable effort over a long period of time to achieve.

- Define basins, appoint Competent Authorities (End 2003)
- Analyse basins, review impact of human activity (End 2004)
- Commence monitoring programmes (End 2006)
- State issues and objectives for RBMP (End 2007)
- Derive Programme of Measures, consult on draft RBMP (End 2008)
- Plan enacted (End 2009 – End 2012)
- Plan reviewed (End 2013 – End 2015)
- Initial deadline for meeting Environmental Objectives (End 2015)

CONCLUSIONS

There can be little doubt that the Water Framework Directive represents a major step forward for water management in general. In many respects, the UK already utilises the basic principles and philosophies set out in the Directive. The UK has already made much progress in water quality improvements over the past 10 years, particularly in the understanding and management of pesticide pollution. For the future the UK Government has recognised the importance of the relationship between the Water Framework Directive and the targeting of Water Industry investment to contribute to maintaining and improving ecological quality. The future impacts this will have on pesticides in the aquatic environment and on the agriculture and agrochemical industries will be seen through the course of the implementation of the Directive.

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Anon. (1976b). Council of the European Communities. Directive concerning quality of bathing waters (76/160/EEC).

Anon. (1978). Council of the European Communities. Directive concerning the quality of fresh waters needing protection or improvement in order to support fish life (78/659/EEC).

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Developing a national pesticides strategy

D P E Williams
Pesticides Safety Directorate, York, North Yorkshire YO1 7PX, UK
Email: david.williams@psd.defra.gsi.gov.uk

ABSTRACT

The effective control of pests, weeds and diseases is vital but the unchecked use of pesticides would pose substantial risks to people and to the environment. A number of Government measures seek to bear down on these risks without removing the benefits. These include strict regulation and the development and encouragement of best practice through R&D, through the minimisation policy and through agri-environment schemes. Other bodies are making similar efforts; the Voluntary Initiative is a prime example. The national strategy will consider the fit of existing schemes and where improvements might be made. Thinking on the national strategy will be shaped by the Government's own sustainability objectives, by developing requirements including the Water Framework Directive and by the objectives of the EU's planned thematic strategy.

INTRODUCTION

This paper sets out:

(a) the case for a national strategy;
(b) aim and objectives for the strategy;
(c) some of the drivers that will influence its content;
(d) policies influencing the use of pesticides;
(e) risks associated with pesticide use;
(f) key policy issues for consideration; and
(g) the timetable for developing the strategy.

WHY HAVE A NATIONAL PESTICIDES STRATEGY?

Two recent developments have encouraged Ministers to consider a pesticides strategy. First, the EU is to set out its own strategy for the sustainable use of pesticides. The Commission Communication issued in summer 2002 envisages that this strategy will give considerable emphasis to "national plans". These would set out how individual member states would reduce hazards, risks and dependence on chemical control of agricultural pests and diseases. National plans would also describe how particular risks - such as pollution of surface water - would be tackled and how controls on the use and distribution of pesticides would be improved.

Second, the Environmental Audit Committee, in its November 2002 report on the Voluntary Initiative, called on the Government to develop and publish a pesticides strategy. The Committee proposed that the strategy should show how different policy instruments (including the use of fiscal instruments, a strong regulatory framework, the Voluntary Initiative itself, and

cross-compliance with subsidy and assurance schemes) would be used to complement each other to achieve a reduction in the environmental impacts of pesticides.

The Government accepted the Committee's view that a pesticides strategy would be a useful tool for bringing together and developing all the various instruments that help determine the ways in which pesticides are used. Developing a national strategy will also be helpful in preparing and supporting the UK position in the forthcoming negotiations on the EU strategy.

WHAT ARE THE AIMS AND OBJECTIVES OF THIS STRATEGY ?

The principal aim of UK pesticide policy is to protect the health of human beings, creatures and plants and to safeguard the environment. Another important objective is to limit pesticide use to the minimum necessary for the effective control of pests compatible with the protection of health and the environment. The purpose of this strategy is not to replace the existing rigorous, safety-based system of pesticide regulation but rather to complement it.

The strategy will attempt to improve the extent to which the key policies that influence the use of pesticides pull in compatible directions. It will seek to integrate - but not necessarily revise - not only policies that focus specifically on pesticide use but also wider environmental and agricultural policies. The broad aim is sustainability which, of course, requires the balancing of four issues: social progress; environmental protection; prudent use of resources; and economic growth and employment.

In the shorter term, the strategy will need to pull together the policies that influence pesticide usage and establish the fit with longer-term sustainability aims.

The working aim of the national pesticides strategy is:

> *"To improve the sustainability of pesticide use, in particular by:*
>
> *- continuing to reduce the hazards, risks and negative impacts of pesticides use on health and the environment, including by encouraging the development and use of alternative products and techniques reducing dependence on chemical pesticides; and*
>
> *- taking action to safeguard the essential economic interests of pesticide users."*

Draft objectives so far are:

(a) short-term:- to create effective integration of existing schemes and policies so that these contribute to the aim of the strategy and encourage 'buy-in' by stakeholders;

(b) medium-term:- to evolve an overarching policy framework that drives down adverse impacts from pesticides usage and achieve a balance between economically viable farming on the one hand, whilst encouraging use reduction coupled with using alternatives to pesticides on the other.

WHAT ARE THE KEY DRIVERS?

Pesticide users continue to adapt their practices in response to market and pest pressures. Pesticide policies also need to adapt over time to respond to drivers for change. These will often pull in different directions and there is rarely a clear and straightforward path to be followed. The current drivers include:

- public concern over the health effects of pesticides including the cocktail effect and bystander exposure. Consumer sensitivity about pesticide residue levels in food, leading to action by supermarkets and the Food Standards Agency;

- public concern over the impact of pesticides on the environment;

- costs of removing pesticides from water to meet EU drinking water standards;

- legislative measures and proposals including:
  - the Water Framework Directive;
  - CAP Reform, which will move the focus of farm support from production towards environmental goals; and
  - proposals for new EU laws on pesticide approval, on Maximum Residue Levels and for the EU thematic strategy for sustainable use of pesticides;

- political developments including the Environmental Audit Committee report;

- continuing financial pressure on farming, despite some recent recovery in farm incomes;

- pesticide industry consolidation, coupled with the programme of reviews under Directive 91/414, leading to reduced range of products. This creates particular problems for growers of minor crops in niche markets;

- need to encourage innovation, for example the development of new chemical pesticides with improved safety/efficacy profiles or the development of alternative products and techniques.

WHAT POLICIES INFLUENCE USE OF PESTICIDES?

Obviously, pesticides policies, including the regulatory system itself, affect how pesticides are used. However, numerous domestic and EU policies in fields including health, the environment and agriculture are also influential. It is not only Government policies that matter. The Voluntary Initiative, the farm assurance schemes and various initiatives taken by supermarkets are examples of influential approaches taken by other bodies.

The key consideration for the strategy is how all these policies affect pesticide users and how far they add up to a coherent programme for sustainable pesticide use. The strategy can potentially fill gaps and inform on overlaps and inconsistencies.

Environmental, agricultural and other policies and initiatives affecting pesticide use include:

Water protection legislation:

The Water Framework Directive requires inland and coastal waters to reach "good status" by 2015. It establishes a river basin district structure within which demanding environmental objectives will be set, including ecological targets for surface waters. It looks at the condition of all the key things living in the water in order to decide if it is good quality or "good status". The water quality requirements of Natura 2000 sites must be integrated into River Basin Management Plans which will be the vehicle for decisions about proportionate measures to tackle pollution.

The Directive requires the progressive reduction of priority substances and phasing out of discharges, emissions and losses of priority hazardous substances. Lists of these substances will be built up progressively. The Water Framework Directive sets a presumption that there should be no contamination of groundwater. It provides for the adoption of measures to prevent and control groundwater pollution. These measures were due to be adopted by December 2002 but have been delayed.

Habitats/Birds Directive:

The Habitats Directive provides for the designation of Special Areas of Conservation (SACs) while the Birds Directive provides for the classification of Special Protection Areas (SPAs). Together these are known as Natura 2000 sites and are subject to various conservation requirements.

Waste Incineration Directive:

Waste Management Regulations will apply to agricultural waste from early 2004. Such waste will have to be disposed of, or recycled, in ways that protect the environment and health.

Chemicals policy:

A variety of voluntary and regulatory mechanisms are being developed at UK and EU level to control the effects of chemicals on health and the environment. These initiatives are separate from the regulation of pesticides but may have direct implications for the availability of chemicals used in pesticides.

Food Standards Agency action plan to minimise pesticide residues in food:

The Agency is drawing up action plan to reduce residues in five food crops. The main focus is on identifying and encouraging best practice.

Strategy for Sustainable Food and Farming

This includes:

- new entry-level agri-environment scheme;
- streamlining and additional funding for higher-level agri-environment schemes;

- whole farm approach to planning, inspection etc;
- new support for skills and training;
- demonstration farms.

Mid-term Review of CAP

The recent reform of the Common Agricultural Policy (CAP) includes de-coupling and the progressive transfer of resources from production support towards wider social and environmental objectives. Measures include:

- a new Single Payment Scheme to replace the many existing direct payment schemes;
- Breaking the link between farm subsidies and production ('decoupling');
- National envelopes to fund schemes to promote sustainable farming;
- Cross-compliance to make subsidies dependent on environmental and animal health and welfare standards;
- A switch in support from production subsidies to schemes for environmental protection and rural development ('modulation').

There are potentially a number of implications for pesticide users. Cross-compliance will link subsidies to compliance with legal requirements (Directive 91/414 for pesticides) and to a requirement (to be defined nationally) to keep land "in good agricultural and environmental condition". A farm advisory system must be introduced to help farmers meet these requirements. The use of national envelopes could increase support for forms of farming beneficial to the environment; again the use to be made of this provision is to be decided nationally. A specific issue for pesticide users is the option for member states to change the minimum width for set-aside strips from 10 to 5 metres. Coupled with the easing of the IACS restriction on margins from the current 2m, this gives the potential to help with the protection of watercourses and other features.

Agri-environment schemes

A variety of existing schemes (including the Countryside Stewardship Scheme) provide for quite substantial payments for farmers who undertake relatively ambitious programmes of enhancement or protection of the environment. The Entry-Level Scheme (currently a pilot but due to be rolled out across England in 2005) is intended to be accessible to most farmers and provides more modest payments for environmentally good practice. The Entry-Level Scheme has a number of options for restricted pesticide use (as do some of the higher-level schemes).

Organic Farming

Defra is incorporating an organic strand into the entry-level scheme in order to reward organic farmers for the additional environmental benefits accrued under organic management. Organic farming represents a system of food production that largely precludes the use of modern pesticides. Enhanced support is given to achieve sustainable growth in the production of organic food in the UK, in line with the government Organic Action Plan for England and equivalent initiatives in the Scotland, Wales and Northern Ireland.

Farm Assurance Schemes:

These schemes evolved as a producer/retailer partnership in the 1990s and have helped change the philosophy of crop protection and crop management approaches within the UK industry. They produce a series of crop-specific protocols, including detailed descriptions of crop-protection practices, which are updated annually in line with best practice. The existing assured produce schemes have the potential to contribute to a reduction in the environmental impacts of pesticides and, in particular, could aid the uptake of the Pesticides Voluntary Initiative.

The Voluntary Initiative:

The Pesticides Voluntary Initiative is an industry-led five-year programme of measures to reduce the environmental impact of pesticides. Key measures include Crop Protection Management Plans (recognised in the pilot Entry-Level Scheme), the National Sprayer Testing Scheme and the National Register of Spray Operators. The programme started in April 2001. The Government supports the Initiative and believes that, provided the Initiative is fully implemented, it should be the most effective way of reducing the environmental impacts of pesticides and could therefore have an important part to play within a broader pesticide strategy.

A Steering Group comprising the signatories to the package and an equal number of environmental bodies under an independent Chairman is overseeing implementation of the Initiative. It is too early to tell whether the Initiative will deliver the hoped-for results.

WHAT ARE THE RISKS OF PESTICIDES USE?

Pesticides have considerable benefits but can also present potential hazards to human health and the environment. Because they are designed to be biologically active, pesticides also have the potential to harm humans and other species that are not their intended target. Moreover, by their action on a target organism, they may alter the broader balance of nature in ways that are undesirable.

It is therefore important to control the use of pesticides and to this end they are highly regulated and extensive data is collected and evaluated to ensure the risk from their use is acceptable. Before a pesticide can be approved for sale and use, evidence is required on its efficacy and its risks to human health and to the environment. To this end, companies seeking approval for their products submit an extensive package of scientific data. This dataset includes information on:

- Physico-chemical properties:

  The applicant is required to specify the chemical composition of the product, its active ingredient, and any significant impurities that it may contain. Information must also be supplied on the physico-chemical properties of the active ingredient, and on methods by which it can be detected and measured, for example in foodstuffs and water.

- Potential toxicity in humans:

Data on potential toxicity are required for the active ingredient, the product as a whole, and also any important metabolites of the active ingredient to which humans might be exposed. These data are derived largely from tests in laboratory animals, but care is taken to ensure that all use of laboratory animals is the minimum strictly necessary. If reliable information can be obtained by other means, these are used in preference.

- Ecotoxicology

  The other major determinant of a pesticide's environmental impact is its toxicity to wildlife. The environmental risk assessment focuses upon possible effects of the pesticide on various populations of non-target organisms including: birds, wild mammals, fish, aquatic invertebrates and plants, insects (including bees) and other arthropods, earthworms and soil micro-organisms.

- Dietary Intake

  One of the ways by which a pesticide might cause harm to humans is through its presence as a residue in food. A particular concern is the potential for residues in the food derived directly from any crops to which it is applied or that might arise in the meat of animals that have fed on a treated crop. In assessing the risks from residues of a pesticide in foods, therefore, it is necessary to identify and take account of all foodstuffs in which significant residues might occur, including those resulting from the use of other products that contain the same active ingredient.

WHAT WILL THE STRATEGY COVER?

There are decisions to be taken about:

- the geographical scope of the strategy (it will cover England but which other parts of the UK?);
- the range of products included (plant protection products but perhaps also biocides used by the same people, such as rodenticides);
- the range of uses covered (not only uses on farms and holdings but also in amenity situations and in domestic gardens. Question as to whether forestry might be covered).

However, the starting point is that the strategy will be as comprehensive as possible.

As with the EU strategy, we intend that the national strategy should use an appropriate mix of instruments. Regulation is appropriate for some issues but other approaches may be more effective in tackling for others. For example, the Voluntary Initiative provides a good test of the potential for an industry-led programme to deliver environmental benefits through increased uptake of best practice.

In considering the possible scope and contents of the strategy the wishes/aspirations of the various stakeholders need to be taken into account. A very high degree of consultation is built into the process for drawing up the strategy.

The list below sets out issues that might be addressed in the strategy or might help to develop the strategy. The final strategy is likely to include other issues and exclude some of those set out here:

- the Government is committed by its response to the Environmental Audit Committee to "study whether targeted use reduction might have a place within an overall policy of impact reduction". If a decision is eventually made to go down this road, we will also need to be clear how use reduction might best be achieved. This could include financial incentives to adopt practices that reduce pesticide use and/or charges to discourage use as well as making it easier to develop and introduce products and techniques offering alternatives to chemical pesticides;

- co-ordination with legislation with the potential to have a major impact on pesticide use. For example, the Water Framework Directive;

- identify priorities for key stakeholders and tease out conflicts;

- take into account the lessons from other countries as to what works and what doesn't;

- scope for focussed action on particular types of product and/or use situations. For instance, action to tackle levels of broad spectrum herbicides in water;

- development of R & D programme on pesticide safety (for example following up WIGRAMP recommendations on the cocktail effect and building regulatory risk assessment) and development of alternative approaches such as IPM and organic farming;

- disposal of surplus product and waste. Re-use and/or disposal of pesticide packaging;

- indicators and targets need to be set wherever possible and monitoring refined so that we know what we are aiming for and to measure progress.

WHAT IS THE OVERALL TIMETABLE FOR THE STRATEGY?

PSD aims to put a draft of the strategy to formal public consultation in November 2003. The subsequent refining and implementation of the strategy will be an on-going process – it is not the intention to set a fixed strategy for all time. However, PSD intends it to be deployed by the summer of 2004.

CONCLUSION

The national pesticides strategy aims to amplify and underpin a cohesive and universal risk reduction policy for all uses of plant protection products. This will include looking at options for reducing use of such products. That said, farmers need to use pesticides to combat pests, weeds and diseases that would, unchecked, decimate crops and force us to import food from abroad, forcing up domestic food prices. There are equally valid reasons behind the use of other pesticides. So the eventual strategy needs to take account of the economic interests of those who need to control pests as well as the environmental impact of pesticide use.

The Pesticides Forum and its role in encouraging a reduction in the impacts arising from pesticide use

E Gallagher
Chair of the Pesticides Forum, PSD, 3 Peasholme Green, York YO1 7PX, UK
Email: edgallagher@supanet.com

ABSTRACT
The most immediate issue for the Forum's consideration is to contribute to Government policy on pesticide use, particularly by providing input to the development of a UK national strategy for pesticides. It will continue working on recommending and encouraging best practice; consider widening its remit to cover health impacts, residues in primary foods and amenity and garden use and consider the extent of its practical support for the Voluntary Initiative and consider what might follow this after 2006.

PESTICIDES: THE REGULATORY BACKGROUND

Pesticides contribute importantly to our health and quality of life. They enable crops to be produced more efficiently, reduce the contamination of food by toxic fungi, and are used to control insects that spread human diseases. However, because they are designed to be biologically active, pesticides also have the potential to harm humans and other species that are not their intended target. Moreover, by their action on a target organism, they could alter the broader 'ecological' balance of nature in ways that are undesirable. It is therefore important to control the use of pesticides, carefully weighing the benefits they confer against any possible adverse effects.

In the UK, systems for regulating pesticides have evolved progressively since the 1940s. They involve various government agencies, departments and their Ministers, an independent Advisory Committee on Pesticides and now also committees and agencies within the European Union (EU).

Statutory controls on the advertisement, sale, supply, storage and use of all pesticides in the UK were introduced in 1986 by way of the Control of Pesticides Regulations (COPR) made under Part III of the Food and Environment Protection Act (FEPA), 1985. Agricultural pesticides are increasingly subject to European Community (EC) rules under Directive 91/414/EEC which concerns the placing of plant protection products on the market. Non-agricultural pesticides, currently also subject to COPR, will be regulated similarly under the parallel Biocidal Products Directive 98/8/EC.

In the UK a pesticide may only be sold and used if scientific data on its potential impact on health and on the environment have been assessed and Ministers from four Government Departments are satisfied that there will be no unacceptable risks if the product is used in accordance with its approval.

The four relevant Departments are:

- The Department of Environment, Food and Rural Affairs (Defra)

- The Department of Health (DH)
- The Scottish Executive for Rural Affairs Department (SERAD)
- The National Assembly for Wales Agriculture Department (NAWAD)

In assessing possible risks to non-target wildlife, including fish, data on a pesticide's toxicity are compared by the Pesticides Safety Directorate (PSD) with the likely exposure to wildlife. Restrictions may be placed on the use of the product and, if necessary, permission to sell and use the product may be refused. If new information shows that a pesticide is less safe than was thought, its use can be restricted or withdrawn as appropriate.

The Environment Agency monitors the occurrence of pesticide residues in raw water supplies, whilst the Drinking Water Inspectorate is concerned to ensure that drinking water supplied to consumers is free of pesticides.

Since 1977 the Government's Working Party on Pesticide Residues, or WPPR (now called the Pesticides Residues Committee, or PRC) has monitored both home-produced and imported food for pesticide residues. The results of the WPPR's surveillance programme are published annually, free of charge.

It is recognised that even though they are strictly regulated, pesticide products can still have an adverse impact on the environment. It has for many years now been Government policy to encourage farmers and growers to minimise their use of pesticides and thereby help to reduce potential adverse impacts on the environment. This policy has been pursued in a number of ways, not only the rigorous regulation of pesticide products, but through a Statutory Code of Practice for their use, a wide ranging research programme and by the work of the independent Pesticides Forum.

To give a further boost to its policy in this area, the Government has given thought to introducing a tax on pesticides. In response the Crop Protection Association (CPA) developed a package of voluntary alternatives to a possible tax. In April 2001 the Government announced that it would like to see the CPA's proposals implemented in full as soon as possible. A 5-year package of measures was agreed. The Voluntary Initiative, as it is known, will be closely monitored by the Government, to see whether it can achieve environmental benefits above and beyond those a pesticides tax might yield. The VI will end in April 2006. The Chancellor of the Exchequer will of course, take the final decision on whether a tax is introduced.

The Pesticides Safety Directorate (PSD), an Executive Agency of Defra, plays a very important role in supporting Government policy on the regulation and use of pesticides in the UK. For example, it has responsibility for advising Ministers on the development, implementation and enforcement of pesticide policy, and on associated national and European legislation.

PSD also has responsibility for the routine review of the safety of pesticides marketed in the UK for use in agriculture, horticulture and related areas. Should adverse information emerge concerning safety to people, wildlife or the environment, an approval can be amended, restricted, or revoked. PSD also contributes to the EC's review of active substances under EC Regulation 3600/92.

PSD works closely with the Food Standards Agency (FSA) to protect consumer interests in relation to food safety and standards. It is responsible for the Wildlife Incident Investigation Scheme (WIIS), which investigates reported cases of wildlife and pet poisoning where pesticides may be involved, and for co-ordinating the Campaign against Illegal Poisoning of Wildlife. The Campaign is aimed at safeguarding wildlife and bringing the dangers of illegal methods of pest control to the attention of the widest possible audience. It provides the secretariats for the ACP, the PRC and the Pesticides Forum.

THE PESTICIDES FORUM

The Pesticides Forum was set up in 1996 to help support Government policy on encouraging and promoting responsible pesticide use.

Terms of Reference

The Forum's initial Terms of Reference were:

"To bring together the views of those concerned with the use and effects of pesticides and to assist in the effective dissemination of best practice, advances in technology and research and development results and to advise Government on the promotion and implementation of its policy relating to the responsible use of pesticides"

Membership

Membership of the Forum consists of representatives of 23 organisations with a close interest in the use and impact of pesticide use. These are drawn from the farming and agrochemical industries, environmental and conservation groups, education and training, consumer interests, trade unions and organic farming. Officials from the four Government Departments responsible for pesticides in Great Britain, plus the Department for Trade and Industry and the Department for Agriculture and Rural Development for Northern Ireland, attend Forum meetings in an advisory capacity. PSD provides the Secretariat.

Forum achievements to date

The Forum has been very successful in bringing together a wide range of stakeholders to consider and develop ideas for promoting responsible pesticide use. By bringing together people who know what is feasible and people who know what is politically desirable, the Forum is in a good position to make a strong contribution in this area.

One of the Forum's most notable achievements has been its promotion of integrated farm management (IFM). In summary, IFM is a 'whole-farm' philosophy, which encourages farmers and growers to think about their use of inputs and to have full regard to their wider impact on the environment, whilst at the same time ensuring that they have effective pest and disease controls for their crops. IFM combines the best of conventional farming practices, such as crop rotations, with the minimisation of chemical inputs such as pesticides and care for the environment.

Several members of the Forum including LEAF (Linking Environment and Farming), which has been supporting and promoting IFM since its inception in 1991, and the Crop Protection Association, have been particularly supportive. Other members such as the National Farmers Union, ADAS and BASIS have all played a part in encouraging the adoption of IFM as a standard agricultural practice.

The introduction of a pesticides tax remains an option for Government if the industry's Voluntary Initiative (VI) fails to deliver its hoped for results of reducing impacts on the environment. The Pesticides Forum played an important role as the focus for discussion of a number of initiatives that eventually became a part of the industry's programme. As an example, the ideas for Environmental Information sheets were first aired in the Forum. In addition many training initiatives received considerable support from the Forum over the past six years.

Some of the issues the Forum covers may overlap with those covered by the Voluntary Initiative (VI) and the Forum is considering how it might contribute to the success of the VI and whatever might follow the VI after April 2006.

Many members of the Forum are either members of the Steering Group overseeing the implementation of the Voluntary Initiative or are participating in the Initiative itself. The Forum therefore has a particular interest in doing all it can to support the VI to ensure that it achieves its aims.

The Assured Produce Scheme (APS) for fruit and vegetables is based on the crop protocols developed by the NFU in partnership with the major retailers both of whom are represented on the Pesticides Forum. An important feature of the protocols is the promotion of integrated crop management (ICM) systems, for which the Forum published some possible criteria in its first annual report in 1997. The APS has received the full support and encouragement of the Forum.

From its very first meeting the Pesticides Forum has promoted the need for farmers and advisers to receive more training in all aspects of pesticides use particularly application of pesticides and in the crop protection aspects of integrated farming. BASIS and LEAF, who are both members of the Forum, have taken up these recommendations with considerable success over the past six years. Training has formed an important element of the Voluntary Initiative whilst integrated farming has increased in both adoption and importance over the past few years.

The Pesticides Forum set up a sub-group to develop and pursue a range of indicators that could be used to provide an accurate measure of the success of the work of the Forum in achieving its aim of promoting and implementing a policy of responsible use of pesticides. These could also be used to identify areas of activity on which the Pesticides Forum needs to focus and to determine appropriate measures and initiatives to assist in meeting its objectives. Twelve indicators have so far been developed covering inputs, impacts and the use of pesticides in practice.

Many people are concerned about pesticide residues in food and water and the effects of pesticides on wildlife and the environment. The Pesticides Forum provides a mechanism for exchanging ideas and encouraging new initiatives between organisations that make, use, or

advise on pesticides, and various environmental, conservation and consumer interests. With this in mind the Forum has recently published a paper summarising the issues it believes concern the public most about the use of pesticides and some of the measures that are taken already to mitigate these concerns. Further information on this and on the work of the Pesticides Forum is available on the Forum's website www.pesticides.gov.uk/pesticidesforum/

THE FUTURE ROLE OF THE PESTICIDES FORUM

The present policy environment

Members of the Forum are agreed that pesticides are likely to be an economic necessity for most farmers and growers for the foreseeable future. However, consumers continue to indicate support for a reduction in pesticide residues not only in food but also in the wider environment. Existing and planned EU legislation will also have an increasing impact on pesticide use, particularly its proposal for a strategy on the sustainable use of pesticides.

These pressures mean that EU Member States will need to develop measures to reduce reliance on chemical pesticides. The Government intends to examine whether a specific aim to reduce pesticide use would help to achieve its aim of reducing negative impacts of pesticides on the environment and on health.

Future work programme of the Pesticides Forum

The Forum has very successfully brought together a range of stakeholders to consider and develop ideas for promoting responsible pesticide use. Ministers are keen that this work should continue and that the Forum should develop a greater role in feeding in to Government policy on pesticide issues. By bringing together people who understand the issues and what is possible in practice, the Forum is in a good position to make a constructive contribution in this way.

Hitherto the Forum has been mostly concerned with promoting measures aimed at reducing environmental impacts of pesticides used in agriculture. However, it could expand its remit to consider matters such as residues in food, impacts on health, and amenity and home garden use undertaking a more holistic approach. In considering the scope of its work, the Forum must bear in mind the need to work with, and not duplicate the work of, the Advisory Committee on Pesticides, the Pesticides Residues Committee and the Voluntary Initiative.

Members agreed that the Forum is unlikely always to find consensus on every issue but this does not prevent it from continuing to attempt to find common ground to encourage responsible use.

Bearing in mind the work of the other groups, the Forum believes it is important to have clarity on what it does and does not cover. It is also agreed that the Forum's proceedings should be open and transparent.

One major focus for Forum input in 2003/04 will be to contribute to the development of a national strategy for sustainable use of pesticides that will be required under the recently published proposals for an EU-wide pesticides policy.

Article 6 of the EU's 6th Environmental Action Plan set out objectives for pesticides policy and lists the constituent parts of a 'thematic strategy' on the sustainable use of pesticides. This thematic strategy would be developed by the Commission for eventual adoption by the Council and the European Parliament under the co-decision procedure.

One of the principal aims of the draft strategy is a policy to achieve a significant and verifiable reduction in the use of pesticides. Hitherto it has been the UK Government's policy to reduce the adverse impacts of pesticides on the environment rather than to reduce use itself. There have been two main reasons for this. First, targets for reduced use could be thrown off course by a particular pest or disease problem requiring greater pesticide use in a particular year. Second, and more importantly, reduced use may be inconsistent with reduced environmental impact - for example if there was a switch to more biologically active pesticides or if pressure to reduce use caused changes in agronomic practice that have undesirable side effects.

The draft programme refers to an aim suggesting that "pesticides in use which are persistent or bio-accumulative or toxic or have other properties of concern should be substituted by less dangerous ones where possible". The UK has not been able to clarify the meaning of "in use", but it is likely to mean that a decision to substitute is to be made case by case by pesticide users. This is consistent with the current UK approach. But, it is more likely that the intention is that substitution should be practised by regulators when deciding which pesticides should be available.

This is a more difficult area. The present system for regulating pesticides in the UK and in the EU is to evaluate each pesticide and to allow its use if it meets strict safety standards. No effort is made to discriminate systematically between different pesticides that meet the safety criteria. The Forum might wish to consider whether substitution has presentational advantages that may help with impact reduction.

In summary

The Forum's priority is to inform Government policy on pesticide use, particularly by providing input to the development of a UK national strategy for pesticides. The forum will continue to develop ideas to encourage best practice; consider widening its remit to cover health impacts, residues in primary foods and amenity and garden use and define its practical support for the Voluntary Initiative. The Forum will also consider what recommendations it might make to carry through the environmental protection outputs once the VI programme ends in April 2006.

Finally, there are a range of other activities that the Forum might wish to pursue in more detail including a system to rate pesticides according to their environmental profiles; the continuing implications of the EC review of active ingredients and of EC Regulation 91/414; further discussions on the public perception of pesticides and monitoring its indicators of impacts arising from pesticide use.