



LANDBRUKSDEPARTEMENTET

*Ministry of Agriculture*

Action plan

# Action plan on reducing risk connected to the use of pesticides (2004 - 2008)

Adopted by the Ministry of Agriculture 16 February 2004



## Introduction

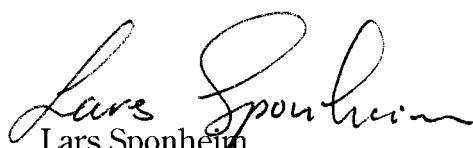
Results from the evaluation of the *Action Plan on Reducing Risk Connected to the Use of Pesticides (1998-2002)* show that the measures we have taken in Norway have been effective. Good results depend on extensive participation in the initiatives by all stakeholders. The industry stakeholders have in other words made a good effort. However, we must not “rest on our laurels”. We still find residues of chemical pesticides in food and the environment. Several of the actions that have been initiated also need to be continued in order to keep the effect.

Today, chemical pesticides are an important resource in plant production. At the same time such substances have more or less unwanted effects: they are chemicals that we knowingly handle and release into nature. It is therefore necessary that we continue our efforts to make Norwegian agriculture less dependant on chemical pesticides and reduce the risk connected to the use of such substances. Industry stakeholders, advisers, scientists and the government must all keep in mind the *precautionary principle*. Previous experiences also show that the *precautionary principle* should be considered in questions regarding pesticides.

In making Norwegian agriculture less dependant on the use of chemical pesticides, it must be central to increase knowledge regarding preventative plant protection measures and alternative methods. Important measures to reach this goal will be to increase integrated production and to exchange experiences with stakeholders in organic farming.

Our good plant health status makes it possible to farm using less pesticide than most other countries. Sparse use of pesticides is an important quality criterion for many consumers. In this we have, in my opinion, a competitive advantage that should be exploited to a greater extent to the advantage of the consumer, the environment and the farming industry.

Pollution from chemical pesticides has consequences not only on a national level but on a global level across borders. Pesticides can spread over long distances via air flows and downfall, water systems and ocean currents. Pesticide residues also exist in imported food products. It is therefore important that we increase our efforts to co-operate with other countries and exchange experiences with them, both to have a common agreement to reduce the use of pesticides and to reduce risk, and to gain as much as possible in terms of improved health and environment from our efforts.

  
Lars Sponheim  
Minister of Agriculture



## **1. Background**

A working group consisting of representatives for the parties to the Agricultural Agreement (The Norwegian Farmers Union, the Norwegian Farmers and Smallholders Union, and the State), the Consumer Council, the Norwegian Pollution Control Authority, the Norwegian Agricultural Inspection Service and the Norwegian Food Control Authority, have made a final evaluation of the *Action Plan on Reducing Risk Connected to the Use of Pesticides (1998-2002)*. Based on results of the evaluation, the group has recommended goals and actions in a continuing 5-year plan.

The working group is of the opinion that the risk has been reduced by at least 25% in the period of the plan, and that the main target in the action plan therefore has been reached.

Based on the inherent properties of the pesticides and calculated risk, and looking at the trade statistics, a measuring method and indicators have been developed to describe the development over time of health and environmental risk caused by the use of pesticides. A comparison of the average for 1996-97 with the average for 2001-02 shows a minor reduction in trade (8%), but a marked reduction of health risk (33%) and environmental risk (37%). Even though one should be careful not to put too much emphasis on such indicative figures, the trend seems clear; a marked reduction in both health and environmental risk has been achieved during the period of the plan. New statistics regarding the use of pesticides developed by Statistics Norway will in time make it possible to gain more certain figures regarding the development of risk.

Results from previous surveys involving Norwegian farmers support the impression that risk has been reduced in the period of the action plan, and show positive changes in attitudes towards use and handling of pesticides. Approximately 40% of the respondents to a survey carried out in 2002/03 were of the opinion that they had reduced the use of pesticides on their farm significantly during the 5-year period.

Even though the trends are positive, the results from the surveillance programmes for food and the environment show that the situation is still not entirely satisfactory.

The evaluation group underlines the need for a continuing effort to reduce risk of damage to health and the environment caused by the use of pesticides. Surveys have revealed that there is room for improvement in several areas.

During the negotiations on the Agricultural Agreement in 2003 the parties to the agreement agreed to allocate the same amount as earlier years to follow up the recommendations made by the evaluation group for a new action plan. The parties agreed to allocate a total of NOK 17 mill via the Agricultural Agreement for actions described in the new action plan for 2004. The actions will be

combined with controls by the new Norwegian Food Safety Authority from 1 January 2004. This surveillance will amongst other things include closer controls of drinking water.

A new working group with representatives for the parties to the Agricultural Agreement (see next page) have presented a draft new 5 year *Action Plan on Reducing Risk Connected to the Use of Pesticides (2004-2008)* based on the recommendations from the evaluation group, the results of a public hearing to which 30 bodies responded, and a preliminary report on *Nordic Co-operation on Reducing the Use of Pesticides*.

This is the basis on which the Ministry of Agriculture has adopted the plan.

## **2. Nordic co-operation / international work**

Based on the Nordic sustainability strategy, *Sustainable development - a new course for the Nordic countries* (TemaNord 2001:505) and the declaration of 28 August 2002 by the Nordic Ministers of agriculture and trade concerning reduction of the use of pesticides, there will be a strengthening of the Nordic co-operation. This will give added value to and strengthen and increase the efficiency of the national work through exchange of knowledge, experience and competence. The co-operation shall contribute to strengthening the common Nordic platform in international co-operation.

A Nordic project group has written a summary of the work carried out in the Nordic countries with plans, goals and actions connected to the use of pesticides. The project group has recommended that the Nordic co-operation should include exchange of information and project co-operation amongst other things within the following areas:

- Financial analysis of the reduction potential as a basis for national determination of quantitative targets for reduction of the use of pesticides
- Implementation of quantitative targets for reduction of the use of pesticides
- Reduction of risk
- Research / knowledge building
- EU legislation and other international work

Those who implement the various measures described in the *Action Plan on Reducing Risk Connected to the Use of Pesticides (2004-2008)* are encouraged to stimulate and participate actively in the Nordic co-operation, and thus benefit from the knowledge, experience and competence that exist in the Nordic countries. The intention is also to contribute to the strengthening of the common Nordic platform in international work.

At the same time as co-operating on a Nordic level, Norway will also continue and strengthen our efforts internationally, through active participation in the work of the EU, OECD, and FAO amongst others.

### 3. Working group / Evaluation

A working group with representatives for the parties in the Agricultural negotiations (The Norwegian Farmers Union, the Norwegian Farmers and Smallholders Union, and the State) shall during the validity period of the plan:

- Develop recommendations for allocation of funds available under the Agricultural Agreement to implement actions described in the action plan.
- Evaluate the implementation and effect of the actions described in the action plan. It is implied that both actions financed through the Agricultural Agreement and other actions will be evaluated.
- Give input regarding further development of the action plan in future Agricultural Agreement negotiations.

### 4. Goals

The goals in *Action Plan on Reducing Risk Connected to the Use of Pesticides (2004-2008)* are based on the goals in the previous action plan (1998-2002):

- Make Norwegian agriculture less dependent on chemical pesticides.
- During the course of the plan, the risk of damage to health and the environment caused by the use of pesticides shall be reduced by 25%, making it at total reduction of at least 50% for the period 1998-2008.
  - *The existence of pesticides in foodstuffs and drinking water shall be reduced as much as possible and not exceed adopted maximum residue limits*
  - *Pesticides should not be found in ground water and must not exceed the maximum residue limits for drinking water*
  - *The existence of pesticides in streams and surface water shall be reduced as much as possible and not exceed limits that might damage the environment*

### 5. Actions and means

The actions described in the new action plan which aim to further reduce the risk connected to the use of pesticides, are based on the main elements of the previous plan. The efforts should also contribute to making Norwegian Agriculture less dependant on the use of pesticides:

- Approved pesticides with the least possible adverse effects on health and the environment, and labelled in such a way that sufficient information is given
- Improved user knowledge about biology and preventative measures, pesticides and alternative eradication methods,

spraying techniques etc., integrated production and organic farming

- Optimal conditions to reduce risk connected to the use of pesticides, good spraying equipment etc.
- Monitoring of pesticide residues in foodstuffs and the environment
- Long term knowledge building

Several of the actions are a continuation of actions from previous action plans. These actions need to be continued in order to keep up the effect.

### **5.1. Measuring methods**

The Norwegian Food Safety Authority should regularly evaluate statistics, measuring methods and indicators that describe the development of health and environmental risk, with a view to adjusting and improving them.

Surveys directed at users should be carried out frequently in the coming years. Such surveys should include all user groups and areas, including farmers, nurseries, forestry and other businesses and places (public space, golf courses, industrial estates, public transport areas, power gates etc.)

### **5.2. Legislation regarding pesticides**

#### ***The approval process***

When approving pesticides vital emphasis must still be put on health and the environment.

The agronomic evaluation should include all aspects of plant production, including available varieties, healthy propagating material and other preventative measures and alternative methods.

Emphasis must be put on thorough risk evaluations, including an evaluation of metabolites and formulation substances.

The total risk picture, i.e. user risk, consumer and environmental risk based on the results from the surveillance programmes for pesticide residues in foodstuffs and the environment, should be emphasised in the evaluation for approval of a pesticide.

The Norwegian Food Safety Authority should constantly consider how to improve the labelling of approved pesticides with regards to information and use instructions.

The Nordic countries should co-operate more with regards to the approval of pesticides.



### ***The taxation system / tax levels***

The new taxation system dating from 1999 will be continued. The system is based on a standard area dose (per hectare) and a differentiated environmental tax in accordance with the level of health and environmental risk. The Norwegian Food Safety Authority should regularly evaluate the system in order to put forward proposals for adjustments.

Organisms used in plant production (macro-biological products) will be exempted from control tax and environmental tax in order to stimulate an increased use of these instead of chemical alternatives.

An increased tax level is not likely to contribute more to reaching the main goal for risk reduction.

### ***Strengthen the data basis for pesticides residues in minor crops/vulnerable cultivations***

The Norwegian Food Safety Authority should contribute to making sure the data bases in minor crops/vulnerable cultivations are sufficient at all times to determine maximum residue limits which agree with Norwegian agricultural practice.

Furthermore, the Norwegian Food Safety Authority should consider measures that can ease the access to products against serious pests where alternative means and methods do not exist.

### ***Consider the benefits to society of using pesticides***

The Norwegian Food Safety Authority should make sure that impact assessments with cost-benefit analysis are carried out as a basis for the approval of pesticides.

Such analysis may be used as a basis to determine quantitative targets for the reduction of the use of pesticides.

### ***Authorisation of traders and users***

The authorisation scheme is one of the most important means to spread information and knowledge that stimulate motivation, influence changes of attitude and secure the correct handling and use of pesticides. The present compulsory authorisation scheme will be continued.

In the courses aimed at traders and users, emphasis should be put on preventative measures, alternative methods and the guidelines for integrated plant protection.

Updated information regarding approved pesticides, including the conditions for use, labels, health, environment and safety data sheets, warnings etc. should be easily accessible for the user at all times. The stakeholders; The Norwegian Food Safety Authority, traders, the Norwegian Crop Research institute, The Norwegian Agricultural Extension Service and others should endeavour to facilitate this.

With regards to the data base containing the names of all authorisation holders, the Norwegian Food Safety Authority should follow up this action through the county governors' agricultural departments to ensure that the data base is updated at all times.

### ***Function testing of spraying equipment***

The requirement to function test spraying equipment every five years will be continued and should be expanded to include all spraying equipment.

Funding to carry out testing will be available until 31 December 2005, by which time all field sprayers and tractor mounted mist sprayers in use must be tested. From 2006 these subsidies will no longer be available.

Better co-ordination between the function testing and the authorisation scheme, efficient spreading of knowledge and intensified focused information should secure correct plant protection and correct use of spraying equipment.

### ***Spraying journal***

The requirement to keep a journal for professional use of pesticides will be continued. The spraying journal is also included in the environment plan.

### ***Collection of obsolete pesticides***

Obsolete pesticides or remains of pesticides shall be returned to the established system for special waste disposal, which has local return units all over the country.

Information about the user's duty to return such waste to special waste disposal units should be increased.

## ***Monitoring and controls***

Monitoring and controls of the storage and use of pesticides will be intensified, and breach of regulations will be sanctioned as is deemed necessary.

Control of the environment plan may be an important basis for the public control and the random checks.

### **5.3. Increased knowledge and competence of the users and advisory services**

More knowledgeable and competent users and advisory services are a key factor in the process of reducing risk connected to pesticides. In this context, closer co-operation between the administration, research and central stakeholders within the advisory services is important.

Based on amongst surveys directed at Norwegian farmers in 2002/03 amongst other things, the following actions should be carried out:

- Updated and appropriate course material for authorisation and integrated plant protection and easy access to information on plant protection.
- Focused information on measures to prevent pollution of waterways.
- Increased offer of competence building courses for advisers and administration bodies, with main focus on risk reduction, preventative measures, alternative methods, integrated plant protection, organic farming etc.
- Intensified offer of theme events locally in order to increase competence, exchange experience and contact between professional colleagues.
- Focused information regarding the duty to return obsolete pesticides to approved disposal units.
- Ensure good information to the users about preventative measures and alternative methods, integrated plant protection and organic farming.

### **5.4. Integrated plant protection**

The guidelines for integrated plant protection should be updated constantly as new research and development results are published.

The inclusion of teaching of integrated plant protection in the authorisation courses should to a reasonable extent improve the spreading of this knowledge to growers all over the country and make it easier to put the guidelines on integrated plant protection on the agenda.

This action should be followed up and developed further. The advisory services should intensify their information work and teaching of integrated plant protection.

Receivers of goods should demand documentation on integrated production from their suppliers.

### **5.5. Agricultural Meteorological Service**

A well functioning Agricultural Meteorological Service is a prerequisite for several important actions in the action plan: damage thresholds, prognoses, warning systems and integrated plant protection, including alternative methods amongst other things.

The action should be followed up and developed further. The co-operation with the Norwegian Institute of Meteorology should be expanded.

### **5.6. Damage thresholds, prognoses and warning systems**

Damage thresholds in different conditions and in different cultivations are an important basis for the development of good and precise warnings. This action should therefore be continued.

The co-operation project between the Norwegian Crop Research Institute and The Norwegian Agricultural Extension Service regarding the Internet based warning system VIPS is very useful as a support function in the efforts to increase the precision in advice given regarding plant protection and to encourage the best possible plant protection with the least possible risk to health and the environment.

Co-operation regarding the action is necessary for the service to function as a practical tool to reach the goals in the action plan. Therefore the co-operation should be continued and strengthened in order to carry out the action more effectively.

The Nordic co-operation regarding warning systems should be continued; such co-operation will give synergy effects both with regards to knowledge exchange and cheaper IT solutions.

### **5.7. Research and Development (R&D)**

The R&D activities should be stimulated as a part of the long term knowledge building, in a continuing emphasis on actions that may reduce risk of damage to health and the environment caused by use or reduce the use of pesticides.

It is particularly necessary to obtain data and models for risk evaluation and knowledge that may contribute to the explanation of connections between the use of pesticides and their existence in the environment.

Both in connection with health and environmental risk there is a need to increase knowledge about possible combination effects of different chemicals. This is research of a more basic character which should be sought realised through international research co-operation.

Several important pesticides will be taken off the market in the coming years. Intensified pesticide testing should be facilitated in order to, if possible, make necessary pesticides available to minor crops and vulnerable cultivations where alternative methods do not exist. Testing is also important to find new pesticides with a less detrimental health and environmental profile than those already in the market.

R&D aiming to increase the knowledge about preventative measures, alternative methods, integrated plant protection and organic farming should be intensified.

#### *Economic analysis of the potential for reduced use of pesticides*

In order to determine the quantitative reduction targets, the Norwegian Food Safety Authority should make sure to obtain an analysis of the economic consequences of reducing the use of pesticides by using known, preventative, non-chemical methods and by using pesticides only when needed.

The action should be carried out through close Nordic co-operation, for the mutual benefit of the participating countries, through exchange of experience and data and adjustment of suitable models.

### **5.8. Monitoring**

The results of the monitoring programmes show that there is room for improvements. The monitoring programmes serve several important functions, including providing feedback regarding whether the conditions for approval and use of pesticides are acceptable and disclosing carelessness or breach of regulations.

#### ***Foodstuffs***

A superior goal is that food is safe. An efficient monitoring programme for foodstuffs is important both for preventative reasons and to maintain consumer confidence.

The monitoring programme for foodstuffs should be followed up and continued at the present level as a minimum. The scope of the search should at all times include the most risky pesticides in use. The program for targeted controls and project based mapping subject to need should be strengthened. These are

effective measures to ensure that the supply of foodstuffs, both Norwegian and imported, may be consumed without health risk.

Surveillance of pesticide residues in drinking water from public water works should be followed up systematically to ensure control over the future development.

### ***The environment***

The JOVA programme holds an important role when it comes to documenting the existence and fate of pesticides in the environment in Norwegian conditions.

The surveillance programme should be followed up and developed further in accordance with needs in the coming years.

The scope of the search for pesticide residues should be extended to include all substances that may damage the environment, including low dosage substances and metabolites.

The existence of pesticide residues in the most important national ground water magazines should be mapped.

## **6. Economy**

The implementation of the actions in the action plan depends on funds being allocated both through the Agricultural agreement and the ordinary State budget.

## **7. Background information**

*Evaluation of the Action Plan on Reducing the Use of Pesticides (1990-94)*  
Working group report. 1998. -Ministry of Agriculture, 60 pages + attachments

*(Draft) Action Plan on Reducing Risk Connected to the Use of Pesticides (1998-2002)*  
Working group report. 1998. -Ministry of Agriculture, 53 pages + attachments

*Action Plan on Reducing Risk Connected to the Use of Pesticides (1998-2002)*  
Adopted by the Ministry of Agriculture 7 October 1998, 11 pages

*Evaluation of the Action Plan on Reducing Risk Connected to the Use of Pesticides (1998-2002)*  
Working group report. 2003. -Ministry of Agriculture, 47 pages + attachments

*Nordic Co-operation on Reducing the Use of Pesticides.* Preliminary report from a Nordic working group. 2003. – The Norwegian Agricultural Inspection Service, 43 pages