

***ITALY'S NATIONAL ACTION PLAN  
FOR THE SUSTAINABLE USE OF PLANT PROTECTION PRODUCTS***

*(Article 6 of Legislative Decree No 150 of 14 August 2012)*

# Contents

## Introduction

## Objectives of the Plan

### A - Actions

#### **A.1 - Training and other requirements for users, distributors and advisors** (Articles 7, 8, 9 and 10 of Legislative Decree No 150/2012)

##### **Introduction**

**A.1.1** - The training system

**A.1.2** - Certification for purchase and use, and certification for sale

**A.1.3** - Certification of advisors

**A.1.4** - Requirements for accessing training courses for professional users and distributors

**A.1.5** - Requirements for accessing training courses for advisors

**A.1.6** - Manner of issue of certificates of competence

**A.1.7** - Persons exempted from the requirement to attend training courses for professional users

**A.1.8** - Persons exempted from the requirement to attend training courses for advisors

**A.1.9** - Manner of renewal of certificates of competence

**A.1.10** - Characteristics of the entities providing initial and continuing training

**A.1.11** - Minimum duration of initial and continuing training courses and manner of delivery

**A.1.12** - Manner of managing and storing the data concerning the certificates of competence

**A.1.13** - Suspension and revocation of certificates of competence

**A.1.14** - Requirements for the sale of plant protection products

**A.1.15** - Requirements for users of plant protection products on account of third-parties (contract workers)

#### **A.2 - Information and awareness-raising** (Article 11 of Legislative Decree No 150/2012)

**A.2.1** - Information and awareness-raising programmes

**A.2.2** - Advance information by users to the general public potentially exposed to plant protection products

**A.2.3** - Information to agricultural holdings

**A.2.4** - National Information System for the surveillance of acute pesticide intoxication

**A.2.5** - Delivery of targeted courses in relevant secondary schools and university degree courses

#### **A.3 - Inspection of pesticide application equipment** (Article 12 of Legislative Decree No 150/2012)

##### **Introduction**

**A.3.1** - Regular technical inspection, adjustment/calibration and maintenance of pesticide application equipment

**A.3.2** - Equipment to be subjected to technical inspection by 26 November 2016

**A.3.3** - Equipment to be subjected to technical inspection at different deadlines and time intervals

**A.3.4** - Exemptions

**A.3.5** - Performance of regular technical checks

**A.3.6** - Adjustment/calibration and regular maintenance of the equipment conducted by professional users (compulsory)

- A.3.7 - Adjustment or calibration by means of instruments at Test Centres (voluntary)
- A.3.8 - Test Centres and organisation of the technical inspection and adjustment/calibration service
- A.3.9 - Verification of activities performed by Test Centres and qualified technicians
- A.3.10 - Establishment of a national database of the technical inspections performed
- A.3.11 - Mutual recognition of technical inspections and instrument-based adjustment/calibration of equipment

**A.4 - Aerial spraying of pesticides** (Article 13 of Legislative Decree No 150/2012)

- A.4.1 - General requirements
- A.4.2 - Authorisation request
- A.4.3 - Authorisation procedure
- A.4.4 - Information to the public concerned and the local authorities
- A.4.5 - Specific requirements
- A.4.6 - Monitoring

**A.5 - Specific measures to protect the aquatic environment and drinking water and to reduce the use of pesticides in specific areas (railway and road network, areas used by the general public, protected nature areas)** (Articles 14 and 15 of Legislative Decree No 150/2012)

- A.5.1 - Guidelines
- A.5.2 - Measures to protect the aquatic environment and drinking water
  - A.5.2.1 - Measures to protect the aquatic environment
  - A.5.2.2 - Measures to protect drinking water
  - A.5.2.3 - Voluntary accompanying measures
- A.5.3 - Protection of water bodies for recreational use, including areas designated as bathing waters
- A.5.4 - Measures to reduce pesticide use or risks on or along railway lines
- A.5.5 - Measures to reduce pesticide use or risks on or along public roads
- A.5.6 - Measures to reduce pesticide use or risks in the areas used by the general public or by vulnerable groups
  - A.5.6.1 - Use of herbicides
  - A.5.6.2 - Use of fungicides, insecticides or acaricides
- A.5.7 - Measures to reduce risks in recently treated areas used by or accessible to agricultural workers
- A.5.8 - Protection of Natura 2000 sites and protected areas
  - A.5.8.1 - Measures to reduce the risks caused by the use of pesticides
  - A.5.8.2 - Voluntary complementary measures

**A.6 - Handling and storage of pesticides and treatment of their packaging and remnants** (Article 17 of Legislative Decree No 150/2012)

- A.6.1 - Accompanying measures

**A.7 - Low pesticide input pest management strategies** (Articles 18, 19, 20, and 21 of Legislative Decree No 150 /2012)

**Introduction**

- A.7.1 - Strategies for the sustainable use of pesticides
- A.7.2 - Statutory integrated pest management
  - A.7.2.1 - The Ministry of Agricultural, Food and Forestry Policies
  - A.7.2.2 - The Regions and Autonomous Provinces
  - A.7.2.3 - Professional users of plant protection products and agricultural holdings

- A.7.3 - Voluntary integrated pest management
  - A.7.3.1 - The Ministry of Agricultural, Food and Forestry Policies
  - A.7.3.2 - The Regions and Autonomous Provinces
  - A.7.3.3 - Agricultural holdings
- A.7.4 - Organic farming
  - A.7.4.1 - The Ministry of Agricultural, Food and Forestry Policies
  - A.7.4.2 - The Regions and Autonomous Provinces
  - A.7.4.3 - Agricultural holdings

## **B - Indicators - Tools to measure achievement of the Plan's objectives**

(Article 22 of Legislative Decree No 150/2012)

## **C - Monitoring**

- C.1 - Monitoring of the presence of active substances in surface water and groundwater
- C.2 - Monitoring of the use of pesticides and pesticide residues in food

## **D - Research and pilot implementation in support of the Plan and advanced training**

## **E - Coordination of control activities**

## **F - Coordination measures for implementing and updating the Plan**

## **G - Manuals and handbooks available or under preparation**

## **H - Financial resources**

## **ANNEXES**

- Annex I** – Specific training objectives for the different types of course (initial and continuing training)
- Annex II** – Components of the pesticide application equipment subject to technical inspection, method of performing the inspection and equipment operation requirements
- Annex III** – Minimum requirements for the equipment used to perform technical inspections
- Annex IV** – Contents of the training course for technicians performing technical inspection on spraying equipment, and requirements for Test Centres
- Annex V** – Species and habitats of Community interest linked to aquatic environments
- Annex VI** – Handling and storage of pesticides and treatment of their packaging and remnants
- Annex VII** – Indicators

## **Introduction**

It is now more than a decade since the launch of the “*Thematic strategy on the sustainable use of pesticides*” in the framework of the Sixth Community Environment Action Programme (2002-2012), adopted by Decision No 1600/2002/EC, of the European Parliament and the Council.

The first Commission Communication COM(2002) 349, which aimed at launching broad consultation of all stakeholders, including farmers, industry, other social partners and the public authorities, had already identified the general objective of achieving a use of pesticides in line with the concept of sustainable agriculture, in accordance with Article 37 of the Charter of Fundamental Rights of the European Union: “*A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development*”.

A series of initiatives were implemented, leading to the drafting of the Commission's proposal for a Directive on the sustainable use of pesticides. This process was accompanied by growing awareness of the fact that significant overall reduction in the risks associated with the use of pesticides is perfectly compatible with the need to ensure effective protection of crops.

Directive 2009/128/EC, transposed in national law by Legislative Decree No 150 of 14 August 2012 (implementing Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides), requires Member States to implement policies and actions to reduce the risks and impacts of pesticide use on human health, the environment and biodiversity. These policies must ensure the development and introduction of agricultural techniques that reduce reliance on pesticides, thereby lessening their risks and impacts on human health and the environment, encouraging the uptake of integrated pest management and alternative approaches or techniques, such as organic farming and the use of non-chemical alternatives to pesticides.

The Directive adds that these objectives should also be pursued via the use of specific economic instruments set out in an *ad hoc* National Action Plan, hereinafter the Plan.

As concerns these financial instruments, Article 2 of Legislative Decree No 150 of 14 August 2012 provides that their implementing measures shall be harmonised with the instruments and facilities of the Common Agricultural Policy (CAP).

## **Objectives of the Plan**

During definition of the instruments implementing the new CAP (2014-2020), the Management Authorities of each programming document shall define the relevant measures and the associated financial resources; they shall also provide quantitative data on the objectives set out in the Plan.

Thus, the necessary quantitative definition of the Plan's objectives, required by Article 4 of the Directive 2009/128/EC, and any additional objectives, shall be set out in an addendum to the Plan as soon as the set of planned measures and associated financial resources is available.

The Plan is comprehensive in scope and pursues long-term objectives. Its purpose is to drive, supervise and monitor a process of change in pesticide use practices towards greater environmental and health compatibility and sustainability, in particular as concerns agricultural practices for the prevention and/or suppression of harmful organisms, covered by Annex III to Legislative Decree No 150/2012.

The Plan sets out solutions to reduce the impact of pesticides also in non-agricultural areas used by the general public, such as urban areas, roads, railway lines, public parks and gardens, school grounds, sports and recreation grounds and all their ancillary areas.

In line with the contents of Directive 2009/128/EC and Legislative Decree No 150/2012, the Plan pursues the following general objectives, in order to reduce the risks associated with the use of pesticides:

- a. reduce the risks and impacts of pesticide use on human health, the environment and biodiversity;
- b. encourage the uptake of integrated pest management, organic farming and other alternative approaches;
- c. protect the users of pesticides and the general public concerned;
- d. protect consumers;
- e. protect the aquatic environment and drinking water;
- f. conserve biodiversity and protect ecosystems.

To achieve these objectives, the Plan shall pursue the following priorities:

- ensure the extensive and systematic delivery of training on the risks linked to the use of pesticides;
- provide accurate information to the general public about the potential risks of pesticide use;
- establish a comprehensive system for the regular check, adjustment and maintenance of spraying machinery;
- prohibit the aerial application of pesticides, granting derogations in specific cases;
- establish specific protection actions in areas of high environmental value, and actions to protect the aquatic environment;
- ensure that the handling, storage and disposal of pesticides and their containers are performed correctly;
- make provision for the use of low-pesticide pest-control in agriculture, in order to preserve a high degree of biodiversity and protect crops from pests, by promoting the appropriate agricultural techniques;
- provide for an increase in the size of areas farmed with organic methods, within the meaning of Regulation (EC) No 834/07 and of areas under voluntary integrated pest management (Law No 4 of 3 February 2011);
- identify appropriate indicators to measure the effectiveness of the actions put in place under the Plan, and disseminate the results of monitoring.

The actions set out in the Plan are consistent with the provisions of Directive 2000/60/EC and with all other applicable EU legislation on the use of pesticides, and they contribute to achieving its objectives.

Special emphasis is laid on monitoring to check progress made and highlight problem areas; this will, *inter alia*, enable the authorities concerned to revise the measures in place, each within its remit.

The main entities involved in implementation of the Plan are: the Ministry of Agricultural, Food and Forestry Policies, the Ministry of the Environment and Protection of Land and Sea, the Ministry of Health, the Ministry of Education, University and Research, the Regions and the Autonomous Provinces, municipalities, public research entities, the entities managing Natura 2000 sites and protected areas, farmers and any other pesticide users, the producers and distributors of pesticides and all the parties proposing alternative methods and techniques, pesticide advisors, the railway and road managing agencies, and all those public and private entities, including associations, which manage green areas used by the general public.

Table 1 summarises the actions set out in the Plan and the target groups.

**Table No 1**

Priorities	Main actions	Health protection				Environmental protection	
		Consumers	Professional or non-professional farmers	Agricultural area residents	General public using public areas	Aquatic environment and drinking water	Biodiversity and ecosystems
Training of pesticide users, advisors and distributors	Issue of certificate of competence to advisors, distributors and professional users	X	X	X	X	X	X
Sale of pesticides	Requirements for sale	X	X			X	X
Information and awareness-raising	Awareness-raising programmes targeting consumers and professional and non-professional users	X	X	X	X	X	X
	National Information System for monitoring acute pesticide poisoning	X	X	X	X		
	Notices of pesticide applications to potentially exposed bystanders/residents			X			
	Organisation of specific courses within relevant university degree courses	X	X	X	X	X	X
Technical inspection of pesticide spraying machinery	Statutory technical inspection of pesticide-spraying equipment	X	X	X		X	X
	Adjustment of the pesticide-application equipment at authorised centres	X	X	X		X	X
Prohibition on the aerial application of pesticides	Prohibition on the aerial application of pesticides			X		X	X
Specific measures to protect the aquatic environment	Specific pesticide replacements and/or use limitations and risk-mitigation measures to protect surface waters	X			X	X	X
	Specific pesticide replacements and/or use limitations to protect water for human consumption and groundwater	X			X	X	X

Priorities	Main actions	Health protection				Environmental protection	
		Consumers	Professional or non-professional farmers	Agricultural area residents	General public using public areas	Aquatic environment and drinking water	Biodiversity and ecosystems
Specific measures to safeguard protected areas	Specific pesticide prohibitions, replacements and/or use limitations in conservation areas (Directives 79/409/EEC and 92/43/EEC) and in other protected nature areas (national and regional parks, reserves etc.)	X			X	X	X
	Specific pesticide prohibitions, replacements and/or use limitations within 1 year after the entry into force of the NAP in Ramsar sites				X	X	X
Measures to safeguard specific areas	Specific pesticide prohibitions, replacements and/or use limitations in areas used by the public: parks, public gardens, playgrounds, sports grounds, yards, etc.				X		
	Specific pesticide prohibitions, replacements and/or use limitations along railway lines and roads				X	X	X
	Protection of water bodies for recreational use				X	X	X
Pesticide handling, use, storage and disposal	Requirements for pesticide handling, storage and disposal		X	X		X	X
	Application of GAPs (Good Agricultural Practices) in handling pesticides at the holding	X	X	X		X	X
Low-pesticide use strategies	Statutory integrated pest management with effect from 1 January 2014		X	X			X
	Voluntary integrated pest management	X	X	X		X	X
	Organic farming	X	X	X		X	X



## **A – Actions**

### **A.1 Training and other requirements for users, distributors and advisors**

(Articles 7, 8, 9 and 10 of Legislative Decree No 150/2012)

#### **Introduction**

In Italy, the initial and continuing training system for users and distributors of plant protection products was put in place 45 years ago by Presidential Decree No 1255/68, later amended by Presidential Decree No 290 of 23 April 2001, as amended and supplemented.

This legislation reserved the purchase of plant protection products classified and labelled as very toxic, toxic and harmful exclusively to persons holding the authorisation to purchase and use them.

Issue of the authorisation and its renewal every 5 years were already subject to the requirement to take initial and continuing training courses and to pass a final test of competence concerning the dangers and risks linked to holding, storing, handling and using plant protection products and their adjuvants, the cautions to be taken, and the principles for their proper use to safeguard human health, agricultural resources and the environment.

The national framework also required distributors to hold a specific qualification to sell pesticides, whose issue and renewal were largely governed by the same procedures laid down for the purchase authorisation.

In Italy, about 250 000 users already hold the authorisation to purchase and use plant protection products, partly corresponding to the certificate of competence for pesticide purchase and use governed by the Plan; more than 7 000 operators already hold the authorisation to sell.

Implementation of Directive No 2009/128/EC requires the updating of the current national framework as concerns the roles of professional user and distributor, and requires the setting up of a similar training and certification system for advisors, a role currently not found in national legislation.

#### **A.1.1 - The training system**

1. A system of compulsory certified training for professional users, distributors and advisors is established. The system covers both initial and continuing training.
2. The Regions and the Autonomous Provinces shall issue the certificates of competence to professional users, distributors and advisors. Without prejudice to points A.1.7 and A.1.8 below, certificates of competence shall be issued to those who participate in *ad hoc* initial training courses and pass a test on the subjects listed in Annex I to Legislative Decree No 150/2012.
3. The certificate of competence shall be valid for five years and shall be renewable, on the holder's request, subject to proof of participation in continuing training courses or initiatives. By issuing and renewing the certificates of competence, the Regions and the Autonomous Provinces certify the continuing training of the persons mentioned in paragraph 1 above.
4. The certificate of competence issued by the competent authority is personal and must bear the holder's identification details and photo. To allow checking of its validity, the certificate shall also bear its issue and expiry dates. The Regions and Autonomous Provinces may issue the certificate to professional users in the form of a badge, or via a web-based identification tool complying with the applicable rules, including those on e-government.
5. The certificates of competence are valid throughout the national territory.
6. Up to 26 November 2014, regional and provincial authorities may issue or renew the qualifications for the sale, purchase and use of plant protection products under the rules adopted

by each Region or Autonomous Province prior to the entry into force of Legislative Decree No 150/2012.

7. Thus, the new framework shall not affect the certifications for sale and those for purchase issued and renewed, prior to the entry into force of the training system referred to in point 1 above, under the procedures previously in force pursuant to Presidential Decree No 290, as amended and supplemented. On their expiry, these older certifications shall be renewed in the manner set out in the Plan (paragraph A.1.9, points 1 and 2), and in the subsequent Regional and/or Provincial implementing regulations. In particular, the certifications for sale already issued pursuant to Presidential Decree No 290/2001, may be renewed even if the holders of the certificate do not meet the requirements laid down in Article 8(2) of Legislative Decree No 150/2012, pursuant to Article 8(5) of the same Decree.
8. The Regions shall ensure that the persons who must fulfil training requirements are not subjected to duplication of requirements in respect of those concerning plant protection products already set out in Legislative Decree No 81 of 9 April 2008 (Consolidated law on workplace health and safety). The teaching materials and units for the initial and continuing training courses shall be published on the national website provided for in paragraph A.2.1, and shall also be available to non-professional users.

#### **A.1.2 - Certification for purchase and use and certification for sale**

1. With effect from 26 November 2015, the certificate of competence for the purchase and use of plant protection products shall be a compulsory requirement for anyone wishing to purchase and/or use plant protection products intended for professional users.
2. Effective from 26 November 2015, the certification for sale of plant protection products shall be a compulsory requirement for the (wholesale or retail) distribution on the market of all the plant protection products intended for professional users. For the plant protection products intended for non-professional users the seller shall provide information on the risks for human health and the environment associated with their use.
3. The training and final test for issue of the certificate of competence to sell PPPs shall also be valid as training and test for issue of the certificate of competence for the purchase and use of plant protection products.
4. The Regions and the Autonomous Provinces may also issue the certificate in the form of a badge which must be displayed by the professional user in order to be identified.

#### **A.1.3 - Certification of advisors**

Effective from 26 November 2015, the advisor certification referred to in Article 8(3) of Legislative Decree No 150/2012 shall be mandatory for the provision of advisory services on low-pesticide use farming techniques, including the area of integrated pest management and organic farming, the sustainable and safe use of pesticides and alternative pest management methods.

Thus, holding this certificate is mandatory also for those persons who provide these services within projects or specific measures on these issues supported by the Regions and Autonomous Provinces. The activity of advisor shall be incompatible with that of being an employee or direct collaborator for consideration of authorisation holders for plant protection products under the definition provided in Article 3(24) of Regulation (EC) No 1107/2009.

This incompatibility shall not apply to persons working in public research and testing centres officially engaged in occasional cooperation for scientific purposes with the above-mentioned companies holding the authorisation. Other entities exempted from the incompatibility are university researchers and research entities, and technicians at the test centres of companies not holding PPP authorisations.

Persons/entities holding a certificate of competence for sale may not provide advisory services.

On request, the certificate of competence for the activity of advisor shall be exhibited to the professional users of plant protection products.

In order to facilitate identification, the Regions and the Autonomous Provinces may also issue the certificate in the form of a badge which the advisor must show in order to identify himself.

The training and final test for issue of the certification of competence for advisory services shall also be valid as training and examination for issue of the certificate of competence for the purchase and use of plant protection products. As the training courses are largely identical, the training and final test shall also be valid as training and test for issue of the certificate of competence to sell PPPs.

#### **A.1.4 - Requirements for accessing training courses for professional users and distributors**

1. The certificates of competence for the purchase and use of plant protection products may be issued to persons who are 18 years of age or older.
2. The training courses for issue of the certificate of competence for distributors are open to the holders of the educational qualifications referred to in Article 8(2) of Legislative Decree No 150/2012.

The training courses for professional users and distributors may consist of a common first part, followed by two different portions, with different syllabi addressing the two different roles.

#### **A.1.5 - Requirements for accessing training courses for advisors**

The training courses for the issue of the certificate of competence for advisors are open to persons fulfilling the requirements set out in Article 8(3) of Legislative Decree No 150/2012.

#### **A.1.6 - Manner of issue of certificates of competence**

1. In order to obtain the certificate of competence (for purchase and use, sale, and advisory services) all those persons meeting eligibility requirements (without prejudice to the provisions of paragraphs A.1.7 and A.1.8 below) must participate in the respective training courses and must pass a competence test in the manner described in point 2 below. Course attendance may not fall below 75% of total teaching hours, as proven by a certificate of attendance. The attendance requirement may also be fulfilled by cumulating participation in different training courses, delivered in the Region responsible for issuing the certificate of competence, over the 12 months preceding the date of submission of the certification request.
2. The competent Regional or Provincial authorities shall assess the knowledge acquired by course participants by means of an examination administered by boards of experts in the subjects listed in Annex I to Legislative Decree No 150/2012, which shall be held in the Italian language, save for the current safeguards for speakers of minority languages, and shall be administered in at least one of the following manners:
  - a. written test;
  - b. oral interview.
3. The training courses may also be attended by persons residing in different Regions or Autonomous Provinces from those organising the courses. The exam for issue of the certificate of competence must be taken in the Region or Autonomous Province where the person attends the training course. Such Region or Autonomous Province shall also issue the relevant certificate of competence.

#### **A.1.7 - Persons exempted from the requirement to attend training courses for professional users**

Exemption from the training course is granted to the holders of a five-year high school diploma or of a university degree (including a 3-year degree) in the following subjects: agricultural and forestry

sciences, biology, natural sciences, environmental sciences, chemical, pharmaceutical, medical or veterinary sciences.

In order to acquire the certificate of competence, these persons must nevertheless pass the qualification exam. These persons, though exempted from the initial training, shall be required to participate in continuing training courses for renewal of their certificate of competence, in the manner set out in paragraph A.1.9 below.

#### **A.1.8 - Persons exempted from the requirement to attend training courses for advisors**

The Regions and Autonomous Provinces may exempt from the requirement to attend initial training and take the qualifying exam the following persons:

- PPP inspectors as defined by Legislative Decree No 214/2005 as amended and supplemented;
- university teachers holding courses on plant pests and plant protection strategies;
- researchers at universities and other public establishments operating in the sector of plant pests and plant protection strategies;
- those persons who, as at 26 November 2015, can document having worked for at least two years as providers of technical assistance or advisory services in the field of integrated pest management and biological pest control, including in the context of plans or measures approved by the competent Regional or Provincial authorities or within public services;
- candidate advisors holding the educational qualifications referred to in Article 8(3) of Legislative Decree No 150/2012 who, as at 26 November 2015, can prove they have successfully taken a training course and final exam approved by the competent Regional or Provincial authority and whose contents comply with the requirements set out in Annex I to Legislative Decree No 150/2012.

For the above-mentioned persons, the Regions and the Autonomous Provinces shall define appropriate objective requirements for testing their knowledge of the subjects listed in Annex I to Legislative Decree No 150/2012, and in any case in compliance with the above-mentioned Article 8(3).

#### **A.1.9 - Manner of renewal of certificates of competence**

Certificates of competence shall be renewed, on the holder's request, subject to proof of participation in *ad hoc* continuing training courses or initiatives.

The continuing training requirement may be fulfilled by participating in specific courses, or by acquiring the requisite number of training credits over the period of validity of the certificate of competence.

The competent Regional or Provincial authorities shall identify the training courses and seminars approved for achievement of the requisite training credits.

##### **1. Professional users**

In order to obtain renewal of the certificate of competence for pesticide purchase and use, the persons concerned must participate in the specific continuing training courses or seminars described in point A.1.11 below. The continuing training requirement may be fulfilled by attending courses providing the requisite number of training credits over the 5-year period of validity of the certificate of competence. On completion of the required continuing training, a certificate of “continuing training” will be issued. The certificates of competence shall be renewed by the competent Regional or Provincial authority after checking such attestation. The competent Regional or Provincial authorities shall identify the training course and seminars approved for achievement of the requisite training credits.

##### **2. Distributors and advisors**

The certificates of competence for the sale of plant protection products and the provision of advisory services shall be renewed by the the competent Regional or Provincial authorities, after checking fulfilment of continuing training requirements.

#### **A.1.10 - Characteristics of the entities providing initial and continuing training**

1. The training of professional users, distributors and advisors falls under the remit of the Regions and the Autonomous Provinces, which shall lay down achievement standards to ensure participants obtain appropriate mastery of the subjects listed in Annex I to Legislative Decree No 150/2012.

Course planning and delivery shall take place on the basis of training needs, also in the light of Legislative Decree No 81/2008 and of the agreements concluded by the Standing Conference for relations between the Central Government, the Regions and the Autonomous Provinces of Trento and of Bolzano on 21 December 2011 and 25 December 2012, and in compliance with the minimum common criteria set out in the Plan. Course planning and organisation shall be handled directly by the competent authorities, or delegated to accredited training entities, in accordance with the template set out in the Agreement between the central Government, the Regions and the Autonomous Provinces of 20 March 2008, and/or through providers authorised under the provisions adopted by each Region and Autonomous Province, with due regard to the provisions of the State-Regions Conference agreement of 21 December 2011.

On the basis of specific agreements with the competent authorities, agricultural sector professional associations and registers may offer their members training for the issue and/or renewal of the certificate of competence for advisors. This training is subject to approval by the competent authorities and must comply with the requirements of Article 7 of Legislative Decree No 150/2012 and of the above points A.1.3, A.1.5, A.1.6 and A.1.11. Furthermore, as provided by Article 8 of Legislative Decree No 150/2012, issue of the certificate of competence is subject to passing a test on the subjects listed in Annex I to the Decree, in accordance with the procedures adopted by the competent authorities.

2. Teachers and trainers in the courses for issue or renewal of the certificates must possess appropriate technical and professional knowledge and may not be employees or direct collaborators for consideration of entities that distribute plant protection products on the market, or of companies holding authorisations of plant protection products, as defined in Article 3(24) of Regulation (EC) No 1107/2009. This incompatibility shall not apply to persons working in public research and testing centres officially engaged in occasional cooperation for scientific purposes with the above-mentioned companies holding the authorisation.

For the delivery of advisor-training courses, if no other suitable teachers are available the Regions and Autonomous Provinces may rely on experts who are employees or direct collaborators for consideration of authorisation holders of plant protection products as defined in Article 3(24) of Regulation (EC) No 1107/2009.

The Ministry of Agricultural, Food and Forestry Policies, together with the Ministry of the Environment and Protection of Land and Sea and the Ministry of Health, and working together with the Regions and the Autonomous Provinces, may design specific training templates to harmonise the contents and teaching methods of the courses delivered by the Regions and Autonomous Provinces.

3. The Regions and the Autonomous Provinces shall arrange, at local level, with universities, agricultural schools, relevant professional associations and bodies, the relevant institutes belonging to public research entities and other public or part-public entities specific training courses and/or workshops on the subjects listed in Annex I to Legislative Decree No 150/2012, to favour the training of professional figures appropriate to the tasks and objectives set out in the Plan.

#### **A.1.11 - Minimum duration of initial and continuing training courses and manner of delivery**

1. The Regions and the Autonomous Provinces shall design training modules comprising common teaching units for all types of certificates and specific teaching units targeting respectively professional users, distributors and advisors.

The training courses for initial issue of the competence certificates shall have a minimum duration of 20 hours for professional users and 25 hours for distributors and advisors. The continuing training courses required for renewal of the certificates every 5 years shall have a minimum duration of 12 hours.

2. Professional users may be divided into the following two subgroups:
  - a. Agricultural professional users, including contract workers;
  - b. Non-agricultural professional users, including contract workers.

Each training course (whether initial or continuing) addressed to professional users must include teaching units covering the specific tasks performed by the above two different professional figures. In the light of the characteristics of the professional users participating in the course, training design should favour active engagement and comprise a mix of lectures and hands-on training sessions, supported by appropriate teaching materials. For each profile and for the different types of course (initial or continuing) the specific training objectives listed in Annex I, Part A must be achieved.

3. The training requirements may be fulfilled via a system of training credits which may also be achieved by participation in other courses approved by the public authorities, addressing the subjects listed in Annex I.
4. The initial and continuing training courses may also be delivered in distance-learning/e-learning mode. Any distance-learning activities must be managed by a tutor who shall attest to their validity, as provided in the agreement concluded in the Standing Conference for relations between the State, the Regions and the Autonomous Provinces of 21 December 2011 on e-learning. The number of hours of training completed in distance-learning and/or self-learning mode shall be certified by the participant and validated by the tutor or, alternatively, shall be certified by the e-learning platform.

The initial certification course for professional users should maintain a mix of lectures and hands-on sessions.

#### **A.1.12 - Manner of managing and storing the data concerning the certificates of competence**

By 31 March of each year, starting from 2015, the competent Regional or Provincial authorities must send to the Ministry of Agricultural, Food and Forestry Policies the data on the various competence certificates, as specified in Article 7(4) of Legislative Decree No 150/2012, using the template provided in Annex I, Part B. The Ministry of Agricultural, Food and Forestry Policies, the Regions and the Autonomous Provinces shall select an IT system allowing the data to be processed in or converted to widely available formats, and shall define the manner of its consultation.

#### **A.1.13 - Suspension and revocation of certificates of competence**

The competent Regional or Provincial authorities may issue *ad hoc* measures to suspend or revoke the different certificates of competence, in accordance with the criteria listed in Annex I, Part C. The suspension period shall be established by the competent Regional or Provincial authority based on the non-compliance found.

#### **A.1.14 - Requirements for the sale of plant protection products**

Effective from 26 November 2015, at least one person, owner or employee, holding the certificate of competence for sale must be present at the time of the sale. The certificate of competence must be posted in a clearly visible position at the sales point.

Where the authorisation has been revoked and the PPP may still be used for a limited period and, whenever the PPP can only be used for a limited period, the distributor must inform the purchaser about the time limit by which the product must be used.

In the light of Article 67 of Regulation (EC) No 1107/2009, the distributors of plant protection products referred to in Article 8 of Legislative Decree No 150 of 14 August 2012 must fill in a register where they shall enter, for each pesticide, the quantities sold to individual professional users.

This register may also be maintained in electronic form. The amounts of each plant protection product sold in each calendar year shall be entered in the information sales report sheet to be sent each year by electronic means to the National Agricultural Information System (SIAN) or on magnetic medium to the competent Regional authority, as provided for in Article 16(2)(b) of Legislative Decree No 150 of 14 August 2012.

Similarly to the register of pesticide applications, which must be kept by the professional user, the register of the quantities of plant protection products sold is also intended as a verification tool under the monitoring plans and official control plans implemented locally. To this end, distributors must also fill in a register of the amount of plant protection products purchased, where they shall list, in order of time, the quantities of each pesticide purchased. This register too may be maintained in electronic form.

The other requirements for the keeping of the above-mentioned registers are those set out in Article 24(4) and (5) of Presidential Decree No 290/2001 as amended and supplemented. Effective from 26 November 2015, in lieu of the details of the sale declaration referred to in paragraph (6) of the above-mentioned Presidential Decree, the distributor must enter the number or code of the certificate of competence referred to in Article 9 of Legislative Decree No 150/2012, shown by the purchaser.

#### **A.1.15 - Requirements for users of plant protection products on account of third-parties (contract workers)**

Users of plant protection products on third parties' account (contract workers) must provide prior information to the owner of the holding, or the entity in whose land they are applying the pesticides, and about the health and environmental implications of pesticide application. Specifically, they shall ensure compliance with safety intervals and re-entry intervals, with any measures to mitigate risks for the environment required in the product's label (e.g. buffer strips), and with any requirements to post signs of the pesticide application to inform bystanders or any other persons who might be exposed to risks or might access the treated areas or the nearby areas, as provided for by paragraph A.2.2 below. Contract workers shall also enter in the register of PPP applications, to be kept at the holding, the number of applications made. Alternatively, they shall make available to the holding's owner, on a specific form to be enclosed with the register of PPP applications, information on each application performed, as required by Article 16(3) and (4) of Legislative Decree No 150/2012.

Contract workers are considered to be professional users. If contract workers also handle the purchase of the plant protection products, their invoice shall indicate, in addition to the consideration for their service, the type and quantity of pesticide applied and its cost. In this event, contract workers must fill in a stock record entering the type and quantity of each product purchased and subsequently applied on their customers' land. Contract workers shall keep all pesticides in an appropriate storage facility complying with the applicable legislation.

## **A.2 - Information and awareness-raising** (Article 11 of Legislative Decree No 150/2012)

### **A.2.1 - Information and awareness-raising programmes**

Within 12 months after the entry into force of this Plan, the competent authorities referred to in Article 4 of Legislative Decree No 150/2012, assisted by the Technical-Scientific Committee referred to in Article 5 of the same Legislative Decree No 150/2012, hereinafter, in short the Committee, shall draw up balanced and accurate information and awareness-raising programmes addressed to the general public about the risks and potential acute and chronic impacts for human health, non-target organisms and the environment of the use of plant protection products, and about the benefits of using low-pesticide input pest management techniques, with a focus on integrated pest management and biological pest control methods.

To this end, a single national information website will be set up, addressed to:

- professional and non-professional users;
- the general public and consumers.

### **A.2.2 - Advance information by users to the general public potentially exposed to plant protection products**

Users are required to inform the public of pesticide applications, in the manner established by the Regions and Autonomous Provinces, in the following cases:

- use of plant protection products on agricultural land in the vicinity of areas potentially used by the public (nature trails, sports and fitness trails and areas with outdoor sports equipment, cycling routes, picnic areas, etc.) and use in non-agricultural areas, e.g. applications in public parks or gardens, along roads or on roadside hedges etc.;
- when expressly required by the product's label, in accordance with Article 9(1)(g)(6) of Presidential Decree No 290/2001, as amended by Presidential Decree No 55/2012;
- when required by specific rules or measures issued by the Regions or competent local authorities, also on the basis of guidelines to be issued by the Ministry of Health, also acting on the Committee's proposals.

The notice shall be given to protect members of the public who might be exposed to risks from the application of plant protection products or who might enter the treated areas or their vicinity. These people must be informed of the pesticide application by signs containing appropriate warnings, posted along the boundaries of the treated areas.

### **A.2.3 - Information to agricultural holdings**

Without prejudice to Article 67 of Regulation (EC) No 1107/2009, in order to protect their crops, in particular any organically-grown crops, agricultural holdings may request that bordering holdings inform them about their pesticide applications and the active principles used.

### **A.2.4 - National Information System for the surveillance of acute pesticide intoxication**

The competent national authorities, with the Committee's assistance, shall design control plans to collect, classify and analyse data on acute pesticide intoxication cases. To this end, they will rely on the National Information System for Acute Pesticide Intoxication Monitoring (SIN-SIAP), housed within the National Health Institute (*Istituto Superiore di Sanità* - ISS), which already collects data on the pesticide poisoning incidents reported by the Anti-poisoning Centres (*Centri Antiveleeni* - CAV), by the Local Health Authorities, by INAIL and by other public agencies, according to standardised procedures.

ISS, with the support of the other participating authorities, shall assess the quality of the information sent to SIN-SIAP, collate the data from the various information sources and analyse the



pesticide exposure data. The ISS shall publish an annual report on its monitoring exercise, including descriptive national-level analysis which can also be provided on the regional scale. The SIN-SIAP database shall also be used to make more in-depth analyses on emerging issues and to contribute to workplans to assess the positive impacts of risk-mitigation and training/information actions, to assess the safety of newly marketed pesticides, and to define separate risk indicators for professional and non-professional exposure.

#### **A.2.5 - Delivery of targeted courses in relevant secondary schools and university degree courses**

The competent national authorities, the Regions and the Autonomous Provinces shall favour the teaching of the subjects covered by the Plan in agricultural secondary schools and universities, either through new courses or within existing courses, and shall promote their dissemination and uptake by agricultural schools and universities.

### **A.3 - Inspection of pesticide application equipment** (Article 12 of Legislative Decree No 150/2012)

#### **Introduction**

Technical inspection of the spraying machinery in use was launched on a voluntary basis in the early 1980s: at the time it addressed almost exclusively holdings that used integrated pest management and biological pest control methods.

Subsequently, Interregional Programme Agriculture and Quality, Measure 4 “Use of PPPs and efficiency of spraying equipment”, helped expand the reach of the service and increase the number of controls, performed under nationwide-harmonised procedures.

Thus the number of Test Centres rose from about 20 to the current 150. The authorisation of Test Centres, training and certification of technicians and organisation of the service shall be managed by each Region.

By Decree No 10730 of 21 December 2004, the Ministry of Agricultural, Food and Forestry Policies approved a “Programme to coordinate checks on pesticide application equipment” and entrusted its operation to the National Agency for Agricultural Machinery (ENAMA).

This led to the establishment of a Technical Working Group, composed of scientific experts and representatives from the Regions, which produced a series of recommendations for harmonising inspections of pesticide application equipment. These documents are in line with the provisions of Annex II to the Directive, and take on board the detailed technical guidelines produced by the EU working groups under *SPISE – Standardised Procedure for the Inspection of Sprayers in Europe* – on the basis of *UNI EN ISO 13790*. They constitute the current framework for equipment inspections in Italy.

Under Directive 2009/128/EC, technical inspections, currently conducted under a voluntary scheme, must become compulsory.

Italy has about 600 000 pesticide sprayers, 61% of which are tree crop sprayers, 31% are spray booms and 8% are handheld/knapsack sprayers. Currently, there is no register of the equipment in use.

#### **A.3.1 - Regular technical inspection, adjustment/calibration and maintenance of pesticide application equipment**

The regular technical inspection of pesticide application equipment, made compulsory by Article 12 of Legislative Decree No 150/2012, shall be performed by Test Centres authorised by the Regions and Autonomous Provinces, on the basis of the guidelines established with the Ministry of

Agricultural, Food and Forestry Policies supported in this by the National Agency for Agricultural Machinery (ENAMA), a technical body whose tasks are set out in point A.3.10 below.

In addition to submitting the equipment to regular technical inspections, professional users shall conduct adjustments and calibrations of the equipment to ensure spraying of the correct amount of pesticide mixture, and to keep the equipment in proper working order, thus ensuring a high level of safety and protection of human health and the environment.

### **A.3.2 - Equipment to be subjected to technical inspection by 26 November 2016**

The following is the list of pesticide-spraying equipment for professional use in agricultural and other domains to be subjected to regular technical inspection:

- a) spraying equipment for vertical crops (e.g. tree crops)
  - aerial application equipment (pressure-type, pneumatic-type and centrifugal-type atomizer);
  - air pressure atomizer sprayers without fan;
  - long-range sprayers with automatically oscillating nozzles;
  - cannon sprayers;
  - straddle sprayers;
  - tunnel sprayers with and without recovery system.
- b) spraying machinery for flat surface application (e.g. weed control in grass crops)
  - pressure, pneumatic and centrifugal atomizers with or without air sleeve with boom sprayers measuring more than 3 m in length;
  - cannon sprayers;
  - long-range horizontal sprayers with automatically oscillating nozzles;
  - sprayers for localised weed-killing under tree crops not provided with screens;
  - sprayers mounted on seed drills (for application of liquid pesticide mixture).
- c) spraying machinery and equipment for greenhouse application
  - sprayers or fixed equipment or components of fixed equipment inside greenhouses, such as fixed foggers and barrow-mounted sprayers. For this equipment the inspections will be performed on site by staff from authorised inspection centres, using *ad hoc* movable equipment;
  - equipment not requiring operators (moving foggers);
  - operator-carried sprayers, such as foggers, sprayer lances; knapsack engine sprayers, with fan, ultra low-volume sprayers;
  - mobile sprayers such as cannons, boom sprayers including those with boom of less than 3 m and and aerial sprayers with pressure-type, pneumatic-type or centrifuge-type atomizer.

By 26 November 2016 the above-mentioned types of equipment must have undergone the periodic technical inspection at least once at a Test Centre authorised by the Regions and Autonomous Provinces.

After performing the technical inspection, the authorised Test Centre shall issue a declaration that the equipment complies with the applicable technical requirements, as per Annex II.

Pursuant to Article 12(2) of Legislative Decree No 150/2012, the time interval between technical inspections shall be not more than 5 years up to 31 December 2020, and 3 years thereafter. New equipment, purchased after 26 November 2011, shall undergo the first technical inspection within 5 years from its purchase date.

The technical inspection carried out after 26 November 2011 by Test Centres officially approved by the Regions and Autonomous Provinces, performed in accordance with the provisions of Annex II to Directive 2009/128/EC shall be considered valid.

In setting up the service, the Regions and the Autonomous Provinces shall determine appropriate priority criteria having regard to the age of the equipment, the intensity of its use by the holding and the associated risk for human health and the environment.

### **A.3.3 - Equipment to be subjected to technical inspection at different deadlines and time intervals**

Within six months from the entry into force of the Plan, the Ministry of Agricultural, Food and Forestry Policies assisted by the Committee shall issue a Decree identifying the equipment which must undergo technical inspection at different intervals to those set out in paragraph A.3.2 above. For this purpose, account shall be taken of the available studies, in particular the document drawn up by the task force set up by Decree of the Ministry of Agricultural, Food and Forestry Policies No 10730 of 21 December 2004, entitled: “*Classification of the pesticide spraying equipment which must undergo technical inspection at the time intervals set out in Directive 2009/128/EC*”.

The Decree shall also define additional procedures relating to the technical inspection of such equipment, not included in the Plan.

The technical inspections on pesticide-spraying equipment used on or along railway lines and on aircraft-mounted spraying equipment shall be carried out at least once a year.

For spraying equipment for use on third parties' account, the first inspection shall be performed by 26 November 2014; thereafter, the interval between inspections shall not exceed 2 years. Contract workers means the holder of an undertaking registered as a contract undertaking with the Chamber of Commerce.

New equipment shall undergo the first technical inspection within 2 years from its purchase date.

### **A.3.4 - Exemptions**

The following equipment shall be exempted from compulsory regular technical inspections:

- hand-held or knapsack sprayers, for use by an operator, with pressurised tank or manual lever pump;
- knapsack engine sprayers without fan, unless used on greenhouse crops.

### **A.3.5 - Performance of regular technical checks**

The purpose of the technical inspection is to ascertain that the pesticide application equipment meets the requirements set out in Annex II to the Directive, thus ensuring a high degree of safety and protection for human health and the environment. A successful inspection ensures that the equipment functions reliably, guaranteeing that pesticides can be accurately dosed and distributed. The equipment must be in such a condition as to be filled and emptied safely, easily and completely and prevent leakage of pesticides.

In order for the technical inspection to be performed, the water contained in the tank must be clean, the whole spraying equipment must have been accurately cleaned and must pose no obvious risks to the inspector's safety. “Obvious risks” means visible and clear damage to, malfunctioning of and/or flaws in the sprayer or its components, including all the safety devices provided with the equipment and mentioned in the equipment use and maintenance manual, if available.

Test Centres must be provided with appropriate testing equipment and must guarantee that no environmental pollution incidents occur during the tests (Annex III).

### **A.3.6 - Adjustment or calibration and regular maintenance of the equipment conducted by professional users (compulsory)**

The purpose of adjustments or calibration, which must be conducted regularly by professional users, is to adjust the pesticide application equipment to the crops cultivated at the holding and to

establish the appropriate volume of mixture to be sprayed, having regard to the instructions on the PPPs' labels.

This will ensure that the lowest amounts necessary for effective pesticide action are applied and any excessive use is avoided.

The following minimum data shall be entered annually in a form to be enclosed with the pesticide application logbook or in the logbook itself: equipment used, date of equipment adjustment and quantities of product sprayed with reference to the main crop types.

Professional users shall perform regular technical checks and maintenance on the spraying equipment, covering at a minimum the following aspects:

- a. check for any cracks or leakages from the equipment components;
- b. check the effective operation of the hydraulic circuit and manometer;
- c. check the effective operation of nozzles and drip guards;
- d. keep filters and nozzles clean;
- e. check the state of the equipment protections, e.g. the U-joint and the fan grille (if any).

### **A.3.7 – Adjustment/calibration by means of instruments at Test Centres (voluntary)**

1. After undergoing technical inspections by professional users, spraying equipment may be adjusted or calibrated at authorised Test Centres, using the dedicated facilities provided (test benches). Such procedures are intended as an alternative to the adjustment by professional users described in the preceding paragraph.

The main operating parameters of the sprayer which can be adjusted by means of Test Centre instruments, which are all closely interconnected, are:

- spray volume;
- type of nozzle;
- nozzle flow rate;
- flow rate (fan gear ratio and blade pitch) and direction of the air flow generated by the fan (position of deflectors if any);
- working pressure;
- working height (only for boom sprayers);
- ground speed (tractor gear ratio and engine rpm).

2. When performing adjustments, the Test Centre shall take into account the national and regional provisions on the volumes of mixture to be sprayed.

3. The spraying equipment adjustment operations shall be conducted in the presence of the equipment owner/main user, together with the tractor normally used by the holding for spraying, as this:

- makes it possible to identify the working conditions and field situation where the spraying equipment is used (crop type and development, type of plant growing and training, type of pesticide spraying, area treated, etc.); this information is essential to ensure correct adjustment, tailored to the holding's requirements;
- is an opportunity to bring into line users who employ incorrect operating settings (excessive volume, insufficient or excessive speed, etc.) and to advise them on techniques to optimise pesticide applications.

4. At the end of the adjustment operations, the Test Centre shall issue the spraying equipment owner with a report containing the following details: the Test Centre, the technician who performed the adjustment or calibration, the date, the spraying equipment identification details and the operating parameters that underwent adjustments. The report shall also indicate the most

appropriate operating methods for correct pesticide application to the main crop types, taking into account the main types of PPP applications at the holding.

5. The adjustments carried out by Test Centres shall have a maximum validity of 5 years.
6. The Regions and the Autonomous Provinces may encourage recourse to instrument-based equipment adjustment at authorised Test Centres.

### **A.3.8 - Test Centres and organisation of the technical inspection and adjustment/calibration service**

Professional users of pesticide spraying equipment shall perform the regular technical inspection at Test Centres approved and authorised by the Regions and Autonomous Provinces.

A centre seeking authorisation to perform the technical inspection and instrument-based adjustment or calibration of spraying machinery shall submit a request to the Region or Autonomous Province in which it is located, providing a list of its calibration equipment meeting the technical specifications set out in Annex II, and shall declare it employs at least one qualified technician for each of the types of sprayers for which it seeks authorisation to provide the service (boom sprayers, tree crop sprayers, greenhouse sprayers, etc).

The Regions and the Autonomous Provinces may provide that already approved Test Centres complying with the procedures listed in Annex II to the Plan and having equipment meeting the technical specifications set out in Annex III to the Plan need not submit the authorisation request.

In order to be qualified to perform technical inspections on spraying machinery, technical staff must attend a training course having a minimum duration of 40 hours, delivered or approved by their home Region or Autonomous Province, and pass a final exam (Annex IV).

The Regions and the Autonomous Provinces may exempt the technical staff of Test Centres established before the entry into force of the Plan from the requirement to attend the training course and take the exam, if these staff members hold a qualification certificate issued by training centres approved by the Regions and Autonomous Provinces.

These staff members shall nevertheless attend any continuing training courses the Regions and Autonomous Provinces may decide to organise subsequently. The courses shall be held by specialised trainers selected by the competent Region or Autonomous Province. The exams shall be held by an examination board appointed by the Region or Autonomous Province.

Technicians' certificates of competence may be suspended or revoked in the following cases:

- if the technicians are found to have operated irregularly;
- if the technicians repeatedly, and without justification, have failed to attend the continuing training organised by their home Region or Autonomous Province.

### **A.3.9 - Verification of activities performed by Test Centres and qualified technicians**

The Regions and the Autonomous Provinces shall perform periodic technical-administrative checks at authorised Test Centres, at the following time intervals:

- every 24 months from the authorisation date at Centres performing fewer than 200 technical inspections/year;
- every 12 months from the authorisation date at Centres performing 200 or more technical inspections/year.

The checks will cover management of the documents and data concerning inspections performed, and the instruments' conformity with the requirements of Annex III.

Mobile Test Centres wishing to operate also outside the territory of the Region or Autonomous Province which issued its original authorisation must seek official recognition of their authorisation from the other Region or Autonomous Province where they wish to operate. Should the Region or

Autonomous Province find irregularities or failures in the activity performed by the mobile Test Centre, it may suspend temporarily or revoke the authorisation, notifying the Region or Autonomous Province that issued the original authorisation.

Whenever requested, all Test Centres shall provide the Region or Autonomous Province having territorial jurisdiction with a schedule of the dates and places of their planned technical inspections, to enable the Authority to monitor the Test Centre's activity.

All Test Centres shall provide at least on a quarterly basis the competent Region or Autonomous Province with detailed information on the technical inspections carried out, in the manner set out in the following paragraphs.

#### **A.3.10 - Establishment of a national archive of the technical inspection performed**

The Regions and Autonomous Provinces shall collect information on the technical inspections performed in their territories and shall forward periodically the most relevant information to a national database, in the manner to be defined by a Decree of the Ministry of Agricultural, Food and Forestry Policies, which shall be adopted within six months from the entry into force of the Plan, taking into account the experience and information systems already in use in each Region and Autonomous Province.

The same Decree shall also set out the role of ENAMA, a body supporting the Ministry for Agricultural Policies (MIPAAF). In particular, ENAMA shall:

- support the competent authorities in preparing and updating the procedures for performing technical inspections on pesticide spraying equipment and for certifying inspection technicians;
- collate the data supplied by the Regions and Autonomous Provinces on Test Centres and certified technicians;
- provide technical assistance to the Regions and Autonomous Provinces in performing the various phases of the service, including the training of inspection technicians and trainers' training.

The Regions and Autonomous Provinces, together with the Ministry of Agricultural, Food and Forestry Policies, the latter assisted by ENAMA, shall establish a national register of the pesticide application equipment in use.

The national database shall receive the following minimum information on the equipment which has passed the inspections:

- Identification of the Test Centre:
  - Region/Autonomous Province that authorised the Test Centre to provide technical inspection services;
  - Test Centre name and code.
- Details on the spraying equipment's owner:
  - Name or company name and address;
  - VAT number or Tax Identification Code.
- Details on the spraying equipment:
  - Type;
  - Make and model (if legible);
  - Chassis/serial number (original number, or code provided at the time of technical inspection).
- Details on the technical inspection:
  - Inspection date;
  - Number of the certificate of proper functioning.

#### **A.3.11 - Mutual recognition of technical inspections and instrument-based adjustment of equipment**

In order to obtain mutual recognition of technical inspections on spraying machinery used in the national and international territory for professional purposes, the following requirements must be met:

- a) the Test Centre and the inspection technicians must be approved and certified by at least one Italian Region or Autonomous Province;
- b) the technical inspection must have been conducted in compliance with national testing standards;
- c) the spraying equipment certificate of proper functioning must include the following details:
  - number and date of issue;
  - equipment type, make, model and chassis/serial number;
  - name of owner (name, address, company name and address, VAT number or TIN);
  - signature of the technician who performed the technical inspection;
  - Test Centre identification details;

In addition to the certificate of proper functioning, Test Centres shall also issue an adhesive label to be placed on the spraying equipment, containing information on the technical inspection performed, the Test Centre and the authority in charge of the service. The minimum contents of the label are specified in Annex II.

The mutual recognition shall also cover any instrument-based adjustment carried out voluntarily by the spraying equipment owner at an authorised Test Centre.

#### **A.4 - Aerial spraying of pesticides** (Article 13 of Legislative Decree No 150/2012)

The aerial application of pesticides is prohibited. Derogations may be granted, for ordinary pest management or to tackle a pest emergency, but only where there are no other viable alternatives or when aerial spraying affords clear advantages in terms of reduced impacts on human health and the environment compared to other spraying methods.

##### **A.4.1 - General requirements**

In case of derogations, pursuant to Article 13(2) of Legislative Decree No 150/2012, only pesticides specifically authorised for spraying from an aircraft may be used.

The operators engaged in the aerial application of pesticides (pilots and ground staff at the base) must hold the certificate of competence for purchase and use of pesticides.

The aircraft shall be equipped with the best available technology to reduce spray drift. The equipment used for the aerial application of pesticides shall undergo technical inspections at least once a year and adjustment (calibration) before starting the applications (see A.3.3). All the regular maintenance operations necessary to ensure the proper functioning of the equipment shall be performed.

The operators performing aerial spraying must hold the authorisation for aerial work and comply with the safety rules issued by the Ministry of Infrastructure and Transport; pilots must hold all the requisite certifications.

The aerial spraying of pesticides is prohibited at all times in drinking water source areas and in protected nature areas; other sensitive areas shall also be protected, e.g. homes, livestock farms, bee farms, fish and shellfish farms, organic or bio-dynamic farms, water courses and public roads.

Data on each aerial pesticide spraying operation shall be recorded and stored in accordance with Article 16 of Legislative Decree No 150/2012.

##### **A.4.2 - Authorisation request**

The authorisation request must be submitted to the competent authority by a single agricultural holding or a group of holdings, in good time before the planned start of the spraying campaign, compatibly with the timeframe set out in Legislative Decree No 150/2012. The request shall include the following information and documents:

- a. identification details of the agricultural holding(s);
- b. details on the localities concerned and the areas to be subjected to aerial spraying, specifying the municipalities they belong to;
- c. crops and plants to be treated, specifying the pests to be controlled;
- d. the reasons justifying use of aerial spraying;
- e. pesticide to be used, including the dose per hectare and total amount of product to be used;
- f. application plan, including intended start and end date, maximum total number of applications and the timetable of spraying sessions;
- g. details on the qualifications and authorisations held by the enterprise and the pilot performing the applications, and on the aircraft used, accompanied by documents proving the efficiency of the equipment used;
- h. list of the operational bases and names and addresses of base personnel with attached copy of their certificates of competence for the purchase and use of pesticides;
- i. maps of the fields to be sprayed, on a scale of 1:10 000 or more detailed, including the location of safeguard zones;
- j. presence of any sensitive areas such as: dwellings; public access areas; livestock farms, bee farms, fish and shellfish farms, water courses; wells and public roads and the measures planned to avoid contamination or any other adverse impacts;
- k. minimum distances from public areas, residential areas and other sensitive areas; in general, the zone to be sprayed must not be close to residential areas;
- l. if the area concerned includes Natura 2000 sites (SCIs/SACs or SPAs) or other conservation areas, an assessment of the impact of the spraying on the species and habitats of Community interest protected by those sites shall be performed, after assessing the legality of using the authorised active substances and pesticides;
- m. local climate and wind conditions and the main terrain characteristics in the area concerned;
- n. environmental technical report, signed by the party requesting authorisation, providing detailed information on the mitigation measures put in place and on the compatibility of the pesticide with the other crops or agricultural practices (such as organic farming) present in the area concerned;
- o. a written commitment to comply with any additional spraying conditions set out in the aerial spraying authorisation and with the specific use conditions provided on the product's label;
- p. a declaration in lieu of a notarised document issued by the aircraft pilot that accurate reconnaissance of the area to be treated has been conducted, to identify any obstacles to flight (antennas, power lines, pylons etc.), and detect any isolated plants or different crops in the area.

The requesting party shall send an information copy of the request to the municipalities concerned.

#### **A.4.3 - Authorisation procedure**

1. The Municipalities concerned shall have a term of 30 days to submit to the competent services of the Region or Autonomous Province their remarks on and/or objections to aerial spraying.



2. The Region or Autonomous Province shall assess and check the aspects referred to in Article 13(4) of Legislative Decree No 150/2012, and the remarks or objections submitted by the municipalities and other parties, in order to complete its assessment within a term of 90 days from receipt of the request.
3. After the Region or Autonomous Province has received the plant protection, health and environmental opinions from the competent offices and the Municipalities' remarks, it shall without delay seek the Ministry of Health's opinion on the aerial spraying request, enclosing a copy of the request, of its own assessment and of any other relevant document. A copy of the request shall be forwarded by the Region or Autonomous Province to the Ministry of Agricultural, Food and Forestry Policies and to the Ministry of the Environment and Protection of Land and Sea.
4. In accordance with the timetable set out in Legislative Decree No 150/2012, after receiving the request from the Region or Autonomous Province, the Ministry of Health shall consult with the Technical Committee for Animal Nutrition and Health - Advisory Section on pesticides referred to in Presidential Decree No 44 of 28 March 2013 or, pursuant to Article 17 of the same Presidential Decree, it shall consult the Advisory Committee on pesticides, and shall then deliver its opinion.
5. The Region or Autonomous Province shall issue the authorisation for use of aerial spraying for ordinary pest management upon receiving the Ministry of Health's favourable opinion.
6. The competent authorities shall keep a copy of the requests and authorisations and shall make available to the public the relevant information contained in the requests, including the areas involved in aerial spraying, the spraying timetable and the pesticides used.

#### **A.4.4 - Information to the public concerned and the local authorities**

The authorised party must disseminate information on the aerial spraying to the general public concerned. To this end, the authorised party, acting through the municipalities concerned, shall post an appropriate number of spray signs at suitable locations to ensure that the public receives appropriate information.

The signs shall advise the public of the aerial spraying period, the areas concerned, the pesticides used and the date when the area will be safe again for re-entry.

The authorised party shall give a 48-hour notice of each application, with the day and time of start of the aerial spraying, to the Municipalities and Local Health Authorities (ASL) concerned. Any postponements of applications shall also be promptly notified to the Municipality and Local Health Authority (ASL) concerned, following a pre-set procedure.

#### **A.4.5 - Specific requirements**

The aircraft ground personnel shall be on duty at the base throughout the spraying operations.

During the applications, the aircraft may not fly over human settlements as defined in Article 3(8) of Legislative Decree No 285 of 30 April 1992. When flying over any roads or watercourses, the aircraft shall cross them at their narrowest point, keeping the nozzles closed.

The following steps will be taken to minimise drift:

- a) the mean diameter of the drops of sprayed mixtures shall be such as to minimise drift as much as possible;
- b) aerial spraying may only be performed under wind speeds of Beaufort force 1;
- c) during the aerial applications the pilot shall be able to rely on appropriate ground indications (boundary markings, buffer zones, flight direction signs etc.) allowing him to operate in the best possible way;

- d) the pesticide shall be sprayed with flight trajectories at the minimum heights and speeds compatible with flight safety and application effectiveness.

The re-entry periods stated on the label of the pesticide used shall be applied before the treated area is re-entered.

#### **A.4.6 - Monitoring**

The competent Local Health Authorities (ASL) and Municipalities shall monitor compliance with the current legislative provisions and with any additional requirements contained in the authorisation. In cases of non-compliance, the competent authority shall suspend or revoke the authorisation, without prejudice to Article 24 of Legislative Decree No 150/2012.

### **A.5 - Specific measures to protect the aquatic environment and drinking water and to reduce the use of pesticides in specific areas (railway and road network, areas used by the general public, protected nature areas)** (Articles 14 and 15 of Legislative Decree No 150/2012)

#### **A.5.1 - Guidelines**

Within 12 months after the entry into force of the Plan, the Ministry of the Environment and Protection of Land and Sea, the Ministry of Agricultural, Food and Forestry Policies and the Ministry of Health, acting on a proposal of the Committee [see A.2.1], shall prepare guidelines on protection of the aquatic environment and drinking water and to reduce the use of pesticides and their risks in specific areas. The guidelines shall identify a set of measures and the criteria for implementing them, and shall address:

- 1) protection of the aquatic environment and drinking water;
- 2) voluntary accompanying risk mitigation measures, to minimise the risks associated with drift, run-off and drain flow;
- 3) protection of biodiversity and specific risk mitigation measures to be included in the management plans and conservation measures for Natura 2000 sites and for the protected nature areas established under national Law No 394 of 6 December 1991 and under the associated Regional laws, with reference to protection objectives.
- 4) voluntary measures to boost and strengthen the protection measures for Natura 2000 sites and for the protected nature areas established under Law No 394 of 6 December 1991 and the associated Regional laws, consistently with the new CAP programming, and the criteria for exempting such measures from assessment of environmental implications (VINCA).

#### **A.5.2 - Measures to protect the aquatic environment and drinking water**

The Regions and the Autonomous Provinces, acting in accordance with the above-mentioned guidelines, shall establish appropriate measures consistent with the EU and national provisions on water protection, in particular Directive 2000/60/EC, Part III of Legislative Decree No 152 of 3 April 2006 as amended and supplemented, with River Basin Management Plans and Water Protection Plans.

These measures shall take into account any limitations on the use of pesticides that are dangerous for the aquatic environment and, where possible, replace them with less dangerous pesticides, with the non-chemical pest management practices referred to in Annex III to Legislative Decree No 150/2012, with organic farming pest control practices, or with pesticides based on low-risk active substances, as defined by Article 22 of Regulation (EC) No 1107/2009.

These measures shall also take into account the replacement of pesticides based on active substances included in the list of priority dangerous substances contained in Legislative Decree No 219 of 10 December 2010, as amended and supplemented.

Taking into account the procedures and criteria for the approval of active substances, governed by Regulation (EC) No 1107/2009, the Ministry of Health, the Ministry of the Environment and Protection of Land and Sea and the Ministry of Agricultural, Food and Forestry Policies, supported by the Committee, shall make available to the Regions and Autonomous Provinces, within 1 year from the entry into force of the Plan, the main information on the toxicity, ecotoxicity, environmental fate and pest control features of the products placed on the market, also by using existing sources of information and databases or setting up and regularly updating dedicated databases.

The Regions and Autonomous Provinces shall use such information for the activities under their remit, shall forward it to the authorities concerned and shall provide technical training as necessary for making targeted choices on requirements and constraints, having due regard to the elements to be protected and the hazards entailed by the various pesticides. The Regions and the Autonomous Provinces shall ensure coordination of the measures concerning drainage basins shared by more than one Region or Province.

#### **A.5.2.1 - Measures to protect the aquatic environment**

In order to protect the aquatic environment, within 2 years from the entry into force of the Plan, having regard to environmental quality targets and to the outcomes of the environmental monitoring carried out pursuant to Directive 2000/60 EC, the Regions and the Autonomous Provinces, acting in line with the guidelines referred to in paragraph A.5.1 above, shall put in place specific measures to reduce the presence in the environment of pesticides classified as dangerous for the aquatic environment.

Possible measures may include: mitigation measures, replacement / use limitation / elimination of pesticides, and information and training initiatives.

The choice shall be made by the Regions and Autonomous Provinces having due regard to the characteristics of the area and its fragility, the type of pressures present and expected type of response, and to the ecosystems to be protected.

#### **A.5.2.2 - Measures to protect drinking water**

Within 2 years from the entry into force of the Plan, in order to protect the quality of drinking water, in the safeguard zones for surface water and groundwater used for the abstraction of drinking water referred to in Article 94 of Legislative Decree No 152/2006, the Regions and the Autonomous Provinces, acting in accordance with the guidelines referred to in paragraph A.5.1, above, with the Water Protection Plan and with the River Basin Management Plans shall define specific requirements to replace and/or restrict the use of pesticides likely to contaminate drinking water (those bearing on their labels the relevant warnings SPe1 and SPe2, set out in the Decree of the Ministry of Health of 21 July 2004), and the use of other products found on surface water and groundwater through environmental monitoring activities.

In these safeguard zones, the Regions and Autonomous Provinces may introduce further requirements and restrictions in the Use Plans referred to in Article 94(4)(c) of Legislative Decree No 152/2006.

#### **A.5.2.3 - Voluntary accompanying measures**

The Regions and the Autonomous Provinces shall put in place appropriate tools to support, within the Common Agricultural Policy (CAP) and in line with the above-mentioned guidelines, the application of techniques and practices to improve environmental quality of the aquatic environment and protect it from pollution due to pesticide drift, run-off or leaching.

The mitigation measures to minimise or prevent the effects of drift may refer, among others, to the document prepared by the Advisory Committee on Pesticides: “*Risk-mitigation Measures to reduce contamination of surface water from drift and runoff*” and to the recommendations made by the TOPPS PROWADIS project.

In order to protect surface water from pollution due to pesticide drainage and runoff, a suitable buffer zone should be established along water bodies.

#### **A.5.3 - Protection of water bodies for recreational use, including areas designated as bathing waters**

In order to protect public health, pesticide use is prohibited in the shore areas providing direct access to bathing waters, as defined in Legislative Decree No 116/2008.

In derogation from this prohibition, and for the purpose of containing or eliminating harmful organisms and protect public health, the Regions and the Autonomous Provinces may authorise the use of pesticides, which shall be chosen having regard to their lower hazards, the risks associated with their use, and their methods of application.

Within 3 years from the entry into force of the Plan, the Ministry of Health, the Ministry of the Environment and Protection of Land and Sea and the Ministry of Agricultural, Food and Forestry Policies shall identify, together with the Regions and the Autonomous Provinces and with the assistance of the Committee, the measures to be put in place in the areas adjoining bathing waters, in order to increase protection of human health in those areas.

#### **A.5.4 - Measures to reduce and/or eliminate pesticide use or risks on or along railway lines**

It is necessary to reduce and/or eliminate to the greatest extent possible the use of pesticides and the risks associated with their use on or along railway lines, using non-chemical alternatives (mechanical, physical or biological control methods), using reduced doses and using spraying equipment and methods which minimise pesticide leakage in the environment.

To this end, the following measures shall be implemented:

- from the entry into force of the Plan, pesticides containing substances classified as carcinogenic, mutagenic or toxic for reproduction and included in Categories 1A and 1B shall be replaced;
- within 3 years from the entry into force of the Plan, the following shall be replaced and/or subjected to restrictions: pesticides having on their label precautionary phrases SPe1, SPe2, SPe3 or SPe4, or which are classified as toxic, very toxic and/or have on their label risk phrases R40, R42, R43, R60, R61, R62, R63, R64 or R68, pursuant to Legislative Decree No 65/2003 as amended and supplemented, or the corresponding hazard statements referred to in Regulation (EC) No 1272/2008.

It is prohibited under any circumstances to use pesticides on yards, on all the areas inside and around railway stations and along railway lines skirting inhabited areas or areas normally used by the general public, save for derogations granted by the competent authorities for public health protection purposes.

Within 2 years after the entry into force of the Plan, the Ministry of the Environment and Protection of Land and Sea, the Ministry of Agricultural, Food and Forestry Policies and the Ministry of Health shall adopt mandatory minimum environmental criteria to be included in the technical specifications of public contracts for pest control on or along railway lines, having regard in particular to the need to:

- limit the use of pesticides with a high tendency to percolate and involving high hazards/risks for the environment;
- choose preferably mowing to contain the growth of vegetation along railway embankments, and pruning to contain tree vegetation. In particular, chemical weed control should be replaced

by physical or mechanical weeding along railway embankments next to inhabited areas or areas normally used by the general public;

- in pesticide application, use anti-drift, low-pressure nozzles and other techniques, such as adjustable-direction spraying, and ensure logging of operations and electronic monitoring of sprayed volumes, etc.;
- gauge the herbicide doses necessary with reference to the species present, their stage of development and their sensitivity;
- use alternative techniques or methods to the use of herbicides to avoid the build-up of herbicide resistance caused by the repeated use of the same active substance;
- schedule chemical applications having regard to weather forecasts, avoiding the use of chemical substances on or within a few days before rainy days.

Where appropriate, these criteria shall be established with the participation of other competent authorities and stakeholders, thus ensuring that the characteristics of the area are taken into due account.

The Regions and the Autonomous Provinces shall have regard to the specific requirements of the protected areas established pursuant to Law No 394 of 1991 and of Natura 2000 sites, and may accordingly identify priority elements to be protected and place additional restrictions on the use of pesticides on or along railway lines passing through those areas, and/or implement appropriate risk mitigation measures.

Any authorities carrying out pest/weed control campaigns directly shall comply with the same criteria.

The authorities awarding public contracts for weed control on or along railways, including by means of herbicide applications, shall co-ordinate with the competent Regional Plant Protection Service the timing of chemical applications, pending establishment of the above-mentioned minimum environmental criteria and shall submit annual reports to the Ministry of Health, the Ministry of the Environment and Protection of Land and Sea and the Ministry of Agricultural, Food and Forestry Policies as to the type and amount of chemicals used, spraying techniques and the risk mitigation measures implemented.

Without prejudice to the provisions of Legislative Decree No 214 of 19 August 2005 as amended and supplemented and to the Ministerial Decrees governing statutory pest control, the Regions and the Autonomous Provinces may authorise targeted PPP applications, in order to prevent the introduction and spread of quarantine organisms and to protect plants, plant produce and public health from the harmful organisms defined by the reference legislation.

#### **A.5.5 - Measures to reduce and/or eliminate pesticide use or risks on or along roads**

It is necessary to reduce and/or eliminate to the greatest extent possible the use of pesticides and the risks associated with their use on or along roads, using non-chemical alternatives (mechanical, physical or biological control methods), using reduced doses and employing spraying equipment and methods which minimise pesticide leakage in the environment, while ensuring safety and preserving the role of roadside vegetation.

To this end, the following measures shall be implemented:

- from the entry into force of the Plan, pesticides containing substances classified as carcinogenic, mutagenic or toxic for reproduction and included in Categories 1A and 1B under Regulation (EC) No 1272/2008 shall be replaced;
- within 3 years from the entry into force of the Plan, the following shall be replaced and/or subjected to restrictions: pesticides having on their label precautionary phrases SPe1, SPe2, SPe3 or SPe4, or which are classified as toxic, very toxic and/or have on their label risk phrases R40, R42, R43, R45, R60, R61, R62, R63, R64 or R68, pursuant to Legislative Decree

No 65/2003 as amended and supplemented, or the corresponding hazard statements referred to in Regulation (EC) No 1272/2008.

- no insecticide or acaricide applications may be made on roadside trees during their flowering period.

Within 2 years after the entry into force of the Plan, the Ministry of the Environment and Protection of Land and Sea, the Ministry of Agricultural, Food and Forestry Policies and the Ministry of Health shall adopt mandatory minimum environmental criteria to be included in the contract documents and technical specifications of public contracts for pest control along the road and motorway network, having regard in particular to the need to:

- use mechanical and physical weeding (e.g. fire weeding) whenever it can replace chemical weeding. In particular, chemical weeding shall be replaced by mechanical weeding on road verges and embankments next to inhabited areas or areas normally used by the general public and in areas close to flyovers and petrol stations along roads and motorways with catering facilities, by means of appropriate road verge management systems, in order to minimise weed rooting and growth (covering the ground with cut straw or other materials, etc.);
- gauge the herbicide doses necessary with reference to the species present, their stage of development and their sensitivity;
- use non-chemical alternative techniques or methods to avoid the build-up of resistance caused by the repeated use of the same active substance;
- schedule chemical applications having regard to weather forecasts, avoiding the use of chemical substances on or within a few days before rainy days.

These criteria shall be defined with the participation of other competent authorities and stakeholders, also in order to take into due regard the characteristics of the area.

Any authorities carrying out pest/weed control campaigns directly shall comply with the same criteria.

The authorities awarding public contracts for weed control on the road and motorway network, pending establishment of the above-mentioned minimum environmental criteria shall submit annual reports to the Ministry of Health, the Ministry of the Environment and Protection of Land and Sea and the Ministry of Agricultural, Food and Forestry Policies about the type and amount of chemicals used, spraying techniques and the risk-mitigation measures implemented.

Without prejudice to the provisions of Legislative Decree No 214 of 19 August 2005 as amended and supplemented and to the Ministerial Decrees governing compulsory pest control, the Regions and the Autonomous Provinces may authorise targeted PPP applications, in order to prevent the introduction and spread of quarantine organisms and to protect plants, plant produce and public health from the harmful organisms defined by the reference legislation.

#### **A.5.6 - Measures to reduce pesticide use or risks in the areas used by the general public or by vulnerable groups**

In order to protect public health and safety, it is necessary to reduce the use of pesticides or the risks associated with their use in the areas used by the general public or by vulnerable groups, by using non-chemical alternatives (mechanical, physical or biological control methods), using reduced doses and employing spraying equipment and methods which minimise pesticide leakage in the environment.

The Regions and Autonomous Provinces may prepare guidelines on the use of pesticides in urban green areas and/or areas for use by the population, consistent with the provisions of this Plan. The competent local authorities, having due regard to any such guidelines, shall take the necessary measures concerning the use of pesticides in urban green areas and/or public use areas.

Such areas include, for example and without limitation: public parks and gardens, sports fields, recreational areas, yards and green areas within and next to schools, children's playgrounds, areas next to healthcare facilities, cycling paths, heritage and landscape attractions and associated grounds, archaeological sites and associated grounds, cemeteries and associated grounds.

At these sites, the general public must be notified of any PPP application by signs indicating, *inter alia*, the active substance used, the spraying date and the duration of the prohibition to enter the treated area. The duration of the prohibition to enter the area shall not be less than the re-entry period, if any, stated on the label of the pesticide used. Where no re-entry period is indicated, the prohibition, in areas used by vulnerable groups shall be not less than 48 hours.

The areas concerned cannot be treated with pesticides having re-entry periods of more than 48 hours.

Access to these areas shall be prevented by means of appropriate visible signs and, where necessary, by marking their boundary. Where possible, applications shall be made at those times of the day when inconvenience for the public is minimal.

Without prejudice to the provisions of Legislative Decree No 214 of 19 August 2005 as amended and supplemented and to the Ministerial Decrees governing statutory pest control, the Regions and the Autonomous Provinces may authorise targeted PPP applications, in order to prevent the introduction and spread of quarantine organisms and to protect plants, plant produce and public health from the harmful organisms defined by the reference legislation.

In the agricultural fields next to the areas used by the general public or by vulnerable groups, such as public parks and gardens, sports fields, recreational areas, yards and green areas within school grounds, children's playgrounds, and areas next to healthcare facilities, within a radius of 30 m from the above recreational green areas it is prohibited to use pesticides classified as toxic, very toxic and/or having on their labels risk phrases R40, R42, R43, R60, R61, R62, R63 or R68, pursuant to Legislative Decree No 65/2003 as amended and supplemented, or the corresponding hazard statements provided for by Regulation (EC) No 1272/2008. If drift-containment measures are used during spraying, having regard to the instructions on the label and provided that no more restrictive requirements have been established by the competent local authorities, the minimum distance may be reduced to 10 m.

#### **A.5.6.1 - Use of herbicides**

In urban areas, the local authorities responsible for weed management shall determine:

- a) the areas where chemical weeding is prohibited;
- b) the areas where herbicides may be used only as part of an integrated pest management approach combining non-chemical methods, based on a multi-annual management plan.

In particular, the following measures shall be implemented:

- herbicide applications are prohibited and must be replaced by alternative methods in the areas used by the general public or by vulnerable groups, as defined in paragraph A.5.6 above;
- should a derogation be granted, it is in any case forbidden to use pesticides having on their label the following risk phrases: from R20 to R28, R36, R37, R38, R42, R43, R40, R41, R45, R48, R60, R61, R62, R63, R64 or R68, pursuant to Legislative Decree No 65/2003 as amended and supplemented, or the corresponding hazard statements set out in Regulation (EC) No 1272/2008. Any products used shall not contain substances classified as carcinogenic, mutagenic, toxic for reproduction and for foetal development, or sensitising, within the meaning of Regulation (EC) No 1272/2008.

#### **A.5.6.2 - Use of fungicides, insecticides or acaricides**

As concerns the use of fungicides, insecticides or acaricides, the competent local authorities shall act on the basis of the following provisions:

- Priority shall be given to biological pest control measures, use of low-risk products as defined by Regulation (EC) No 1107/09, and use of products containing active substances allowed in organic farming, listed in Annex to Regulation (EC) No 889/08. It is in any case forbidden to use plant protection products classified as toxic and very toxic or having on their label the following risk phrases: from R20 to R28, R36, R37, R38, R42, R43, R40, R41, R48, R60, R61, R62, R63, R64 or R68, pursuant to Legislative Decree No 65/2003 as amended and supplemented, or the corresponding hazard statements set out in Regulation (EC) No 1272/2008. Any products used shall not contain substances classified as carcinogenic, mutagenic, toxic for reproduction and for foetal development, or sensitising, within the meaning of Regulation (EC) No 1272/2008. For applications by means of endotherapy, without prejudice to exclusion of the above-mentioned substances, it is allowed to use pesticides classified as harmful with risk phrase R22 and irritant with risk phrases R36 and R38, expressly authorised for endotherapeutic application;
- Within 2 years from the entry into force of the Plan, the Regions and the Autonomous Provinces shall adopt technical specifications governing applications in the areas used by the general public or vulnerable groups;
- It is forbidden to spray roadside trees in the flowering season with insecticides and acaricides or with any pesticides having on their label precautionary phrase SPe8.

#### **A.5.7 - Measures to reduce risks in recently treated areas used by or accessible to agricultural workers**

Without prejudice to paragraph A.2.2 and to the instructions on the product label, it is prohibited to access treated areas for at least 24 hours after the pesticide treatment, without wearing appropriate personal protection equipment (DPI).

#### **A.5.8 - Protection of Natura 2000 sites and of protected nature areas**

The biodiversity protection measures set out in this chapter apply in particular to Natura 2000 sites and to the protected nature areas established under Law No 394 of 1991 and the associated Regional laws, and add to the measures already included in the National and Regional Parks' plans, and in the management plans for State and Regional conservation areas and Natura 2000 sites, and to other national and regional biodiversity conservation measures adopted by administrative or legislative acts.

##### **A.5.8.1 - Measures to reduce the risks caused by the use of pesticides**

Within 12 months after the entry into force of the Plan, the Ministry of the Environment and Protection of Land and Sea, the Ministry of Agricultural, Food and Forestry Policies and the Ministry of Health, acting on a proposal of the Committee, shall prepare the guidelines referred to in paragraph A.5.1, for the choice of the specific measures to be included in the management plans and conservation measures for Natura 2000 sites and for the protected nature areas established under national Law No 394 of 6 December 1991 and under the associated Regional laws, taking into account the active substances' and pesticides' hazard and risk profiles and the agricultural activities present in said areas, having regard to the following minimum target areas to be protected:

- habitats and species of Community interest linked to aquatic ecosystems (Annex V);
- habitats and species of Community interest linked to land ecosystems;
- habitats where it is necessary to safeguard bees and the other pollinators, e.g. wild hymenoptera and lepidoptera.



In Natura 2000 sites and in the protected nature areas established under Law No 394 of 6 December 1991 and the associated Regional laws, in order to strengthen the biodiversity protection strategy already set out in other legislative acts and planning tools, in particular in the latest National Biodiversity Strategy, the measures to reduce pesticide use and/or the risks referred to in Article 15 of Legislative Decree No 150/2012 shall be defined, on the basis of the above guidelines, within 2 years from the entry into force of the Plan, by the competent Region or Autonomous Province, in agreement with the Management Agency, if any, having regard to the characteristics of the site to be protected.

Each measure, including any measure prohibiting or restricting pesticide use, must be incorporated in the Site Management Plan (or equivalent plan) or in the conservation measures, having regard to the needs of the species and/or habitats to be safeguarded and to the outcomes of environmental monitoring activity.

As concerns endemic species and species threatened with extinction, the Regions and the Autonomous Provinces and the protected nature areas management bodies may adopt additional measures to reduce and/or restrict pesticide use, with reference to the above-mentioned guidelines.

The above measures shall be coordinated with the instruments and schemes of the CAP, as provided for by Article 2(3) of Legislative Decree No 150/2012.

These measures generate positive effects on biodiversity, water and soil, which are equivalent to those produced by agricultural practices that are beneficial for the climate and the environment, as identified in the CAP support regimes.

Similarly to the procedure set out in paragraph A.5.2 above, the Ministry of Health, the Ministry of the Environment and Protection of Land and Sea and the Ministry of Agricultural, Food and Forestry Policies, assisted by the Committee, shall make available to the Regions and Autonomous Provinces and to the protected areas management agencies, the key data on the toxicity, ecotoxicity, environmental fate and pest control features of the products available on the market. The authorities concerned shall provide the technical expertise necessary for making targeted choices on requirements and constraints, in the light of the elements to be protected and the hazards entailed by the various pesticides.

In the areas classified as woodland and equivalent by Legislative Decree No 227/2001, it is prohibited to use herbicides for vegetation control in areas singled out for particular uses (fire-breaks, buffer zones around power lines, gas pipelines, etc.). Derogations may be granted for particular plant health and conservation emergencies.

In order to boost the effectiveness of the work of professional users operating in holdings within Natura 2000 sites or in the protected nature areas established under Law No 394 of 1991 and the associated Regional laws, the Regions and the Autonomous Provinces shall promote training and information activities, providing such users with knowledge on the risks to biodiversity entailed by the use of plant protection products in those areas. Emphasis shall be placed on the choice of active substances compatible with the relevant requirements of the management plan/conservation measures or other management instrument in place.

Having regard to the aquatic ecosystem protection priorities laid down in the decisions of the Conference of the Parties (COP) to the Ramsar Convention ([www.ramsar.org](http://www.ramsar.org)) and in the international agreements signed by Italy (AEWA<sup>1</sup> and MEDWET<sup>2</sup>), Ramsar sites enjoy heightened protection and require more stringent safeguarding measures. To this end, within 2 years from the

---

<sup>1</sup> African-Eurasian Waterbird Agreement - <http://www.unep-aewa.org/>

<sup>2</sup> Mediterranean Wetland Initiative for implementation of the Ramsar convention in the Mediterranean Region- <http://www.medwet.org/medwetnew/en/index.asp>

entry into force of the Plan, the Ministry of the Environment and Protection of Land and Sea, taking into account the guidelines referred to in paragraph A.5.1, together with the Ministry of Agricultural, Food and Forestry Policies, after receiving the Committee's opinion, in agreement with the Regions and the Autonomous Provinces and the local authorities, shall adopt provisions prohibiting, where possible, at Ramsar sites, the use of pesticides that are hazardous for aquatic ecosystems, or of any other pesticides detected by environmental monitoring activities, where the relevant data are available.

#### **A.5.8.2 - Voluntary complementary measures**

Based on the guidelines referred to in point 4 of paragraph A.5.1, when preparing or updating protected site management plans/conservation measures, the Regions/Autonomous Provinces and the management bodies shall identify and introduce targeted actions concerning the habitats and/or species to be protected.

As part of the measures implementing the CAP, the specific actions designed by the Regions and Autonomous Provinces must be consistent with the relevant actions of the management plans and/or conservation measures already put in place under Presidential Decree No 357/92 and Presidential Decree No 120/2003.

The possible actions consistent with the above-mentioned guidelines may include the following:

- selection of *ad hoc* criteria to favour, within each site, the funding of organic-farming pest control techniques complying with Regulation (EC) No 834/2007, and of voluntary IPM farming. Holdings located in the areas in question which provide evidence of greater costs and lower profits stemming from use of these techniques may be granted payments under the EU legislation on rural development exceeding the caps set out in said legislation;
- actions supporting the creation of hedges and buffer strips of appropriate width, their maintenance and their restoration, or natural recolonisation by plant species typical of riverside strips and by other species forming habitats of Community interest (Habitat codes under Directive 92/43/EEC: 92A0, 92C0, 92D0, 91F0, 91E0\*, 3240, 3230, 3220). The creation of buffer strips with trees-shrubs to protect surface water bodies from pesticide pollution in Natura 2000 sites and in the protected nature areas established under Law No 394 of 6 December 1991, and under the associated regional laws, meeting the applicable Regional provisions or complying with the guidelines referred to in paragraph A.5.1, shall be exempted from assessment of environmental implications (VINCA);
- risk mitigation actions designed to reduce the contamination of surface water bodies from pesticide drift and run-off, referred to in paragraph A.5.2.3;
- actions to promote, within the farm advisory measure promoted by the CAP, advisory services to farmers based in Natura 2000 sites, to help them build their professional skills and take advantage of all the opportunities arising from their holding's location within the site.

The Regions and Autonomous Provinces may introduce actions supporting the local commercial promotion of typical produce and enhancement of local produce obtained in the Natura 2000 sites and in the protected nature areas established under Law No 394 of 6 December 1991 and the associated regional laws, with environmentally-sustainable, low pesticide input pest management practices. Such support actions may also include the introduction of environmental quality labels, consistently with existing legislative instruments.

#### **A.6 - Handling and storage of pesticides and treatment of their packaging and remnants** (Article 17 of Legislative Decree No 150/2012)

Annex VI sets out the mandatory provisions for the correct handling and appropriate storage of plant protection products and for the treatment of their packaging and remnants.

By 1 January 2015 all professional users must comply with the provisions of Annex VI. Prior to that date, the current provisions shall apply.

### **A.6.1 - Accompanying measures**

The criteria for implementing accompanying measures aimed at increasing safety levels during the handling and storage of plant protection products are set out hereunder. These provisions are based, *inter alia*, on the current legislation, on the national and regional guidelines and on the technical recommendations formulated by EU project Life-TOPPS (*Training Operators to prevent Pollution from Point Sources*).

In particular, the Regions and the Autonomous Provinces may implement actions supporting farms to:

1. construct new pesticide storage facilities which, besides meeting the requirements of Annex VI Part A, meet the following additional requirements:
  - the pesticide store shall not be located in an environmentally sensitive area and must not be located upstream of pollution-vulnerable areas or in the buffer zones around drinking water abstraction points (Article 94 of Legislative Decree No 152/06);
  - the store must not be located in underground or basement floors;
  - the temperature inside the store must be between 0 °C and 40 °C;
  - the store must be provided with a fire-resistant door;
  - the leakage/spillage retaining system, e.g. the pit, must be sized so as to accommodate at least 110% of the volume of the largest liquid container held in the store;
2. upgrade or create equipped product mixing areas which:
  - allow the collection of accidental product spills;
  - are equipped with systems for collecting empty containers and packaging;
  - consist of a cement floor with manhole connected to a tank for the collection of pesticide-contaminated waste water;
  - are equipped, in an area adjoining the pesticide store, with weighing instruments, running water, hand basin, eye-wash station and emergency shower;
3. acquire instruments or set up facilities to optimise mixture preparation, including:
  - an automated litre counter or alarm sensor mounted on the tank, to monitor tank filling;
  - technical solutions to prevent contamination of the water supply when the sprayer is to be filled from wells, water bodies or the water supply network;
  - check-valve if water is collected from surface water bodies;
4. create facilities and/or purchase systems for the internal or external cleaning of the spraying equipment and of empty containers;
5. purchase spraying equipment ensuring the least pollution due to pesticide loss, e.g.:
  - equipment minimising drift;
  - equipment recovering any pesticide mixture which does not reach the target;
  - precision sprayers optimising pesticide application to the intended targets;
- 6 set up consortia and/or other associative systems for the disposal of pesticide-related waste;

7. implement farm or inter-farm systems for physical, chemical or biological pest control (e.g. biobed, eliosecc, biobac) authorised by the Regions and Autonomous Provinces, on the basis of guidelines approved by the Committee.

With effect from 1 January 2015, the Committee shall prepare annual guidelines and criteria on the equipment and solutions mentioned above, to be promoted and awarded priority in support programmes.

## **A.7 - Low pesticide input pest management strategies** (Articles 18, 19, 20, 21 of Legislative Decree No 150/2012)

### **Introduction**

According to the data provided by SINAB (*National Information System on organic farming*) for the year 2012, in Italy there are 43 815 agricultural holdings practising organic farming, or 2.7% of the total. The total area under organic farming is 1 167 362 ha, or 9% of the total UAA (12 885 186 ha). The main organically-grown crops are fodder plants, cereals and pastures. Next in terms of area cultivated is olive growing. Then come the areas under vineyards (5% of the total area under organic farming) and vegetable growing (3.8% of the total organic farming area).

In Italy, interest for production methods involving more responsible use of plant protection products and respectful of both consumers and the environment was first fostered by the *National Integrated Pest Management Plan* drawn up and approved by the Ministry of Agriculture and Forests on 11 September 1987. The initiatives put in place in the various Regions and Autonomous Provinces made it possible, albeit with uneven results, to achieve significant reductions in the use of plant protection products and to rationalise crop protection strategies. This trend is confirmed by the annual statistics published by the National Institute of Statistics (ISTAT) which highlight a gradual reduction in the amount of pesticides applied, and, conversely, increasing recourse to products involving lower risks for human health and the environment. Specifically, ISTAT data for 2012 show that over the past 10 years in Italy the use of plant protection products decreased by 33 000 tonnes, or 19.8% of the total. Again in the period 2002-2012 the amount of active substances contained in plant protection products fell by 32 820 tonnes (-34.7%) overall; in detail, the use of insecticides, fungicides and herbicides declined (by 43.8%, 41.5% and 31.9% respectively), while the use of the other active substances rose by 27.3%. Over the past decade, the use of plant protection products of biological origin has grown substantially, from 11.9 to 289.9 tonnes.

Last, the activities promoted by the various Regions and Autonomous Provinces have led to the drafting of "IPM specifications" for the main fruit and vegetable crops and for grapes, whose uptake increased significantly from the second half of the 1990s, through adoption of the agri-environmental measures promoted by Regulation (EC) No 2078/92 and with the operational programmes prepared under the Regulations on the Common Market Organisation of the fruit and vegetable sector. A strong boost to the spread of this farming method has also come from the market, which is paying increasing attention to high standards of safety, and from the need to preserve agricultural ecosystems.

The results achieved are confirmed by the reports regularly published by EFSA on pesticide residues in foodstuffs. EFSA's 2013 report shows that Italy has the lowest amounts of agrifood products with chemical residues exceeding acceptable levels (0.3%), five times less than the EU average (1.5% of irregularities) and 26 times less than in third-country produce (7.9%).

Another milestone was the EU review of active substances launched in the 1990s in application of Directive 414/91/EEC, which led to the progressive revocation in Italy of about 200 active substances whose toxicologic or eco-toxicologic profile no longer met the new, more restrictive regulatory standards.

The above figures show that Italy plays a leading role in implementing sustainable farming techniques. It is therefore important to continue to support recourse to sustainable plant protection strategies so as to expand the area of land under integrated pest management and organic farming, as detailed in the following paragraphs A.7.3 “Voluntary integrated pest management” and A.7.4 “Organic farming”.

To this end, it is necessary to prepare and make available to all agricultural holdings the information and the support necessary to enable them to apply the least amounts of plant protection products in the most effective manner, in accordance with the general principles set out in Annex III to Directive 2009/128/EC, using the tools set out in Article 14(2) of the Directive, as set out in greater detail in paragraph A.7.2 on “Statutory integrated pest management”.

### **A.7.1 - Strategies for the sustainable use of plant protection products**

The priority of low pesticide input pest management is to reduce risk - for the environment, operators, consumers, residents and bystanders - from the use of plant protection products. This risk reduction can be achieved by: a) integrated pest management strategies; b) prevention actions based on the farming practices set out in paragraph 1 of Annex III to Legislative Decree No 150/2012, c) organic farming pest management practices; d) biological pest control; e) use of pesticides with low-risk active substances as defined by Article 22 of Regulation (EC) No 1107/2009.

At the same time, in order to reduce the environmental impact of agricultural production, it is necessary to promote gradual reduction in the amount of plant protection products used.

### **A.7.2 - Statutory integrated pest management**

Statutory integrated pest management includes: a) the application of techniques to prevent and monitor pests, diseases and weeds; b) the use of biological pest control methods; c) recourse to appropriate farming practices; d) the choice of those plant protection products which entail the least risk for human health and the environment among those available for the same purpose (Annex III to Legislative Decree No 150/2012).

#### **A.7.2.1 - The Ministry of Agricultural, Food and Forestry Policies**

In order to define the actions and supports necessary to implement statutory integrated pest management, the Ministry of Agricultural, Food and Forestry Policies, acting on a proposal of the Committee, supported in turn by the Integrated Pest Management Task Force, by the Agricultural Techniques Task Force attached to the technical-scientific body referred to in Article 2(6) of Law No 4 of 3 February 2011, No 4 and by the National Plant Health Committee, shall:

1. coordinate the development of tools to promote the knowledge and correct implementation of statutory integrated pest management and of sustainable plant protection strategies. This will include the drafting of a guidance manual on “Low environmental impact plant defence and sustainable plant protection strategies”, in accordance with Article 19(1) of Legislative Decree No 150/2012;
2. regularly update the plant protection product database of the Ministry of Agricultural, Food and Forestry Policies, referred to in Article 40(2) and (3) of Presidential Decree No 55/2012;
3. together with the Regions and the Autonomous Provinces, set out, in the guidance manual on statutory integrated pest management, the minimum requirements for the monitoring networks to which agricultural holdings have access;
4. launch initiatives to implement and deploy forecasting and warning systems on pest development (plant-eating pests and pathogens), at Regional level, with particular regard to:
  - standardising the forecasting models currently in use in some Regions (IT platform with a single software able to process the available forecasting models for the different territories using the weather data supplied by the Regional weather networks);

- make available to the Regions and Autonomous Provinces the algorithms and sources of pest forecasting models, the application software and an IT platform enabling the authorities to manage the data collected and use it for each geographical area;
  - validation of the different models in the various geographical areas;
5. promote research and the exchange of information and experience in the field of integrated pest management and sustainable plant protection strategies, identifying financial instruments supporting the structures engaged in implementing this Plan.

#### **A.7.2.2 - The Regions and Autonomous Provinces**

The Regions and Autonomous Provinces shall implement the following actions to ensure the uptake of integrated pest management:

1. set up and/or upgrade information and communication services to ensure the dissemination and uptake of integrated pest management by the professional users of plant protection products. In particular, they shall prepare and/or disseminate information material on the sustainable use of plant protection products and on the requirements set out in the Plan;
2. set up a monitoring network on the development of the main pests and implement, where possible, the forecasting and warning systems referred to in points 4 and 5 of paragraph A.7.2.1, in order to supply end users of plant protection products with:
  - pest forecasts and warnings;
  - bulletins relying on the outputs of predictive models and monitoring networks to provide information on IPM implementation. These bulletins shall have the following characteristics:
    - they shall be published regularly in line with the need to protect the main crops from major plant pests and diseases;
    - they shall be of local scope;
    - they shall contain information on weather trends;
    - they shall contain operational recommendations on the main crops, concerning: plant life-cycle phase, epidemiological phase of major pests and diseases; indications on the best timing of pesticide applications and possible recommendations on the pesticides to be used;
    - they shall provide operational guidance, with respect to the main crops, on adoption of the general IPM principles set out in Annex III to Legislative Decree No 150/2012;
3. they shall promote the provision of technical assistance and advice to professional users on integrated pest management, also by setting up local coordination bodies.

#### **A.7.2.3. Professional users of plant protection products and agricultural holdings**

Professional users of plant protection products shall refer to the documents and databases referred to in points A.7.2.1 and A.7.2.2 above in order to apply the general principles of statutory integrated pest management laid down in Annex III to Legislative Decree No 150/2012.

To this end, they shall have direct access to the following information:

- a) detailed meteorological data for the territory of interest, directly accessible also online;
- b) plant life-cycle and health data provided by the monitoring network and, where possible by the forecasting and warning systems described in paragraphs A.7.2.1 and A.7.2.2;
- c) local integrated pest management bulletins for the main crops;
- d) information materials and/or manuals on integrated pest management methods, drawn up and published also online by the competent authorities.

The data covered by the above points may be included in a single local bulletin in order to simplify access to and availability of information.

Where the monitoring network referred to in point 2 of paragraph A.7.2.2, above is not available, farmers shall meet their obligations by relying on an *ad hoc* advisory service made available by the Regions and the Autonomous Provinces under the CAP instruments, as provided by point 3 of the previous paragraph A.7.2.2.

### **A.7.3 - Voluntary integrated pest management**

Voluntary integrated pest management for the purposes set out in Article 20 of Legislative Decree No 150/2012 is a system implemented through crop-specific technical standards and binding plant health instructions (production specifications), including agricultural and plant protection actions and constraints on the choice of plant protection products and on the number of their applications.

Voluntary integrated pest management involves compliance with Regional integrated pest management specifications, designed on the model of the National Quality System for IPM established under Law No 4 of 3 February 2011, and of the Regional certification systems, and complying with the general criteria laid down in Annex III to Legislative Decree No 150/2012 and with the guidelines set out in Regulation (EC) No 1107/2009, in particular Annex II, paragraphs 3.6, 3.7, 3.8 and 4, as concerns the choice of active substances.

The objective pursued by voluntary integrated pest management, over the five years of the Plan's validity, is to achieve an increase in uptake of the corresponding national specifications as concerns the main crops.

A priority goal is to achieve, over the Plan's five-year period, a reduction in the use of pesticides based on active substances identified as candidates for replacement, in accordance with the above-mentioned paragraphs of Annex II to Regulation (EC) No 1107/09.

This objective shall be defined in quantitative terms and included in the Plan via an addendum as soon as the instruments and measures implementing the new CAP (2014-2020) are established and the budget is secured.

#### **A.7.3.1 - The Ministry of Agricultural, Food and Forestry Policies**

The Ministry of Agricultural, Food and Forestry Policies, supported by the Integrated Pest Management Task Force and the Agricultural Techniques Task Force housed in the technical-scientific Body referred to in Article 2(6) of Law No 4 of 3 February 2011 shall:

- 1) establish and publish each year, on the Rural Network web portal, the "National Guidelines for Voluntary IPM" which shall be designed consistently with the above-mentioned National quality system established under Article 2(3), (4), (5) and (6) of Law No 4 of 3 February 2011, for the choice of active substances;
- 2) ensure that the Regional IPM specifications are consistent with the guidelines set out in Annex III to Legislative Decree No 150/2012, and in Annex II(3.6), (3.7), (3.8) and (4) to Regulation (EC) No 1107/2009 and with the national guidelines referred to in point 1);
- 3) promote and strengthen research and the exchange of information and experiences in voluntary integrated pest management, also relying on the existing national research networks and computer platforms in the integrated pest management sector and on the competent institutes within public research bodies;
- 4) select financial instruments to support the farms and bodies committed to implementing the specifications mentioned in point (2);
- 5) raise the profile of voluntary IPM farming, at national and EU level, via the labelling scheme referred to in Law No 4/11.

#### **A.7.3.2 - The Regions and Autonomous Provinces**

The Regions and Autonomous Provinces shall promote voluntary integrated pest management by engaging in the following actions:

- 1) implement the actions under the Plan also by adopting possible “Regional Action Plans”, which may include local area plans and crop-specific plans;
- 2) update the IPM specifications consistently with the above-mentioned “National Quality System” established under Law No 4 of 3 February 2011, consistently with the provisions of paragraph A.7.3.1, points (1) and (2). The Regional specifications, binding on the farms joining voluntary integrated pest management schemes, shall be regularly reviewed and published on the Regional authorities’ websites and the National Rural Network website;
- 3) deploy and/or upgrade technical and IT support and assistance, and coordinate technical assistance, in coordination with the support activities planned for statutory integrated pest management and for organic farming;
- 4) promote innovative advisory services;
- 5) select financial instruments to support the farms and bodies committed to implementing the specifications mentioned in point (2).

### **A.7.3.3 - Agricultural holdings**

Those agricultural holdings which undertake to implement voluntary integrated pest management are required to:

- a) comply with the contents of the voluntary IPM farming specifications drawn up by the Regions and the Autonomous Provinces, in accordance with the procedure set out in point 2 of paragraph A.7.3.2;
- b) adjust or calibrate pesticide application equipment at authorised Test Centres, in the manner set out in paragraph A.3.7.

### **A.7.4 - Organic farming**

Organic farming bases its crop protection strategies mainly on the adoption of farming models and systems ensuring high crop resilience, and on the principles of agricultural ecology. The production system is designed to achieve a high degree of biodiversity, create and maintain ecological infrastructure and safeguard useful organisms that help control harmful species.

Regulation (EC) No 834/2007, which lays down compulsory rules on organic farming, allows recourse to a restricted number of non-synthetic plant protection products, listed in Annex II to Regulation EC No 889/2008, but only where a serious risk for the crop is demonstrated.

The objective pursued via progressive implementation of the Plan is to increase the national UAA under organic farming, with reference to the main crops.

This objective shall be defined in quantitative terms and included in the Plan by a supplementary act as soon as the instruments and measures implementing the new CAP (2014-2020) are established and the budget is secured.

#### **A.7.4.1 - The Ministry of Agricultural, Food and Forestry Policies**

The Ministry of Agricultural, Food and Forestry Policies, supported by the Technical Committee referred to in Article 17(4) of Presidential Decree No 55 of 28 February 2012 and by the “Expert task-force” referred to in Ministerial Decree No 0018180 of 12 August 2013, shall:

- 1) draft a guidance manual, consistent with point A.7.2.1, to promote the correct and widespread uptake of organic farming methods, also taking into account the National Quality System for IPM established under Law No 4 of 3 February 2011;



- 2) establish, update and publish regularly on the website the national guidelines for plant protection in organic farming, enhancing the already existing information systems on organic farming;
- 3) manage and update the database of plant protection products allowed in organic farming;
- 4) prepare and disseminate information material on plant protection in organic farming, enhancing the already existing organic farming information systems;
- 5) organise organic farming training initiatives also targeting non-professional users to promote the uptake of cultivation methods having low health and environmental impacts;
- 6) promote specific training and updating programmes for organic farmers;
- 7) promote and strengthen research and the exchange of information and experiences in organic farming, also relying on the existing relevant national research networks and computer platforms and on public research bodies;
- 8) select financial instruments to support the farms and bodies committed to implementing organic farming, also enhancing the already existing organic farming information systems.
- 9) favour the promotion and enhancement of organic products at national and EU level.

#### **A.7.4.2 - The Regions and Autonomous Provinces**

The Regions and Autonomous Provinces shall promote organic farming by engaging in the following actions:

1. implement the actions under the Plan also by adopting possible “Regional Action Plans”;
2. prepare and disseminate the information referred to in point A.7.2.2 above and, where possible, provide organic farms with additional information materials;
3. publish on the Regional websites the manual on organic farming practices and the national guidelines on plant protection in organic farming, also via links to the corresponding national websites (database on biological pest control and on research and pilot implementation);
4. prepare bulletins relying on the outputs of predictive models and monitoring networks to provide information to farmers on the implementation of biological pest control;
5. deploy and/or upgrade technical and IT support and assistance to farmers, and coordinate technical assistance, in coordination with the support activities planned for statutory and voluntary integrated pest management;
6. promote innovative advisory services;
7. select possible financial instruments to support the farms and bodies committed to implementing organic farming, as well as the related research and pilot implementation activities.

#### **A.7.4.3 - Agricultural holdings**

The agricultural holdings shall apply organic farming techniques taking into account, as additional qualifying element, the specific provisions set out in the Plan, the national guidelines and manuals referred to in paragraph A.7.4.1, and the regional guidelines referred to in paragraphs A.7.2.2 and A.7.4.2.

## **B - Indicators - Tools to measure achievement of the Plan’s objectives**

(Article 6 of Legislative Decree No 150/2012)

Under Legislative Decree No 150/2012, in order to measure progress in implementing the measures set out in the Plan to reduce the risks and impacts of the use of plant protection products, and pending the selection of harmonised EU-wide risk indicators, the Plan identifies three categories of

indicators: 1) priority indicators to assess the overall results achieved by the Plan; 2) specific indicators relating to the targets of individual measures in the Plan; 3) risk indicators.

The indicators included in the Plan have been selected on the basis of the following criteria:

- relevance of the information provided;
- measurability, which depends on the immediate availability and updatability of data, possibly accompanied by a consolidated national-level historical series;
- scientific soundness.

In order to calculate indicators and indices it is necessary to use statistical data collected in accordance with Regulation (EC) No 1185/2009, concerning statistics on pesticides.

These statistical data, comparable and harmonised at EU level, concern: 1) the annual amounts of active substances produced and placed on the market (Annex III to Regulation (EC) No 1185/2009); 2) the annual amounts of active substances applied by professional users.

The information on the amounts of pesticides placed on the market shall be supplied by producers, traders, importers and suppliers.

As to the amounts used by professional users, the information shall be collected annually with reference to certain crops based on the amount and type of the active substances used and of the size of the cultivated area.

Furthermore, when selecting indicators, priority will be given to data collected by existing monitoring programmes which are in line with the goals of the Plan, for instance the projects already included in the National statistical programme.

Annex VII sets out the Plan indicators, whose complete list shall be established by a Decree of the Ministry of the Environment and Protection of Land and Sea, pursuant to Article 22 of Legislative Decree No 150/2012.

## **C - Monitoring**

### **C.1 - Monitoring of the presence of active substances in surface water and groundwater**

In order to identify the presence and possible impacts of the use of plant protection products on the aquatic environment, the Regions and the Autonomous Provinces of Trento and Bolzano, under the monitoring programmes pursuant to Article 120 of Legislative Decree No 152 of 3 April 2006 shall monitor the residues of plant protection products in water, taking into account the guidelines supplied by the Institute for Environmental Protection and Research (ISPRA) on prioritisation of the substances to be monitored, sampling methods, testing and quality control.

The Regions and the Autonomous Provinces shall use the National Information System for water protection (SINTAI) to submit to ISPRA by 31 March of each year the results of the previous year's monitoring activity. ISPRA will collect, process and assess the data received and will forward the results to the Committee and to the Regions and Autonomous Provinces.

In order to monitor the evolution of contamination over time, a trend indicator of the presence of pesticide residues in water will be included among those provided for by chapter B. The indicator shall be based on frequency of detection and concentrations in surface water and groundwater, and shall provide both aggregate data on all the substances monitored, and specific data on certain substances posing particular risks to human health and the environment.

ISPRA will use the data supplied each year by the Regions and Autonomous Provinces to assess contamination trends.

### **C.2 - Monitoring of the use of pesticides and pesticide residues in food**

Under the official control programmes coordinated by the Ministry of Health and other applicable provisions, the Regions and the Autonomous Provinces shall conduct checks on plant protection products and foodstuffs, in order to verify compliance with the mandatory conditions for use of such products, and conformity of the foodstuffs with maximum residue limits.

These checks, similarly to the systematic monitoring of acute pesticide poisoning, are an integral part of the monitoring and surveillance activity set out in the Plan.

One additional purpose of these checks is to verify the effectiveness of the training, in particular the training of distributors and professional users.

The Regions and the Autonomous Provinces shall submit to the Ministry of Health the data on the checks performed, using the procedures, formats and codes required by the Ministry in compliance with the data flow standardisation requirements established by the European Food Safety Authority and applicable EU-wide.

The Regions and the Autonomous Provinces shall promote upgrading of the operating capacity of official control laboratories, also by setting up and coordinating a network joining the laboratories within the ARPA (Regional Environmental Agencies), APPA (Provincial Environmental Agencies), AUSL (Local Health Authorities) and IZS (Animal Health Institutes), under the technical-scientific coordination of the National Health Institute, which is the national reference laboratory for measuring pesticide residue in various foods and for single-residue methods.

## **D - Research and pilot implementation in support of the Plan and advanced training**

Research and pilot implementation are key steps in developing strategies and deploying actions for the sustainable use of pesticides, in particular as concerns low pesticide input pest management.

In order to raise the quality profile of the national agricultural system by putting in place innovative solutions matching the Plan's objectives, it is necessary to develop a network linking research initiatives in progress to upcoming research projects, also leveraging on existing tools (technology platforms, research networks, information systems etc.).

The Ministries, the Regions and the Autonomous Provinces shall promote research, pilot implementation and the exchange of information and experiences on sustainable pesticide use, coordinating research activity and identifying financial instruments supporting the entities engaged in Plan implementation.

The Ministry of Agricultural, Food and Forestry Policies, working jointly with the competent Ministries, with the Committee's assistance, and in cooperation with public research bodies, shall coordinate the network so as to implement specific research and experimentation programmes and transfer innovation, also having regard to the EU research system.

The main thematic areas include:

1. System-level studies of systems designed to:
  - reduce exposure risk for operators;
  - assess pesticide exposure and its acute and chronic impacts on the general public;
  - reduce point and non-point source pollution;
  - design and develop low-chemical input agricultural systems;
  - optimise pesticide application;
  - develop resilient agricultural systems or systems totally free from the use of synthetic chemicals;

- introduce innovative multi-residue testing systems;
  - reduce risks for biodiversity.
2. Studies on pest prevention and management (pathogens, parasites, weeds etc.), with particular regard to:
    - identifying pests;
    - pest ecology and biology;
    - developing and optimising monitoring methods;
    - developing and optimising simulation, forecasting and warning models;
    - spatial distribution of pests;
    - pest prevention and control systems relying on agricultural and crop methods (rotations, use of pest resistant or pest-tolerant cultivars, etc.);
    - thresholds for action, to optimise pest control strategies;
    - alternatives to chemical pest control including innovative integrated and biological pest management methods;
    - soil microbial ecology and biological pest control;
    - plant resistance to pests and to chemical products and induced responses;
    - pest prevention and control in non-agricultural areas (urban areas, along railway lines etc.).
  3. Pest damage prevention and control.
  4. Studies on useful organisms, in particular:
    - fostering recourse to useful organisms in integrated pest management and biological pest control programmes;
    - designing standardised criteria for assessing the selectivity of plant protection products towards useful organisms.
  5. Environment and residues:
    - optimise and innovate methods for the environmental monitoring of the residues of plant protection products and metabolites;
    - design simulation models concerning pesticide residues and multi-residues.
  6. Studies on pest resistance to pesticides, including:
    - design of standard pesticide assessment procedures;
    - genetic characteristics of pests;
    - identification of pesticide sites and mechanisms of action;
    - baseline pesticide effectiveness values;
    - other studies supporting the development of strategies to address pesticide resistance;
    - studies to design large-scale pesticide resistance prevention and management.
  7. Studies on the environmental impact of pesticides, concerning in particular:
    - assessment of pesticide behaviour in the different environmental media (water, soil, plants etc.);
    - design of simulation models concerning the environmental behaviour of pesticides;
    - ecological balances of habitats in protected nature areas.
  8. Risk mitigation measures:
    - assessment of the effectiveness of measures to mitigate the environmental risk of pesticide use.

9. Risk indicators:

- design data collection methods for applying risk indicators (consumers, operators, aquatic organisms, groundwater, biodiversity and ecosystems).

10. Expand existing databases, web portals and information systems.

The competent Ministries shall cooperate with the Ministry of Education, University and Research to ensure that the subject-matters included in the Plan are appropriately covered by advanced training courses and National Research Programmes - consistently with the new EU research and innovation programme, *Horizon 2020*.

## **E - Coordination of control activities**

Article 23 of Legislative Decree No 150/2012 requires the Regions and the Autonomous Provinces to appoint, within their organisation and legal framework, the competent authorities tasked with monitoring implementation of the same Decree, and shall inform the competent national authorities accordingly. In so doing, they shall take into account the monitoring systems already in place under the previous framework, and will have regard to Annex I.

The monitoring authorities so appointed shall take into account the control activities conducted under other applicable rules, including the checks performed on the farms which have joined the CAP, as provided for by the current EU, national and regional legislation.

The competent national and regional authorities shall ensure effective and efficient coordination between their respective local offices. To this end, they may rely on the Committee's assistance.

For the purposes of planning and coordinating the checks, the Committee shall propose:

- a) a set of guidelines for performance of the checks, providing guidance to the authorities performing said checks, in order to harmonise control activity throughout the national territory;
- b) the annual national plan for coordinating control activities.

The Ministry of Agricultural, Food and Forestry Policies may set up a database of control results, to provide an adequate information flow aimed at boosting the effectiveness of the control network and synergy with the checks performed under the CAP.

## **F - Coordination measures for implementing and updating the Plan**

The Plan's different operational levels will include the following coordination actions to ensure its proper implementation and updating:

1. National level (relations with the EU). The national authorities shall:
  - guide and coordinate implementation of the measures set out in the Plan;
  - coordinate verification (data collection) of achievement of the Plan's objectives on the basis of the indicators referred to in point B;
  - coordinate the Plan implementation monitoring system referred to in point E;
  - promote and implement the support measures (information systems, data banks, portals, manuals, research etc.) set out in the Plan;
  - coordinate and promote the research and pilot implementation activities supporting achievement of the Plan's objectives;
  - maintain relations with stakeholders;
  - prepare the documents and reports to be submitted to the EU;

- coordinate periodic updating of the Plan (at least every 5 years).
2. Local level (Regions and Autonomous Provinces). The local authorities shall:
- schedule the activity set out in the Plan for the territorial area under their competence. To this end, they may prepare Regional Action Plans (RAP) covering all the activities set out in the Plan;
  - prepare and forward reports on Plan implementation status for the territory under their competence, in accordance with Article 6(8), of Legislative Decree No 150/2012;
  - provide annual information on implementation of the measures in accordance with Article 14(2), of Legislative Decree No 150/2012.

## **G - Manuals and handbooks available or under preparation**

- Guidelines on statutory integrated pest management;
- National guidelines for voluntary integrated pest and weed management;
- Guidance manual promoting the uptake and correct application of organic farming: organic farming cultivation methods and guidelines for crop protection in organic farming;
- Regional manuals on the storage and handling of plant protection products (available);
- Manual on bee protection and safeguarding;
- Manual on risk mitigation measures to reduce pesticide drift, runoff and drainage;
- ENAMA manuals (available, downloadable from website [www.enama.it/it/sprayers.php](http://www.enama.it/it/sprayers.php));
- Guidance manual promoting the uptake and correct application of good agricultural practices to preserve biodiversity and reduce the impacts of the use of plant protection products;
- Life-TOPPS (Training Operators to prevent Pollution from Point Sources) (available):
  - Safe and sustainable use of plant protection products: TOPPS guidelines for preventing point source pollution from plant protection products (available and downloadable from website [www.topps-life.org](http://www.topps-life.org) );
  - Good agricultural practices to better protect water from pesticide contamination (available, downloadable from website [www.topps-life.org](http://www.topps-life.org) );
  - Internal and external washing of spraying equipment (available, downloadable from website [www.topps-life.org](http://www.topps-life.org) );
  - Systems for managing waste waters from pesticide handling (available, downloadable from website [www.topps-life.org](http://www.topps-life.org) );
  - Safe and sustainable use of pesticide: TOPPS - Prowadis guidelines for preventing and mitigating pesticide drift and runoff (under preparation).

The above manuals will be made available on the official website of the National Action Plan for the sustainable use of plant protection products, prepared by the competent Ministries.

## **H - Financial resources**

For each of the actions set out in the Plan, appropriate financial support instruments may be put in place, in order to encourage their uptake, except for statutory actions.

## **Annex I**

### **Part A** **Training objectives**

Taking into account the contents of training set out in Annex I to Legislative Decree No 150/2012, we set out hereunder the contents shared across the initial courses or continuing training initiatives addressed to professional users, distributors and advisors, as well as the contents specific to each type of course (again distinguished between initial and continuing training).

#### **Basic course**

##### **Common subjects for the training of professional users, distributors and consultants**

1. National and EU legislation on plant protection products and compulsory pest control;
2. Dangers and risks associated with pesticides:
  - a) Identification and control methods;
  - b) Risks for operators, consumers, vulnerable groups and residents or people accessing the pesticide-treated area;
  - c) Symptoms of pesticide poisonings, first aid skills, information on health monitoring centres and on accessing their services to report incidents;
  - d) Risks to non-target plants, useful insects, wild flora and fauna, biodiversity and the environment in general;
  - e) Risks arising from the use of illegal (counterfeit) pesticides and ways to detect counterfeit products;
3. Integrated pest management strategies and techniques, integrated production and biological pest control and principles of organic farming. General principles and specific guidance by crop and sector for integrated pest management, with regard to the main pests present in the area;
4. Comparative assessment of pesticides, with particular regard to the principles for the choice of pesticides posing the least risks for human health, non-target organisms and the environment;
5. Measures to reduce risks to people, non-target organisms and the environment;
6. Correct methods for transporting and storing pesticides, disposing of empty containers and other contaminated materials and excess pesticides (including mixtures in tanks), in both concentrated and diluted form;
7. Correct use of personal protection equipment (PPE) and measures to control user exposure during pesticide handling, mixing and application;
8. Risks for surface water and groundwater arising from the use of pesticides and associated mitigation measures. Emergency response methods in the event of accidental contamination or particular weather events which might entail the risk of pesticide contamination;
9. Pesticide-spraying equipment:
  - a) Management and maintenance of spraying machinery, with particular reference to adjustment (calibration);
  - b) Management and maintenance of pesticide application equipment and specific spraying techniques (e.g. low-volume spraying and low-drift nozzles);
  - c) Specific risks associated with the use of portable spraying equipment and knapsack sprayers, and associated risk management measures;
10. Specific areas pursuant to Articles 14 and 15 of Legislative Decree No 150/2012;
11. Recording of information on the use of each pesticide.

## **Specific subjects for the training of professional users, distributors and consultants**

### **Professional users**

- Proper keeping of the registers of pesticide applications referred to in Article 16(3) of Legislative Decree No 150/2012;
- Correct interpretation of the information on pesticide labels and data sheets, to enable informed choice and appropriate use thus avoiding harm to the environment, health and food safety;
- Identifying and accessing sources of information and services supporting integrated and biological pest management techniques made available by the Regional or Provincial authorities;
- Knowledge of non-chemical pest prevention and control methods;
- Knowledge of environmental risks and risks to operators, residents and the general public or vulnerable groups, linked to the use of pesticides, as well as risks from inappropriate behaviour;
- Recognition of the symptoms of pesticide poisoning and learning of first aid techniques;
- Rules for the safeguarding of protected nature areas and for correct use of pesticides in those and similar areas.

### **Distributors**

- National and EU legislation on pesticides, with special regard to authorisation and revocation procedures and their amendments. Information sources (databases, websites etc.);
- Manner of filling in and transmitting sales figure reports pursuant to Article 16 of Legislative Decree No 150/2012;
- Manner of filling in and transmitting sales figure reports pursuant to Article 16 of Legislative Decree No 150/2012;
- Interpreting of information on the label, with a focus on hazard symbols and danger indications, and of the information on the pesticide and pesticide safety data sheets prepared in compliance with Regulation (EU) No 453/2010, in order to provide the purchaser with the information referred to in Article 10 of Legislative Decree No 150/2012;
- Rules for the safe management of pesticide sales outlets and storage premises; safety rules for the sale and transport of pesticides with special regard to: sale and storage premises and warehouses, workplace health and safety rules, and assessment of risks for workers' health and safety and for living and working environments linked to the storage, transport and handling of containers and packaging of dangerous plant protection products and their mixtures;
- Training in the use of personal protection equipment (PPE) to be worn when performing the mandatory procedures in the event of incidents and emergencies pursuant to Article 226 of Legislative Decree No 81/08 and in accordance with Ministerial Decree of 2 May 2001 as amended and supplemented;
- Basic notions for identifying dangers and possible risks arising from major accidents;
- Biology, prevention and control of the main crop pests present in the area where the pesticide sales outlet is located;
- Identifying and accessing information and services on integrated and biological pest management made available by the Regional authorities.

### **Advisors**

- National and EU legislation on pesticides, with special regard to authorisation and revocation procedures and their amendments. Information sources (databases, websites etc.);
- Correct keeping of the registers of pesticide applications referred to in Article 16(3) of Legislative Decree No 150/2012;
- Details on the biology, prevention and control of the main crop pests present in the area where the advisory service is provided;
- Correct interpretation of the information on the label and on the pesticide safety data sheets,



- including knowledge of comparative assessment methods;
- Identifying and accessing information and services on integrated and biological pest management techniques made available by the Regional authorities;
- Rules for safeguarding protected nature areas and for the correct use of pesticides in those and similar areas;
- Information on the proper storage of pesticides and on workplace safety rules;
- Role of the advisor; ability to interact with research and experimentation centres and with pesticide users;
- Methods of recording and reporting sales figures reports pursuant to Article 16 of Legislative Decree No 150/2012;
- Rules for the safe management of pesticide sales outlets and storage premises, safety rules for the sale and transport of pesticides with special regard to: sale and storage premises and warehouses, workplace health and safety rules, and assessment of risks for workers' health and for living and working environments linked to the storage, transport and handling of containers and packagings of dangerous plant protection products and their mixtures;
- Understanding product labels, with a focus on hazard symbols and danger indications, pesticide information and the pesticide safety data sheets prepared in compliance with Regulation (EU) No 453/2010, in order to provide purchasers with the information referred to in Article 10 of Legislative Decree No 150/2012;
- Training in the use of personal protection equipment (PPE) to be worn when performing the mandatory procedures in cases of incidents and emergencies pursuant to Article 226 of Legislative Decree No 81/08 and in accordance with Ministerial Decree of 2 May 2001 as amended and supplemented;
- Overview of the dangers and risks arising from major accidents.

### **Continuing training course**

The continuing training course addresses in greater detail the topics covered in the basic course, having regard to the local situation and to technical and regulatory developments. In addition, it shall cover the following specific training objectives.

#### **Professional users**

- Knowledge of any regulatory updates on pesticide use, with special regard to mitigation of risks for the health and for the environment and to the use of integrated and biological pest control methods;
- Knowledge of new pest emergencies, their symptoms and control techniques;
- Knowledge of new products and innovative techniques, with special regard to those having the least environmental impact.

#### **Distributors**

- Knowledge of any regulatory updates concerning the authorisation, marketing and use of pesticides;
- Knowledge of technological innovations in integrated and biological pest management;
- Knowledge of new products and innovative techniques, with special regard to those with the least environmental impact.

#### **Advisors**

- Knowledge of any regulatory updates concerning the authorisation, marketing and use of pesticides;
- Knowledge of new pest emergencies, with reference to type of organisms, symptoms and sustainable pest control techniques;
- Knowledge of technological innovations in the area of integrated and biological pest

management methods, new products and innovative techniques with special regard to those with the least environmental impact, and drafting of appropriate pest control strategies consistent with the technical support provided locally by the competent authorities.

**Part B**

**Data on certificates of competence**

Year .....

Region/Province

<b>Certificate of Competence</b>	<b>Number of active certificates</b>
Users	-
Distributors	-
Advisors	-

Region/Province

<b>Professional users</b>	<b>Number of active certificates</b>
Province A	-
Province B	-
Province C	-
<b>Total</b>	-
<b>Distributors</b>	
Province A	-
Province B	-
Province C	-
<b>Total</b>	-
<b>Advisors</b>	
Province A	-
Province B	-
Province C	-
<b>Total</b>	-

Region/Province

<b>Users - age bands</b>	<b>Number of active certificates</b>
18 – 24	-
25 – 34	-
35 – 44	-
45 – 54	-
55 – 59	-
60 – 64	-
65 – 69	-
>= 70	-
<b>Total</b>	-
<b>Distributors - age bands</b>	
18 – 24	-
25 – 34	-
35 – 44	-
45 – 54	-
55 – 59	-
60 – 64	-
65 – 69	-
>= 70	-

<b>Total</b>	-
<b>Advisors – age bands</b>	
18 – 24	-
25 – 34	-
35 – 44	-
45 – 54	-
55 – 59	-
60 – 64	-
65 – 69	-
>= 70	-
<b>Total</b>	-

## Part C

### Criteria for suspending and revoking certificates of competence

Party	Certificates of competence	
	Suspension	Revocation
Professional user	Use of pesticides authorised in Italy but not allowed on the crop	Use of pesticides authorised in Italy but not allowed on the crop, leading to values in excess of the harmonised MRL. Repeated use of pesticides authorised in Italy but not allowed on the crop
		Use of illegal or revoked pesticides
	Non-compliance with label instructions on health or environmental protection requirements	Repeated non-compliance with label instructions on health or environmental protection requirements
	Improper pesticide spraying entailing the risk of drift phenomena	Repeated improper pesticide spraying, leading to contamination of residential areas or surface water courses due to drift phenomena
	Improper storage and handling of pesticides engendering risks to health or the environment	Improper storage and the handling of pesticides causing serious harm to health or the environment
Distributor		Sale of revoked, unauthorised or illegal pesticides.
	Failure to provide information or provision of insufficient information on the correct use of pesticides and of adjuvants, risks to human health and the environment linked to their use and associated safety measures	Repeated failure to provide information or provision of insufficient information on the correct use of pesticides and of adjuvants, risks to human health and the environment linked to their use and associated safety measures
	Sale to non-professional users of products for professional use	Repeated sale to non-professional users of products for professional use
Advisor	Provision of incorrect information on the use of pesticides and/or on the application of integrated and biological pest control methods	Repeated provision of incorrect information on the use of pesticides and/or on the application of integrated and biological pest control methods
		Recommending unauthorised, illegal or revoked pesticides

## Annex II

### Components of pesticide spraying equipment subject to functional control, method of execution of control and applicable requirements of correct operation

Pending adoption of a harmonised European standard setting out the operating parameters to be covered by technical checks, the methods of performing said checks and threshold values, the following rules have been established on the basis of the existing European standards (EN 13790).

#### **1 Field crop sprayers**

##### **1.1 Presence and state of power transmission elements**

The power take-off drive shaft guard and the guard of the power input connection shall be fitted and in good condition.

The different parts of the shaft, the universal joints and locking systems shall show no marks of excessive wear, holes or deformations and shall operate correctly.

The restraining device preventing rotation of the power take off shaft guard shall be present and shall work reliably.

The protective devices and any moving or rotating power transmission parts shall not be affected in their function and shall be mounted and in good condition.

Any electrical connections shall be adequately protected and their protection shall be in good condition.

##### **1.2 Main pump**

###### **a. Capacity**

The pump shall have sufficient flow rate capacity to ensure adequate pulverisation of the liquid at the maximum working pressure recommended by the sprayer or the nozzle manufacturer during tests with the largest nozzles mounted on the sprayer while maintaining a visible agitation as specified in point 1.3.c.

###### **or, alternatively**

The pump capacity shall match the requirements of the equipment and shall be at least 90% of its original nominal flow, as established by the sprayer manufacturer.

In the latter case, capacity shall be measured by means of a flow meter on the pressurised side at a pressure between 8 bar and 10 bar or, if lower, at the highest allowed by the pump working pressure.

###### **b. Pulsations**

There shall be no visible pulsations caused by the pump.

###### **c. Leakages**

There shall be no leakages from the pump.

###### **d. Pressure safety valve (optional test)**

Where a pressure safety valve is in place, it shall work reliably. Failure of the valve shall not prevent passing of the technical check, but must be noted in the test report.

### **1.3 Main tank**

#### **a. General**

There shall be no leakages from the tank or from the filling hole when the cover is closed.

There shall be a filter in good condition in the filling hole. The filter is not necessary if the filling (with water and/or plant protection product) is always performed by other methods, e.g. using a pre-mixer.

Pressure compensation shall be ensured (to avoid pressure drops or spikes in the tanks).

It must be possible to collect the liquid from the tank easily, reliably and without losses (e.g. using a stopcock).

If a system exists for filling the tank with water directly from the sprayer pump, this system shall have a correctly functioning anti-backflow device.

#### **b. Pesticide containers**

The system for cleaning empty pesticide containers shall work correctly.

#### **c. Agitation system**

Clearly visible recirculation shall be achieved when spraying at the nominal power take off speed, with the tank filled to half of its nominal capacity.

#### **d. Tank contents indicator**

There shall be a clearly readable liquid level indicator on the tank, visible from the driver's position and/or from the point where the tank is filled.

### **1.4 Pesticide introduction device (pre-mixer)**

If present, it shall operate correctly and shall be equipped with a filtering system.

### **1.5 Measurement, control and regulation systems**

#### **a. General**

All devices for measuring, switching on and off and adjusting pressure and/or flow rate shall work reliably and shall have no leakages.

All pressure regulation devices shall have a constant working pressure, with a tolerance of  $\pm 10\%$  under constant rotational speed, and shall reach the same working pressure after the equipment has been stopped and then restarted.

Essential sprayer controls (e.g. opening and closing of boom sections and overall distribution, pressure regulation) shall be mounted so as to be easily reachable and manoeuvrable during application and so as to ensure that the information they provide is clearly readable.

Rotation of the head and upper body of the operator is allowed (the manometer mounted on the sprayer must be readable from the driver's seat).

Switching on and off of all nozzles shall be possible simultaneously.

Other measuring devices, in particular flow meters (used to control volume/ha treated), shall provide measurements with a max 5% deviation from the actual value.

#### **b. Manometer**

##### **i. Reading scale**

The scale of the manometer shall be clearly readable and appropriate to the range of working pressures used.

The scale shall have reading accuracy of at least:

- 0.2 bar, for working pressure of less than 5 bar;
- 1.0 bar, for working pressure between 5 and 20 bar;
- 2.0 bar, for working pressure in excess of 20 bar;

## **ii. Diameter**

For analogue manometers, diameter of the shell shall be  $\geq 63$  mm.

## **iii. Operation**

The manometer needle shall be stable to enable reading of working pressure, the manometer shall measure within a tolerance of  $\pm 10\%$  with respect to the actual value.

The manometer to be checked shall be placed on the spraying equipment or a test bench. Measurements shall be made respectively increasing and reducing pressures on at least three values ranging between 0 and maximum working pressure.

### **c. Pressure drop**

The pressure drop between the measuring point for pressure on the sprayer and the end of each boom section width should not exceed 10% of the pressure shown on the pressure gauge, and in any case should remain constant between the different boom sections. The outcome of this test is not binding for passing the check, but the degree of the pressure drop must be stated in the test report.

### **d. Pressure stability on closing boom sections**

The pressure measured by the sprayer pressure gauge shall not vary by more than 10% when the boom sections are closed one at a time.

Pressure changes shown by the pressure gauge shall be recorded as each section is closed.

## **1.6 Pipes and hoses**

There shall be no leakages from pipes or hoses when tested at the maximum working pressure indicated by the sprayer manufacturer.

Hoses shall be placed so as to avoid any bending or abrasions exposing their structure.

## **1.7 Filtering system**

### **a. Filters**

The sprayer shall be equipped with at least one filter on the pressurised side or on the suction side of the pump (the nozzle filters can not be regarded as filters on the pressurised side of the pump).

The filter(s) shall be in good condition and with mesh size suitable for the nozzles mounted on the sprayer in accordance with the instructions of nozzle manufacturers.

Filter elements must be replaceable.

### **b. Device for cutting off the filter from the tank**

A cut-off device shall be set in place to enable cleaning of filters even when there is liquid in the tank without any leakages except for possible liquid in the filter itself and in the suction pipes.

## **1.8 Spray boom**

### **a. General**

The boom shall be stable in all directions, i.e. not loose in any joints and not bent.

The right and left parts of the boom shall be of the same length except for booms for special applications, for example for use in greenhouses.



When provided, the automatic resetting of booms shall operate if booms are fitted with a device enabling them to move backwards and forwards in the event of contact with obstacles. Nozzle spacing and orientation shall be uniform along the boom, except for special nozzles (e.g. boom-end nozzles). By design, it shall not be possible to modify unintentionally the position of the nozzles during operation.

Irrespective of the distance of the boom from the target, the sprayed liquid shall not hit any part of the sprayer.

At working widths of >10 m, a nozzle protection system shall be in place in the event that the boom hits the ground.

It shall be possible to switch on and off individual boom sections.

Boom height regulators, if present, shall work reliably.

It shall be possible to lock the boom when in transport position.

**b. Boom horizontality**

When the sprayer is measured stationary on a level surface, the distance between the lower edges of the nozzles and the level surface shall not vary more than 10 cm or 1% of the half of the working width.

**1.9 Nozzles**

**a. General**

All nozzles shall be identical all along the boom, except where they are intended for a special function. Other components (nozzle filters, anti-drip devices) shall also be equivalent all along the boom.

**b. Losses due to dripping**

After being switched off, the nozzles shall not drip.

Any dripping shall cease within 5 seconds after the spray jet has collapsed.

**c. Uniformity of transverse distribution**

If nozzles are used to form a uniform spray, point c.1 or c.2 applies. In other cases, only point c.2 shall apply.

**c.1 Measurement on horizontal test bench**

If the nozzles are used to form a uniform spray, a distribution bench shall be used to measure the uniformity of transverse distribution (for characteristics, see Annex 2).

The check shall be performed all along the boom, in the area of jet overlapping, using all the nozzle series mounted on the boom and operating at the pressure normally used by the farmer.

Measurement results must not be influenced by the weather.

The distance between the test bench and the nozzle spraying tip must be measured and recorded in the test report.

Transverse distribution shall be uniform and shall be evaluated on the basis of the variation coefficient, which shall not exceed 10%; moreover, the amount of liquid collected by each patternator groove within the overlapped range shall not deviate more than  $\pm 20\%$  from the total mean value.

### c.2 Flow rate measurement

The deviation of the flow rate of each nozzle of the same type shall not exceed  $\pm 10\%$  of the nominal flow rate declared by the manufacturer.

If the nominal flow rate of the nozzle is not available, this fact shall be recorded in the test report. In this case, the flow rate of each nozzle at the normal working pressure shall be determined, and it shall be verified that actual flow rates differ less than  $\pm 5\%$  from the calculated mean value.

During the test, the nozzles need not be mounted on the boom. Correct formation of the spray jet shall be checked. The measurement error shall be  $\leq 2.5\%$  of the measured value.

#### c.2.1 Measurement with nozzles on the boom

The flow rate of each nozzle shall be measured in accordance with point 8 of standard ISO 5682-2:1987 (use the maximum nozzle pressure indicated by the manufacturer or the working pressure and collect the sprayed liquid for a pre-established period).

Determine the flow rate of all the nozzles on the boom, working with all the sections open and without interrupting or modifying the work settings of the pump and the pressure regulator.

#### *Pneumatic nozzles (diffusors) or centrifugal nozzles*

a) Collect for at least one minute the liquid sprayed by each nozzle; determine the flow rate by means of scales, a graduated container or a flow meter

or

b) If the above system cannot be applied, fill the tank to a known level, operate the sprayer for an appropriate length of time and measure the amount of liquid necessary to refill the tank to the starting level.

#### *Air pressure atomiser nozzles*

Collect the liquid and determine the quantity sprayed as described in point a). The measurement time should be set by reference to the nozzle flow rate and should be such as to ensure correct check of this parameter.

#### c.2.2 Measurement with nozzles not on the boom

The flow rate of each nozzle must be measured on an *ad hoc* test bench.

If the nominal flow rate of the nozzle is not available, this fact shall be recorded in the test report. The check shall ascertain that the flow rate of each nozzle of the same type differs less than  $\pm 10\%$  from the mean flow rate of that type of nozzles mounted on the boom.

### **Fan**

The fan, if present, shall be in good condition and mounted appropriately. In particular:

- a) All its parts shall be free from mechanical deformation, wear and tear, corrosion or vibration;
- b) There shall be appropriate guards to prevent the hands coming into contact with the fan blades.

If the fan can be disconnected separately from the other parts of the rotating machinery, the fixing point must be reliable.

## 2 Orchard sprayers

### 2.1 Presence and state of power transmission elements

See field crop sprayers.

### 2.2 Fan

The fan, if present, shall be in good condition and mounted appropriately. More specifically:

a) All its parts shall be free from mechanical deformation, wear and tear, corrosion or vibration;

b) There shall be appropriate systems to prevent the hands coming into contact with fan blades.

If the fan can be disconnected separately from the other parts of the rotating machinery, the fixing point must be reliable.

The air deflectors on the fan and at the additional fan guard, if present, shall operate correctly.

Fan components shall not be exposed to the spray jet, except as needed for their operation.

### 2.3 Main pump

#### a. Capacity

See field crop sprayers.

#### b. Pulsations

See field crop sprayers.

#### c. Leakages

See field crop sprayers.

#### d. Pressure safety valve (optional test)

See field crop sprayers.

### 2.4 Main tank

#### a. General

See field crop sprayers.

#### b. Agitation system

See field crop sprayers.

#### c. Tank contents indicator

See field crop sprayers.

### 2.5 Pesticide introduction device (pre-mixer)

See field crop sprayers.

### 2.6 Measurement, control and regulation systems

#### a. General

See field crop sprayers.

#### b. Manometer

##### i. Reading scale

See field crop sprayers.

**ii. Diameter**

See field crop sprayers.

**iii. Operation**

See field crop sprayers.

**c. Pressure drop**

See field crop sprayers.

**d. Pressure stability on closing boom sections**

See field crop sprayers.

**2.7 Pipes and hoses**

See field crop sprayers.

**2.8 Filtering system**

**a. Filters**

See field crop sprayers.

**b. Device for cutting off the filter from the tank**

See field crop sprayers.

**2.9 Nozzles**

**a. General**

The characteristics of the nozzles (e.g. type of nozzle, calibre) shall be symmetrical on the right and left sides except for special types of operation (e.g. spraying on one side only, nozzle adaptation to compensate fan-generated asymmetry, etc.).

It must be possible to switch off each nozzle separately. In the event of multiple nozzle holders, this requirement shall apply to each nozzle.

It must be possible to adjust the orientation of the nozzles in a symmetrical and possibly reproducible manner.

**b. Losses due to dripping**

See field crop sprayers.

**c. Nozzle flow rate**

The flow rate of each nozzle with the same marking shall not deviate more than 15 % from the nominal flow rate or 10 % from the mean flow rate of all nozzles within the same identification.

For symmetrical spraying, the difference between the left and right hand side mean flow rate shall be a maximum of 10%.

The manner of measuring the flow rate of each nozzle is the same as that provided for boom sprayers.

**d. Distribution pattern**

The distribution pattern can be determined using a vertical test bench to measure the adaptation of vertical distribution to the geometry and shape of the vegetation to be treated (See Annex 2 for characteristics).

The check shall be made using all the nozzle series mounted on the sprayer and operating at the pressure and fan settings normally used by the farmer.

Measurement results must not be influenced by the weather.

The distance between the test bench and the centre of the spraying equipment must be half of the space between plant rows.

### **3 Hand-held lances connected to traditional sprayers, power barrows or fixed pumps**

#### **3.1 Pump**

##### **i. Capacity**

See field crop sprayers.

##### **ii. Pulsations**

See field crop sprayers.

##### **iii. Leakages**

See field crop sprayers.

##### **iv. Pressure safety valve (optional test)**

See field crop sprayers.

#### **3.1.1 Main tank**

##### **i. General**

See field crop sprayers.

##### **ii. Agitation system**

See field crop sprayers.

##### **iii. Tank contents indicator**

See field crop sprayers

#### **3.1.2 Measurement, control and regulation systems**

##### **i. General**

See field crop sprayers.

##### **iii. Manometer**

There shall be at least one manometer near the pump and, possibly, one near the lance.

##### **iv. Reading scale**

See field crop sprayers.

##### **v. Operation**

See field crop sprayers.

#### **3.2 Pipes and hoses**

They shall be in good condition and free from visible alterations. Their manufacturing characteristics must be compatible with the working pressure.

There shall be no leakages from pipes or hoses when tested at the maximum working pressure indicated by the sprayer manufacturer.

In the event of rupture of the pipes it must be possible to shut them off at the intake point (e.g. by means of one or more stopcocks on the pressure side).

### **3.3 Filtering system**

#### **i. Filters**

See field crop sprayers.

#### **ii. Cutting-off device**

See field crop sprayers.

### **3.4 Pressure drop**

When operating with pipes more than 10<sup>20</sup> m in length and/or in conditions of strong elevation differences between the pump location and the spraying site itself, the working pressure shown by the manometer mounted next to the lance shall be compared with that measured by the manometer mounted next to the pump. Both measured values shall be recorded in the test report.

### **3.5 Measurement of nozzle flow rates**

The flow rate of each of the nozzles mounted on the lance shall not deviate by  $\pm 10\%$  from the nominal flow rate.

If the nominal flow rate of the nozzle is not available, this fact shall be recorded in the test report and, if possible, the actual flow rate shall be compared with that obtained using a brand new lance or nozzle.

The flow rate of each nozzle shall be determined at the working pressure normally employed by the farmer; where several nozzles of the same type are used, they shall be checked to ensure that their actual flow rates deviate less than  $\pm 5\%$  from the calculated mean value.

The flow rate capacity of each nozzle shall be measured as follows:

- a) Collect for at least one minute the liquid sprayed by each nozzle. Determine the flow rate by means of scales, a graduated container or a flow meter. Duration of the measurement should be set by reference to the nozzle flow rate and should be such as to ensure correct check of this parameter.

**or**

- b) If the above system cannot be applied, fill the tank to a known level, operate the sprayer for an appropriate length of time and measure the amount of liquid necessary to refill the tank to the starting level.

## **4. Knapsack sprayers with engine and fan**

### **4.1 General**

There shall be no leakages of liquid from the equipment under normal working conditions.

The cover shall be in place and prevent the loss of liquid during application.

There shall be a clearly readable indicator of liquid level in the tank.

The shoulder straps shall be present and in good condition and shall be at least 30 mm wide.

### **4.2 Measurement, control and regulation systems**

#### **i. General**

All devices for measuring, switching on and off and regulating pressure and/or flow rate, if present, shall work reliably and shall have no leakages.

#### **ii. Manometer**

Air pressure atomiser sprayers shall be equipped with a manometer.

The manometer scale shall have a reading interval of  $\leq 0.2$  bar.

The manometer needle shall be stable, to enable reading of working pressure.

The manometer shall measure within a maximum tolerance of 0.2 bar.

The manometer to be checked shall be placed on a test bench. Measurement shall be made respectively increasing and reducing pressures on at least three values ranging between 0 and maximum working pressure.

### **4.3 Pipes and hoses**

There shall be no leakages from pipes or hoses when tested at the maximum working pressure indicated by the sprayer manufacturer.

### **4.4 Filtering system**

There shall be a filter in good condition in the filling hole.

There shall be at least one filter on the pressurised pipe side.

The filters shall be in good condition and with mesh size suitable for the nozzles mounted on the sprayer in accordance with the instructions of nozzle manufacturers (if available).

### **4.5 Output**

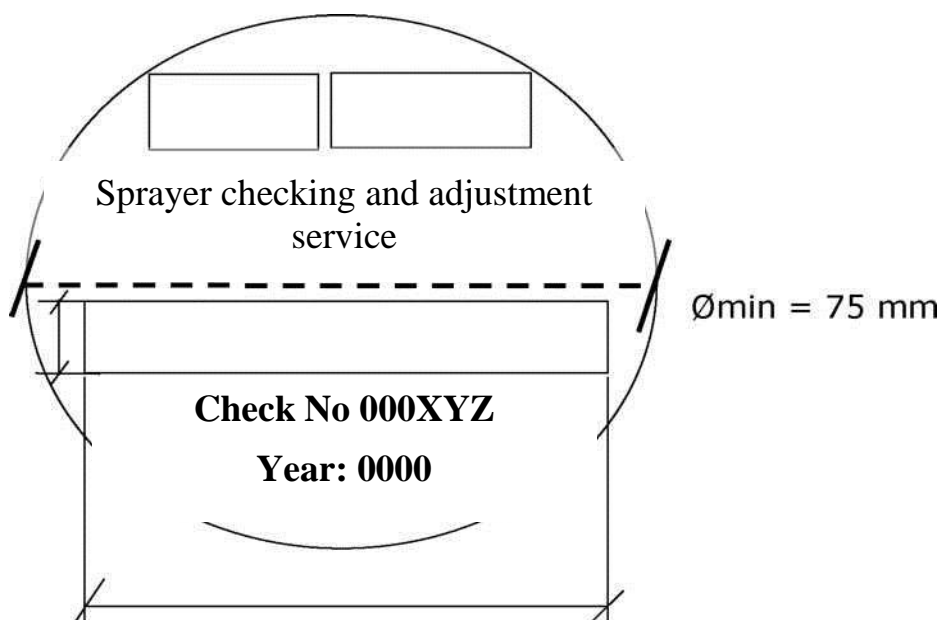
See hand-held lances.

**5. Model adhesive label to be fixed on the sprayer that has passed the technical tests, with instructions on the label's size and on the essential information it shall contain**

The label shall be placed in a visible position on the sprayer; it should be in standard, predefined colours, and shall be made of wear-resistant material.

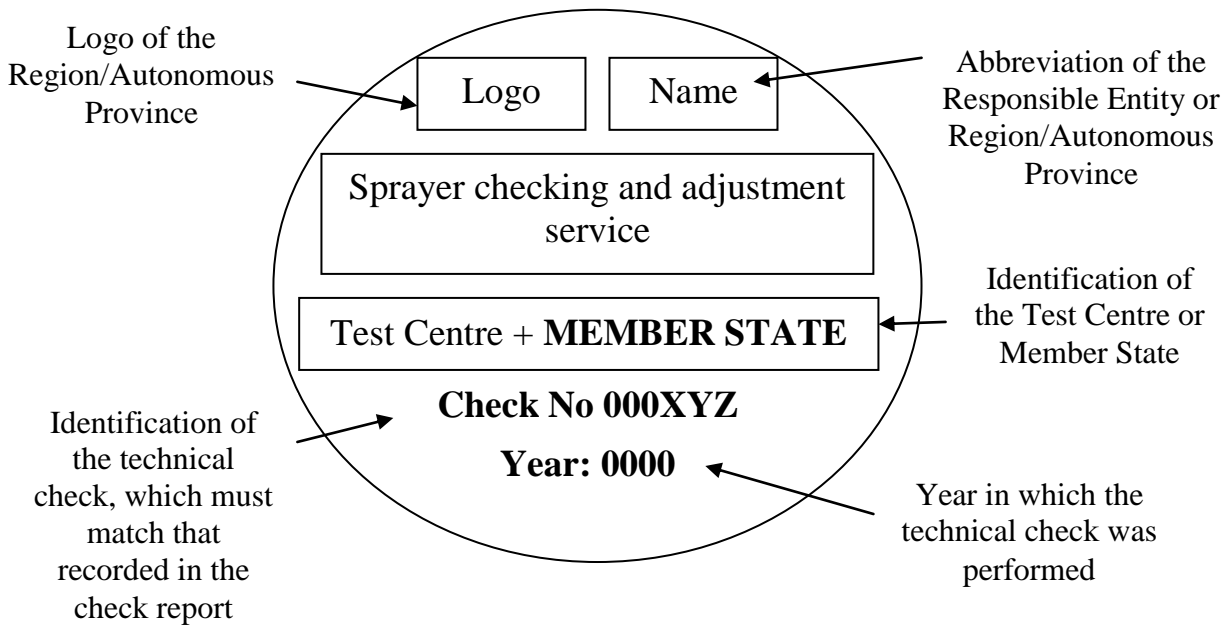
The fields relating to Centre identification and on the test carried out on the sprayer need not be pre-printed, but may be completed by the authorised technician when issuing the label (figures 1 and 2). In this case, both details must be written on the label indelibly (e.g. by means of a permanent marker pen).

**Figure 1: Dimensions of the model adhesive label to be fixed on sprayers which have passed the technical test.**





**Figure 2: Essential information to be provided on the model label**



## Annex III

### Minimum requirements for technical check instruments and Test Centres

#### 1 Flow rate gauges

**Parameter to be measured:** *pump flow rate*

Measuring instruments: **flow meter.**

Minimum requirements: error  $\leq 2\%$  of the measured value if the pump's flow rate is  $>100$  l/min or  $\leq 2$  l/min if the flow rate is  $<100$  l/min.

**Parameter to be measured:** *DPA system (flow rate proportional to forward speed)*

Measuring instruments: **flow meters, graduated containers,** or other instruments guaranteeing the same degree of precision.

Minimum requirements: error  $\leq 1.5\%$  of the measured value.

**Parameter to be measured:** *nozzle flow rate*

Measuring instruments: **scales or equivalent instruments and stopwatch** (See standard ISO 5682-2)

Minimum requirements: graduation interval  $\leq 20$  g for scales and  $\leq 0.1$  s for the stopwatch.

or

Measuring instrument: **graduated container and stopwatch**

Minimum requirements: capacity  $\leq 2$  l, graduation interval  $\leq 20$  ml error  $\leq 20$  ml for the graduated container and  $\leq 0.1$  s for the stopwatch.

or

Measuring instrument: **flow meter**

Minimum requirements: graduation interval  $\leq 0.02$  l/min.

Collection of all fluid distributed by the nozzle must be guaranteed at all times.

#### 2 Manometers

**Parameters to be measured:** *pressure regulation devices*

Measuring instrument: **manometer**

Minimum requirements:

- Bottom of scale  $\leq 60$  bar (orchard sprayer) or  $\leq 16$  bar (boom sprayer)
- Graduation interval  $\leq 1.0$  bar (orchard sprayers, lance) or  $\leq 0.5$  bar (boom sprayers)
- Accuracy class  $\leq 1.6$

The manometer on the sprayer being tested should be used, if it meets the applicable requirements.

**Parameter to be measured:** *accuracy of the sprayer's manometer*

Measuring instrument: **manometer test bench**

Minimum requirements: the test bench shall be equipped with an analogue manometer of diameter

≥100 mm, complying with the following minimum requirements:

Pressure interval $\Delta\rho$ Bar	Max reading interval bar	Accuracy bar	Class bar	Bottom of scale bar
$0 < \Delta\rho \leq 6$	0.1	0.1	1.6 1.0 0.6	6 10 16
$6 < \Delta\rho \leq 16$	0.2	0.25	1.6 1.0	16 25
$\Delta\rho > 16$	1.0	1.0	2.5 1.6 1.0	40 60 100

Digital manometers may be used, provided they have the same degree of accuracy.

**Parameter to be measured:** *pressure drops*

Measuring instrument: **manometer**

Minimum requirements:

Minimum requirements:

- Bottom of scale ≤60 bar (orchard sprayers, lances) or ≤16 bar (boom sprayers)
- Graduation interval ≤1.0 bar (orchard sprayers, lances) or ≤0.5 bar (boom sprayers)
- Accuracy class ≤1.6

### 3 Vertical test bench (orchard sprayers)

**Parameter to be measured:** *distribution pattern and uniformity of spray distribution on both sides of the sprayer*

Measuring instrument: **test bench**

Minimum requirements:

- Size of each collector (in case of discontinuous walls) ≥180x220 mm;
- It must be possible to collect without interruption the liquid sprayed along the whole height of vertical distribution. The graduation interval shall be ≤300 mm;
- Repeatability of the measurement: CV ≤10%, determined by means of 4 repetitions and referred to the overall pattern obtained on liquid-collecting graduated containers: capacity ≥50 ml and graduation interval ≥1% of their capacity.

### 4 Horizontal test bench (boom sprayers)

**Parameter to be measured:** *uniformity of transverse distribution, measured by means of horizontal test bench*

Measuring instrument: **horizontal test bench**

Minimum requirements: grooves of minimum width 100 mm (±2.5 mm) and minimum depth 80 mm (measured between the top edge and bottom of the groove). The groove must have a length of ≥1.5 m. The graded test tubes shall all be identical, with capacity ≥500 ml and graduation interval ≤10 ml, with error ≤10 ml or 2% of the amount measured. The grooves of scanner benches shall have the

same dimensions (tolerance  $\pm 1$  mm). At the time of the passage of the measurement system, positioning on each step shall have an accuracy of  $\pm 20$  mm.

The flow rate measurement error of each groove having a flow rate capacity of 0.3 l/min must be  $\leq 4\%$ . In the case of 50 mm wide grooves, the test bench shall comply with ISO 5682-2.

**Parameter to be measured:** *optimal boom working height*

**Measuring instrument:** **horizontal test bench**

Minimum requirements:

- Groove width  $\leq 100$  mm ( $\pm 2.5$  mm);
- Groove depth  $\geq 70\%$  of its width;
- The length of the grooves must be such as to allow complete collection of the sprayed liquid;
- The liquid collection system at each groove must be such as to enable assessment of the requirements set out in point 9.3.1 of the test protocol.

## **5 Requirements for Test Centres**

Test Centres performing checks on field crop sprayers must ensure that the test facility is large enough to guarantee correct checking of the uniformity of boom spray distribution over the whole area covered. The following equipment must also be available:

a) A system for the correct disposal of exhaust gas from the tractor or other vehicle if tested inside a building (Fixed Test Centre).

b) A number of 12 volt power outlets to power any sprayer instruments being tested and/or the testing instruments (this applies to both fixed and mobile Test Centres).

Before starting the test, it is necessary to check that the sprayer is sufficiently clean and that the main tank contains an adequate amount of clean water.

In the place where routine checks are carried out, a preliminary inspection of the sprayer should be carried out, to avoid wasting time by performing measurements on obviously defective sprayers.

The sprayer owner/user should preferably be present during the technical check and should be able to provide detailed information on the normal use of the sprayer.

The sprayer shall be tested preferably with the same tractor used at the farm for pesticide application (for calibration purposes) and its use and maintenance manual, if available, should be on hand.

The test benches and instruments used for technical checks shall comply with the manufacturing and operating requirements set out in Annex 2.

If the sprayer being tested has no elements enabling its identification, the Test Centre shall assign it a individual number/code which shall be applied to the frame of the sprayer in a visible and permanent manner, e.g. by means of punching or by affixing a plate with the number.

## ANNEX IV

### **Contents of the training course for the qualification of technicians performing technical checks on pesticide sprayers**

The course includes both lectures (60% of total course hours) and practice sessions (40% of total hours) (See table 1) followed by on-the-job training (specific for each type of sprayer for which authorisation is sought) with a minimum duration of three days or at least the time required for testing six sprayers.

To be able to take the qualification examination, which includes a theoretical test and a practical test, candidates must have attended at least 70% of total course hours and must have completed the on-the-job training. The on-the-job training may be performed in any authorised Test Centre. Where there are no local Test Centres or facilities for fulfilling the on-the-job training requirement, the candidate may nevertheless take the theoretical test after completing the course, and issue of the qualification shall be conditional on subsequent performance of on-the-job training to be checked by the competent Regional authority.

The theoretical part of the exam includes a written test and an oral test.

The practical test consists in performing a complete technical check of at least one sprayer of each type for which the qualification is sought.

**TABLE 1: Course Syllabus for technicians seeking qualification to perform technical checks on spraying equipment in use**

SUBJECT	Teaching mode	HOURS *
Pesticide application in the light of recent international regulations and the requests of large-scale distributors.	THEORY	1
General criteria on pesticide application and their impact on effectiveness of use, the environment and operator safety.	THEORY	2
The various types of agricultural pesticide sprayers: classification (ENAMA document 18), components, design, operating characteristics and types of use.	THEORY	4
The main types of nozzles used on pesticide sprayers.	THEORY	2
Demonstration of the different levels of atomization and distribution patterns obtained by the different types of nozzles; relationship between flow rate and pressure: training.	PRACTICE + THEORY	3
Examination of sprayer components, the operation of the complete hydraulic circuit of certain types of sprayers and description of their possible technical problems.	PRACTICE	4
Regular checks on the proper functioning of sprayers: purpose, objectives and organisation. (ENAMA documents 1 and 13).	THEORY	3
The testing instruments and test benches used for performing technical inspections: technical characteristics and minimum requirements set out in ENAMA documents 3 and 4.	THEORY	2
Parameters to be checked for the technical inspection of spraying machinery and acceptance limits under ENAMA documents 6 and 7.	THEORY	3
Adjustment (calibration) of spraying machinery: aims, objectives and technical parameters covered (ENAMA documents 10, 11 and 17).	THEORY	3
Practical examples of how to perform tests on different types of field crop	PRACTICE	5

and orchard sprayers.		
Practical examples of how to adjust (calibrate) field crop and orchard sprayers.	PRACTICE	5
Regulatory aspects, mutual recognition of checks, document management and liability of the equipment test technician. (ENAMA documents 1 and 9).	THEORY	2
Use of software for data recording and transfer to a central database (ENAMA documents 15 and 16)	THEORY	1
<b>TOTAL</b> <i>*The breakdown of hours is chosen by the Training Centre; the hours stated herein are indicative</i>		<b>40</b>

## ANNEX V

### Species and habitats of Community interest dependent on the status of waters

The list of species and habitats of Community interest (protected by the Birds' Directive and the Habitat Directive) selected on the basis of the guidelines of the *Horizontal Guidance on The Role of Wetlands in the Water Framework Directive* (WFD CIS Guidance Document No 12 - 2003) for identifying the areas to be included in lists of protected areas for the protection of biodiversity (established by Directive 2000/60/EC), in accordance with the criteria set out in the following table:

***Ecological criteria for identifying Natura Habitats and Species that are directly dependent on the status of water (from Horizontal Guidance on Wetlands, 2003)***

NATURA 2000 SPECIES	NATURA 2000 HABITATS
1.a - Aquatic species living in surface waters (e.g. <i>Austrapotamobius pallipes</i> , fish)	2.a - Habitats which consist of surface water or occur entirely within surface water (e.g. oligotrophic waters; water courses with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation)
1.b - Species with at least one aquatic life stage dependent on surface water (breeding, incubation, juvenile development, feeding etc.). (Many amphibian and bird species)	2.b - Habitats which depend on frequent inundation, or on the level of groundwater (e.g. alluvial alder wood, bogs and mires, calcareous fens)
1.c - Species that rely on non-aquatic but water-dependent habitats (meeting criteria 2.b and 2.c)	2.c - Non-aquatic habitats which depend on the influence of surface water - e.g. spray, humidity.

Only those habitats/species meeting criteria (a) and (b) have been considered, as criterion (c) was deemed to be scarcely relevant for establishment of the Register of Protected Areas.

Habitats dependent on waters (listed in Annex I to the Habitat Directive)

PRIORITY	CODE	HABITAT NAME	WHG CRITERIA
*	1150	Coastal lagoons	2a
	1310	<i>Salicornia</i> and other annuals colonizing mud and sand	2b
	1320	Spartina swards ( <i>Spartinion maritimae</i> )	2b
*	1340	Inland salt meadows	2b
	1410	Mediterranean salt meadows ( <i>Juncetalia maritimi</i> )	2b
	1420	Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> )	2b
*	1510	Mediterranean salt steppes ( <i>Limonietalia</i> )	2b
	3110	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	2a
	3120	Oligotrophic waters containing very few minerals generally on sandy soils of the West Mediterranean, with <i>Isoetes</i> spp	2a

PRIORITY	CODE	HABITAT NAME	WHG CRITERIA
	3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>	2a
	3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	2a
	3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition — type vegetation	2a
	3160	Natural dystrophic lakes and ponds	2a
*	3170	Mediterranean temporary ponds	2b
	3220	Alpine rivers and the herbaceous vegetation along their banks	2b
	3230	Alpine rivers and their ligneous vegetation with <i>Myricaria germanica</i>	2b
	3240	Alpine rivers and their ligneous vegetation with <i>Salix elaeagnos</i>	2b
	3250	Constantly flowing Mediterranean rivers with <i>Glaucium flavum</i>	2b
	3260	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and Callitriche-Batrachion vegetation	2a
	3270	Rivers with muddy banks with <i>Chenopodion rubri</i> p.p. and <i>Bidention</i> p.p. vegetation	2b
	3280	Constantly flowing Mediterranean rivers with Paspalo-Agrostidion species and hanging curtains of <i>Salix</i> and <i>Populus alba</i>	2b
	3290	Intermittently flowing Mediterranean rivers of the Paspalo-Agrostidion	2b
*	7110	Active raised bogs	2b
	7120	Degraded raised bogs still capable of natural regeneration	2b
	7140	Transition mires and quaking bogs	2b
	7150	Depressions on peat substrates of the Rhynchosporion	2b
*	7210	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>	2b
*	7220	Petrifying springs with tufa formation (Cratoneurion)	2a
	7230	Alkaline fens	2b
*	7240	Alpine pioneer formations of the <i>Caricion bicoloris-atrofuscae</i>	2b
	91B0	<i>Thermophilous Fraxinus angustifolia</i> woods	2b
*	91D0	Bog woodland	2b
*	91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> )	2b
	91F0	Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmenion minoris</i> )	2b
	92A0	<i>Salix alba</i> and <i>Populus alba</i> galleries	2b



PRIORITY	CODE	HABITAT NAME	WHG CRITERIA
	92C0	<i>Platanus orientalis</i> and <i>Liquidambar orientalis</i> woods ( <i>Platanion orientalis</i> )	2b
	92D0	Southern riparian galleries and thickets ( <i>Nerio-Tamaricetea</i> and <i>Securinegion tinctoriae</i> )	2b

*Species of fauna and flora dependent on waters (included in Annex II to the Habitat Directive)*

GROUP	PRIORITY	SPECIES	WHG CRITERIA
Invertebrates		<i>Austropotamobius pallipes</i>	1a
Invertebrates	*	<i>Austropotamobius torrentium</i>	1a
Invertebrates		<i>Coenagrion mercuriale</i>	1b
Invertebrates		<i>Cordulegaster trinacriae</i>	1b
Invertebrates		<i>Graphoderus bilineatus</i>	1b
Invertebrates		<i>Leucorrhinia pectoralis</i>	1b
Invertebrates		<i>Lindenia tetraphylla</i>	1b
Invertebrates		<i>Ophiogomphus cecilia</i>	1b
Invertebrates		<i>Oxygastra curtisii</i>	1b
Fish	*	<i>Acipenser naccarii</i>	1a
Fish		<i>Alburnus albidus</i>	1a
Fish		<i>Alosa fallax</i>	1a
Fish		<i>Aphanius fasciatus</i>	1a
Fish		<i>Barbus meridionalis</i>	1a
Fish		<i>Barbus plebejus</i>	1a
Fish		<i>Chondrostoma genei</i>	1a
Fish		<i>Chondrostoma soetta</i>	1a
Fish		<i>Cobitis tenia</i>	1a
Fish		<i>Cottus gobio</i>	1a
Fish		<i>Knipowitschia panizzae</i>	1a
Fish		<i>Lampetra fluviatilis</i>	1a
Fish		<i>Lampetra planeri</i>	1a
Fish		<i>Lethenteron zanandreaei</i>	1a
Fish		<i>Leuciscus lucumonis</i>	1a
Fish		<i>Leuciscus souffia</i>	1a
Fish		<i>Padogobius nigricans</i>	1a
Fish		<i>Petromyzon marinus</i>	1a
Fish		<i>Pomatoschistus canestrinii</i>	1a
Fish		<i>Rutilus pigus</i>	1a
Fish		<i>Rutilus rubidio</i>	1a
Fish		<i>Sabanejewia larvata</i>	1a
Fish		<i>Salmo macrostigma</i>	1a

Fish	<i>Salmo marmoratus</i>	1a
Amphibians	<i>Bombina variegata</i>	1b

GROUP	PRIORITY	SPECIES	WHG CRITERIA
Amphibians		<i>Discoglossus sardus</i>	1b
Amphibians	*	<i>Pelobates fuscus insubricus</i>	1b
Amphibians	*	<i>Proteus anguinus</i>	1a
Amphibians		<i>Rana latastei</i>	1b
Amphibians		<i>Salamandrina terdigitata</i> <sup>1</sup>	1b
Amphibians		<i>Triturus carnifex</i>	1b
Reptiles		<i>Emys orbicularis</i>	1b
Mammals		<i>Lutra lutra</i>	1b
Mammals		<i>Myotis capaccinii</i>	1b
Lower plants		<i>Drepanocladus vernicosus</i>	1b
Lower plants		<i>Riccia breidlereri</i>	1b
Higher plants		<i>Aldrovanda vesiculosa</i>	1a
Higher plants	*	<i>Armeria helodes</i>	1b
Higher plants		<i>Caldesia parnassifolia</i>	1a
Higher plants	*	<i>Carex panormitana</i>	1b
Higher plants		<i>Eleocharis carniolica</i>	1a
Higher plants		<i>Erucastrum palustre</i>	1b
Higher plants		<i>Isoetes malinverniana</i>	1a
Higher plants		<i>Kosteletzkya pentacarpos</i>	1b
Higher plants	*	<i>Limonium insulare</i>	1b
Higher plants	*	<i>Limonium pseudolaetum</i>	1b
Higher plants	*	<i>Limonium strictissimum</i>	1b
Higher plants		<i>Liparis loeselii</i>	1b
Higher plants		<i>Marsilea quadrifolia</i>	1a
Higher plants		<i>Myosotis rehsteineri</i>	1a
Higher plants		<i>Petagnia saniculifolia</i>	1b
Higher plants	*	<i>Salicornia veneta</i>	1b
Higher plants		<i>Trifolium saxatile</i>	1b

**Bird species dependent on waters  
(included in Annex I to the Birds' Directive and Regular Migratory Birds)**

COMMON NAME	SCIENTIFIC NAME	WHG CRITERIA
Moustached warbler	<i>Acrocephalus melanopogon</i>	1b
Aquatic warbler	<i>Acrocephalus paludicola</i>	1b
Common sandpiper	<i>Actitis hypoleucos</i>	1b
Kingfisher	<i>Alcedo atthis</i>	1b
Pintail	<i>Anas acuta</i>	1b

<sup>1</sup> The name of the species has become *Salamandria perspicillata* even though *Salamandrina terdigitata* is the name appearing in the Annexes to the Habitat Directive

Shoveler	<i>Anas clypeata</i>	1b
Teal	<i>Anas crecca</i>	1b
Wigeon	<i>Anas penelope</i>	1b
Mallard	<i>Anas platyrhynchos</i>	1b

COMMON NAME	SCIENTIFIC NAME	WHG CRITERIA
Garganey	<i>Anas querquedula</i>	1b
Gadwall	<i>Anas strepera</i>	1b
White-fronted goose	<i>Anser albifrons</i>	1b
Greylag goose	<i>Anser anser</i>	1b
Bean goose	<i>Anser fabalis</i>	1b
Grey heron	<i>Ardea cinerea</i>	1b
Purple heron	<i>Ardea purpurea</i>	1b
Squacco heron	<i>Ardeola ralloides</i>	1b
Ruddy Turnstone	<i>Arenaria interpres</i>	1b
Short-eared owl	<i>Asio flammeus</i>	1b
Pochard	<i>Aythya ferina</i>	1b
Tufted duck	<i>Aythya fuligula</i>	1b
White-eyed pochard	<i>Aythya nyroca</i>	1b
Great bittern	<i>Botaurus stellaris</i>	1b
Cattle egret	<i>Bubulcus ibis</i>	1b
Golden-eye	<i>Bucephala clangula</i>	1b
Sanderling	<i>Calidris alba</i>	1b
Dunlin	<i>Calidris alpina</i>	1b
Knot	<i>Calidris canutus</i>	1b
Curlew sandpiper	<i>Calidris ferruginea</i>	1b
Little stint	<i>Calidris minuta</i>	1b
Temminck's stint	<i>Calidris temminckii</i>	1b
Kentish Plover	<i>Charadrius alexandrinus</i>	1b
Little Ringed Plover	<i>Charadrius dubius</i>	1b
Common Ringed Plover	<i>Charadrius hiaticula</i>	1b
Whiskered Tern	<i>Chlidonias hybridus</i>	1b
Black Tern	<i>Chlidonias niger</i>	1b
Marsh harrier	<i>Circus aeruginosus</i>	1b
Whooper Swan	<i>Cygnus cygnus</i>	1b
Mute swan	<i>Cygnus olor</i>	1b
Great white heron	<i>Egretta alba</i>	1b
Little egret	<i>Egretta garzetta</i>	1b
Coot	<i>Fulica atra</i>	1b
Snipe	<i>Gallinago gallinago</i>	1b
Moorhen	<i>Gallinula chloropus</i>	1b
Black-throated Diver	<i>Gavia arctica</i>	1b
Gull-billed tern	<i>Gelochelidon nilotica</i>	1b
Pratincole	<i>Glareola pratincola</i>	1b
Oystercatcher	<i>Haematopus ostralegus</i>	1b
Black-winged stilt	<i>Himantopus himantopus</i>	1b
Little Bittern	<i>Ixobrychus minutus</i>	1b

Herring Gull	<i>Larus argentatus</i>	1b
Yellow-legged Gull	<i>Larus cachinnans</i>	1b

COMMON NAME	SCIENTIFIC NAME	WHG CRITERIA
Common gull	<i>Larus canus</i>	1b
Lesser Black-backed Gull	<i>Larus fuscus</i>	1b
Slender-billed gull	<i>Larus genei</i>	1b
Mediterranean Gull	<i>Larus melanocephalus</i>	1b
Little Gull	<i>Larus minutus</i>	1b
Black-headed gull	<i>Larus ridibundus</i>	1b
Broad-billed Sandpiper	<i>Limicola falcinellus</i>	1b
Bar-tailed godwit	<i>Limosa lapponica</i>	1b
Black-tailed godwit	<i>Limosa limosa</i>	1b
Blue-throat	<i>Luscinia svecica</i>	1b
Jack snipe	<i>Lymnocyptes minimus</i>	1b
Marbled Teal	<i>Marmaronetta angustirostris</i>	1b
Common scoter	<i>Melanitta nigra</i>	1b
Red-breasted merganser	<i>Mergus serrator</i>	1b
Red-crested pochard	<i>Netta rufina</i>	1b
Eurasian Curlew	<i>Numenius arquata</i>	1b
Whimbrel	<i>Numenius phaeopus</i>	1b
Slender-billed Curlew	<i>Numenius tenuirostris</i>	1b
Night heron	<i>Nycticorax nycticorax</i>	1b
White-headed duck	<i>Oxyura leucocephala</i>	1b
Osprey	<i>Pandion haliaetus</i>	1b
Shag (Mediterranean sub-species)	<i>Phalacrocorax aristotelis desmarestii</i>	1b
Cormorant	<i>Phalacrocorax carbo sinensis</i>	1b
Pygmy Cormorant	<i>Phalacrocorax pygmeus</i>	1b
Red-necked Phalarope	<i>Phalaropus lobatus</i>	1b
Ruff ♂ Reeve ♀	<i>Philomachus pugnax</i>	1b
Greater flamingo	<i>Phoenicopterus ruber</i>	1b
Spoonbill	<i>Platalea leucorodia</i>	1b
Glossy ibis	<i>Plegadis falcinellus</i>	1b
Golden plover	<i>Pluvialis apricaria</i>	1b
Grey plover	<i>Pluvialis squatarola</i>	1b
Slavonian Grebe	<i>Podiceps auritus</i>	1b
Great Crested Grebe	<i>Podiceps cristatus</i>	1b
Red-necked Grebe	<i>Podiceps grisegena</i>	1b
Black-necked Grebe	<i>Podiceps nigricollis</i>	1b
Purple gallinule	<i>Porphyrio porphyrio</i>	1b
Little Crake	<i>Porzana parva</i>	1b
Spotted Crake	<i>Porzana porzana</i>	1b
Baillon's Crake	<i>Porzana pusilla</i>	1b
Water rail	<i>Rallus aquaticus</i>	1b
Avocet	<i>Recurvirostra avosetta</i>	1b

Little tern	<i>Sterna albifrons</i>	1b
Lesser Crested Tern	<i>Sterna bengalensis</i>	1b

COMMON NAME	SCIENTIFIC NAME	WHG CRITERIA
Caspian Tern	<i>Sterna caspia</i>	1b
Common tern	<i>Sterna hirundo</i>	1b
Sandwich tern	<i>Sterna sandvicensis</i>	1b
Little Grebe	<i>Tachybaptus ruficollis</i>	1b
Common Shelduck	<i>Tadorna tadorna</i>	1b
Spotted redshank	<i>Tringa erythropus</i>	1b
Wood-sandpiper	<i>Tringa glareola</i>	1b
Greenshank	<i>Tringa nebularia</i>	1b
Green Sandpiper	<i>Tringa ochropus</i>	1b
Marsh Sandpiper	<i>Tringa stagnatilis</i>	1b
Redshank	<i>Tringa totanus</i>	1b

**\* Priority habitats and species under Council Directive 92/43/EEC**

**The Natura 2000 sites with habitats and species of Community interest linked to inland waters are 1876, or 73% of the total number of SCIs e and SPAs (ISPRA Report No 153/11).**

## ANNEX VI

### **Instructions for the handling and storage of pesticides and treatment of their packaging and remnants**

#### **VI.1 - Storage of pesticides**

Without prejudice to Presidential Decree No 290 of 23 April 2001 as amended and supplemented and to the provisions of Legislative Decree No 81 of 9 April 2008, on the protection of workplace health and safety, the actions set out hereunder, performed by professional users and, where applicable, by distributors, must not constitute a danger for human health or the environment.

1. The pesticide store, which is mandatory for all professional users, shall be kept closed and for exclusive use: it may not be used to store any other products or equipment, other than those directly linked to the use of pesticides. Fertilisers normally used in mixtures with pesticides may be stored in the pesticide store. No food or animal feed may be kept in the pesticide store. Pesticide waste may be temporarily kept in the store (e.g. empty containers, pesticides past their use-by date or otherwise unusable), provided they are located in clearly marked areas of the store and are kept separate from the other products stored there.
2. The pesticide store may also consist of a dedicated area within a warehouse, separated from the other areas by walls, wire mesh or suitable cabinets, if only small amounts are stored. In the premises where the specific pesticide storage area or cabinet is located, no food or animal feed may be kept.
3. The pesticide store must make it possible to collect any accidental leakage/spillage without the risk of environmental contamination. The store must be equipped with retaining systems so that in the event of accidental leakage or spillage of the pesticide, the wash water or pesticide waste does not contaminate the environment, water or the sewer network.
4. The pesticide store shall be sited with reference to specific water protection requirements.
5. The store or cabinet must be adequately ventilated. The ventilation openings shall be protected by grilles or mesh to prevent animals from entering.
6. The store shall be dry, protected from rain and sunlight, and should prevent temperature extremes which may alter the packaging of products or give rise to dangerous conditions. The shelves shall be made of non-absorbent materials and without sharp edges.
7. The pesticides shall be stored in their original containers and their labels shall be whole and readable.
8. The store shall be equipped with suitable pesticide dosing equipment (e.g. scales, graduated cylinders). This equipment must be cleaned after use and stored inside the store or cabinet.
9. Access to the pesticide store shall be restricted to professional users.
10. The store door shall be provided with an external safety lock and the store itself shall be secure from access through other openings (e.g. windows). The store shall never be left unattended when open.
11. Danger signs and warnings shall be placed on the outside wall of the store.
12. Emergency numbers shall be posted so as to be clearly visible on the wall next to the store door.
13. The store shall be equipped with materials and equipment to retain and collect any product

spillage/leakage.

## **VI.2 - Pesticide handling, dilution and mixing prior to application**

In order to minimise risks for human health and the environment, the following precautions must be taken.

1. Before pesticide applications, check that the spraying equipment is in perfect working order and free from leakages.
2. Prepare the pesticide mixture so as to avoid risks for the environment even in the event of spillage/leakage. These operations must not be performed on very permeable land and/or slopes and/or near water courses or water abstraction wells.
3. Never leave unattended pesticide mixtures ready for use, spraying equipment or pesticides. Keep all these materials out of the reach of unauthorised persons and animals.
4. If the water for filling the sprayer is taken from water bodies, this abstraction may only be performed on condition that suitable techniques or devices are used to prevent contamination of the water source (e.g. non-return valve, intermediate water storage tank).
5. The sprayer must be equipped with a precise and readable meter showing the amount of mixture contained by the tank. The quantities introduced into the tank must never exceed the maximum amounts indicated by the equipment manufacturer.
6. Rinse immediately with clean water pesticide containers and their lids, adding the wash water so obtained to the pesticide mixture to be sprayed. Thereafter, handle the empty containers and lids in accordance with the current rules on waste disposal.
7. During the mixture preparation, sprayer filling and container rinsing phases, wear all the required personal protection equipment (PPE), which must be available at all times at the farm and kept in good condition.

## **VI.3 - Handling of pesticide containers and remnants**

Pesticide containers and remnants must be handled accurately to prevent any environmental contamination. Special attention must be paid to checking that the containers and labels are whole and undamaged, and to becoming acquainted with the instructions for emergency situations as set out on the pesticide safety data sheets. The following steps shall be taken, wearing PPE at each of the operations set out below.

1. Pesticides shall be transported in their original containers, with whole and readable labels, except for the provisions of Ministerial Decree No 544/2009 implementing the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR, Geneva 30 September 1957).
2. In the event of damage and spills/leakages during the loading/unloading and transport of packages:
  - a. Damaged and repaired packaging shall be placed in sealed containers and identified by a label bearing the name of the product and the risks it entails;
  - b. Any leakages shall be absorbed with absorbent materials and collected in an *ad hoc* container for subsequent disposal.
3. The packaging still containing pesticides shall be placed lid side up, well sealed and in a stable position, to avoid leakages.
4. Empty pesticide packaging shall be placed in suitable waste containers reserved for such use

and clearly identified. The waste containers shall be located inside the pesticide store or in a separate, dedicated area within the temporary agricultural waste storage facility.

#### **VI.4 - Recovery or reuse of any leftover spray solution from the sprayer at the end of application**

The quantity of leftover spray solution at the end of pesticide applications must be kept to a minimum by calculating the volume of spray solution required and the correct sprayer settings.

Leftover spray solution includes:

- a. Any spray solution remaining in the tank (in addition to the quantity necessary for treating the target area);
- b. Any unusable spray solution (build-up of spray solution in the dead spots of the tank and of the hydraulic circuit; build-up in the filters).

The leftover spray solution may be disposed of in the following ways:

1. The spray solution remaining in the tank may, subsequent to dilution if necessary, be sprayed as soon as possible on the crops for which the product is authorised, provided that all the instructions on the label are complied with;
2. Any unused leftover spray solution must be kept at the farm for later handover to operators listed in the National Register of Waste Managers as a waste transport and disposal company.

#### **VI.5 - Sprayer cleaning at the end of the application**

Incorrect cleaning of the sprayer's interior (tank, hydraulic circuit, etc.) and, especially, inadequate management of sprayer washings causes environmental pollution as well as damage to sprayer components, such as nozzle obstruction and other operating defects.

To prevent these issues, the following instructions must be followed.

1. When the exterior of the sprayer is cleaned:
  - a) If the sprayer is equipped with *ad hoc* devices, or suitable equipment is available for external washing on the field, designate in advance the field area suitable for the washing operation; this area must not be close to a water body and may not be used repeatedly for the external washing of the sprayer;
  - b) If a washing area is available at the holding, ensure that the area is waterproof and equipped for collecting washings, which subsequently will have to be handed over for disposal. Avoid leaving contaminated liquid on the equipped area at the end of the washing operations. If purposely created and authorised, biobeds may also be used as washing sites.
2. When the interior of the sprayer is being cleaned, e.g. in preparation for a long period of sprayer inactivity:
  - a) This operation must not be performed in the vicinity of a water body or in an area where the spray solution may reach the groundwater;
  - b) The sprayer washings shall be treated in the manner set out in paragraph VI.4.
3. The required personal protection equipment (PPE) must be worn.

#### **VI.6 - Recovery or disposal of the remnants of pesticides and their containers**

Pesticides which have been revoked or are past their use-by date, never used or partly used, and which may no longer be sprayed on crops shall be:



- Stored temporarily, in the manner set out in Article 183(1)(bb) of Legislative Decree No 152 of 2006 as amended and supplemented, in a dedicated, clearly marked-out section of the pesticide store;
- Disposed of in accordance with the requirements of Part IV of Legislative Decree No 152 of 2006 as amended and supplemented.

Where the authorisation has been revoked and the pesticide may still be used for a limited period, the seller must inform the purchaser as to the time limit by which the pesticide must be used, to enable him to plan its use within the allowed time period.

Empty containers shall be disposed of in accordance with the applicable legislation and with the instructions on the label and in the safety data sheet.

Pesticide-contaminated waste shall be disposed of in accordance with the current legislation. Such waste also includes products of waste water treatment (e.g. bio-filter matrixes) and any absorbent materials used to absorb leakages and spillages.

Without prejudice to the provisions of Article 184(5-*ter*) of Legislative Decree No 152/06, having regard to EU and national legislation pursuant to the current legislation, the public authorities may enter into programme agreements with the relevant economic operators or industry associations to foster re-use, re-cycling and other waste recovery methods.

The Regions and Autonomous Provinces may issue guidelines for pesticide users covering the correct management of the waste generated by the application of plant protection products.

LIST OF INDICATORS - NATIONAL ACTION PLAN FOR THE SUSTAINABLE USE OF PLANT PROTECTION PRODUCTS (PESTICIDES)								Annex VII	
A Priority Indicators									
No	Action	Name of indicator	Indicator	Data to be surveyed	Data source	Coordinator	Target	Data gathering status	DPSIR
1	Distribution and use of pesticides	Distribution of pesticides	<ol style="list-style-type: none"> <li>Amount of pesticides by toxicity class per year</li> <li>Amount of active substance applied per year</li> <li>Amount of active substance applied per year on total treatable UAA</li> </ol> Five-year data	Distribution of pesticides	ISTAT	ISTAT	Health Environment Operators Consumers	Active	P
2	Distribution and use of pesticides	Use of pesticides	<ol style="list-style-type: none"> <li>Number of applications by type of pesticides</li> <li>Mean number of applications /treated area and/or cultivated area</li> <li>Average amount of active substance / ha of treated and/or cultivated area</li> </ol> Five-year data	Distribution of pesticides	ISTAT	ISTAT	Health Environment Operators Consumers	Active	P
B Specific Indicators									
No	Action	Name of indicator	Indicator	Data to be surveyed	Data source	Coordinator	Target	Data gathering status	DPSIR
3	Training of pesticide users, advisors and distributors	Issue of certificates of competence and continuing training to	<ol style="list-style-type: none"> <li>Number of certificates issued to professional users per year / total farms</li> <li>Number of certificates issued to distributors per year</li> </ol>	Certificates of competence issued, broken down among the three categories (professional users,	REGIONS	MIPAAF (Min. Agric.)	Health Environment	To be activated	R

		<i>advisors, distributors and professional users</i>	<p>3. <i>Number of certificates issued to advisors per year</i></p> <p>4. <i>Number of continuing training certificates issued to professional users / year</i></p> <p>5. <i>Number of continuing training certificates issued to distributors per year</i></p> <p>6. <i>Number of continuing training certificates issued to advisors per year</i></p>	<i>distributors, advisors) and renewal certificates of competence broken down among the three categories (professional users, distributors, advisors)</i>					
<b>4</b>	<i>"Training pesticide users, advisors and distributors", "Information and awareness-raising", "Pesticide handling, use, storage and disposal"</i>	<i>Pesticide exposure poisoning</i>	<p><i>Acute pesticide poisoning: Frequency index and severity index / active substances and pesticides</i></p> <p><i>Trend over a 5 year period</i></p>	<i>Cases of human exposure to pesticides with recourse to a poison control centre</i>	<i>Poison control centres (REGIONS INAIL)</i>	<i>ISS - SINSIAP</i>	<i>Health</i>	<i>Active</i>	<b>I</b>
<b>5</b>	<i>Technical inspection of pesticide spraying machinery</i>	<i>Sprayer technical inspection / maintenance / calibration</i>	<i>Periodic in-depth sprayer inspections per year</i>	<i>Number of in-depth inspections per year</i>	<i>REGIONS</i>	<i>MIPAAF (Min. Agric.)</i>	<i>Environment Health</i>	<i>To be activated</i>	<b>R</b>
<b>6</b>	<i>Specific measures to protect the aquatic environment</i>	<i>Frequency and concentration of active substances in water at national level</i>	<p><i>Analysis of on surface and groundwater monitoring data for the frequency and concentration of pesticides and their metabolites / year</i></p> <p><i>Trend over a 5 year period</i></p>	<i>Data from surface and groundwater Regional monitoring for pesticide residues</i>	<i>REGIONS</i>	<i>ISPRA</i>	<i>Health Environment</i>	<i>Active</i>	<b>S</b>
<b>7</b>	<i>Specific</i>	<i>Concentrations</i>	<i>Analysis of surface and</i>	<i>Data from surface and</i>	<i>REGIONS</i>	<i>ISPRA</i>	<i>Health</i>	<i>Active</i>	<b>S</b>

	<i>measures to protect the aquatic environment</i>	<i>of specific active substances in water</i>	<i>groundwater monitoring data for the frequency and concentration of specific substances Trend over a 5 year period</i>	<i>groundwater Regional monitoring for pesticide residues</i>			<i>Environment</i>		
<b>8</b>	<i>"Specific measures to protect the aquatic environment", "Specific measures to safeguard protected nature areas"</i>	<i>Permanent risk mitigation measures to protect surface water bodies</i>	<i>Extension of buffer strips, hedges and other semi-natural elements of the agricultural landscape (length and area)</i>	<i>Telesurvey data and field observations</i>	<i>MIPAAF (Min. Agric.)</i>	<i>MIPAAF (Min. Agric.)</i>	<i>Environment</i>	<i>To be activated</i>	<b>R</b>
<b>9</b>	<i>Specific measures to safeguard protected nature areas</i>	<i>Bird populations sensitive to pesticides</i>	<i>List of bird populations sensitive to pesticides</i>	<i>Data flow from the MITO Project, Farmaland Bird Index</i>	<i>MIPAAF (Min. Agric.)</i>	<i>MIPAAF (Min. Agric.) LIPU INEA</i>	<i>Environment</i>	<i>To be activated</i>	<b>I</b>
<b>10</b>	<i>Low pesticide input pest management strategies</i>	<i>Voluntary integrated pest management</i>	<i>UAA managed in accordance with voluntary integrated pest management specifications/total UAA, per crop (fruit and vegetables, grape, cereals) Trend over a 5-year period</i>	<i>Participating farms and hectares involved</i>	<i>REGIONS</i>	<i>MIPAAF (Min. Agric.)</i>	<i>Health Environment</i>	<i>To be activated</i>	<b>R</b>
<b>11</b>	<i>Low pesticide input pest management strategies</i>	<i>Organic farming</i>	<i>UAA certified for organic farming/total UAA, per crop (fruit and vegetable, grape, cereals) Trend over a 5-year period</i>	<i>Participating farms and hectares involved</i>	<i>REGIONS</i>	<i>MIPAAF (Min. Agric.)</i>	<i>Health Environment</i>	<i>To be activated</i>	<b>R</b>
<b>12</b>	<i>Specific measures to safeguard protected nature</i>	<i>Measures for pesticide management in Natura 2000</i>	<i>Number of Natura 2000 sites and protected nature areas where pesticide use is covered by specific measures</i>	<i>.....</i>	<i>REGIONS</i>	<i>MATTM (Min. Env.)</i>	<i>Environment</i>	<i>To be activated</i>	<b>R</b>

	<i>areas</i>	<i>sites and protected nature areas</i>	<i>Trend over a 5-year period</i>						
<b>13</b>	<i>Bee population</i>	<i>Bee mortality caused by pesticide use</i>	<i>Number of confirmed reports of pesticide-induced bee mortality Trend over a 5-year period</i>	.....	<i>MIPAAF (Min. Agric.) MINSAL (Min. Health) IZS</i>	<i>SPIA Project (APENET BEENET) National surveillance Project by Ministry of Health</i>	<i>Environment</i>	<i>To be activated</i>	<b>I</b>

**C Risk indicators**

<b>No</b>	<b>Action</b>	<b>Name of indicator</b>	<b>Indicator</b>	<b>Data to be surveyed</b>	<b>Data source</b>	<b>Coordinator</b>	<b>Target</b>	<b>Data gathering status</b>	<b>DPSIR</b>
<b>14</b>	<i>Reduction of risk for human health</i>	<i>Pesticide residue in food</i>	<i>Pesticide residue in food</i>	<i>Amount of pesticide residue in food</i>	<i>MINSAL (Min. Health)</i>	<i>ISS MINSAL (Min. Health)</i>	<i>Health Environment</i>	<i>Active</i>	<b>S/I</b>

**Key:**

- D** => Determinant
- P** => Pressure
- S** => Status
- I** => Impact
- R** => Response