MINISTRY OF AGRICULTURE, FORESTRY AND RURAL DEVELOPMENT
DIRECTORATE GENERAL FOR FOOD AND VETERINARY AFFAIRS

NATIONAL ACTION PLAN FOR THE SUSTAINABLE USE OF PLANT PROTECTION PRODUCTS (PANUSPF)

Execution Report

Lisbon, July 2018

INDEX

1. INTRODUCTION

Pursuant to Article 51 of Law No 26/2013 of 11 April 2013, a National Action Plan for the Sustainable Use of Plant Protection Products 2013 – 2018, hereinafter NAP I, was prepared. This plan defined ways to implement the national and Community legal framework for the sustainable use of plant protection products. It also considered objectives, measures, goals, schedules and indicators that would make it possible to assess whether the risk reduction and human health and environmental impact targets associated with the use of these products were being achieved. It also assessed the development of alternative methods to reduce dependence on the use of plant protection products and the development of integrated pest management (IPM).

As the entity coordinating NAP I, the Directorate-General for Food and Veterinary Affairs (*Direção Geral de Alimentação e Veterinária* - DGAV) is responsible for promoting and monitoring the implementation and assessment of the execution of NAP I, ensuring that it is fully implemented. Article 51 of Law No 26/2013 further states that NAP I is to be reviewed at least every five years.

To support this review of NAP I, which is to take place by October 2018, it is important to note in this analysis the progress achieved and to carry out a critical assessment, identifying wherever possible, aspects, actions and strategies to improve or change the implementation of the measures and actions contained in NAP I with a view to achieving its objectives.

This analysis is based on examining the results achieved in terms of each of the cross-cutting and horizontal axes defined in NAP I, so as to present a general overview of the implementation of the legal framework in force and the implementation of NAP I. Whenever pertinent, the information is presented using the indicators established in NAP I, also contemplating the relevance of the said indicators in ascertaining the results achieved. This review also includes a critical analysis of these results.

This document was prepared with inputs from different entities participating in NAP I.

2. Analysis of the Implementation of the National Action Plan for the Sustainable Use of Plant Protection Products

This section provides an analysis of the implementation of the National Action Plan for the Sustainable Use of Plant Protection Products, hereinafter referred to as NAP, for the period 2013 to 2017, using the indicators set out in NAP I, as well as a critical analysis of the results.

To interpret the degree of execution of the different measures and actions, this analysis identifies the relevant Measures and Actions for each cross-cutting or strategic axis set out in NAP I, indicating whether each action was executed or not in the time frame indicated in NAP, using the terms: completed/not completed. This analysis uses the term 'Underway' whenever the action is still in progress as compared to its implementation schedule while the plan is in effect.

This analysis also presents the relevant indicators for the measures and actions examined herein, having opted to present the indicators only once so as to simplify the report. If there is no data available to support an Indicator, the analysis states **'n.a.'** – not available. If a given action/measure has not been implemented or is still underway, the analysis uses the term '**n.ap.'** - not applicable, for the respective indicator.

As has been mentioned, this report presents the main results achieved in implementing NAP from the time it was approved and published by means of Ministerial Implementing Order No 304/2013 of 16 October 2013. To facilitate analysis of the data, this report is organised into cross-cutting and strategic axes in a similar manner to NAP.

3. CCA.1 – Research, Innovation and Technology Transfer

3.1 Results

To encourage the development and introduction of integrated pest management and alternative approaches or techniques to reduce dependence on the use of plant protection products, special emphasis was placed on promoting programmes and actions for research and the transfer of knowledge to determine the impact of the use of plant protection products on human health and environment. It also sought to facilitate the decision-making process for professional users while choosing available resources to comply with the underlying general principles for integrated pest management.

With this in mind, research, innovation and technology transfer was formed into a Cross-Cutting Axis for the entire NAP, with measures M1, M2, M3 and M4 including actions to promote its implementation, as described below.

Measure	Action	Result
M1 - Collate technical-scientific information on the components of integrated pest management in the country's various crop systems, the impacts of plant protection product use on human health and the environment, standardisable indicators and other information on the use of plant protection products.	Reinforce communication between parties by means of IPM thematic platforms, the impacts of PPP on health and the environment and indicators of their sustainable use.	Underway
	Set up a monitoring group under Article 48(4) of Law No 26/2013.	Underway
M2 - Support the inclusion of knowledge in the technical guides for sustainable production methods and identify gaps in knowledge to guide future research.	Set up theme-based groups around the components of IPM: risk estimation and decision making and alternatives to chemical means of protection.	Underway
M3 - Foster operational networks proposing thematic research and innovation priorities	Identify priority research and technology transfer themes for RTD project proposals.	Completed
	Establish contacts with national scientific and technology system research groups and other European groups, particularly from 'Mediterranean Europe', as well as production companies and associations so as to organise research and innovation proposals to be submitted for national and European funding.	Completed
	Raise decision-making bodies' awareness of research funding policy measures, particularly the establishment of programme contracts and national participation in European activities foreseen for the horizon 2020.	Completed

Measure	Action	Result
M4 - Foster operational networks proposing demonstration activities under integrated pest management and the sustainable use of plant protection products	Identify priority demonstration and technology transfer themes, i.e.: (1) Integrated pest management components: indirect means of protection, risk estimation, decision-making rules and means of protection; (2) Use of models to forecast the risk of pest damage; (3) Alternatives to plant protection products, particularly cultural, organic and biotechnical; (4) Best practice in the storage and application of plant protection products on the holding; (5) Economic and environmental contribution of integrated pest management and the sustainable use of plant protection products.	Completed

With regard to the implementation of the abovementioned measures, the following actions are especially worthy of note:

- The DGAV's participation in the European Project - **ERAnet C-IPM** (***European Research Agenda Coordination on Integrated Pest Management***), approved as a platform for exchanging information and identifying research priorities, European projects and sharing activities among entities from 23 Member States, identifying national policies and R&D programmes to support the implementation of integrated pest management and exploring funding opportunities and benefits from coordinating different initiatives;

- The **10th National Meeting on Integrated Pest Management** was held in Beja on 2 - 3 May 2014, focusing on the national implementation of the Directive on the Sustainable Use of Pesticides and research and dissemination in the field of integrated pest management, with emphasis on vineyards, olive groves, fruit orchards and horticultural-industrial production;

- The **11th National Meeting on Integrated Pest Management, 2nd Symposium of the Agricultural Sciences Society of Portugal (SCAP) and the 8th Congress of the Portuguese Phytopathological Society (SPF)** were held in Santarém on 26 - 27 October 2017, focusing on Community regulations for placing plant protection products on the market, the impact of climate change on agricultural plant protection and the sustainable production of food in Europe;

- **19 Working Groups** were created and funding applications were approved within the scope of the Rural Development Plan 2014 - 2020 with relevant interest for the NAP themes listed in Annex I;

- Various projects were started and concluded during NAP, approved for the sustainable use of the plant protection products set out in Annex II;
- The following documents were published in relation to olive groves:
    - ✓ **Best Practices in Olive Groves and Oil Presses**, with particular emphasis on integrated pest management and agricultural practices to create the most unfavourable conditions for pests as well as the most favourable conditions for developing auxiliary fauna and limiting phytophagous species;
    - ✓ **Integrated Pest Management for Olive Groves**, to support the adoption of the general principles of integrated pest management to control the main pests found in olive groves.

- The **HORTINET** (http://hortinet.info/) and **FITORREGA** (http://fitorrega.net/) **electronic platforms** were created with diverse forums to discuss themes on pest management and methods of sustainable production.

Despite being set out in NAP I, it was not possible to reactivate the demonstration farms within the plan validity period. These farms had been created during the early 1990s, a joint initiative by the former Directorate-General for Crop Protection (*Direção Geral de Proteção das Culturas*, former DGPC) and the Regional Directorates for Agriculture and Fisheries (*Direções Regionais de Agricultura e Pescas* - DRAP). However, Official Order No 2513/2017 issued by the Deputy Minister, the Minister for Science, Technology and Higher Education, the Minister for the Economy and the Minister for the Environment was published, which created the National Network for Agrarian and Animal Research and Experimentation, called REXIA2. The network's main areas for strategic action include the development and testing of new production systems, studying and monitoring pests and diseases and reinforcing the National Information System: The National Agricultural Information Service (*Serviço de Avisos Agrícolas* - SNAA).

The relevant indicators for the implementation of the abovementioned measures are as follows:

Indicators	**Result**
% of major crops with technical guides defined/revised for IPM	100%/1
No of crops with technical guides for IPM	72
No of working groups set up	2
No of platforms set up/accessible	2
No of accesses to IPM thematic platforms, health and environmental impact of PPP and sustainable use indicators	n.a.
No of technical and technical-scientific documents included on the thematic platforms	n.a.
No of RTD projects initiated during validity of NAP	15

3.2 Overall analysis of the results of CCA.1 – Research, Innovation and Technology Transfer

While analysing the results achieved under this Cross-Cutting Axis, it is important to note that INIAV, as well as other entities, have submitted various proposals within the scope of NAP to develop operational networks and have proposed specific activities for integrated pest management and the sustainable use of plant protection products (Annex I, II and III). The proposed projects will be carried out during the next NAP five-year period.

4. CCA.2 – Training, awareness-raising and information

In NAP I, the area of training, awareness-raising and information is a cross-cutting action for the entire plan and is sub-divided into different lines of action which require individual presentation due to the number and variety of measures and actions.

4.1. Training and occupational qualifications in the sustainable use of plant protection products

Measures M5, M6, M7, M8, M9 and M10 and the indicators presented below comprise this line of action.

Measure	Action	Result
M5 - Define and/or keep training standards on the sustainable use of plant protection products up to date and promote training provision	Maintain the content of training activities up to date and update Plant Protection Product Distribution, Sale and Application [PPPDSA] and Plant Protection Product Distribution and Sale [PPPDS] course content in accordance with Annex IV of Law No 26/2013	Completed
	Maintain the content of training activities up to date and update Plant Protection Product Application [PPPA] course content in accordance with Annex IV of Law No 26/2013	Completed
	Maintain the content of training activities for application equipment inspection up to date	Completed
	Define the requirements and content of aerial agricultural operator training activities in accordance with Annex IV of Law No 26/2013 and INAC requirements	Completed
	Produce training content for the ASAE, DRAPs and competent police authorities	Completed
	Define the requirements and conditions of provision and assessment of the knowledge test provided for under Law No 26/201	Completed
	Maintain IPM, IP and OP training standards for technicians and farmers up to date	Completed
	Maintain the content of training activities for specialist operators up to date	Completed
	Streamline the professional user qualification process	Completed
	Define criteria for renewing the qualification of all professional users	Completed
	Promote updating at Centres for the Mandatory Periodic Inspection of plant protection product application equipment (CIPP) with respect to qualified inspectors	Completed
	Promote the qualification, renewal of qualification and certification of aerial agricultural operators	Underway

Measure	Action	Result
M6 - Define and create a pool of trainers and training quality assessment criteria	Identify the availability and distribution of trainers at a regional level	Completed
	Define requirements for registration in the reserve and renewal of registration	Completed
	Register trainers in the reserve	Underway
	Define training quality assessment requirements	Completed
M7 - Promote the funding of the mandatory training activities provided for under Law No 26/2013 of 11 April 2013	Survey measures for providing support and financial incentives for	Completed
	Draw up a proposal for funding training activities	Completed
M8 - Promote communication between private training organisations, farmers' organisations and the administration to identify training needs	Establish an inter- and intra-institutional network which is also linked to other bodies on training needs in the sustainable use of plant protection products	Completed
	Set up a registration platform for training purposes	Underway
M9 - Promote training for the control bodies provided for under Law No 26/2013	Promote training for ASAE inspectors	Completed
	Promote training for the APA (IGAMAOT), DRAPs and competent police authorities	Completed
	Establish a training protocol with the GNR on PPP trade and distribution	**Not completed**
M10 - Foster b-learning training provision	Define training content	Completed
	Set up an e-platform	Completed

Of note with regard to **Measure M5** is the publication of the following laws/regulations and official notices:

- **Official Order No 666/2015 of 16 January 2015** which provides for vocational training courses in the distribution, sale and application of plant protection products;
- **Official Order No 899/2015 of 16 January 2015** which provides for training courses for sustainable agricultural production (SAP) for purposes of approval of training courses to be recognised under Article 24(6)(a) and (b) of Law No 26/2013 of 11 April 2013;
- **Official Order No 3147/2015 of 4 February 2015** setting out the structure and assessment methodology with regard to the knowledge test for plant protection product operators as referred to in Article 18(8) of Law No 26/2013 of 11 April 2013, repealing Official Order No 6498/2014 of 9 May 2014;
- **Ministerial Implementing Order No 148/2015 of 25 May 2015** setting out the rates payable for the provision of the services relating to the procedures arising from the

Official Orders referred to in Article 5 of Ministerial Implementing Order No 354/2013 of 9 December 2013 regarding the training courses provided by the departments and bodies of the Ministry of Agriculture and the Sea;

- **Official Notice No 20/2015 of 20 July 2015** which provides for the recognition of equivalence of approved training courses in integrated protection and production with a work load equal to or greater than 48 or 50 hours, respectively;
- **Official Notice No 23/2015 of 20 August 2015** which provides for the recognition of equivalence of approved training courses in biological production with a work load equal to or greater than 48 or 50 hours, respectively;
- **Official Notice No 30/2015 of 10 November 2015** setting out the storage requirements for plant products intended for experimentation under Law No 26/2013 of 11 April 2013;
- **Official Order No 39/2015 of 21 No 2015** setting out the 'exceptional measures relating to training required for professional plant protection product operators' seeking to provide a solution for farmers (with training already completed) but which due to different reasons, still do not have an operator's licence, which, in accordance with Law No 26/2013 must be presented when acquiring plant protection products;
- **Decree Law No 254/2015 of 30 December 2015** providing for a special and transitory training scheme for plant protection product operators;
- **Joint Official Order No 1/2016 of 4 January 2016** providing for the setting up of a training course in plant protection product application consisting of two modules of duration and content as yet to be defined by Official Order to be issued by the Director-General of Foodstuffs and Veterinary Medicine and the Director-General of Agriculture and Rural Development.

  Furthermore, it is also stipulated that professional operators undertake, as a minimum, initial training corresponding to the first module before 31 May 2016, so that they may continue to acquire and apply plant protection products (PPP);
- **Rectification Statement No 1/2016 of 13 January 2016** rectifying Decree Law No 254/2015 of 30 December 2015 and providing for a special and transitory training scheme for plant protection product operators;
- **Joint Official Order No 1/2016 of 28 January 2016** amending Joint Official Order No 1/2016 on the special and transitory training scheme for professional plant protection product operators;
- **Official Order No 2837/2016 of 24 February 2016** amending Official Order No 3147/2015 of 4 February 2015 and setting out the structure and assessment methodology for the knowledge test for plant protection product operators;
- **Official Order No 12/G/2016 of 31 May 2016** allowing the issue of cards/required training for plant protection product operators;
- **Ministerial Implementing Order No 249/2016 of 15 September 2016** amending several Ministerial Implementing Orders in Rural Development Programme RDP2020, more specifically, to Article 16 of Ministerial Implementing Order No 145/2016 of 17 May 2016;
- **Renewal of Operator Identification Cards or Sales Person Cards, Version 01/2017 of 17 July 2017** which was established with a view to the harmonised implementation of qualification renewal procedures for plant protection product operators for all Regional Directorates;

- **Official Order No 8/G/2017 of 29 March 2017** allowing the issue of operator cards/required training for plant protection product operators;

The following laws were also published relating to support for vocational training on sustainable use.

- Regarding the Mainland Rural Development Programme (**RDP 2020**):

- **Ministerial Implementing Order No 25/2015 of 9 February 2015** setting out the implementation regime for action No 7.1, 'Biological Agriculture', and action No 7.2 'Integrated Production', both under Measure No 7, 'Agriculture and natural resources', integrated into Area No 3, 'The environment, efficiency in the use of natural resources and climate', and subsequent amendments;
- **Ministerial Implementing Order No 145/2016 of 17 May 2016** setting out the implementation regime for operation No 2.1.1, 'Training courses', as part of action No 2.1, 'Vocational training and dissemination' under measure No 2, 'Knowledge', integrated into area No 1, 'Innovation and knowledge' and subsequent amendments.

- With regard to the Thematic Operational Programme Competitiveness and Internationalisation (**COMPETE 2020**):

- **Implementing Order No 57-A/2015 of 27 February 2015** setting out the applicable rules for co-funding through the European Regional Development Fund (ERDF) and the European Social Fund (ESF) for operations in the field of competitiveness and internationalisation, both with regard to the incentive system for companies and the support system for modernisation and vocational training in government, under the support system for scientific and technological research and the support system for collective action, in the 2014- 2020 programming period, and subsequent amendments.

With regard to the Social Inclusion and Employment Operational Programme (**POISE**):

- **Decree Law No 159/2014 of 27 October 2014** setting out the general implementation rules for Operational Programmes (OP) and Rural Development Programmes (RDP) financed by European Structural and Investment funds (ESI), including European Regional Development Fund (ERDF), European Social Fund (ESF), Cohesion Fund (CF), European Agricultural Fund for Rural Development (EAFRD), the European Maritime and Fisheries Fund (EMFF), for the 2014 -2020 programming period, and subsequent amendments.

With regard to the regulation and implementation of Decree Law No 254/2015 of 30 December 2015, the applicable Official Order and the respective amendments, frequently asked questions and the related programmes were all publicised:

- Plant protection product application (MIAPF) — 4 hours;
- Plant protection product application (MIAPF) — 25 hours;

Considering the high number of professional users applying plant protection products with manual sprayers due to the small size of their holdings, a course entitled 'Application of plant protection products with manual sprayers (PPPAMS)' was created— 25 hours.

Numerous programmes, specific regulations and guidelines were updated in the thematic areas of 'Distribution, sale and application of plant protection products' and 'Sustainable agricultural production', for technicians/farmers/workers/operators.

In order to meet needs for renewing the qualifications of different professional users in the distribution, sale and application of plant protection products, the following courses were created:

- Refresher course in plant protection product distribution, sale and application (RCPPPDSA) – 35 hours, for the renewal of technical qualifications;
- Refresher course in plant protection product distribution and sale (RCPPPDS) – 14 hours, for the renewal of sales qualifications;
- Refresher course in plant protection product distribution and sale (RCPPPDS) — 25 hours, intended for the renewal of salesperson qualifications, to be carried out through the Short-Term Training Unit (UFCD) in the National Qualifications Catalogue (CNQ);
- Refresher course in plant protection product application (RCPPPA) — 14 hours renewal of qualification, intended for the renewal of plant protection product operator qualification;
- Refresher course in plant protection product application (RCPPPA) — 25 hours renewal of qualification, intended for the renewal of plant protection product operator, to be carried out through the UFCD in the CNQ.

In order to allow qualifying training under the CNQ, UFCD were created for such training courses intended for farmers/workers/operators in the areas of 'Distribution, sale and application of plant protection products' and 'Sustainable agricultural production'.

All the information on the programmes, specific regulations and official guidelines for the 'Distribution, sale and application of plant protection products' and 'Sustainable agricultural production', intended for technicians, farmers, operators, workers and sales personnel can be found on the website of the Directorate-General for Agriculture and Rural Development (DGADR) (http://www.dgadr.gov.pt/formacao/formacao- especifica-setorial).

Of note with regard to **measure M6**:

- The publication of **Official Order No 13300/2014 of 3 November 2014** setting out the operation of the Pool of Trainers for Specific Sector Vocational Training, referred to in short as Pool of Trainers, and defining the principles for recognising trainers and the respective process.

- Dissemination on the DGADR website, since **19 February 2016,** of the abovementioned Official Order, as well as the Regulations for the Pool of Trainers for Specific Sector Training.

With a view to updating knowledge and facilitating dialogue and the sharing of experiences among trainers recognised by the Ministry of Agriculture, Forestry and Rural Development (MAFDR), two seminars were held specifically for trainers 'Trainer training in the sustainable use of plant protection products', held on 1 and 29 April, in Santarém and Viseu, respectively.

In the period from 2015 to 2017, DGADR carried out 22 technical-teaching monitoring actions on training courses for technical staff, 16 of which related to 'Plant Protection Product Distribution, Sale and Application' and six related to 'Sustainable agricultural production'. In the same period, DRAP carried out 135 technical-teaching monitoring actions on courses for farmers, workers and sales personnel, 124 of which related to PPPDSA and 11 monitoring actions for SAP, broken down by DRAP as shown in Table 1.

Table 1: Number of technical-teaching monitoring actions carried out from 2013 to 2017

MAFDR Body	No of technical-teaching monitoring actions carried out

Observation: * Accumulated value

The DGADR established procedures to ensure the quality of the training provided. This ranged from the sector certification of the trainers, the trainee recruitment process and the recognition of trainers and teaching coordinators, to the organisation of classroom and field sessions and the educational and teaching resources to be used under proper health and safety conditions. The system to check the skills acquired by the trainees was also subject to quality control. Furthermore, a series of instruments was created allowing us to identify, assess and advise those involved in the training process to follow a path of ongoing improvement.

Of note with regard to **measure M7**:

- The **Mainland Rural Development Programme (RDP 2020)**, which has supported young farmers with installation projects approved under RDP 2020 in carrying out the 50-hour UFCD 7580. It also supports training of young farmers with approved installation project, as of 1 January 2013, under the Mainland Rural Development Programme 2007 -2013 (PRODER), and provided for in Annex I of Ministerial Implementing Order No 357-A/2008 of 9 May 2008. Specific training for senior technicians providing technical support to the agricultural, agri-food production or forestry

sectors is being funded in the areas of 'Distribution, sale and application of plant protection products' and 'Sustainable agricultural production' through the training courses in Plant Protection Product Distribution, Sale and Application of (PPPDSA), Refresher Course in Plant Protection Product Distribution, Sale and Application (RCPPPDSA), Improvement courses in Machinery and Equipment for the Treatment and Protection of Plants (ICMETPP) and General Biological Agriculture (GBA);

- The **Thematic Operational Programme, Competitiveness and Internationalisation (COMPETE 2020)**, which supported the training governed by the 'Training-Action' mode in the area of 'Plant Protection Product Distribution, Sale and Application', through the UFCD 6281 as part of the course on the 'Basic Mechanisation and Driving of Agricultural Vehicles', and in the area of 'Sustainable Agricultural Production', integrated production and Biological Agriculture through UFCD 6289; UFCD 6355; UFCD; UFCD 6353; UFCD 6347; UFCD 6348; UFCD 6290. In this regard, programmes were adjusted to the rules of COMPETE and procedures were defined for training body certification, approval of course and recognition of certificates;

- The **Social Inclusion and Employment Operational Programme (POISE)**, which supports the UFCDs in the areas of 'Plant Protection Product Distribution, Sale and Application' and 'Sustainable Agricultural Production'.

Of note with regard to **measure M8**:

- DGADR, in liaison with the DGAV, organised meetings with higher education institutions (universities, polytechnics/higher agricultural colleges) and professional institutions (professional agricultural colleges and Employment and Vocational Training Centres) with a view to coordinating training requirement analyses with sector agents. In collaboration with the DRAPs and public teaching and vocational training bodies, protocols were established with the aim of simplifying procedures relating to the certification, approval and recognition of training for both farmers and technical staff.

- With respect to the **sector certification of training organisations**, Table 2 shows the training organisations currently certified by the DGADR to provide training courses for technical staff as well as courses which are part of the areas of 'Plant Protection Product Distribution, Sale and Application' and 'Sustainable Agricultural Production', the trainers who are recognised to provide these courses, and the protocols established between the DGADR and public bodies in this regard.

Table 2 - Certified sector training organisations, protocols established with Teaching and Vocational Training Institutions which are PPPDSA and SAP recognised, up to 31 December 2017.

Certifying Body	No of Certified Training Organisations (Up to 31 Dec 2017)		No of Protocols established (up to 31 Dec 2017)	Entities with Protocol established (up to 31 Dec 2017)
	PPPDSA	SAP		
DGADR	45	24	6	-IPB/ESAB, 05/06/2015 -IPC/ESAC, 16/07/2015 and Addenda on 11/08/2016 -IPV/ESAV, 16/07/2015 -IPS/ESAS, 20/11/2015 -DRAP/North, 18/01/2016 -DRAP Centre, 30/04/2016
DGADR TRAINERS RECOGNISED	249	210	---	---

Table 3 shows the **sector certification of training organisations,** the **protocols established between DRAPs** and Teaching and Vocational Training Institutions, and the **recognised trainers** in PPPDSA, for courses for farmers/workers/operators, which are the competence of the DRAPs, up to 31 December 2017.

Table 3 - Sector certified training organisations, protocols established between DRAPs and Teaching and Vocational Training Institutions, and the **recognised trainers** in PPPDSA, up to 31 December 2017.

Regional Directorate for Agriculture and Fisheries	No of Certified Training Organisations	No of protocols established	Organisations with established protocol	No of recognised trainers
Regional Directorate for Agriculture and Fisheries - North (DRAPN)	118	3	- Carvalhais/Mirandela Professional School for Agriculture and Rural Development: PPPDSA; - Duero-Douro European Grouping for Territorial Cooperation; - IEFP – Northern Regional Delegation	490
DRAPC	60	4	-CEARTE -IP/ESACB -IP/ESAC -IEFP, which involves nine training centres	484
DRAPLVT	52	4	- Regional Delegation of Lisbon and the Tagus Valley of the Institute of Employment and Vocational Training, I.P. - CPJ – Justice Protocol Centre - INOVINTER – Training and Technological Innovation Centre	119

			-EPADRC – Cister/Alcobaça Professional School for Agriculture and Rural Development	
DRAPAL	25	3	- Reguengos de Monsaraz School Grouping -ESA Elvas/ IP Portalegre -IEFP, IP	92
DRAP Algarve	7	1	-IEFP, IP	12
TOTAL	**262**	**15**	**---**	**---**

Similarly, Table 4 shows the **sector certification of training organisations**, the **protocols established between DRAPs** and Teaching and Vocational Training Institutions, and the **recognised trainers** in SAP, for courses for farmers/workers/operators, up to 31 December 2017.

Table 4 - Certified sector training organisations, protocols established by DRAPs with Teaching and Vocational Training Institutions and recognised trainers that are SAP recognised, up to 31 December 2017.

Regional Directorate for Agriculture and Fisheries	**No of Certified Training Organisations**	**No of protocols established**	**Organisations with established protocol**	**No of recognised Trainers at each DRAP**
DRAPN	45	2	-Carvalhais/Mirandela Professional School for Agriculture and Rural Development: PPPDSA; - IEFP – Northern Regional Delegation	208
DRAPC	22	3	-CEARTE -IP/ESACB -IP/ESAC	190
DRAPLVT	16	1	-EPADRC – Cister Professional School of Agriculture and Rural Development	7
DRAPAL	15	1	-IEFP, IP	47
DRAP Algarve	2	-	-	6
TOTAL	**100**	**7**		**---**

Of particular note with regard to **Measure M9**:

- **Six** training and/or awareness courses for agents of the Food and Economic Security Authority (ASAE) and the National Republican Guard (GNR) on the control of plant protection products, more specifically, on the topics of 'Legal framework for placing on the market', 'Plant protection product sale, use and road transport' involving a total of 71 GNR agents.

- **Two** training courses for DRAP technical staff on the control of use of plant protection products under current legislation, with participation by 40 staff members.

Of note with regard to **Measure M10**:

- Publication on the DGADR website of the following courses, with a programme also available in a **"b-learning"** version:

In Plant Protection Product Distribution, Sale and Application (PPPDSA):

- Trainers in Plant Protection Product Distribution, Sale and Application - 91 hours, for trainers and technical staff;
- Plant Protection Product Distribution, Sale and Application - 70 hours, for technical staff;
- Application of Plant Protection Products – 35 hours, for farmers/workers;
- Application of Plant Protection Products – 50 hours, for farmers/workers;

In the area of Sustainable Agricultural Production (SAP):

- General Integrated Production Method (IPMGeneral) - 50 hours;
- General Biological Production Method (BPMGeneral) - 50 hours;

In 2016, a training organisation was approved which gave a course on Trainers in Plant Protection Product Distribution, Sale and Application (TPPPDSA) with a duration of 91 hours in 'b-learning'. Eleven trainees passed this course. In 2017, although course programmes existed for 'b-learning', no training organisation provided this type of training.

With regard to **Plant Protection Product Distribution, Sale and Application**, statistical data on training courses and the recognition of certificates for technical staff and specialised operators passing such courses are summarised in the following table.

Table 5 – Summary of statistical data on training courses and the recognition of certificates for technical staff and specialised operators passing PPPDSA courses.

Courses	No of Actions carried out/year						No of certificates recognised/year						
	2013	**2014**	**2015**	**2016**	**2017**	**Total**	**2013**	**2014**	**2015**	**2016**	**2017**	**Total**	**From the start until 31/12/17**
TPPPDSA and PPPDSA	57	39	26	30	8	160	793	471	330	380	115	2 089	**3 223**
RCPPPDSA	15	3	6	4	1	29	193	29	79	46	11	358	**496**
CPC	0	0	2	2	1	5	0	0	20	28	4	52	**52**

Courses	No of Actions carried out/year						No of certificates recognised/year						
	2013	**2014**	**2015**	**2016**	**2017**	**Total**	**2013**	**2014**	**2015**	**2016**	**2017**	**Total**	**From the start until 31/12/17**
ICMETPP	7	0	5	6	1	19	93	0	71	60	9	233	**365**
FIEAPF and IEAPF	1	1	1	3	2	8	15	22	21	64	34	156	**169**
RCPPPA	0	0	0	1	0	1	0	0	0	7	0	7	**7**
AEPFS	0	0	0	8	20	28	0	0	0	132	355	487	**487**
AEPFAC	0	1	4	3	14	22	0	13	59	53	200	325	**325**
TOTAL	**80**	**44**	**44**	**57**	**47**	**272**	**1 094**	**535**	**580**	**770**	**728**	**3 707**	**5 124**

Training to qualify as a **senior technician** has been provided since 2001. In 2002, the certificates of the first successful PPPDSA trainees were recognised. Throughout 2017, the certificates of **3 223** successful trainees in TPPPDSA and PPPDSA were recognised.

From 2013 to 2017, 65% of all certificates were recognised.

The maximum annual figure (793) of recognised certificates was reached in 2013. From the total of certificates issued in this period (3 707), 56% were obtained by attending TPPPDSA and PPPDSA courses (Fig. 1)

TPPPDSA courses are to provide technical staff with the qualifications required to work as a senior technician and to allow them to acquire suitable vocational training to be able to work as a trainer in PPPDSA courses, provided that they comply with other qualification requirements.

To renew senior technician qualifications, the RCPPPDSA courses were created. However, many technicians decided to renew their qualifications through a new PPPDSA course, whenever this option was more accessible.

Fig. 1 - Number of successful trainee certificates recognised in courses for technical staff and specialised operators, in DVAP, from 2013 to 2017.

CPC and ICMETPP courses allow trainees to complement their qualifications in crop protection in order to gain access to the TPPPDSA or PPPDSA courses, respectively, and to complement the training required so that with the PPPDSA course they may work as trainers in 'Block III – Materials and Application Techniques', provided that they comply with the remaining qualification requirements. In the case of CPC, these courses took place throughout the period from 2015 to 2017, and 65% of the ICMETPP courses took place from 2013 to 2017. This latter course has been provided since 2010.

From 2012 to 2017, nine training courses were provided allowing **169** inspectors of plant protection product application equipment to become qualified. Thirteen of these trainees also had suitable professional qualifications to be trainers on these courses. The DGADR also recognised in this period 812 specialised operators, where approximately 60% were for soil treatments and 40% for application in a confined environment.

Table 6 - Statistical data on training courses and the recognition of certificates for trainees passing PPPDSA courses for operators, farmers, workers and sales personnel, from 2013 to 2017.

No of Actions carried out/year	**No of certificates recognised/year**
	Start until 31/12/17

*Total no of qualified	489	818	1 508	actions 48 200	actions 243	actions 48 443	8 404	11 504	50 040	149 586	69 541	289 075	317 006
PPPDS													

*Total qualified PPPA – Total of PPPA, PPPAMS, MIIAPF recognised certificates and Knowledge Tests.
**Total qualified PPPDS – PPPDS Recognised Certificates.

The tables and figure above identify the types of courses for operators, farmers and workers seeking qualifications to work as a professional plant protection product operator (PPPA; PPPAMS; PPPA- 2: MIAPF and MIIAPF courses; knowledge tests), as well as for workers seeking qualifications as distribution and sales personnel for PPPDS products. Also shown are data on the courses for renewing professional qualifications. More specifically, the RCPPPA and RCPPPDSA courses. However, many operators renew their qualifications by passing the new PPPA course, provided that access proves to be easier.

Table 6 shows, the number de actions undertaken and the number of certificates recognised for the period from 2013 to 2017, broken down into types of course. It also shows the total number of certificates recognised since the start of actions and awarding of certificates up to the end of final de 2017. Points of note:

- 78% of certificates recognised (14 979) refer to courses for the Plant Protection Product Application (PPPA);
- PPPA courses have been provided since 2005, however, 80% of these certificates were recognised in the period from 2013 to 2017;
- Up to the end of 2017, **317 006** certificates were recognised for operators, and 91% obtained their recognised certificate in the period from 2013 to 2017;
- All courses for PPPAMS-25 hours, PPPA_2 (MIAPF and MIIAPF) - 29 hours and knowledge tests were given in the period from 2013 to 2017, and the respective certificates were recognised during the same time frame;

- From 2013 to 2017, 49% of all operators with recognised certificates successfully undertook knowledge tests.
- PPPDSA courses started in 2005 and continued until 2017 and **5 711** operators received a recognised certificate. Approximately 32% of these certificates were recognised in the period from 2013 to 2017.

The relevant indicators for the execution of the measures set out above are as follows:

Indicators	**Years**				
	2013	**2014**	**2015**	**2016**	**2017**
Content of mandatory training activities updated			Completed		
No of training activities/year, for senior technical staff and trainers	79	42	39	42	11
No of training activities/year, for specialised operators	0	1	4	11	34
No of training activities/year, for plant protection product application equipment inspectors and trainers	1	1	1	3	2
No of training activities/year, for aerial operators of plant protection products	0	0	0	1	0
TOTAL (actions)	**80**	**44**	**44**	**57**	**47**
No of certificates recognised/year, for senior technical staff and trainers	1.079	500	500	514	139
No of certificates recognised/year, for specialised operators					
No of certificates recognised/year, for plant protection product application equipment inspectors and trainers					
No of certificates recognised/year for aerial operators of plant protection products					
TOTAL (recognised certificates)					
No of certificates recognised/year, for operators (PPPA; PPPAMS; MIIAPF; RCPPPA)					
No of knowledge tests held/year, for operators					
No of training courses provided/year, for sales personnel (PPPDSA; RCPPPDSA)					
TOTAL (actions)					
No of certificates recognised/year, for operators (PPPA; PPPAMS; MIIAPF; RCPPPA)					
No of certificates recognised for knowledge tests given/year, for operators					
No of certificates recognised/year, for sales personnel (PPPDSA; RCPPPDSA)					
TOTAL (recognised certificates)					
Total number of training courses and knowledge tests held/year					
Total number of certificates recognised in the different training courses and assessment tests/year					

Indicators	Years				
	2013	2014	2015	2016	2017
Implementation and assessment of knowledge tests defined			Completed		
Content of training activities for control bodies defined			Completed		
No of aerial agricultural operators trained/year			n.a.		
No of trainers in the reserve during validity of NAP			n.a.		
Funding proposal negotiated and delivered by higher authority			Completed		
No of organisations in the communications network			70		
No of applications for training received on platform set up			n.a.		
No of training activities for control bodies/year	n.d.	n.a.	n.a.	n.a.	3
Content of b-learning training activities defined			Completed		
No of b-learning training activities/year				1	

4.2 Statistical Data on Sustainable Agricultural Production

From 2013 to 2017, 93 training courses were provided on Sustainable Agricultural Production which led to the qualification of **1 211** technicians under MAFDR. Of these, 58 technicians carried out training in integrated protection, 563 in the integrated production method - Plant component, 90 in integrated production method - animal component and 500 in biological production method, as shown in Table 7.

Shown in Table 8 are statistical data by crop.

Table 7 - Statistical data on training courses and the recognition of certificates for trainees passing SAP courses for technicians.

Courses	No of Actions carried out/year						No of recognised certificates/year					
	2013	2014	2015	2016	2017	Total	2013	2014	2015	2016	2017	Total
IP	4	0	0	0	0	4	58	0	0	0	0	58
IPM Plant	18	4	1	9	12	44	227	49	17	121	149	563
IPM animal	3	0	1	3	0	7	38	0	15	37	0	90
BPM	24	9	0	4	1	38	322	116	0	46	16	500
TOTAL	**49**	**13**	**2**	**16**	**13**	**93**	**645**	**165**	**32**	**204**	**165**	**1 211**

Table 8 - Statistical data on training courses and the recognition of certificates for trainees passing SAP courses for IP and IPM Plant technicians with details on crops.

Courses	No of Actions carried out/year						No of recognised certificates/year					
	2013	**2014**	**2015**	**2016**	**2017**	**Total**	**2013**	**2014**	**2015**	**2016**	**2017**	**Total**
IPOlive tree	0	0	0	0	0	**0**	1	0	0	0	0	**1**
IPChestnut tree	2	0	0	0	0	**2**	30	0	0	0	0	**30**
IPWalnut tree	2	0	0	0	0	**2**	27	0	0	0	0	**27**
IPMVines	9	0	0	0	7	**16**	106	0	0	0	73	**179**
IPMPome fruit	2	1	1	2	1	**7**	26	11	16	23	20	**96**
IPMStone fruit	1	0	0	0	1	**2**	16	0	0	0	7	**23**
IPMOlive trees	3	1	0	3	0	**7**	40	14	1	38	0	**93**
IPMRice	0	0	0	0	1	**1**	0	0	0	0	7	**7**
IPMAlmond trees	0	0	0	3	0	**3**	0	0	0	41	0	**41**
IPMChestnut trees	0	0	0	1	0	**1**	0	0	0	19	0	**19**
IPMActinidia	1	1	0	0	0	**2**	10	11	0	0	0	**21**
IPMCitrus	2	0	0	0	0	**2**	29	0	0	0	0	**29**
MPIHSolanaceae	0	1	0	0	1	**2**	0	13	0	0	22	**35**
MPIHBrassicáceas	0	0	0	0	1	**1**	0	0	0	0	20	**20**
IPM animal	3	0	1	3	0	**7**	38	0	15	37	0	**90**
BPM	24	9	0	4	1	**38**	322	116	0	46	16	**500**
TOTAL	**49**	**13**	**2**	**16**	**13**	**93**	**645**	**165**	**32**	**204**	**165**	**1 211**

In the period from 2013 to 2017, 726 training courses were provided in SAP, and the certificates of **11 686** farmers passing the course were recognised. Of these, 65% obtained recognised certificates in the course on ‘General Integrated Production Method’, 16% in ‘General Biological Production Method’, 12% in courses on ‘Plant Component Integrated Production Method’ and 7% in courses on ‘Animal Component Integrated Production Method’.

Table 9 - Statistical data on training courses and the recognition of certificates for trainees passing SAP courses for farmers/workers.

Courses	No of Actions carried out/year	No of recognised certificates/year

Table 10 shows that, per type of crop, a greater number of certificates were recognised for farmers working in Integrated Production Methods in vines and olive trees. The most relevant animal production was cattle.

Table 10 - Statistical data on training courses and the recognition of certificates for trainees passing SAP courses for farmers/workers, showing IPM and General BPM, and details on crops and animal species.

Courses	No of Actions carried out/year						No of recognised certificates/year					
	2013	**2014**	**2015**	**2016**	**2017**	**Total**	**2013**	**2014**	**2015**	**2016**	**2017**	**Total**
IPM General	7	3	9	4	439	**462**	107	50	132	64	7 311	**7 664**
BPM General	14	10	7	14	83	**128**	179	170	72	206	1 193	**1 820**
VIPM	0	1	0	5	17	**23**	0	14	0	91	268	**373**
POIPM	0	3	0	0	3	**6**	0	47	0	0	52	**99**
PRIPM	0	0	0	1	0	**1**	0	0	0	12	0	**12**
OLVIPM	0	0	0	18	14	**32**	0	0	0	300	216	**516**
HIPM	0	0	3	0	0	**3**	0	0	45	0	0	**45**
CEIPM	0	0	0	5	0	**5**	0	0	0	72	0	**72**
MSIPM	0	0	0	1	O	**1**	0	0	0	17	0	**17**
PFIPM	0	0	0	1	0	**1**	0	0	0	17	0	**17**
ACIPM	0	0	0	1	9	**10**	0	0	0	13	163	**176**

Courses	No of Actions carried out/year						No of recognised certificates/year					
	2013	**2014**	**2015**	**2016**	**2017**	**Total**	**2013**	**2014**	**2015**	**2016**	**2017**	**Total**
ALIPM	0	0	0	0	1	**1**	0	0	0	0	14	**14**
CAIPM	0	0	0	0	5	**5**	0	0	0	0	79	**79**
BIPM	0	0	0	19	17	**36**	0	0	0	335	277	**612**
OCIPM	0	0	0	8	4	**12**	0	0	0	116	54	**170**
TOTAL	**21**	**17**	**19**	**77**	**592**	**726**	**286**	**281**	**249**	**1 243**	**9 627**	**11 686**

4.3 Awareness-raising for plant protection product use

This line of action incorporates measures M11 and M12.

Measure	Action	Result
M11 - Promote the dissemination of good practices in the handling, storage and application of plant protection products by non-professional users	Provide leaflets on the public's right to information to sales outlets supplying products for non-professional use.	Completed
	Establish protocols with local authorities to raise the awareness of non-professional users	**Not completed**
M12 – Carry out and promote awareness-raising activities for professional users to ensure compliance with appropriate risk reduction measures in applying plant protection products and adopting integrated pest management principles	Establish partnerships with DRAPs, farmer and forestry producer organisations and industry to carry out awareness-raising activities on risk reduction measures in applications on agricultural and forestry holdings	Completed
	Establish protocols with local authorities to raise the awareness of providers of land-based application services in urban and recreational areas and communication routes	**Not completed**
	Establish partnerships with DRAPs, farmers' organisations and the INAC to carry out awareness-raising activities on the aerial application of PPP	Completed
	Establish partnerships with DRAPs, farmers' organisations and industry to carry out awareness-raising activities on the adoption of IPM principles	Completed
	Carry out awareness-raising activities on the existence of systems for collecting and managing plant protection product packaging waste	Completed

Of note with regard to **measure M11**:

- The availability of the DGAV for widespread distribution to the network of plant protection product companies and sales and/or distribution establishments, of the information leaflet for non-professional users on plant protection products in a domestic environment;

- A leaflet was drawn up on non-professional plant protection products (fig. 2)

Fig. 2 – Leaflet for dissemination on the non-professional use of plant protection products.

- Several awareness programmes were conducted for municipalities and entities which provide land application services of plant protection products in leisure zones, urban areas and road networks. Guidelines were also issued by the DGAV with a view to simplifying and standardising the licensing of such entities.

Of note with regard to **measure M12**:

In the period from 2013 a 2017, **70** Seminars/Workshops were held on the theme of 'Sustainable use of plant protection products' by MAFDR (DGAV/DRAP/DGADR) in collaboration with different public and private entities. Approximately **5 000** people took part and the following topics were covered:

- Implementation of the Plant Protection Product Sustainable Use Plan;
- Placing on the market of plant protection products;
- Application in farms and forests;
- Application in leisure zones, urban areas and road networks;
- Aerial application;
- Sale and storage of plant protection products;
- Implementation of general principles on integrated protection and the respective role of SNAA;
- Management of empty packaging and effluent;
- Transport of plant protection products;
- Illegal use of plant protection products;
- Inspection of the use and sale of plant protection products;
- Classification and labelling of plant protection products;
- Inspection of plant protection product application equipment.

The relevant indicators for the execution of the measures set out above are as follows:

Indicators	**Result**
No of awareness-raising activities for non-professional users	2
No of awareness-raising activities for professional users	70

4.4 Information for all categories of plant protection product users

The measures M13 and M14 are defined under this line of action, in accordance with the following table:

Measure	Action	Result
M13 - Promote the dissemination of good practices in the handling, storage and application of plant protection products by professional users	Update and disseminate the code of conduct on plant protection product distribution and sales channels	Underway
	Publish and disseminate the code of conduct on the application of plant protection products	Completed
	Continue projects ('Cultivar a Segurança', 'Família Prudêncio') (Cultivate Safety, Prudence family)	Completed
	Promote the official publication of newsletters, leaflets, reports and statistics on the sale and use of plant protection products;	Completed
	Disseminate the Guide to Procedures for recognising CIPPs	Completed
	Disseminate a technical manual for drawing up aerial application plans;	Completed
	Update and disseminate technical information documents for adopting general IPM principles	Underway
	Promote the updating and provision of IP and OP technical guides	Underway
	Disseminate information on alternatives to chemical means of protection	Completed
	Disseminate active communication platforms and promote their use	Completed
	Ensure the dissemination of authorisations, cancellations and alterations to authorisations granted to plant protection products	Completed
	Formulate and disseminate procedure manuals for PPP inspection and control	Completed
	Draw up and maintain FAQs on official websites	Completed
	Run workshops for trainers on the sustainable use of plant protection products	Completed

Measure	Action	Result
	Dissemination actions on Law No 26/2013 and the Action Plan, with regard to its different aspects	Completed
M14 - Collect information on the use of plant protection products	Conduct surveys in sales outlets for professional use products and in training activities to assess the most common agricultural practices	Underway
	Conduct surveys to collect information from farmers on the effective application of risk mitigation measures	**Not completed**
	Conduct surveys to collect information from farmers on the application of general IPM principles	**Not completed**

Of note with regard to **Measure M13** are the following actions:

- The **Technical Manual for Drawing up Aerial Application Plans** and the **Manual for the Recognition of Periodic Inspection Centres** for plant protection equipment were drawn up and published on the DGAV website;

- Support instruments for IP decisions were drawn up and published on the DGAV website, more specifically:

- **Volume I** – Concept, Principles and Components of IP;
- **Volume II -** Manuals or technical guides for the main crops/enemy(ies), with information on the bioecology of crop enemies, description of the risk estimation methodologies, Economic Level of Attack (ELA) and harmfulness factors and the alternative means available to combat such attacks. Also now published is the **Manual for the integrated protection of olive tree crops**;
- **Volume III** - Compilation of the classification of authorised plant protection products with regard to human and environmental toxicity and non-target organisms, including auxiliary organisms;
- **Volume IV** – Field Log Template.

- A guidance document for producing auxiliary and environmental notices was drawn up in a new format and with new content for dissemination by Warning Stations to farmers belonging to SNAA. This document took into consideration the general principles for integrated protection as set out in Annex II of Law No 26/2013, the implementation of which has been compulsory since 1 January 2014;

- The 'Information Note on the Implementation of General Principles for Integrated Protection', was produced and distributed to the DRAPs and other sector entities;

- The leaflet 'Understand the new law governing the distribution, sale and application of plant protection products and adjuvants' was published by ANIPLA and distributed generally to all professional users. The SNAA also contributed to this dissemination effort;

Fig. 3 – Leaflet to inform on Law No 26/2013 of 11 April 2013.

- Four leaflets on the plan published and disseminated by the DGAV:

Fig. 4 – Leaflet informing on the general principles of integrated protection (DGAV).

Fig. 5 - Leaflet informing on preparation procedures for mixtures and cleaning of plant protection product application equipment in agriculture and forestry (DGAV).

Fig. 6 - Leaflet informing on plant protection product storage procedures on farms (DGAV).

Fig. 7 - Leaflet informing on procedures for the inspection of plant protection product sprayers (DGAV).

- Several articles were published by DRAPN on NAP, including the article on the 'Sustainable Use of Plant Protection Products', in the magazine *Parques e Vida Selvagem* (Parks and Wildlife);

- DRAPAlgarve drew up a technical document entitled 'Safety in the application of plant protection products in agriculture and forestry', together with an information file on the 'integrated protection of crops', disseminated by the Algarve Warning Stations and the regional directorate website;

- The leaflet 'Sustainable use of plant protection products in farms', which has been distributed generally to all farmers using professional products, was published by the DRAPC with SNAA also contributing to the dissemination effort;

- The **Working group for the integrated protection of citrus fruit** was formed and technical meetings were held with the aim of providing information on this topic. Meetings were attended by the technical staff of sector associations in the Algarve;

Fig. 8 – Leaflet on 'Sustainable Use of Plant Protection Products on Farms' (issued by DRAPC).

- The 'Procedures manual on inspection actions relating to the use of plant protection products – Law No 26/2013 and Decree Law No 86/2010' was drawn up. During 2018, this manual was updated to include the control of primary production hygiene as well as the control of the sustainable use of plant protection products, as a result of the integration of both areas into a single Official Control Plan.

With regard to **Measure M14**, during NAP, questionnaires relating to the compilation of information on the use of plant protection products were not distributed. However, completion of such questionnaires will be requested under the revised NAP. Nevertheless, during 2018, the compilation of information from farmers was initiated through questionnaires distributed by the chemical products wholesalers' association (GROQUIFAR). These questionnaires sought to obtain information on the sale/distribution of plant protection products and the results will be available during NAP 2018-2023.

The relevant indicators for the execution of the measures set out above are as follows:

Indicators	**Result**
Code of conduct on PPP distribution and sales channels updated	**Not completed**
Code of conduct on the application of PPP published and disseminated	**Not completed**
% of satisfied users of the plant protection product website (survey)	n.a.
No of themes with FAQ disseminated	6
No of workshops for trainers	2
No of actions to disseminate legislation	58
No of active communication platforms	2
No of actions connected to private organisation projects	n.a.
No of alert notices issued (2013-2017)	739
No of technical documents drawn up	n.a.
Technical manual for preparing aerial application plans drawn up and disseminated	Completed
No of surveys answered in sales outlets	n.a.
No of surveys answered in training activities	171
No of surveys answered on agricultural holdings	n.a.

4.5 Overall performance analysis of CCA.2 – Training, Information and Awareness

Of note with regard to performance analysis in this Cross-Cutting Axis are the following aspects:

- ✓ In relation to **training and professional qualifications in the sustainable use of plant protection products**, work by MAFDR (DGAV, DGADR and DRAP) in the drawing up and updating of

training course programme content and the consolidation of all respective regulations was of particular importance;

- ✓ During the validity period of the plan, a total of **317 006** users of professional plant protection products gained qualifications in accordance with the requirements set out in Law No 26/2013;

- ✓ With regard to **raising the awareness of professional and non-professional plant protection product users**, dozens of actions were undertaken organised by the DGAV in collaboration with DGADR, DRAP, ASAE, VALORFITO, ANIPLA, GROQUIFAR, as well as teaching entities and other organisations. However, awareness programmes are still to be carried out for municipalities. These actions are expected to take place under NAP 2018-2023 and are particularly relevant as a means of ensuring greater professionalism among such entities and provide a guarantee of correct usage in areas which can be accessed by the general public;

- ✓ In the many debates held during the abovementioned actions, it was clear that the content of teaching programmes is unsuitable. In recent years, there has been less attention given to plant protection in degree and undergraduate courses, which must be corrected as tomorrow's young farmers and technicians can more easily incorporate new knowledge into their work and take up the challenges brought about by the need to produce food more effectively but in a more sustainable manner.
  In order to correct this trend, the DGADR and DRAPs have established protocols with different teaching organisations, an action which is to be reinforced in the coming NAP 2018- 2023;

- ✓ It should be further noted that, with regard to **information for all categories of plant protection product users**, manuals, leaflets and explanatory documents on the different areas covered by sustainable use were drawn up and published on paper or included on the websites of numerous public and private entities. Given the importance of these actions, they must be maintained and reinforced in the coming NAP 2018-2023. More effective forms of transmitting this information should also be sought, including the use of social networks, audio-visual means and electronic platforms;

- ✓ The role and importance of the National Agricultural Information Service should also be highlighted. During NAP I, this service issued a total of 739 notices for a vast number of crops where it was possible to disseminate the principles and guidelines for the integrated protection of crops, informing on relevant aspects of the bioecology of crop enemies, estimating the risk and the economic level of attack, when defined, and the strategy to combat such attacks. Priority in such fights was always given to alternatives to plant protection products.

5. Strategic Axis 1: Protection of human health

5.1 Results

The protection of human health is one of the strategic aims of NAP I. Different areas were considered where it was possible to intervene, including consumer protection and the protection of professional and non-professional users. A further consideration was the protection of third-parties, including vulnerable groups of the population possibly coming into contact with plant protection products.

In this regard, the following lines of action were established: **consumer protection**; **protection of professional and non-professional users** and the **protection of third-parties, including vulnerable groups** possibly being exposed to the application of plant protection products.

Contributing to the achievement of this aim were the measures and actions set out in the table below.

Measure	Action	Result
M15 - Monitor and control food of plant and animal origin (2013-2017)	Establish the number of samples of plant and animal origin in the official pesticide residue control plan	Completed
	Establish the number of foods of plant and animal origin sampled under the official pesticide residue control plan	Completed
	Establish the number of residues tested in food of plant and animal origin sampled under the official pesticide residue control plan	Completed
	Implement the official pesticide residue control plan	Completed
M16 - Detailed timely dissemination of authorised uses	Set up a technological information and communication system to disseminate authorisations granted, amended and withdrawn	Underway
	Conduct a satisfaction survey of users of plant protection product information	**Not completed**
M17 - Monitoring and control of plant protection product distribution, sale and storage	Monitor economic activity relating to the distribution and sale of plant protection products	Completed
	Monitor distribution companies and authorised sales outlets	Completed
	Monitor and control facilities on agricultural or forestry holdings	Completed
M18 - Monitoring and control of the land-based application of plant protection products	Monitor the application of plant protection products on agricultural and forestry holdings	Underway

Measure	Action	Result
	Monitor the application of plant protection products in urban and recreational areas and communication routes	**Not completed**
	Monitor application service providers	**Not completed**
	Monitor the application of plant protection products on agricultural and forestry holdings	Completed
M19 - Authorisation to engage in sales distribution activity	Visits to provide advice and examine facilities during the authorisation procedure	Completed
	Authorisation of distribution and sales activities	Completed
	Authorisation of land-based applications	Completed
M21 - Promote the use of PPE	Raise awareness of the need to use PPE	Completed
	Conduct surveys on the use of PPE	**Not completed**
M22 - Monitoring and control of the aerial application of plant protection products	Control the aerial application of plant protection products on agricultural and forestry holdings	Completed
	Monitor the aerial application of plant protection products on agricultural and forestry holdings	Completed
M23 - Certification of aerial application service providers	Certification of aerial applications	Underway
M24 - Authorisation of aerial application plans	Authorisation of aerial application plans	Completed
	Annual definition of crops, locations and special aerial application requirements	Completed
M25 - Promotion of risk mitigation measures	Awareness-raising on the use of techniques to minimise spray and dust drift	Completed
M26 - Collection of statistics on incidents involving plant protection products	Record the number of incidents involving plant protection products	Completed

Of note under **Measure M15** is the drawing up of official control plans for pesticide residues in plant products which, in addition to the samples (models/pesticides) defined in the Community programme, also incorporated other models which are defined nationally. The results of the implementation of the successive Official Control Plans for Pesticide Residues have been published on the DGAV website and are reported annually to EFSA, the European Commission and other Member States.

Moreover, with a view to better reflecting national performance with regard to the control of pesticide residue on plant products sold in national territory, during 2017, information was also compiled on the controls conducted on agricultural products from third countries under Commission Regulation (EC) No 669/2009 of 24 July 2009, implementing Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards the increased level of official controls on imports of certain feed and food of non-animal origin.

With regard to **Measure M16**, the DGAV applied to the Public Administration Support Programme (SAMA), where funding was approved to develop an I.T. System for the management of plant protection product processes, including timely and detailed dissemination of authorisations, changes and cancellations. This I.T. system is referred to as SIFITO and is expected to be in full operation during the first half of the NAP 2018-2023 programme.

In relation to the implementation of **Measures M17 and M18** and actions provided for under this strategic axis, of particular note are the following:

- A total of **503** Inspection actions were carried out on economic operators under Law No 26/2013 by the GNR and 206 infringements were registered;

- In the actions implemented by ASAE, a total of **1 799** economic operators were inspected and 255 administrative offence processes were instigated relating to 269 infringements;

- During NAP I inspections conducted by IRAE, GNR or the Regional Directorate of the Azores, **166 economic agents were** issued with notices. This resulted in four administrative offence processes involving 39 infringements of Law No 26/2013;

At 31.12.2017 under **Measure M19,** a total of 1 468 establishments were licensed to sell and/or distribute plant protection products. This included 65 establishments which were only distributors and 410 only involved in sales. The remainder were a combination of sales/distribution. This activity will continue during the coming NAP 2018 – 2023.

With regard to the monitoring of the distribution, sale and storage of plant protection products, mainly carried out by the DRAPs under licensing processes, the following actions were undertaken:

- The DRAPs conducted **225** monitoring actions on sales and distribution establishments with the aim of providing advice on storage and sales;

- Also of note was the drawing up of guidelines by the DGAV and a check list for drawing up Operating Procedures Manuals, a draft monitoring report and an opinion on the activity of the sale and distribution of plant protection products;

At the end of 2017, there were 183 licensed land application companies and 118 licensed entities with their own land application services.

Measure M21 was implemented through awareness programmes provided under the implementation of the Plan.

To ensure the implementation of **Measure M22**, monitoring and inspection actions were carried out in the DRAPC, DRAPLVT and DRAPAL regions where aerial applications take place.

Despite the efforts of DGAV, during NAP I it was not possible to implement **Measure M23** on the certification of aerial application service providers. However, the legal framework was defined, currently awaiting approval, for the training and qualification of agricultural pilots. Nevertheless, the DGAV carried out an awareness raising programme on safe aerial application, which was attended by six of the seven aerial agricultural operators currently certified by ANAC. At the same time, and as already reported in NAP implementation progress reports, aerial application was monitored by the DRAPs as part of the DGAV licensing process.

Under **Measure M24**, all actions were carried out to authorise derogations to the prohibition set out in Law No 26/2013 of 11 April 2013, more specifically for the authorisation of aerial application plans. The list of plant protection products for aerial application was defined and published and the procedure was established for submitting technical support data for assessing the risk associated to this application technique in relation to human health and the environment. Also established was the communication procedure between the different competent authorities involved in the monitoring of aerial application in plant health emergency situations.

In order to achieve **Measure M26**, the National Institute of Medical Emergencies (INEM) published statistical data on exposure to plant protection products on its website. However, these data only refer to acute exposure to such products and data are not available on the effects of chronic exposure to pesticides. This is an area to be fostered under NAP 2018-2023.

The relevant indicators relating to **consumer protection** for the execution of the measures set out above are as follows:

Indicators	Years
Waste Control Plan	
Human consumption, risks analysed for the consumer	

The relevant indicators relating to the **protection of consumers and professional users** for the execution of the measures set out above are as follows:

Indicators	Years				
	2013	**2014**	**2015**	**2016**	**2017**
No of distribution and sales outlets inspected	n.a.	758	357	489	596
% of prosecutions brought	n.a.	38%	18%	10%	7%
No of distribution and sales outlets monitored	n.a.	77	30	58	60
% of non-compliances recorded in monitoring distribution and sales outlets	n.a.				
No of holdings inspected within cross-compliance	2 565	2 437	1 258	1 359	1 409
No of holdings inspected outside cross-compliance	0	100	105	110	115
% of non-compliances with authorised conditions of use of PPP	n.a.	6.5%	6.2%	4%	5%
% of non-compliances in storage on the agricultural holding	n.a.	4%	3.3%	6%	2%

The relevant indicators relating to the **protection of non-professional users** for the execution of the measures set out above are as follows:

Indicators	Years				
	2013	**2014**	**2015**	**2016**	**2017**
No of PPP sales outlets exclusively for non-professional use inspected (D.L. 101/2009)	n.a.	90	n.a.	n.a.	n.a.
% of infringements of requirements for sales under D.L. 101/2009	n.a.	18	n.a.	n.a.	n.a.

The relevant indicators for the **protection of third parties, including vulnerable groups** for the execution of the abovementioned measures are as follows:

Indicators	Years				
	2013	2014	2015	2016	2017
No of aerial application inspections	n.a.	24*	46	72	22
% of aerial application infringements			n.a.		
No of inspections of applications in urban and recreational areas and communication routes			n.a.		
% of infringements of applications in urban and recreational areas and communication routes			35**		
% of equipment with anti-drift nozzles inspected			n.a. ***		
Ratio of products marketed T+/Total	0.95%	0.96%	0.95%	0.72%	0.72%
Ratio of products marketed T/Total	4.1%	3.7%	3.41%	3.79%	1.93%
No of incidents involving adults and children ****	n.a.	1,301	1,566	1,339	n.a.

***** In 2014, visits were started to aerial applications by DRAPs under the respective authorisation granted;
** Processes already instigated, accumulated value from 2014 to 2018
*** Although there are a number of sprayers for bush and tree crops in a specific and limited number of wine producers, the use of this type of equipment for leaf application is not yet common.
**** Data corresponding to the following families: pyrethroids, cholinesterase inhibitors, anticoagulants, glyphosate, neonicotinoids and paraquat.

5.1 Overall performance analysis of Strategic Axis 1 – Protection of human health

Of note with regard to performance analysis in this Strategic Axis are the following aspects:

- ✓ Since the implementation of NAP and Law No 26/2013, there has been significant investment and involvement by all the competent entities in the inspection of compliance by economic operators. Over the years, a change has been seen in the type and seriousness of the infringements detected as well as a decreasing trend in the rate of infringements with regard to the sale and distribution establishments inspected. This also goes to show a greater level of professionalism in the sector;

- ✓ Despite the positive evolution in the inspection of the abovementioned economic operators and the need to pursue this activity, results achieved in the inspection of entities and companies working in land application in agriculture, forestry, urban areas,

leisure zones and roadways has been much lower than those for other operators. It is therefore extremely important during the coming NAP 2018-2023, to inspect the application of plant protection products in non-agricultural contexts.

- ✓ In line with the aim to reduce the risks associated with the use of plant protection products and the promotion of products with a more favourable toxicological profile, of note is the downward trend in indicators for products of greater human toxicity (highly toxic/toxic). In general terms at the end of 2017, there was a lower number of plant protection products for professional users which were of greater hazard to human health. This is despite the gradual increase in the number of products authorised for sale in recent years.

- ✓ With regard to the control of residues and consumer safety, results from recent years do not as yet allow a trend to be established. However, results are consistently low, with a relatively low level of infringements with potential risk for consumers in comparison to the number of samples tested. Nevertheless, there is a growing effort to find pesticides in a greater variety of agricultural products and, similarly, greater effort to identify a wider range of pesticides, which on its own, may justify the higher level of infringements detected at the Maximum Residue Limit. More detailed results are available in the reports on the Official Control of Pesticide Residues in agricultural products of plant origin, on DGAV and EFSA websites;

- ✓ It should also be mentioned that a number of actions did not warrant execution during NAP I, which also made it impossible to obtain data allowing the performance of relevant indicators to be assessed. This was the case with regard to the results of control actions on the application of plant protection products in urban areas, leisure zones and roadways because in this NAP, they fell short of the actions undertaken in relation to other operators, which was motivated by the still low number of such entities in comparison to sales/distribution establishments. It was also a result of a recent legal framework which is significantly more restricted with regard to the use of plant protection products in such areas. We are referring to Decree-Law No 35/2017 providing the first amendment to Law No 26/2013 regarding safety measures in the application of these products.

6. Strategic Axis 2 – Environmental protection

Under the current Strategic Axis and with regard to the use of plant protection products, the protection of the environment and guaranteeing sustainability requires two vital areas of intervention, the protection of water resources and the protection and promotion of biodiversity.

6.1. Protection of water resources

With regard to this area of intervention, in addition to the contribution of measures M5, M9; M13; M17 and M18 already mentioned above, in NAP I the measures set out in the table below were also implemented.

Measure	Action	Result
M27 - Reinforce good practices in the application of plant protection products	Include awareness-raising and the provision of advice on risk mitigation measures and practices (alert or safety phrase) on the use of plant protection products and the protection of water bodies in codes of conduct	Underway
	Establish partnerships with model farms and farmers' associations to promote and disseminate good practice	Underway
M28 - Implement an aerial application authorisation and recording system.	Survey and organise information on areas, crops and plant protection products used in aerial applications	Completed
	Define crops, locations and special aerial application requirements	Completed
	Draw up technical guidelines for the aerial Application plan	Completed
	Define contact points and establish the regional and central network for giving notice of aerial applications and authorising the aerial application plan (establishment of an official network for controlling aerial applications)	Completed
M29 - Reinforce the system for collecting and managing plant protection product packaging waste	Publish and disseminate good packaging waste management practice in the code of conduct for applying plant protection products	Underway
	Revise the legal framework governing packaging waste management (DL 187/2006) to include primary seed packaging.	Completed
	Include the collection of treated seed packaging in packaging waste management	Completed
	Increase the number of packaging waste collection centres	Underway

Measure	Action	Result
M30 - Promote good practice in managing plant protection product residues	Prepare regulations for certifying effluent Collection and management systems	Underway
	Propose positive discrimination methods In the next CSF	**Not completed**
	Include guidelines on the correct preparation of mixtures and cleaning of equipment in the code of conduct	Underway
M31 - Promote the proper management and disposal of obsolete and waste plant protection products	Survey stocks of residues of obsolete plant protection products at user level	**Not completed**
	Draw up a proposal for the disposal of obsolete PPP	Not completed
M32 - Implementation of the system for inspecting plant protection product application equipment	Publication of supplementary legislation (fees and stamp) for inspecting equipment	Completed
	Creation of a database for recording application equipment inspected	Completed
	Licensing of CIPPs	Underway
	Identification/census of all application equipment to be inspected (new and in use)	Underway
	Dissemination of a manual for recognising application equipment inspection centres	Completed
	Definition of inspection manual requirements	Completed
	Monitoring of application equipment subject to mandatory inspection	Completed

Under **Measure M27** with regard to the reinforcement of good practices in the application of plant protection products, although work had started on incorporating such practices into the codes of conduct, it was not possible to conclude this action during the plan.

In order to execute **Measure M28**, several actions were carried out, with particular emphasis on the following:

- The list of plant protection products authorised for aerial application was published and kept up to date (available on the DGAV website);

- Information was compiled and systematised in relation to areas, crops and plant protection products used in aerial application;

- Technical guidelines were drawn up on the Aerial Application Plan by applicants who are allowed to draw up an AAP in their own name or on behalf of groups of interested farmers;

- Contact points were defined so as to establish an official central network to manage aerial applications, at the DGAV and regionally at DRAPs.

Of note with regard to **Measure M29** are the following actions:

- The VALORFITO contract was updated to include the management of packaging waste for treated seeds and biocides;

- SIGERU/VALORFITO carried out awareness raising programmes among establishments and sales distributors with a view to all of these operators joining the packaging recovery effort. The current used packaging recovery network now has 955 return points, which in 2017, contributed to a recovery rate of 50.1% of packaging placed on the market. However, the same entity states that the recovery of sulphur powder packaging, the most used fungicide in Portugal, continues to be low.

In order to promote good practices in the management of plant protection product waste under **Measure M30**, a working group was formed to draw up a draft legal framework to recognise the technical compliance of the management of plant protection product effluent produced during spraying mixture preparation operations and equipment cleaning. In this regard, of note in recent years has been the development and introduction into the national market of systems developed by a number of companies in the sector, and the installation of such systems in some farms.

Moreover, as part of demonstration actions conducted by ANIPLA at the installations of Companhia das Lezírias under the SMART FARM Project, started in 2017, effluent management systems were installed with the aim of disseminating and demonstrating their operation to all interested parties. This provided a positive contribution to a better understanding of these systems and the underlying principles of their operation, allowing the agricultural community to see their usefulness in protecting the environment from possible sources of contamination

Under **Measure M31**, no actions were carried out in the period from 2013 to 2017.

Under **Measure M32**, the following actions were undertaken:

- The requirements set out in the Inspection Manual published by the DGAV were updated. This manual is available on their website and seeks to assist inspectors in their sprayer inspection work;

- From 2013 to 2017, the DGAV recognised 23 Plant Protection Product Equipment Inspection Centres (CIPP), which during this period inspected 20 313 items of spraying equipment.

This number represents around 30% of all equipment which is estimated to be in use in national territory and which is liable for inspection;

- The DGAV created a platform, referred to as SIGECIP (https://sigecipp.dgav.pt/) for the management of spraying inspections. SIGECIP may be accessed by the CIPPs and control bodies (DRAP and GNR).

The relevant indicators for the **protection of water resources** for the execution of the abovementioned measures are as follows:

Indicators	**Years**				
	2013	**2014**	**2015**	**2016**	**2017**
Rate of non-compliance with EQS for surface water and QS for groundwater	n.a.	n.a.	n.a.	n.a.	n.a.
Rate of sale of PPP dangerous for the aquatic environment	78%	81.3%	80.3%	78%	74.6%
Rate of sale of PPP containing priority substances	5.9%	5.0%	4.6%	3.6%	1.0%
Rate of non-compliance with parametric values for pesticides in drinking water	1%	1%	1%	1%	0.1%
Rate of non-compliance with safety requirements in applying PPP			n.a.		
Rate of non-compliance with correct storage of PPP in the commercial channel			n.a.		
No of effluent management systems certified			n.a.		
No of holdings taking up certified effluent management systems			n.a.		
Quantity of residues of obsolete PPP collected (t)			n.a.		
Quantity of PPP packaging waste collected/year (t)	259.7	297.4	389.2	384.7	357.3
No of collection centres for empty PPP packaging	704	791	839	918	955
Quantity of PPP packaging placed on the market/year (t)	729.5	775.5	821.2	735.0	713.0
Rate of collection of used PPP packaging waste	35.6%	38.4%	47.4%	52.3%	50.1%
Rate of recycling/recovery of PPP packaging waste			100%		
Quantity of seed packaging placed on the market (t)			n.ap.		
Rate of take-up by companies of a seed packaging management system			n.ap.		

Indicators	Years				
	2013	2014	2015	2016	2017
Rate of approval of PPP application equipment inspected			n.a.		
No of PPP application equipment inspectors certified	16	18	20	63	37
No of CIPPs licensed	-	2	4	7	10
No of CIPPs/NUTS II region	n.ap.	1/North 1/LVT	2/LVT 1/Alentejo 1/Centre	2/Alentejo 2/LVT 2/North 1/Centre	4/North 3/Centre 3/LVT
No of inspections of PPP application equipment	n.a.	55	1 548	5 944	12. 766*
Rate of inspection of new PPP application equipment acquired after 15 October 2010			n.a.		
New PPP application equipment placed on the market			n.a.		

n.a. not available; n.ap. Not applicable; *up to the first quarter of 2018.

6.2 Habitat and biodiversity protection

With regard to the area of intervention 'Habitat and biodiversity protection', in addition to the contribution of the implementation of Measures M5, M9, M13, M18, M22, M27, M33 and M34 already mentioned above, the additional measure set out in the table below was also implemented.

Measure	Action	Result
M42 - Foster the official recording of auxiliary species	Definition of the legal framework	Underway
	Implementation of the record system	Underway

With regard to **Measure M42**, it should be noted that DGAV and ICNF drew up a draft law which seeks to lay down the requirements and procedures to register auxiliary native species. This law aims to complement a draft amendment to Decree-Law No 565/1999 of 21 December 1999, which was prepared by ICNF to provide a framework for registering exotic species.

The relevant indicators relating to **habitat and biodiversity protection** for the execution of the measures set out above are as follows:

Indicators	Result
No of auxiliary species recorded (cumulative)	n.a.
Rate of sale of PPP hazardous to birds and fauna	5.25%

6.3 Overall performance analysis of SA.2 – Environmental protection

Of note with regard to performance analysis in the table for this Cross-Cutting Axis are the following aspects:

- ✓ In relation to the performance of environmental protection actions is the significant evolution in the recovery and management of plant protection product packaging waste. The recovery rate has grown continuously since 2012 and in 2016 stood at over 50%. It is estimated that the target of 60% in 2021, as agreed with APA (Environmental Protection Agency) will be reached. Vital to the success in the recovery rate have been the awareness raising programmes run by VALORFITO, as well as the compulsory training for plant protection product operators under NAP I;

  According to VALORFITO, the geographical coverage of recovery points vastly exceeds licensing requirements. There is now a solid recovery network meeting the actual needs of national farming, which in 2018, was extended to Madeira;

  Of further note is the fact that all of the waste collected is sent for recycling or energy recovery;

  Accounting for indicators on the flow of seeds is still being shaped, as 2018 was the first year where entities selling seeds in national territory were required to contract SIGERU/ VALORFITO for the recovery and management of packaging;

- ✓ During NAP, it did not prove possible to set up a plant protection product recovery and management system for obsolete products as happened for packaging. However, this will be a priority action under the revised NAP.

- ✓ Since 2014, the number of entities applying to Plant Protection Product Application Equipment Inspection Centres has been increasing and at the end of the plan validity period there were 23 such centres in the country. However, the Algarve, and the autonomous regions of the Azores and Madeira still do not have a CIPP;

  At the same time an exponential increase has been seen in plant protection product application equipment. However, the estimated amount of application equipment in use in the country has not yet been inspected, as covered by Decree Law No 86/2010 86/2010 of 15 July 2010;

- ✓ Since compulsory equipment inspection came into effect, 20 313 items of spraying equipment have been inspected, including new equipment.

- ✓ The construction and on-line provision of the Management System for the Inspection of Plant Protection Product Application Equipment (**SIGECIPP)** to recognised CIPPs on a national level in 2017 by the DGAV, allowed information to be compiled on application equipment inspected by the different CIPPs. This I.T. system is extremely useful not only for the CIPPs, but also allows DRAPs and GNR to consult the control and inspection carried out by these entities. However, as it only entered service in 2017, it has not as yet been possible to ensure the entry into the system of all data on inspections conducted in previous years. This task is being undertaken by the CIPPs, but at the date of this report, it was not possible to assess some of the relevant indicators.

- ✓ With regard to the **protection of habitats and biodiversity**, the actions undertaken sought firstly to provide training and awareness for professional users in the implementation of measures to protect fauna and flora and biodiversity. Moreover, a number of projects were carried out relating to this area including the initiatives promoted by the Association for the Development of Viticulture in the Douro Region (ADVID) which assessed the possible impacts of the installation of ecological infrastructures to promote the presence of natural enemies of crop pests; the ECOVITIS protect, which investigated the maximising of the vine ecosystem services; the BioDiVine protect, demonstrating functional biodiversity in vinescapes, where monitoring actions were carried out on flora, birdlife, mammals and the activity of invertebrates in soils with and without greenover and the assessment of the impact of the landscape, implementation of conservation actions such as greenover, planting of hedges, promotion of biodiversity in walls, sexual confusion and reorganisation of headlands, as well as other equally relevant projects as referred to in the Annex to this report.

- ✓ The projects carried out by ADVID, at their own initiative or with other partners, provide a working basis to replicate the model used and disseminate practices to promote and protect biodiversity. These practices can thus be implemented in the same manner in other crops and possibly adopted by farmers in general. It is therefore vitally important that actions be promoted to disseminate the experiences and knowledge acquired, which in fact, is what this Association has done;

- ✓ In addition to private entity initiatives to support agricultural activity, it is equally important that the draft laws drawn up under Measure 32 be consolidated and approved during NAP 2018-2023. It will then be possible in the near future to regulate the production and introduction of auxiliary species of recognised utility in plant health protection thus providing an effective biological tool which is an alternative to plant protection products. This tool will be vital in the implementation of the general principles of integrated production and the promotion of production methods employing minimal use of chemicals.

7. SA.3 – Promotion of sustainable agricultural and forestry production systems

One of the major challenges of NAP I is the agricultural and forestry production of food, goods and services with high standards of quality and in quantity and with the minimum negative impact on ecosystems. Whenever possible, this production should employ natural mechanisms in the fight against harmful biotic agents and incorporate alternative strategies to control crop and forestry pests as well as reduce dependence on plant protection products.

The measures and actions defined to achieve this aim were incorporated into different areas of intervention so as to promote the implementation of the general principles of integrated production and methods involving low use of chemicals and an increase in the availability of means of protection. A further aim was the responsible sale and use of plant protection products.

7.1 Adoption of general integrated pest management principles

With regard to this area of intervention, and in addition to the contribution of Measures M3, M5, M12, M16, M18, and M22, the Measures set out in the table below were also defined:

Measure	Action	Result
M35 - Provision of technical information to all professional users	Setting up of workgroups per crop or groups of crop to draw up technical guides	Underway
	Collection and compiling of all available crop protection information	Underway
	Dissemination of available crop protection information	Underway
	Organisation and provision of existing information on alternative means of protection	Underway
M36 - Dissemination of information and decision-making tools by SNAA	Identification of public and private organisations that currently disseminate information supporting decision making	**Not completed**
	Establishment of criteria for private organisations to join the SNAA	Completed
	Inclusion of private organisations in the SNAA	Completed
	Assurance that Agricultural Information Stations issue information in accordance with integrated pest management principles	Completed

Measure	Action	Result
M37 - Dissemination of information and decision-making tools by AAS	Identification of farmers' organisations that currently disseminate information supporting decision making	Completed
M38 - Promote technical support for integrated pest management	Recognition of technicians for providing technical assistance on IPM	Completed
	Identification of technicians recognised for providing technical assistance on IPM	Completed
	Awareness-raising for IPM	Completed

With regard to **Measure M35**, working groups were set up per crop with the aim of compiling and disseminating all the information available on the protection of relevant crops and groups of crops and incorporating this information into the respective integrated protection manuals. Although the overwhelming majority of the manuals were not revised during NAP, whenever relevant, information arising from working groups was provided through SNAA. Of special note was the working group on citrus fruit, coordinated by DRAPAL. Working group activity will continue during the 2018-2023 plan.

Under **Measure M36**, the following actions were undertaken:

- The document setting out the criteria and procedures was drawn up to allow private entities to join the SNAA. Only one private entity, in the Lisbon and Tagus Valley Region, joined the SNAA, meaning that there are now 16 public Agricultural Information Stations and three private Stations.

- In order to ensure that the Information Stations issue circulars informing on the principles of integrated protection, a template circular was drawn up and procedures to follow were set out for the issue of circulars by all entities.

- Also of note in this regard is the forming of a working group on the SNAA, after the issuing of an official order from the Secretary of State for Agriculture and Food of 22 March 2016. The aim of the working group was to conduct a critical analysis of the current state of SNAA operation and draw up proposals for implementation.

The working group report on the assessment of the SNAA presented a balance by DRAP with respect to the technical body and material resources available at each Information Station. The report also presented aspects relating to information provided per crop/pests, number of subscribers and number of functional Automatic Weather Stations (AWS) (size of existing network). The working group submitted its findings and proposals in September of the same year, recognising the '*growing importance of the SNAA for farmers, when making timely, preventive and opportune decisions*.'

It should be noted that under **Measure M37**, from 2013 to 2017, there were 199 farmers' organisations disseminating decision support information relating to the Agricultural Advisory System (AAS). There were also 943 farmers (accumulated value) with agricultural advice with regard to cross-compliance - plant component.

Under **Measure M38**, the following actions were undertaken:

- Up to 31 December 2017, the DGADR recognised 745 technicians able to provide technical assistance in the integrated protection of crops. This information is available on the DGADR website;

- With regard to Integrated Protection, several initiatives were conducted in all the workshops, seminars and awareness and information programmes carried out by MAFDR entities during NAP, and already mentioned in Cross-Cutting Axis II.

The relevant indicators relating to **implementation of general principles for integrated protection** for the execution of the measures set out above are as follows:

Indicators	**Years**				
	2013	2014	2015	2016	2017
No of notices/year	153	164	146	144	132
Number of farmers subscribing to the SNAA	7 603	7 957	9 900	4 218	4 351
Date of availability of the authorised PPP information management system		30 December 2018			
% of users satisfied with plant protection product information			n.a.		

7.2. Promotion of the adoption of low chemical-input production methods

With regard to this area of intervention, and in addition to the contribution of Measures M2, M12 and M13, the Measures set out in the table below were also defined:

Measure	Action	Result
M39 - Promote technical support for organic and integrated production	Recognition of technicians for providing IP and OP technical assistance	Completed
	Identification of technicians recognised for providing IP and OP technical assistance	Completed
	Awareness-raising on IP	Completed
M40 - Provision of IP and OP technical standards	Setting up of workgroups per crop or groups of crops to draw up technical standards	Underway
	Collection and compilation of all available crop production system information	Underway
	Dissemination of available information on MPI and OP	Underway
	Establishment of demonstration fields	**Not completed**

With regard to **Measure M39**, the actions undertaken have already been described in Cross-Cutting Axis II.

In relation to **Measure M40**, working groups were set up for each crop or crop groups with the aim of compiling and disseminating all the information available on integrated production and the biological production method, as already mentioned.

In order to **promote the adoption of low chemical-input production methods**, training was continued and technicians were recognised for Integrated Production and the Biological Production Method. At the end of 2017, 1 357 technicians were recognised.

7.3 Provision of means of protection to ensure the competitiveness of agricultural and forestry production

With regard to this area of intervention, and in addition to the contribution of Measures M16 and M42, the Measures set out in the table below were also defined:

Measure	Action	Result
M41 - Foster new solutions	Make fewer applications for use in relation to aims not covered	Underway

Measure	Action	Result
	Foster applications for mutual recognition	Underway
	Foster sales authorisation applications in the national interest	Underway
M43 - Foster the use of alternative practices and techniques	Identification of organisations that disseminate technical information	Underway
	Provision of technical information	Underway
	Establishment and/or maintenance of demonstration plots to promote the dissemination of good IPM practice	Underway
M44 - Adapt and manage communication platforms	Identify existing platforms and their roles	Completed
	Promote platforms	Underway

Of note with respect to **Measure M41** is that during the plan, considerable investment was made by all MAFDR entities (DGAV, DGADR and DRAP) to disseminate, train and inform all professional users (see Cross-Cutting Axis II).

Of note under **Measure M41**, were the following actions:

- Authorisation for the extension of minor uses in Portugal is governed by Article 51 of Regulation No 1107/2009, which has allowed a large number of plant protection problems in Portugal to be resolved. Under this regulation, of the 213 requests submitted in 2017, 184 extensions to broaden the spectrum of minor use were granted (Fig. 9)

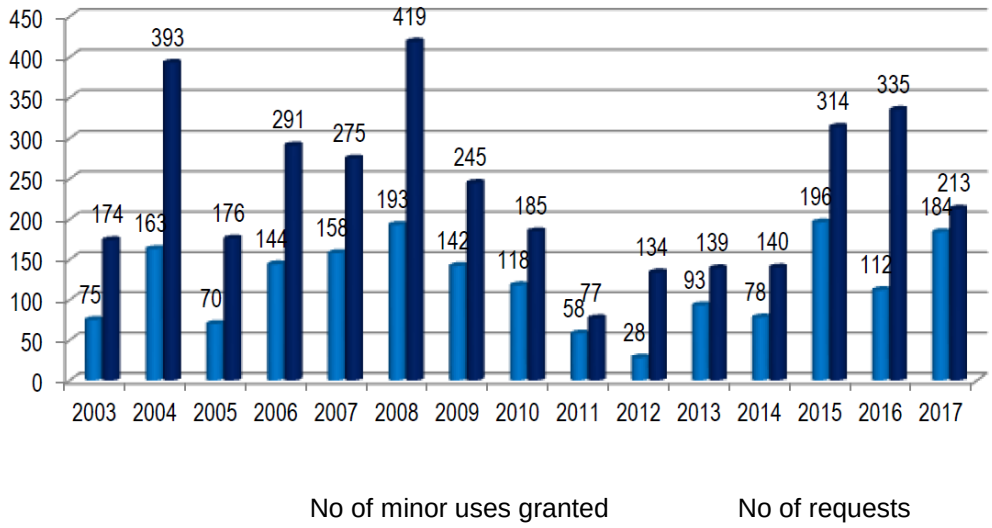

Fig. 9 – Evolution in the number of cases of minor uses requested and granted since 2003.

As with minor use, the plan sought to increase the number of authorisations granted in Portugal through mutual recognition of authorisations granted in other Member States. More specifically, in southern Europe and de facto authorisations since 2009. Under Article 41 of the Regulation (Table 11), 286 plant protection product authorisations were granted in Portugal.

Table 11 – Number of processes for plant protection products requested at the DGAV, and the number of authorisations granted through mutual recognition, since 2009 (data at 31 December 2017).

Year	No of requests received	No of authorisations granted
2009	10	0
2010	30	14
2011	38	14
2012	22	20
2013	42	64
2014	42	14
2015	44	17
2016	52	53
2017	42	90
Total	322	286

It should be noted that only in 2017, the DGAV granted 90 market placement authorisations under mutual recognition (Fig. 10)

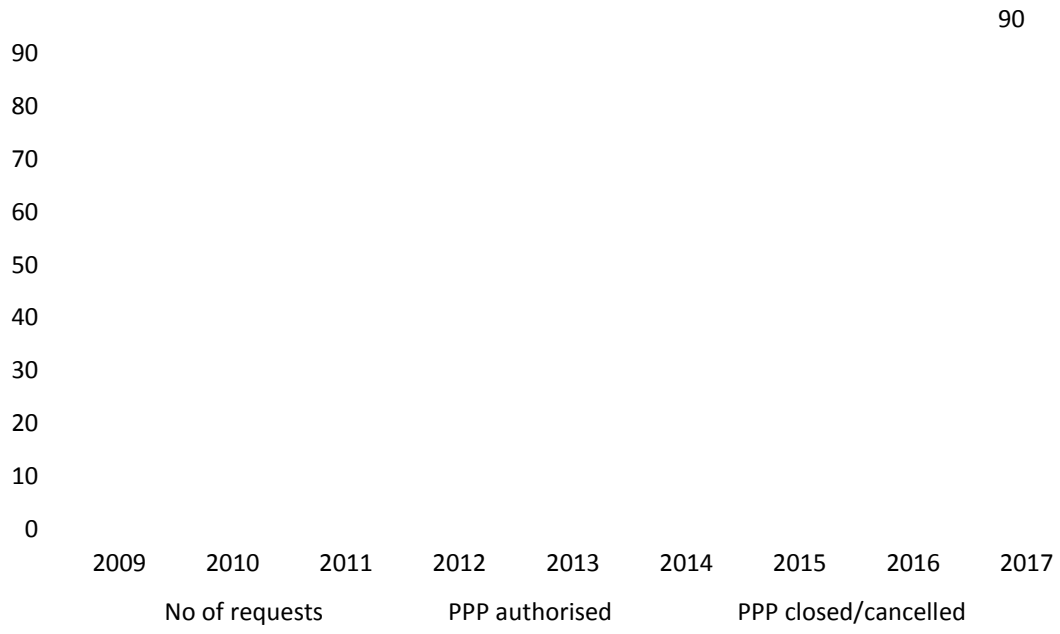

Fig. 10 – Evolution in the number of cases of mutual recognition requested, products named and cases closed since 2009.

The relevant indicators for the **provision of means of protection to ensure the competitiveness of agricultural and forestry production** for the implementation of the measures set out above are as follows:

Indicators	**Years**				
	2013	**2014**	**2015**	**2016**	**2017**
No of aims considered not covered and/or insufficiently covered/Total number of aims not covered			Underway		
No of auxiliary species recorded (cumulative)	n.ap.	n.ap.	n.ap.	n.ap.	n.ap.
No of alternative solutions available (cumulative)	4.9%	4.3%	1.85%	3.1%	9.1%
No of products and aims authorised on the basis of MR (cumulative)	64	14	17	53	90
No of products authorised on the basis of parallel trade (cumulative)	17	5	15	12	15

Significant evolution was also seen in the number of authorised plant protection products, by year, based on low-risk substances, including pheromones and other semiochemicals, plant extracts and micro-organisms. In 2019, around 9% of all authorised plant protection products belonged to this category of products.

7.4. Promotion of the responsible sale and use of plant protection products

With regard to this area of intervention, and in addition to the contribution of Measures M9, M18 and M22, the Measures set out in the table below were also defined:

Measure	**Action**	**Result**
M45 - Reinforce the monitoring of plant protection product transport	Ensure coordinated monitoring and control of the transport of illegal plant protection products on a systematic basis	
M46 - Reinforce the monitoring of distribution and sales in unlicensed outlets	Ensure coordinated monitoring and control of distribution and sales in unlicensed outlets	
M47 - Monitoring and control of labelling, packaging and the respective formulations	Define the control plan	Completed
	Implement the plan and draw up the respective report	Completed

Under **Measures M45, M46 and M47**, a control plan was established which is updated every year. Participating in this plan were MAFDR and inspection and police entities (ASAE, GNR and PSP) in order to reinforce the inspection of distribution and sale by unlicensed establishments, the transport of plant protection products, and the quality control of plant protection products with authorisation for sale and available on the market.

The following table shows a summary of economic operators inspected by ASAE and the total number of infringements seen from 2014 to 2017.

Table 12 – Number of economic operators inspected by ASAE and the total number of infringements seen from 2014 to 2017 (data at 31 December 2017).

Year	No of operators inspected	Total No of infringements
2014	368	58
2015	262	52
2016	489	75
2017	596	56
Total	**1 715**	**239**

From the analysis conducted, it can be seen that among the infringements encountered by ASAE during inspections of plant protection product establishments, the sale of products which are not authorised by the DGAV was the most common. Next, was an absence of records on non-maintenance of records (Fig. 11)

Also of note is that, after an interruption of quality control on the formulations of plant protection products and the respective packaging, this work was restarted in 2017. It focused on plant protection products on the market, samples of which were collected in 2016 and 2017. From the samples analysed, around 50% proved to be non-compliant with the sales authorisation.

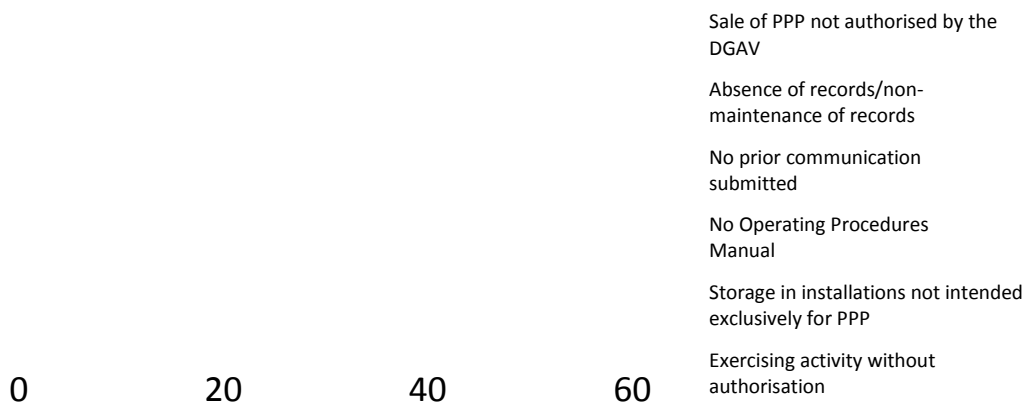

Fig. 11 – Number of main infringements detected in the period from 2014 to 2017 by ASAE in the inspection of sales establishments in mainland Portugal.

The relevant indicators for the **promotion of the responsible sale and use of plant protection products** for the implementation of the abovementioned measures are as follows:

Indicators	**Year**				
	2013	**2014**	**2015**	**2016**	**2017**
No of prosecutions/ No of establishments inspected	n.a.	69/399* 194/493**	14/53*	51/489*	44/596*
No of establishments inspected	n.a.	892	53	489	596
% of MRL infringements through use for unauthorised purposes	3.7	3.8	2.1	1.08	4.8

*ASAE Data; **GNR Data

7.5 Overall analysis of the performance of SA.3 – Promotion of sustainable agricultural and forestry production systems

A performance analysis of the table for this strategic axis reveals the following aspects:

- ✓ During the period NAP was in force, one farmers' organisation joined the SNAA-AVIPE in the Lisbon and Tagus Valley region, to issue warnings for grape crops in the Setúbal Peninsula;

- ✓ It was not possible to achieve the objective of continuously updating the technical manuals for integrated pest management for agriculture and to establish a national network of public or private demonstration farms for the most relevant crops, to disseminate the implementation and adoption of compatible practices and promote the adoption of sustainable production methods. Along with private initiatives, namely by ANIPLA, with the creation of the 'SMART FARM', to disseminate best practices for storage, preparing solutions and cleaning spraying equipment, the use of anti-entrainment devices and ADVID, practices to promote and protect biodiversity have been seen, thus contributing to achieving the same objectives;

- ✓ There was a significant increase in permits granted under Regulation (EU) No 1107/2009, more specifically for Mutual Recognition (MR) and underused tracts, as set out in NAP I. In practice, this results in a reduction of the number of aims not covered and/or insufficiently covered for major and minor crops, as well as greater parity between active substances authorised in Portugal and other Southern Member States;

- ✓ Along with the increase in permits granted, a greater number of pest management products have also been authorised as they are low-risk substances such as pheromones and other semiochemicals, microorganisms and plant extracts;

- ✓ It is important to note the efforts by inspection and policing authorities (ASAE, GNR and PSP) to monitor sales establishments and distribution companies, and the efforts of DRAP and DGAV in the monitoring of these economic operators, particularly when licences are renewed.

- ✓ While NAP was in force there was a significant increase in efforts to monitor economic operators active in plant protection product sale and distribution, contributing towards greater regulation of the sector and fewer instances of infringement and administrative offence notices issued by the policing authorities, which reflects the efforts of economic operators to comply with the requirements and standards set out in current legislation.

8. Final considerations

The overall performance of this first NAP and the objectives, measures and actions set out therein have been quite positive with a high number of activities having been implemented. Sixty-one actions were implemented, 13 are currently underway and six have not as yet been implemented.

In this context, achieving the objectives and measures set out in Cross-Cutting Axis 2: 'Training, awareness-raising and information' is the area that accounted for the greatest use of human and material resources, with the results obtained in relation to the number of users who are currently qualified to handle or apply plant protection products being particularly expressive and these measures encompassed more than 317 000 trained users of plant protection products.

A national network has been formed to train and qualify professional users and the standards and technical guidelines for the said qualifications have been consolidated, with the collective effort to professionalise the sector being of note. This is, however, an activity that should continue and evolve so as to adapt to new knowledge and the results of applied research in the sector and new challenges that appear for productive and sustainable agricultural activity.

It is also necessary to reinforce actions to raise awareness among the general public and communicate with the different interlocutors with regard to the risks and benefits of using plant protection products for sustainable agriculture, environmental protection and natural resources and the promotion of healthy food in the national and Community context.

Opportunities for financial support and research projects that are relevant for the theme of the sustainable use of plant protection products, risk reduction and promoting the development of alternative techniques and resources only appeared at a late stage of the implementation of NAP, which is reflected in the relatively poor performance of Cross-Cutting Axis 1 – 'Research, Innovation and Technology Transfer'. Nevertheless, the activities of the Working Groups that have since been created are continuing, and various projects relevant to these themes are currently underway.

In the field of research, the greatest challenge for NAP2018-2023 will be to successfully conclude the projects that have been started, their dissemination and guaranteed access for all professional farmers to the acquired knowledge and the results of the experimentation and research conducted and their adaptation to production activities. Strengthening services and the technical advisory network will be equally critical for the sector, including the SNAA and AAS as well as farmers acknowledging the benefits these services could represent for their activities, so as to achieve the targets for adopting practices in keeping with the principles of integrated protection.

In relation to promoting and protecting human health, set out in Strategic Axis 1, the substantial increase in activities to monitor economic operators to ascertain the level of compliance with current legislation and to regulate the market is of note. It is, however, necessary to reinforce these monitoring and control activities in the next action plan in areas and in relation to operators who have not yet merited the same level of actions, more specifically with regard to the activity of using plant protection products in urban areas, leisure zones and roadways. It is also necessary to reinforce control over the use of these products in agricultural and forestry areas.

Monitoring the health effects of acute or short-term exposure to plant protection products, whether due to professional activities or indirectly, needs to be achieved through commitments from institutions and the various entities that are competent in the field of public health. Hygienic conditions and human safety also need to be ensured, as this objective is particularly relevant for the sustainable use of plant protection products, even though this was not an area of special attention during NAP. Nevertheless, reinforcing actions to monitor pesticide residues in foodstuffs and controlling the quality of plant protection products available in the market indirectly help achieve these objectives.

Water resources and biodiversity are protected, firstly, by best practices in relation to managing the storage and use of plant protection products and managing the respective waste, as well as promoting good phytosanitary conditions in crop growing areas and maintaining nearby areas that are the habitat of species that could contribute positively toward the biological balance of agricultural ecosystems. This objective is achieved by training and improving the awareness of professional users in relation to the advantages and benefits, including financial, of adopting such practices, and continuing the actions of technical support and demonstrations by public and private services.

Reflecting on an integrated strategy to manage plant protection product waste is also vital, which can be created in a similar manner to the existing strategy for managing the packaging waste of these products (including, more recently, packaging waste from seeds and biocides) and can be shared throughout the value chain.

The strategy of all farmers and users of plant protection products adopting the general principles of integrated pest management as set out in regulatory legislation in force and its transposition to NAP was an important challenge but the implementation of measures in this area fell short of the targets set. Thus, it is difficult to gauge the real results of the activities that were conducted and the actual incorporation of these principles by most agricultural producers, with the exception of agricultural producers using of the technical support of organisations that have technicians trained in integrated production and the pest management of crops. It is thus essential to resume the actions to review and adapt the technical guidelines, manuals and tools to support decision-making during the next period that the revised NAP is in force and to continue to invest in and promote sustainable production and pest management practices and resources.

Annex I – Operational groups approved under current Community support framework, with relevance in the sustainable use of plant protection products.

Name	Coordinating entity/Contact point	Partners	Area of action plan	Aim
pine tree pitch canker		PRODUCERS ASSOCIATION; ASSOCIATION FOR THE ENHANCEMENT OF THE PINE FOREST; BIOCHEM IBÉRICA QUIMICOS AGRICOLAS E INDUSTRIAIS LDA; DIR-GEN FOR FOOD AND VETERINARY AFFAIRS (DGAV); FLORGÉNESE - PRODUTOS E SERVIÇOS PARA AGRICUL. FLORESTAS UNIPESSOAL LDA; GERMIPLANTA-VIVEIROS DE PLANTAS, LDA; NATIONAL INSTITUTE FOR AGRARIAN AND VETERINARY RESEARCH IP; PEDRO NUNES INSTITUTE - ASSOCIATION FOR INNOVA-TION AND DEVELOPMENT IN SCIENCE AND TECHNOLOGY TECNOLOGIA; SCHOOL OF AGRICULTURE; POMBALVERDE - PRODUÇÃO E COMERCIALIZAÇÃO DE PLANTAS LIMITADA; UNIVERSITY OF TRÁS OS MONTES AND ALTO DOURO VIVEIROS DO FURADOURO, UNIPESSOAL LDA		part of the system for producing forestry plants and include: the treatment of host seeds; the treatment of substrates; disinfecting containers; eliminating fungus propagating materials in irrigation water. b) obtain a new product – sustainable substrates, without pine bark, obtained from locally available materials which are not hosts for the fungus, thus representing a lower risk of dispersion. This new product will be created by supplying one or more substrates, formulated by combining different raw materials (cork waste, hardwood bark, coconut fibre, etc.), thus promoting the use of waste from the forestry and agro-industrial sectors. b) disseminate the results obtained, particularly among two different focal groups: i) all forestry reproduction material suppliers, promoting the incorporation of more effective treatments in the respective 'technical programme', i.e. to promote their use as a current practice in the production of forestry plants and the processing of the seeds of host species. ii) the technical staff of the forestry technical departments (*gabinetes técnicos florestais* - GTF) at municipal authorities can play an important role in raising awareness among local inhabitants to prevent and control this noxious biotic agent, not only because many municipalities also work with host species in urban and/or ornamental environments but also because they work closely with the general population. Specific goals include: a) assessing the effectiveness of seed treatment methods to eliminate the fungus and their impact on seed germination, selecting the most effective treatment(s); b) assessing the effectiveness of the methods involving the treatment of substrates to eliminate the fungus and their impact on seed germination and the quality of the plants

Annex II - Projects carried out for the sustainable use of plant protection products which started or ended during the plan validity period.

Annex III - Other R&D projects approved and underway at the National Institute of Agrarian and Veterinary Research (INIAV) with relevant interest to NAP

AgroMicroBios - 'Uso racional de la biodiversidad de microorganismos benéficos para la sostenibilidad de cultivos agrícolas de importancia regional en Iberoamérica'

CERACRY - Identification and early detection of Cryphonectria parasitica and Ceratocystis platani occurring on trees in Europe EcoVECTOR - New ecological strategies for the biocontrol of the pine wood nematode vector in Eurasia PARRA - Integrated Monitoring Platform and assessment of flavescence dorée in vines

NEMATRANSFER- Break the cycle of decline in Pine Wilt Disease, a possibility or utopia? Decode the mechanisms underlying the transfer of the pine wood nematode between the insect-vector and the host tree

Xf-FREEOLIVE - Multifunctional study of xylem-sap of Portuguese olive cultivars and its relation with susceptibility to infection by Xylella fastidiosa

PLURIFOR - Transnational risk management plans for rural forests which are sensitive to biotic and abiotic risks

Acronyms

AAS - Agricultural Advisory System
ADVID – Association for the Development of Viticulture in the Douro Region
APA/IGAMOT - Environmental Protection Agency
PPPA - Application of plant protection products
ASAE - Food and Economic Security Authority
AWS - Automatic Weather Stations
CF - Cohesion Fund
CIPP - Centres for the Mandatory Periodic Inspection of plant protection product application equipment
CNQ - National Qualifications Catalogue
COMPETE 2020 - Thematic Operational Programme Competitiveness and Internationalisation
CPJ – Justice Protocol Centre
CSF – Community Support Framework
DGADR - Directorate-General for Agriculture and Rural Development
DGAV - Directorate-General for Food and Veterinary Affairs/*Direção Geral de Alimentação e Veterinária*
DRAP - Regional Directorates for Agriculture and Fisheries/*Direções Regionais de Agricultura e Pescas*
DRAPAL - Regional Directorate for Agriculture and Fisheries – Alentejo
DRAPC - Regional Directorate for Agriculture and Fisheries – Centre
DRAPLVT - Regional Directorate for Agriculture and Fisheries - Lisbon and Tagus Valley
DRAPN - Regional Directorate for Agriculture and Fisheries – North
DVAPF - Carvalhais/Mirandela Professional School for Agriculture and Rural Development
EAFRD - European Agricultural Fund for Rural Development
EC – European Commission
EMFF - European Maritime and Fisheries Fund
EPADRC – Cister/Alcobaça Professional School for Agriculture and Rural Development
EQS – Environmental Quality Standards
ERAnet C-IPM - European Research Agenda Coordination on Integrated Pest Management
ERDF - European Regional Development Fund
ESF - European Social Fund
ESI - European Structural and Investment funds
GNR - National Republican Guard
GROQUIFAR - Chemical products wholesalers' association
ICMETPP - Machinery and Equipment for the Treatment and Protection of Plants
IEFP - Institute of Employment and Vocational Training
INAC – National Institute of Civil Aviation
INEM - National Institute of Medical Emergencies
INIAV - National Institute for Agrarian and Veterinary Research/Instituto Nacional de Investigação Agrária e Veterinária, I.P.
INOVINTER – Training and Technological Innovation Centre

IPM – Integrated Pest Management
MAFDR - Ministry of Agriculture, Forestry and Rural Development
MIAPF – Course for plant protection product application
NAP – National Action Plan
NUTS – Common classification of territorial units for statistics
OP – Operational programmes
PANUSPF - (National Action Plan for the Sustainable Use of Plant Protection Products 2013 – 2018/*Plano de Ação Nacional para o Uso Sustentável de Produtos Fitofarmacêuticos* 2013 – 2018 -)
POISE - Social Inclusion and Employment Operational Programme
PPP - Plant Protection Products
PPPA - Plant Protection Product Application
PPPAMS - Application of plant protection products with manual sprayers
PPPDS - Plant Protection Product Distribution and Sale
PPPDSA - Plant Protection Product Distribution, Sale and Application
PRODER - Mainland Rural Development Programme 2007 -2013
RCPPPA - Refresher Course in Plant Protection Product Application
RCPPPDS - Refresher Course in Plant Protection Product Distribution and Sale
RCPPPDSA - Refresher Course in Plant Protection Product Distribution, Sale and Application
RDP - Rural Development Programmes
RTD – Research and Technological Development
SAMA - Public Administration Support Programme
SAP - Sustainable Agricultural Production
SCAP - Agricultural Sciences Society of Portugal
SIGECIPP - Management System for the Inspection of Plant Protection Product Application Equipment
SNAA - National Agricultural Information Service/*Serviço de Avisos Agrícolas*
SPF - Portuguese Phytopathological Society
TPPPDSA - Trainers in Plant Protection Product Distribution, Sale and Application
UFCD - Short-Term Training Unit
UTAD - University of Trás-os-Montes and Alto Douro