
Veterinary and Phytosanitary Regulation Department

Plant Health Directorate

1. BACKGROUND

The Plant Health Directorate is the National Plant Protection Organisation set up within the Veterinary and Phytosanitary Regulation Department within the Parliamentary Secretariat for Agriculture, Fisheries and Animal Rights and under the Ministry for Sustainable Development, the Environment and Climate Change (MSDEC). It's main role is to prevent the introduction into the community of organisms harmful to plants or plant products or their spread within the Community, in line with the Community's plant health regime, as established by Council Directive 2000/29/EC of 8 May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community and its amendments. The general principles are based upon provisions laid down in the International Plant Protection Convention concluded at the United Nation Food and Agriculture Organisation and, in the World Trade Organisation Agreement on Sanitary and Phytosanitary Measures.

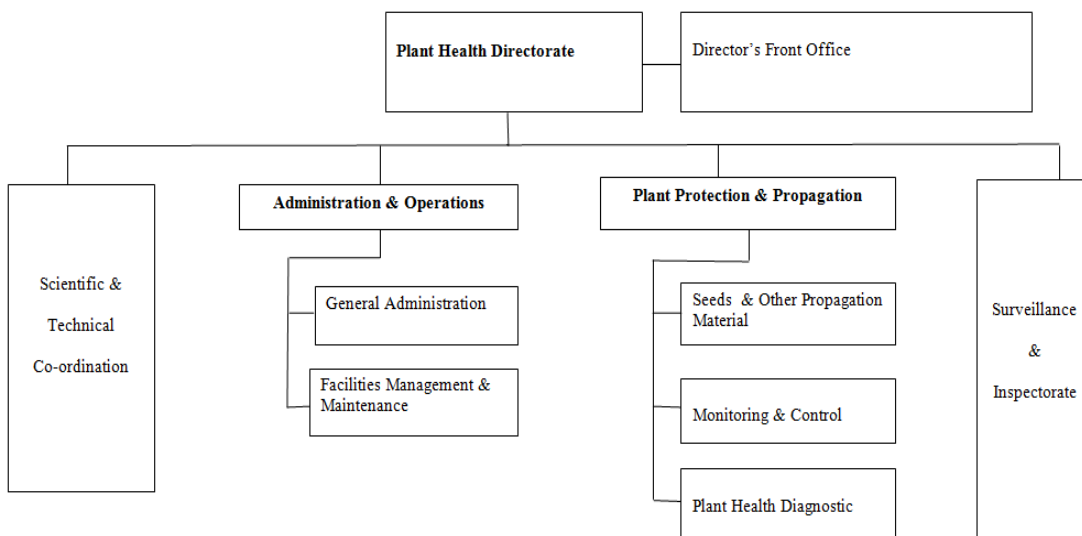
The Plant Health Directorate is also responsible to monitor the market of propagation material in the Maltese territory with the aim of having available in circulation high quality propagation and planting material. The Directorate also deals with plant variety rights and the conservation of plant genetic resources and is the official body responsible for carrying out surveys and annual reports and checks on plant diseases which are then submitted to the European Commission.

Services to the public in relation to soil and water testing are also provided by the Plant Health Directorate. In addition the Directorate also disseminates information in relation to plant health to the public as well as organises educational visits for students.

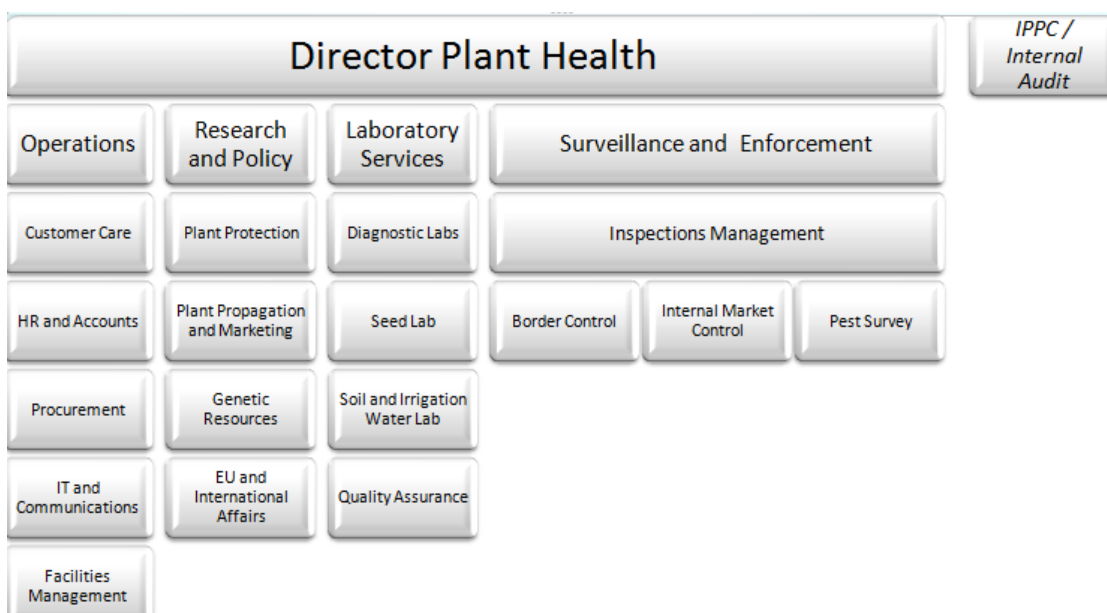
2. INTRODUCTION

In 2016, a reorganisation of the Plant Health Directorate was carried out with the aim to consolidate the roles of the various units within the directorate. With the new organogram the main roles which were consolidated included inspections, research, policy, procurement as well as laboratories.

Previous organogram



New organogram



As in previous years, in 2016 the Plant Health Directorate (PHD) continued to implement measures for the prevention and spread of harmful organisms within the community. The PHD persisted with its monitoring and inspections in Malta, Gozo and Comino to further control the spread of the Red Palm Weevil pest, also with the eradication of this pest through the felling of palm trees. In 2016, the PHD also continued with its endeavours to continue following preventive steps for an effective control strategy against the Tuta Absoluta pest and the Fig Tree Borer and strictly monitor any outbreak of pests. Monitoring inspections and lab testing on citrus trees in Gozo and local nurseries were carried out in order to monitor the Citrus Tristeza Virus.

3. RESEARCH AND POLICY

The Research & Policy Unit coordinated, reviewed, compiled and processed on behalf of the Plant Health Directorate the replies to questionnaires, working documents, protocols, standards, consultation documents, instruction notes, etc. circulated on various subjects which fall under the remit of this directorate and which have been forwarded by national, EU and international entities.

The Plant Health Directorate continued to participate in a number of meetings at EU (Standing Committees, expert Working Groups and Council Working Parties) and at international level. Also, it participated in meetings of national committees including the Scientific and Technical Committee on certification of plants, Farm Advisory Service Registration Board, Plant Protection Board, the Pesticides Control Board, the Food Safety Commission, and the Red Palm Weevil Commission and provided input where required.

3.1 Transpositions

The following EU legislation is currently being transposed by PHD into the national legislation:

- COMMISSION IMPLEMENTING DIRECTIVE 2014/96/EU of 15 October 2014 on the requirements for the labelling, sealing and packaging of fruit plant propagating material and fruit plants intended for fruit production, falling within the scope of Council Directive 2008/90/EC;
- COMMISSION IMPLEMENTING DIRECTIVE 2014/97/EU of 15 October 2014 implementing Council Directive 2008/90/EC as regards the registration of suppliers and of varieties and the common list of varieties;
- COMMISSION IMPLEMENTING DIRECTIVE 2014/98/EU as regards specific requirements for the genus and species of fruit plants referred to in Annex I thereto, specific requirements to be met by suppliers and detailed rules concerning official inspections;
- COMMISSION IMPLEMENTING DIRECTIVE (EU) 2016/317 of 3 March 2016 amending Council Directives 66/401/EEC, 66/402/EEC, 2002/54/EC, 2002/55/EC, 2002/56/EC and 2002/57/EC as regards the official label of seed packages;

- COMMISSION IMPLEMENTING DECISION (EU) 2015/789 as regards measures to prevent the introduction into and the spread within the Union of *Xylella fastidiosa* (Wells et al.) and its amendments;
- Commission Implementing Decision 2012/535/EU of 26 September 2012 on emergency measures to prevent the spread within the Union of *Bursaphelenchus xylophilus* (Steiner et Buhner) Nickle et al. (the pine wood nematode);
- Commission Implementing Decision 2012/270/EU of 16 May 2012 as regards emergency measures to prevent the introduction into and the spread within the Union of *Epitrix cucumeris* (Harris), *Epitrix similaris* (Gentner), *Epitrix subcrinita* (Lec.) and *Epitrix tuberis* (Gentner);
- Commission Implementing Decision 2012/138/EU of 1 March 2012 as regards emergency measures to prevent the introduction into and the spread within the Union of *Anoplophora chinensis* (Forster);
- Commission Decision 2007/201/EC of 27 March 2007 amending Decision 2002/757/EC on provisional emergency phytosanitary measures to prevent the introduction into and spread within the Community of *Phytophthora ramorum* Werres, De Cock & Man in 't Veld sp.nov.;
- Commission Decision 2007/433/EC of 18 June 2007 on provisional emergency measures to prevent the introduction into and the spread within the Community of *Gibberella circinata* Nirenberg & O'Donnell;
- Commission Implementing Decision 2014/422/EU of 2 July 2014 setting out measures in respect of certain citrus fruits originating in South Africa to prevent the introduction into and the spread within the Union of *Phyllosticta citricarpa* (McAlpine) Van der Aa; and
- Commission Implementing Decision (EU) 2015/893 of 9 June 2015 as regards measures to prevent the introduction into and the spread within the Union of *Anoplophora glabripennis* (Motschulsky).

3.2 Legal Notices Published

L.N. 254 of 2016 - PLANT QUARANTINE ACT (CAP. 433)
 Examination of Varieties of Vegetable Species (Amendment) Regulations, 2016
 Government Gazette of Malta No. 19,607 dated 12th July 2016

L.N. 255 of 2016 - PLANT QUARANTINE ACT (CAP. 433)
 Examination of Varieties of Agricultural Plant Species (Amendment) Regulations, 2016
 Government Gazette of Malta No. 19,607 dated 12th July 2016

L.N. 256 of 2016 - PLANT QUARANTINE ACT (CAP. 433)
 Seeds of Agricultural Plants and Vegetables (Amendment) Regulations, 2016
 Government Gazette of Malta No. 19,607 dated 12th July 2016

L.N. 379 of 2016 - ENVIRONMENT PROTECTION ACT - (CAP. 549)

Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilisation Regulations, 2016

Government Gazette of Malta No. 19,679 dated 15th November 2016

In addition, a Legal Notice on the adoption of fees for laboratory services provided by PHD and another one on the control of red palm weevil have been worked upon in 2016.

3.3 Ratifications

In 2016, the PHD ratified two important international instruments i.e. the Nagoya Protocol and the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA)

Malta has accessed the Nagoya Protocol on 1 December 2016 and shall become party to it on 1 March 2017. Malta has incorporated the EU Access and Benefit Sharing (ABS) law through Legal Notice 379 of 2016 which was published on Government Gazette of Malta No. 19,679 dated 15th November 2016. This legal instrument establishes the Plant Health Directorate (PHD) as the Competent Authority acting as the focal point between Malta, the European Commission and the ABS Clearing House.

Malta signed the ITPGRFA on 10 June 2002 and ratified it on 2 December 2016. The ratification shall enter into force as of 20 February 2017.

3.4 Protected zones

In 2016, the Plant Health Directorate submitted an official request to the European Commission for Malta to be granted the Protected Zone status for *Paysandisia archon*. As per Annex I of Commission Implementing Regulation (EU) 2016/873 of 1 June 2016 amending Regulation (EC) No 690/2008 recognising protected zones exposed to particular plant health risks in the Community, Malta was recognised as a protected zone in respect of *Paysandisia archon*.

On the basis of surveys conducted, Malta had submitted evidence that the harmful organism concerned does not occur in Malta, despite favourable conditions for that organism to establish itself. The Commission stated that further surveys need to be carried out and that such surveys should further be monitored by experts under the authority of the Commission. In this regard Malta was recognised as a protected zone in respect of *Paysandisia archon* only until 30 April 2018.

3.5 Notification of Outbreaks and Interceptions

In accordance with Article 16(2) of Council Directive 2000/29/EU the Plant Health Directorate submitted a verbal notification in the Standing Committee on Plants, Animals, Food and Feed Section Plant Health of the 20th – 21st October 2016 with regards to the first finding of *Paraleyrodes minei* (Bull. Ent. Soc. Malta (2016) Vol. 8: 90-93) *Iaccarino*, *Monoxia obesula* and *Macrohormotoma gladiata*.

These organisms are not regulated as a quarantine organism nor are they listed within the EPPO alert lists. All findings were inputted into the EUROPHYT Outbreaks system.

During 2016, a total of 16 notifications were made within the EUROPHYT Interceptions system.

3.6 Projects

3.6.1 Fig tree project

The PHD ensued with the control of the fig tree borer (*Hypocryphalus scabricollis*) and the conservation of *Ficus carica* by following up the Action Plan drawn up in 2015. In fact in June 2016, the PHD entered into an agreement with the University of Malta so that the latter provides research services on the control of the Fig Tree Borer as well as draws up guidelines and identifies Good Agricultural Practices for fig tree growers.

The registration of all individuals having Fig Trees was concluded in 2016 so that in the forthcoming year once the Plant Health Management System is operational all the Fig Trees can be registered.

Trials on the possible *in vitro* propagation of fig trees in the Tissue Culture Lab were ongoing during this year.

3.6.2 National Environment Policy (NEP) Pilot Project

In 2016, the PHD held a number of meetings in relation to Pilot Project 8 of the NEP. This project was set up in collaboration with the President's Office and focuses on 'raising awareness about native plant species through the setting up a seed savings project, in which householders will be encouraged to participate. The scheme will involve a membership association with a seed centre, where members are able to dedicate a certain amount of hours per week/month to the work of the centre, in return for horticultural advice, free plants, seeds, etc. The PHD shall oversee the management of this pilot project

The administrative structure shall be composed of two committees an Advisory and Management committee. The latter Committee's remit will include the Approval of the regular business plans of the project and project budgets as well as to review regular reporting from the Plant Health Directorate on progress. This Committee shall be chaired by the Office of the President and its members include representatives from the MSDEC, PHD, Environment and Resource Authority (ERA) and the Ethno Botanical Hub.

The Advisory Committee shall be chaired by PHD and the members include representatives from The Environment and Resource Authority, Argotti Botanical Garden, Institute of Earth Systems and additional Ethno Botanical Hub. The role of this committee shall be to offer advice and recommendations for Plants to be used for the project and Horticultural advice

By end of 2016, the Terms of Reference of both committees were drawn up and awaiting for feedback from the Office of the President in order for the project to become operational.

3.6.3 INTERREG Italia Malta – Fight Alien Species Transborder (FAST) Project

In 2016, the PHD engaged as a partner for the submission of an application for Interreg Italia-Malta Priority Axis III FAST project with the lead partner being Università degli Studi di Catania. This 36 month project has the total budget of 2.3 million Euros with a co-financing rate of 85%. The total budget for PHD is €115,000.

The main objective of this project is to help stop the loss of biodiversity on land and sea area by maintaining and restoring ecosystems and protected areas.

As the National Public Body responsible for Plant Health Services as laid down in the Plant Quarantine ACT of 2001, the project actions related to the monitoring and control of alien species will compliment the work carried out by the Plant Health Directorate.

3.6.4 EAFRD Project – RDP 2007-2013

In May 2016, the PHD and MSDEC inaugurated its premises (labs, offices and preservation garden) that have been established under the EAFRD project funded under measure 214 of the Rural Development Programme 2007-2013 on the support for the conservation of genetic resources in agriculture. This was officially inaugurated by the Parliamentary Secretary, Hon. Roderick Galdes.

3.6.5 EAFRD Project – RDP 2014-2020 – Measure 10.2

In 2016, PHD held internal discussions to propose a new project once calls for applications are issued under the Rural Development Plan 2014-2020 Measure 10.2 – *Support for conservation and sustainable use and development of genetic resources in agriculture*. This proposal shall include the creation of a database as an inventory of agricultural crops and fruit trees for the Maltese Islands on agricultural land. Reference shall be made to the list of plants listed in the International Treaty on Plant Genetic Resources for Food and Agriculture.

3.6.6 LIFE Project

In 2016, the PHD was in the process of submitting an application for a Life Nature project as coordinating beneficiary together with 4 other associated beneficiaries including PARKS, National Research Council – Institute of Biosciences and Bio Resources (CNR-IBBR), University of Palermo (UNIPA) and Environment and Resources Authority (ERA). This project would have included *in situ* and *ex situ* conservation actions for the endemic and indigenous plant species, re-introduction from Sicily of specimens of plant species occurring in Malta but of which populations are somehow degraded, propagation of species by *in vitro* propagation or by traditional means as well as the setting up of a genebank, restoration of selected sites and dissemination of information.

The main actions in which the PHD would have been involved in, included the following:

- Compilation of the information for the submission of the detailed application assisted by all partners
- *In-vitro* propagation of a number of identified species;
- Infrastructure - establishment of a gene bank, upgrading of 2 already existing shade houses, conversion of an existing shade house to a rigid plastic house, conversion of part of the existing glasshouse into temperature controlled compartments, erection of a new insect-proof screen house with partitioning and separate double doors;
- Promotion and awareness actions;
- The overall project management and monitoring.

Unfortunately the application could not be submitted due to a number of issues mainly related to selection of sites but primarily due to the fact that the financial estimate for infrastructural works was beyond the amount to be covered in this type of projects and stated in the guidelines provided for applicants.

3.7 Standard Operating Procedures/Contingency Plans

The following MOP (manual of procedures) was drafted and issued by PHD:

- MOP 001 – “Manual of Procedure for Palm Movement”.

The Research and Policy Unit worked on the drafting of the following two lab SOPs but these were not issued in 2016 due to various reasons:

- Seed purity testing report writing
- Pollen Viability in Citrus Fruits.

3.8 Access and Benefit Sharing (ABS)

To facilitate the implementation of the EU ABS Regulations, Malta has developed Legal Notice 379 of 2016 which establishes a legal framework for addressing access and benefit sharing of genetic resources and traditional knowledge in Malta. In connection to this legal instrument, the PHD has been appointed as the ABS Competent Authority. In this regard, user guidelines have been drawn up to familiarize users with the application process for obtaining prior informed consent, mutually agreed terms and internationally recognized certificates of compliance. In 2016, a prior informed consent application form has also been drafted.

The PHD has participated in various EU expert group meetings on this subject and in a conference of the Parties to the Convention on Biological Diversity/together with ERA in order to keep abreast with new developments on this protocol and related matters.

4. OPERATIONS

4.1 Revenue

During 2016, the Plant Health Directorate had a total income of € 17,013.67 from laboratory testing, sale of plants, import inspections and internal inspections, issuance of export and re-export phytosanitary certificates and school visit donations.

4.2 Promotion

4.2.1 Press releases and press conferences

A number of press releases were issued during 2016.

Two press conferences were organised and addressed by Hon. Roderick Galdes with regards to the Fig Tree Project and the *Xyllela fastidiosa*

4.2.2 *Xyllela fastidiosa* awareness campaign

The awareness campaign with regards to *Xyella fastidiosa* ensued in 2016 under the Pest Survey Programme with an allocated amount of €60,000. A second relative video clip about this bacteria was produced and aired consecutively on the three top local TV stations. The second video clip as previously done with the first was uploaded on DOI's Facebook page and in order to ensure a wider audience coverage it was also advertised on FB reaching a viewership of around 90K. This was aimed to further inform and educate the general public about this type of bacteria, and also advising not to bring back plants to Malta when travelling abroad. A write up about this campaign was also uploaded on the Office of the Prime Minister's website.

This awareness campaign ties with and compliments the EPPO Don't Risk it Campaign launched in the previous years about the risks involved when travellers bring back plants or any plant material which could be infested without any visible signs, posing a risk to our local plants. A contract entered with the Valletta Cruise Terminal displaying the EPPO Don't Risk it poster in 2015 was still ongoing in 2016.

Considering that *Xyllela fastidiosa* campaign is specifically targeting travellers the PHD collaborated with the Malta International Airport for advertising at the Airport's Departures Hall. In this regard artwork was created and uploaded on the five illuminated charging stations for electronic devices. Further to this MIA provided free advertising on 20 LCD screens also found in the Departures Hall. In addition the leaflet of *Xyllela fastidiosa* was updated and 7,000 copies were printed and disseminated at the five illuminated charging stations for electronic devices at MIA.

The awareness campaign included also broadcasting on local television stations; exposure through billboards in two prominent locations in Malta (Luxol Grounds, Santa Venera) and one in Gozo (Victoria); and the creation of web banners for online newspapers and news portals. Both the *Xylella* video clips produced in 2015 and 2016 respectively were shown in a number of cinemas which host the biggest number of cinema screens on the island, thus ensuring further exposure and a higher audience. Also, in view of this, both video clips were translated in English. A roll up banner created for this campaign was displayed at the Embassy Complex in Valletta.

4.2.3 Radio and TV Programmes

Participation of staff in radio and TV programmes including *Newsline* and *Niskata* so as to inform the general public on pests and diseases as well as the role of the Plant Health Directorate.

Moreover radio spots were produced in relation to the beetle *Monochamus galloprovincialis*, which is a vector of the pine wood nematode and causes eradication of pine trees. This was produced and aired on local Radio stations. The aim of this advert was to inform the general public to refrain from moving, stealing and vandilising traps which were being placed in woodland areas in Malta and Gozo. This radio advert was also co-financed by the European Union under the Pest Survey Programme.

4.2.4 Publications

A number of leaflets, communications and articles on *Nisġet Artna* magazine on plant health, pests and diseases of local importance were also updated and published during this year as part of PHD's continuous dissemination of information.

4.2.5 Others

During 2016, the Plant Health Directorate organised informative talks, meetings and presentations on plant health in general as part of ongoing awareness, informative and educational campaigns. The PHD also liaised with Local Councils for a more effective dissemination of information. PHD also took part in events organised by Nature Trust and Ekoskola by disseminating presentations and information to students regarding plant pests and risks.

4.3 School Visits

As from 2016 school visits started being organised in collaboration with the Ministry for Education and Employment in order to abide to the post commitment of the PHD EAFRD project funded under measure 214 of the Rural Development Programme 2007-2013 on the support for the conservation of genetic resources in agriculture. A circular was issued to all schools at the beginning of the scholastic year 2016/2017. A total of 9 visits took place whereby approximately 200 students visited the PHD premises in Attard.

Various programmes were drawn up to be able to reach the different age groups and ability of students. During such visits students were initially welcomed in Ġnien il-Pjanti Maltin by the “Grandmaster” and a historical background of the premises was given. This was followed by power point presentations, practical sessions and educational games which were held in the Media Centre. Students of particular age groups and ability were also given a live demonstration of seed purity testing in the seed laboratory.

All students were given a souvenir of the visit which they had themselves prepared during the practical sessions. Publications of the PHD were also distributed during these visits.

The Soil and Irrigation Water Laboratory at Ġhammieri also hosted a number of school visits, whereby information and demonstrations or hands-on training were provided to students on particular soil tests. A total of 6 visits took place during 2016.

4.4 Parliamentary Questions

During 2016, the Plant Health Directorate received thirty-six (36) Parliamentary Questions. Seven (7) of the PQ’s received were not relevant to the PHD.

These mainly focused on inspections for harmful organisms on imported plant and plant products, felling and cutting of trees, reporting of pests and diseases in relation to Fruit Trees particularly Citrus trees and Fig trees, uses of laboratory services by local farmers, services provided by the Plant Health Diagnostic Laboratories, micro-propagation laboratory, tenders issued and olive trees found on government property.

4.5 IT Development

4.5.1 Plant Health Management System (PHMS)

In 2016 data in the stand alone systems was migrated to the integrated system.

In addition in 2016, communication continued with the CIO Office, ABACO and MITA in connection with the enhancements of the PHMS. This IT system consists of 3 separate modules related to the Malta Official Register (MOR), Controls and Plant Genetic Resources (PGR).

The MOR module caters for registered activities and will have the capability to store and manage data information of all the activities registered with PHD.

The Controls and PGR modules provide the facility to manage the catalogues of the trees, plants and vegetable crops of genetic importance carried out by the PHD and enable extraction of the latest information from the Farmer Registry and the Nitrates Registry when carrying out inspections and controls for commodities to check harmful organisms. Through

the SITI Cloud module, the PHD will also have the facility to create, and manage its own GIS layers. Moreover, system will enable to store the related data and to extract statistical reports.

PHD officials ensued with further training and testing according to their respective field. Testing outcome and further improvements needed were forwarded to MITA, ABACO and CEO office for necessary actions.

4.5.2 Website

In 2016, the Plant Health Directorate's website became operational after the revamp carried out in 2015 in liaison with the CIO's office whereby all present websites were migrated to new ones. The process of updating all the website's contents and information ensued during this year particularly following the restructuring within the PHD in order for website contents to reflect this reorganization. The necessary updates in e-forms were also carried out.

4.5.3 Mobile application

During this year the PHD as part of the Government's policy for the digitisation of business processes was busy preparing script and communicating for the development and production of one mobile application which will include three short video clips related to the morphology of the Red Palm Weevil, host plants and consequent symptoms, treatment, prevention and general standard of procedure. In addition this mobile application will facilitate the notification by the general public in accordance with plant health legislation. Users will be able to describe the organism through a series of keys and the system can return photos of quarantine pests present in Malta that match the criteria. This will serve to guide citizens in making a diagnosis of plants' pests and diseases, reporting of cases, and in providing both relative information and explanations.

4.6 Training

In 2016, in order to further enhance the human resource development a number of officials within the Plant Health Directorate attended courses, both locally and abroad in a wide range of topics.

During 2016, a training needs analysis was carried out for the Plant Health Laboratories, following the invitation by the Malta Laboratories Network (MLN) set up by the Ministry for Social Dialogue, Civil Liberties and Consumer Affairs. The aim of this analysis was for the MLN to design a holistic training programme in collaboration with the Management Efficiency Unit (OPM) for all government laboratories to support accreditation.

4.6.1 Malta's Presidency of the Council of the European Union

Staff having an active role in Malta's forthcoming Presidency of the Council of the European Union attended various sessions of preparatory training throughout the year. Training was organised by the Council General Secretariat, Malta's EU Presidency Unit and MSDEC. A meeting with the Deputy Permanent Representative of Malta, Mr Neil Kerr was also held. Several internal preparatory meetings were held between the Presidency teams in preparation for the chairing and deputising of the meetings.

4.6.2 European Union Notification System for Plant Health Interceptions (EUROPHYT)

SEU officials attended training in relation to the use of EUROPHYT, a rapid alert notification system aimed at protecting the EU from the introduction and spread of new pests and plant diseases, thereby reducing or eliminating the economic and/or environmental impact of the harmful organisms and reducing the need for pesticide use.

4.6.3 Others

Technical staff attended a number of courses and meetings specific to the area under their responsibility, these included courses organised by Better Training for Safer Foods (BTSF) under DG SANCO.

In-house training relating to BTSF, seed testing and the use of the IT tool (Plant Health Management System) was also organised during 2016.

All staff at the PHD attended a training session in relation to Data Protection to ensure that the best service is given to the public when information is being requested. In addition a number of staff attended training focusing on First Aid.

4.7 Customer Care

As in the previous years, in 2016 the PHD continued with its endeavours to assist the general public, stakeholders and handling of customer complaints on a number of phytosanitary issues. Generic queries and calls were redirected to respective sections for feedback and advice and dealt with as necessary in a prompt and effective manner. Where necessary inspections were carried out and samples taken if and when necessary.

Standards of Procedures (Customer Care/Service) were compiled in relation to: (a) Handling of Customers, incoming calls and generic e-mails; (b) Testing of soil and irrigation water; (c) Seed testing services; (d) Handling of queries related to testing of seeds, soil and irrigation water; (e) Advise on National Policy; (f) Import control inspections; (g) Authorisation for the movement of palm trees and (h) Provision of technical assistance to clients

5. LABORATORY SERVICES

5.1 Laboratory Testing

The following statistics provide information on the testing activities performed by the PHD in 2016. Table 1 outlines the number of tests carried out in the various laboratories while Tables 2-4 give a detailed breakdown of the number of samples received and the type of tests carried out.

Testing

Type of Test	No of Tests
Seed	54
Diagnostic	1495
Soil	2510
Water	836

Table 1

Details of tests carried out by the Laboratory Services Unit

A – Soil and Irrigation Water Laboratory

Type of Agricultural Material	No of samples received	No of tests performed
Soil	361	2510
Water	147	836

Table 2

B – Diagnostic Laboratories

	Target organism	Type of test / procedure	Type of plant material	Number of samples tested ⁽¹⁾	Comments
Virology	Plum Pox Virus	DAS-ELISA	Stone fruit twigs	80	
	Citrus Tristeza Virus	DAS-ELISA	Citrus	297	46 of these samples were tested icw Citrus certification project
	Pepino Mosaic Virus	DAS-ELISA	Tomatoes seeds, seedlings, and leaves	100	
	Tomato Spotted Wilt Virus	DAS-ELISA	Tomato seedlings & leaves	87	
	Tomato Yellow Leaf Curl Virus	TAS-ELISA	Tomato seedlings & leaves	87	
	Grapevine Flavescence Dorée	Real-time PCR	Grapevine twigs	18	Outsourced
	CNA, GLRaV-3, GLRaV-1 and GFKV.	DAS-ELISA	Grapevine twigs	19	Outsourced
	Strawberry Vein Banding virus	Molecular	Grapevine twigs	5	Outsourced

Bacteriology	<i>Clavibacter michiganensis</i> ssp. <i>sepedonicus</i>	Immuno-fluorescence assay	Seed potatoes	105	
	<i>Ralstonia solanacearum</i>	Immuno-fluorescence assay	Seed potatoes	105	
	<i>Xylella fastidiosa</i>	DAS-ELISA Real-time PCR	Olive twigs, Citrus, <i>Rosmarinus</i> sp., <i>Oleander</i> sp., others	389	Real-time PCR test outsourced
	Other	Sourced out	Ware potato tubers	2	Outsourced
Mycology	<i>Tilletia indica</i>	Sieving & Microscopy	Durum wheat seeds	3	
	<i>Phytophthora ramorum</i>	Isolation	<i>Laurus nobilis</i>	20	
	<i>Phytophthora fragariae</i>	Molecular	Strawberry seedlings	5	Outsourced
	<i>Phyllosticta citricarpa</i>	Isolation	Orange fruit	1	Outsourced
	Other	Isolation	Various	72	
	<i>Gibberella circinata</i>	Isolation	Pinus sp. twigs	1	
Nematology	<i>Bursaphelenchus xylophilus</i>	Sieving & Microscopy	Pine wood	26	
	<i>Globodera pallida</i>	Sieving & Microscopy	Soil	8	
	<i>Globodera rostochiensis</i>	Sieving & Microscopy	Soil	8	
	Other Nematology	Sieving and microscopy	Onions & soil	2	
Entomology	<i>Scaphoideus titanus</i>	Morphological	Traps	12	Outsourced
	<i>Trioza erytrae</i> & <i>Diaphorina citri</i>	Morphological	Sticky traps	12	Outsourced
	<i>T. citricola/citricida</i> , <i>Aleurocanthus</i> sp., <i>Schirtothrips</i> sp.	Morphological	Citrus leaves	13	Outsourced
	Other	Morphological	Various	22	Outsourced

⁽¹⁾ This is the number of samples tested per target organism. Note: One sample may be tested for more than one target organism.

Table 3

C – Seed Laboratory

Type of material	Type of test	No of samples tested
Seeds	Purity	54

Table 4

5.2 Laboratory Standard Operating Procedures and guidelines

During 2016, the process was started for the organization and updating of all Laboratory Standard Operating Procedures (SOPs). To this end, work was carried out on the drafting of an SOP with guidelines to be followed by all laboratory personnel in the preparation and review of laboratory SOPs. This work is still in progress.

Guidelines were issued for the appropriate submission of samples to the Diagnostic Laboratories. The procedure to be used by these Laboratories in the reception of samples was also set up accordingly.

5.3 Quality Assurance

Quality assurance measures conducted during 2016 within the Plant Health Laboratories included installation of digital thermometers and temperature monitoring of fridges and freezers at the Diagnostic and Seed Laboratories; calibration of thermometer and 6 balances at the Plant Health Laboratories; surface disinfection of plant material prior to diagnostic testing; and appropriate sterilization procedures for water and laboratory ware. Furthermore, the positive and negative control trees, used in various testing procedures carried out at the Diagnostic Laboratories and kept in the screenhouses on the PHD premises in Lija, were tagged and appropriate records for these controls were kept.

5.4 Upgrading of Laboratories

A new Seed Laboratory was established at the PHD premises in Lija. Seed purity tests were carried out for the first time at this laboratory during 2016.

Work was conducted at the Diagnostic Laboratories in preparation for the upgrading of such laboratories and this included installation of network points in the ground floor laboratories and installation of aluminium windows, partition and kitchenette at the first floor office.

Advice was sought from various professionals in connection with the upgrading works of the Diagnostic Laboratories. These included a Fire Consultant, who provided a Fire Inspection report, with recommendations; engineers who provided an Energy Performance Certificate (EPC) for the Diagnostic Laboratory building and advice regarding the water loop extension

(Type II water); architects who provided advice on the necessary works and a BOQ for upgrading of the first floor diagnostic laboratory.

6. SURVEILLANCE AND ENFORCEMENT

In 2016 the PHD continued with the monitoring and surveillance of intra-trade EU commodities (plant and plant products) on local production of plants and plant products (surveys regards EU obligations, plant passports, etc.) to maintain the plant health status of Malta.

Table 5-7 provide a detailed breakdown with regards to the actions carried out.

6.1 MOR (Malta Official Register)

New Registrations	9
Updates (Notices of any change)	9
Cancellations (Closed MOR's Registrations)	43
Plant Passports	8
Phytosanitary Certificates Export	12
Phytosanitary Certificates Re-Export	0

Table 5

6.2 Inspections

Palms	282
Freeport	0
Catamaran/Grimaldi	20
Citrus Fruits from EU (Citrus leaves/Penduncles)	0
Post Office	33
Imports	257
Wood Packaging Material – 3rd Countries	138
Wood Packaging Material - EU	0
Wood Shavings	67
MOR's Annual	224
Monitoring of RPW Pheromone	101

Eradication/Containment		
Palm Felling	Imports	Open Fields
406	0	0

Table 6

6.3 Authorisations/Enforcement/Notifications and Warning Letters

Movement of Trees (Authorisations)	48
Destruction Notices - Palm Trees	181
Enforcement Notices – Palm Trees	3
Notifications sent for Palm Felling	83
Notifications sent for Curative Treatment	16
Notifications for the removal or performing Dendro Surgery	7
Warning letters	25

Table 7

6.4 Dendro Surgeries Performed

15

6.5 Pest Survey Programme

In 2016 the PHD ensued with the implementation of the Pest Survey Programm having a total value of €187,000 which is 75% co-financed by the European Commission, with a maximum eligible amount of €141,000.

The Pest Survey Programme is aimed at taking the necessary protective measures against the introduction i nto the Community of the organisms harmful to plants or plant products listed in the priorities set out in the work programme for the year 2016 [C(2015) 2997], and against their spread within the Community.

Annex 1 includes all the details of all visual inspections carried out per harmful organism together with commodities inspected, number of traps placed and monitored as well as the number of samples collected and tested and the outcome of the tests carried out. The result of all samples taken were in the negative i.e. no detection of monitored harmful orgnaism within the Maltese territory.

As part of the 2016 Survey Programme, Malta implemented an intensive promotional campaign aimed at awareness raising on the harmful organism *Xylella fastidiosa*. Promotion activities, for which €50,000 were invested. Additional awareness raising activities were also implemented for the harmful organism *Monochamus spp.*

7. AUDITS

During 2016 the Plant Health Directorate had two external audits and one internal audit. The PHD ensured that action was taken for the highlighted issues during such audits.

7.1 European Agriculture Fund for Rural Development – M214

The Internal Audit and Investigation Directorate (IAID) conducted an audit on the funds attained from the European Agriculture Fund for Rural Development – Axis 2 - M214. The audit mainly focused on the procurement process for the purchase of contracted line items.

7.2 Energy Consumption

An engineer commissioned by the Energy and Water Agency conducted an audit on energy consumption within the Soil and Irrigation Water Lab. A similar audit was conducted way back in 2010.

7.3 International Standards for Phytosanitary Measures (ISPM31)

Appointed PHD officials carried out an internal audit based on the latest version of the Internal Audit Manual of the Malta Food Safety Commission to assess report and make recommendation on the system effectiveness and compliance of controls according to the requirements set out in the ISPM 31 “Methodologies for Sampling of Consignments”. Findings and actions to be taken were discussed with management and actions required were taken.