

Plant Health Directorate

I. BACKGROUND

The Plant Health Directorate is the National Plant Protection Organisation set up within the Ministry for Resources and Rural Affairs 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. 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.

2. INTRODUCTION

In 2011, the Plant Health Directorate (PHD) continued to implement measures with the aim to prevent the introduction and spread of harmful organisms in the community.

During the year 2011, the Plant Health Directorate continued with its efforts to monitor and inspect palm trees and also continued with the eradication of the pest through palm felling. This Directorate is also in its final stages in a programme to eradicate an outbreak of *Citrus tristeza* virus in the island of Gozo. The areas of San Blas and Dahlet Qorrot were put under contingency after a number of citrus trees were confirmed infected with CTV in March 2009.

During 2011, the PHD also continued its effort to fight the Leaf miner Moth (*Tuta Absoluta*). The main actions taken mainly focused on the dissemination of information and further education on the pest.

3. LEGISLATION

A number of directives, regulations and decisions that have been adopted during this year were either transposed or adopted directly. The following legal notices and government notices were issued in 2011. In addition to the list below, three draft Legal Notices are currently in the process of being adopted. These are on the minimum characteristics and conditions to be covered by the examination of varieties of certain vegetable and agricultural plant species and on the marketing of fodder plant seed mixtures for use in the preservation of the natural environment.

L.N. 17 of 2011
PLANT QUARANTINE ACT (CAP. 433)
Forest Reproductive Material (Amendment) Regulations, 2011
Government Gazette of Malta No. 18,702 - 25.01.2011

L.N. 18 of 2011
PLANT QUARANTINE ACT (CAP. 433)
Examination of Varieties of Agricultural Plant Species (Amendment) Regulations, 2011
Government Gazette of Malta No. 18,702 - 25.01.2011

L.N. 19 of 2011
PLANT QUARANTINE ACT (CAP. 433)
Plant Quarantine (Harmful Organisms) (Amendment) Regulations, 2011
Government Gazette of Malta No. 18,702 - 25.01.2011

L.N. 20 of 2011
PLANT QUARANTINE ACT (CAP. 433)
Examination of Varieties of Vegetable Species (Amendment) Regulations, 2011
Government Gazette of Malta No. 18,702 - 25.01.2011

L.N. 21 of 2011
PLANT QUARANTINE ACT (CAP. 433)
Control of the Red Palm Weevil (Amendment) Regulations, 2011
Government Gazette of Malta No. 18,702 - 25.01.2011

L.N. 22 of 2011
PLANT QUARANTINE ACT (CAP. 433)
Seeds of Vegetable Landraces and Varieties Regulations, 2011
Government Gazette of Malta No. 18,702 - 25.01.2011

L.N. 270 of 2011
PLANT QUARANTINE ACT (CAP. 433)
Fruit Trees Propagation Material (Amendment) Regulations, 2011
Government Gazette of Malta No. 18,775 - 08.07.2011

G.N. No. 563 of 2011 MINISTRY FOR RESOURCES AND RURAL AFFIARS, Guidelines for
Felling and Destruction of Red Palm Weevil Government Gazette No. 18,767 date – 21.06.2011

G.N. No. 564 of 2011 MINISTRY FOR RESOURCES AND RURAL AFFIARS, Guidelines for
Pruning and Spraying of Palm Trees Government Gazette No. 18,767 date – 21.06.2011

G.N. No. 1172 of 2011 MINISTRY FOR RESOURCES AND RURAL AFFAIRS
Government Gazette No. 18,846 date – 23.12.2011

4. EU AFFAIRS

The Plant Health Directorate continued to participate in EU meetings for discussion of new proposals. Instructions notes and justification of country positions and reports were drawn up. A number of officials attended the meetings organised by the EU Commission and other EU structures.

Communications

The following information concerning various issues that fall under the remit of the Plant Health Directorate was sent to the Commission throughout the year:

- Comments on the report of the seed potato expert group on the revision of Annexes I and II of Council Directive 2002/56/EC (marketing of seed potatoes).
- Information compiled on the production and marketing of forest reproductive material in Malta mainly on the responsible official bodies, maps of demarcations of regions of provenance, national list of basic material, prohibition of marketing and importation of plant material.
- Comments on the Presidency proposal on the establishment of task forces on seeds and plant propagation material, on Malta's participation in Task Force 3 (marketing requirements) and Task Force 4 (conservation varieties and niche markets) and on issues that fall under the remit of these task forces such as on official inspections, coherence with other EU legislation, problems encountered on the implementation of legislation, registration of conservation varieties, quantitative restrictions, requirements for marketing, labelling, field inspections, etc.
- Comments on the draft working documents on the non-listed plant species, the registration of suppliers, the registration of varieties and the scope/definitions of regulation on plant reproductive material.
- Comments on the Annex to the draft Commission Implementing Directive on the examination of varieties of vegetable species.
- Comments on the options and analysis of possible scenarios for the review of the EU legislation on the marketing of seeds and propagation material.
- Comments on the use of the possibility provided for by the seed directives not to apply the EU legislation to seed intended for industrial processing.
- Comments on the draft working documents on the specific requirements to be met by registered suppliers that are involved in the production or reproduction of fruit plant propagation material and fruit plants intended for fruit production, conditions for certification of plant material and the requirements for labelling/sealing/packaging of such plant material.
- Comments on the possible inclusion of the seeds/propagation material sector under Regulation (EC) No 882/2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules.
- Comments on the specific requirements on the placing on the market of plant reproductive material belonging to various categories, labelling, packaging, sealing, temporary measures, local circulation, importation, requirements for suppliers and on the amendments to Regulation (EC) No 2100/94 on Community plant variety rights.
- Comments on the requirements on the official registration of suppliers and of varieties, notification of varieties, species and interspecific hybrids and common lists of varieties as per Council Directive 2008/90/EC.
- Comments on the proposed footnote that shall be included in the Common Catalogue of varieties of agricultural plant species as regards the glucosinolate content of swede rape varieties included in such catalogue.

- Comments on any amendments that need to be made to Commission Directive 2010/680/EU on the release of Member States from the obligations to apply the provisions of the basic directives to certain species of agricultural plants and forest trees.
- Comments on the new decision being proposed as regards emergency measures to prevent the introduction into and the spread within the union of *Anoplophora chinensis*
- Reviewing of document on DG SANCO quantification of costs and benefits of amendments to the EU Plant Health Regime: Supplementary Economic Study (FCEC)
- Reviewing of document named Cyprus – Meeting of the Line Regulation Committee in which the Commission intends to amend Article 3(1) of the Regulation No. 1480/2004 laying down specific rules concerning goods arriving from the areas not under the effective control of the Government of Cyprus into the areas in which the Government exercises effective control. The amendment seeks to lift restrictions on Turkish Cypriot potato producers to only grow second crop potatoes from certified seed potatoes.
- Forwarding of the details of the national authority responsible for administrative issues as per Commission Directives 2008/62/EC and 2009/145/EC on the acceptance and marketing of seeds of landraces and varieties of agricultural plants and vegetables.

Reporting Obligations

The following is a list of reporting obligations that Malta reported upon in 2011:

1. Commission Regulation 1756/2004/EC on reduced frequency inspections for certain products originating from specific third countries;
2. Commission Decision 2008/840/EC on emergency measures to prevent the introduction into and the spread within the Community of *Anoplophora chinensis* (Forster);
3. Commission Decision 2007/365/EC and its amendments, Malta forwarded the results of the official survey on *Rhynchophorus ferrugineus* in Malta during 2009;
4. 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 – Malta presented the monitoring surveys carried out on Citrus Tristeza Virus and Colorado beetle (*Leptinotarsa decemlineata*) for which a protected zone had been assigned;
5. Commission Decision 2003/61/EC, and its amendments, authorizing certain Member States to provide for temporary derogations from certain provisions of Council Directive 2000/29/EC in respect of seed potatoes originating in certain provinces of Canada;
6. Council Directives 93/85/EEC and 98/57/EC, and their amendments, on the control of Potato Ring Rot and Brown Rot respectively;
7. Directive 2002/499/EC and Directive 2002/887/EC and amendments on authorizing derogations from certain provisions of Council Directive 2000/29/EC in respect of naturally or artificially dwarfed plants of *Chamaecyparis* Spach, *Juniperus* L. and *Pinus* L., originating in the Republic of Korea and Japan respectively;

8. Commission Decision 2004/4/EC as amended by Commission Decision 2006/749/EC authorizing Member States temporarily to take necessary measures against the dissemination of *Pseudomonas solanacearum* (Smith) as regards Egypt;
9. Commission Decision 2003/63/EC and amendments (potatoes from Cuba);
10. Commission Directive 95/44/EC and amendments (material for research);
11. Commission Decision 2007/847/EC providing a derogation from certain provisions of Council Directive 2000/29/EC in respect of plants of *Vitis* L., other than fruits, originating in Croatia of the former Yugoslav Republic of Macedonia;
12. Commission Decision 2004/200/EC of 27 February 2004 and its amendments on measures to prevent the introduction into and the spread within the Community of Pepino mosaic virus;
13. Commission Decision 2002/757/EC of 19 September 2002 and its amendments on provisional emergency phytosanitary measures to prevent the introduction into and the spread within the Community of *Phytophthora ramorum* Werres;.
14. Commission Decision 2003/248, 2003/249 and 2003/250 and subsequent amendments;
15. Commission Decision 2004/96/EC authorising Member States temporarily to provide for derogations from certain provisions of Council Directive 2000/29/EC in respect of plants of *Vitis* L., other than fruits, originating in Switzerland;
16. Commission Decision 2003/766/EC of 24 October 2003 on emergency measures to prevent the spread within the community of *Diabrotica virgifera* Le Conte;
17. Commission Decision 2006/464/EC of 27 June 2006, on provisional emergency measures to prevent the introduction into and the spread within the Community of *Dryocosmus kuriphilus* Yasumatsu;
18. Commission Decision 2006/133/EC of 13 February 2006, requiring member States temporarily to take additional measures against the dissemination of *Bursaphelenchus xylophilus* (Steiner et Buhner) Nickle *et al.* (the pine wood nematode) as regards areas in Portugal, other than those in which it is known not to occur;
19. 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 *Giberella circinata* Nirenberg & O'Donnell;
20. Commission Decision 2005/51/EC authorising Member States temporarily to provide for derogations from certain provisions of Council Directive 2000/29/EC in respect of the importation of soil contaminated by pesticides or persistent organic pollutants for decontamination purposes;
21. Council Directive 2007/33/EC of 11 June 2007 on the control of Potato Cyst Nematodes and repealing Directive 69/465/EEC, Malta submitted its report on the monitoring survey for the year 2011.
22. Commission Decision 2004/416/EC of 29 April 2004 on temporary emergency measures in respect of certain citrus fruits originating in Argentina or Brazil;
23. Commission Decision 2007/410/EC of 12 June 2007, on measures to prevent the introduction into and the spread within the Community of Potato spindle tuber viroid.

Notifications

During this year twenty (20) notifications were sent to the European Commission. 18 were sent through the online EUROPHYT database, whereas 2 notifications were sent according to article 16(2) of Council Directive 2000/29 EC. These notifications were related to infringements of wood packaging material, which were not stamped in accordance with ISPM No. 15 Standard; finding of PepMV and CTV, and missing information on the phytosanitary certificates and plant passports.

Notifications from other Member States on the availability of seeds/derogations to market seeds which do not satisfy the minimum germination capacity specified in EU legislation, modifications to the status of already listed varieties of seeds of agricultural plants and vegetables that are authorised for marketing at EU level and new varieties accepted at national level and which eventually will be marketed in the EU were reviewed daily.

Communication was held with the EU regarding draft complete editions and supplements of the Common Catalogues of varieties of agricultural plant and vegetable species that are issued from time to time.

EU Documentation

Survey on quarantine diseases forwarded by the French Bureau on fruit tree phytoplasmas and their prevalence in the EU, instruction notes drafted on the draft Commission Regulation amending Regulation (EC) No 866/2004 relating to the lifting of restrictions on Turkish Cypriot potato producers to only grow second crop potatoes from certified seed, instruction notes on the appointment for the post of President of the Community Plant Variety Office and the Alternate Chairperson of the Board of Appeal and clearance/comments given on the letter of the Council Secretary General as a reply to the appeal against Council Decision 2011/C of the 12th July 2011 appointing the President of the CPVO, list of derogations that have been obtained by Malta as regards the EU legislation on seeds and other propagation material, review of the draft country profile of Malta on the organisation of food safety, animal health, animal welfare and plant health control systems and comments with respect to the seeds and other propagation material sector and the draft European Commission Working Paper in view of the EU coordination in preparation for an OECD Advisory Group meeting on seed schemes, consultation of MCCAA with stakeholders on the draft national legislation transposing Directive 2009/128/EC on the sustainable use of pesticides were drafted or existing ones were reviewed and comments forwarded as requested.

A number of documents sent by the EU Affairs Directorate have been reviewed throughout the year and comments were forwarded when requested.

5 .MULTILATERAL, INTERNATIONAL AND NATIONAL AFFAIRS

The Plant Health Directorate continued to respond to questionnaires and take part in consultations on draft standards and other items circulated for members' opinion by the International Plant Protection Convention Office and the European and Mediterranean Plant Protection Organisation.

Communication was held between the Seeds and Propagation Material Unit (SPMU) and the Community Plant Variety Office (CPVO) and comments were provided by the former mainly on revised entrustment requirements for the examination offices, availability of facilities in Malta and relevant technical experience to carry out examination of new plant species and varieties, various draft technical protocols used for the examination of varieties, the EU legislation that covers the quality of plant material for examination, vacancy posts with the CPVO and national contributions to the case law database of the CPVO.

Literature review and instruction notes/memoranda were carried out or drafted for FAO Coordination meetings in view of meetings on the International Treaty on Plant Genetic Resources for Food and Agriculture and the Global Plan of Action. Communications was also held with the European and Mediterranean Plant Protection Organization (EPPO), and information and comments was provided by this Directorate on the re-evaluation of some A2 listed organisms, the revision of the National regulatory control system on *Clavibacter michiganensis* subsp. *Sepedonicus* Country - consultation on Standards from the series PM9, the revision of the National regulatory control system on *Ralstonia solanacearum* – country consultation on Standards from the series PM9, the New National regulatory control system on Potato spindle tuber viroid on potato - country consultation on Standards from the series PM9, draft EPPO standard from the series PM9 on the official control of *Agrilus planipennis*, reply regarding three draft EPPO standards from the series PM 7 Diagnostics: *Ceratitiscapitata*, *Ceratitiscosyra* and *Rhagoletis completa* and electronic format for pest reporting. In September 2011, Malta was also elected to serve on the Executive Committee of EPPO.

The Plant Health Directorate continued to participate in a number of national committees including the Plant Protection Board, Pesticides Control Board, National Accreditation Board and the Food Safety Commission.

6. DIAGNOSIS AND CONTROL

Monitoring and Surveys

As in previous years, in 2011, the Plant Health Directorate continued its programme of annual surveys to assess the local situation with respect to emerging pests. The monitoring and testing of certain quarantine and harmful organisms is also regulated by Council Decisions and Directives.

During 2011 a total of 18 surveys were carried out in relation to the following areas of diagnosis – virology, bacteriology, mycology, entomology, and nematology covering approximately 349.60 hectares during which a total of 2,795 samples were collected and a total of 3,083 tests were performed. A more detailed list of the surveys conducted in 2011, including details of the commodity surveyed, the inspection sites, the number of inspections carried out and the area covered, as well as the number of samples collected, is found in Annex 1 and Annex 2.

Outbreak of Pests

There were no new outbreaks of pests recorded during 2011.

Contingency, Emergency and Eradication Plans

During 2011, action Plans for the following pests and diseases have been drawn up: Leaf Miner Moth (*Tuta Absoluta*), *Citrus Tristeza* Virus and Red Palm Weevil. This Action Plan was also submitted to the Commission.

Control of Red Palm Weevil

As in the previous years, the control against Red Palm Weevil continued. On the 16th November 2011, Malta was awarded an additional amount of €865,83528 covering the financial year 2011 with a digression rate of 40% amounting to €346, 333.76. The aim of this funding is to control the spread of the Red Palm Weevil pest as part of a new EU plant health programme. These funds will co-finance the ongoing programme being carried out in Malta to combat the RPW and to prevent it from further

spreading. According to a survey carried out in Malta a few months ago, the problem is under control although the pest is still active.

Citrus Tristeza Virus Contingency Plan

Another important effort made by the Plant Health Directorate for the control of harmful organisms is the eradication of Citrus *Tristeza* Virus (CTV) in the contingency area of San Blas and Dahlet Qorrot Valley in Gozo. These areas were put under contingency in March 2009 after a number of citrus trees were confirmed infected with CTV. Measures were intensified which included the intensive monitoring of the area, laboratory testing and eradication of positive plants continued during 2011. A total of 1,898 trees were sampled in the mentioned area.

Tuta Absoluta

In 2011 the Plant Health Directorate continued with its endeavours to fight this pest. One of the most important actions taken by the PHD in 2011 was the dissemination of information and further education about *Tuta absoluta* through direct contact, and the use of information material such as leaflets about the pest and its control, posters and published articles. The Directorate also encouraged tomato growers to make use of the PHD freephone to make contact and also to make use of the advisory and diagnostic services if needed. Tomato growers were also solicited to make use of pheromone traps, together with the other recommended measures in the guidelines as part of an integrated programme, since it proved to be very successful during 2010. Furthermore, the PHD continued with the monitoring inspections for *Tuta absoluta* in collaboration with APS Consult Ltd.

7. SEEDS AND OTHER PROPAGATION MATERIAL

Inspections/visits at nurseries and suppliers

During this year, 44 physical and documentary inspections (some of which were follow-ups) were carried out on plant material being produced and/or marketed in Malta and Gozo. On the whole, minor shortcomings were noted. Information was gathered in one of the visits on the local production of fruit trees. The detailed reports on each inspection were drafted and forwarded to the relevant supplier/producer.

Communication was held between PHD and relevant entities/persons such as the SIU, PARKS, foreign experts and local nurseries/growers on the re-packaging abroad of seeds, the Common Catalogues of varieties of vegetable that can be marketed at EU level, plant passports, the sale of locally produced citrus, the importation and introduction of seeds of various species and forest reproductive material for marketing purposes, the importation of seeds from a third country for research purposes, the introduction of seeds of aromatic plants in Malta for distribution to amateurs, the timing of the inspections in relation to the plant material available at different periods of the year, problems being encountered on the marketing of cereal seeds in Malta and on possible modification of a plant passport/supplier's document of nurseries, suppliers' documents of fruit trees, correct labelling of seeds belonging to various categories and the setting up of a business consisting of importation of seeds to Malta from Italy.

Genetically-modified organisms

The PHD updated its internal list of the genetically-modified maize that are included in the 29th complete edition of the Common Catalogue and its supplements and which can be marketed at EU level. The PHD commented on the invocation of Luxembourg on the safeguard clause on the ban of the cultivation of the genetically-modified potato variety Amflora. Its comments were based on the current rules on the marketing of genetically-modified potato varieties for sowing purposes. Communication was held with the Environment Protection Directorate of MEPA regarding the importation of particular genetically-modified carnations from Australia and their presence in the wild. Information was requested by the foreign supplier of such carnations.

Guidelines on invasive plant species

The PHD forwarded comments on the draft MEPA guidelines for the management of invasive plants and the restoration of native plant communities in view of the consultation seminar that shall be held on the 4th November 2011 and communicated with the other PHD units on this matter.

European Cooperative Programme on Plant Genetic Resources (ECPGR)

The PHD communicated with the national focal points for the ECPGR working groups on avena, barley, wheat, forages, grain legumes, potatoes and medicinal/aromatic plants in order to collect information on the continuation of participation of such focal points in such groups.

Agri-measures and rural development funds

Agri-environmental measure 3

Seed samples have been analysed for purity in connection with agri-environmental measure 3 of the Rural Development Programme 2007-2013 and the respective test reports were issued. Relevant farmers have been made aware if a significant number of weed seeds and the presence of the fungal disease (common bunt) have been noted in their samples during testing.

Agri-environmental measure 9

166 old carob and citrus trees have been registered with the PHD by 8 farmers during this year in connection with agri-environmental measure 9 of the Rural Development Programme that provides financial aid on old fruit trees that are in danger of genetic erosion.

Measure 214

Two projects were applied for by the PHD under Measure 214 of the Rural Development Programme related to the support for the conservation of genetic resources in agriculture.

8. SURVEILLANCE AND INSPECTORATE

Registration

During 2011 there were 13 new entries in the Traders Registration as per LN 97/2004 regulation 6. Thus the total number of importers, traders of various agricultural products and timber imports now amounts to 289.

Certification

During 2011, 55 inspections took place in nurseries and garden centres in accordance with LN 97/2004 regarding the annual inspections for plant passport. A total of 1,071 plant passports were issued. A total of 27 export phytosanitary certificates. There were no re-export phytosanitary certificates issued during 2011.

Market Surveillance

All consignments imported in Malta are subject to documentary checks. A total of 299 documentary checks took place in 2011. All 299 consignments were also inspected both for identity and for phytosanitary checks. In addition, all consignments containing any wood packaging material (WPM) which varies from dunnage to pallets were also physically inspected. These were inspected to check if they conform with the ISPM no.15 standards (WPM) and for the presence of Pine Wood Nematode and *Monochamus* spp.

Inspections, eradication and enforcement

During 2011, a number of inspections were carried out in relation to quarantine harmful organisms, and samples collected. These were sent to the various laboratories within the Plant Health Directorate for further analyses.

The surveillance of Red Palm Weevil continued and there were 421 inspections of which 350 were in private residences, 61 in public areas, 10 in Government entities. During these visits, the stakeholders were informed about pesticide treatment which could be utilized for control purposes. Inspections were carried out during the different stages of growth. A total of 729 palms had to be destroyed as a consequence of red palm weevil. In total 230 registered enforcement letters were sent to various individuals for palm removal.

Also as part of its enforcement endeavours, during 2011 the SIU continued to follow court cases and also issue warning letters and implemented enforcement measures with regards to the illegal felling and movement of palm trees, movement of other plants without a prior written approval from the PHD and surveillance on palm planting to ensure that all the planted palm trees have the required plant passports.

Following the publication of Advert No. 104/2011 in September 2011 in the Malta Government Gazette for the tender of felling, removal from site, transportation and disposal of palm trees infected with the Red Palm Weevil, such tender was awarded to ECM Ltd. of Mellicha in December 2011.

During 2011, 134 inspections took place with regards to *Tuta Absoluta* and tomato viruses. 61 inspections took place on the market place whereas 73 inspections were conducted in greenhouses and open fields. In 2011 the Plant Health Directorate has issued 1 destruction notice to destruct the infested plant material in accordance with Government Notice Number 831 – Procedures for the destruction of tomato plant material in fields and greenhouses. This was the case since the infestation was higher than 50 percent.

In the market places 5 have been found having infected tomato and these were informed to destruct the infected material in accordance with Government Notice Number 830 – Procedures for Traders for the destruction of infested tomato fruit. Following the notification and destruction notices all the farmers and traders respected the instructions given and the destruction was carried out by themselves.

9. LABORATORIES

Diagnostic Laboratories (Harmful Organisms)

The diagnostic laboratories within the Plant Health Directorate are responsible for the detection and identification of plant diseases caused by plant pests and pathogens with special reference to Council Directive 2000/29/EC and the Plant Quarantine Act 2001. Diagnostic techniques implemented in the laboratories are in accordance with EU Directives and EPPO standards where applicable.

During 2011 a total of 2,795 samples were collected and a total of 3,083 tests were performed in relation to the following areas of diagnosis – virology, bacteriology, mycology, entomology, and nematology. A more detailed breakdown of the number of samples collected and tested in relation to the target organism and the number of positive or suspect samples detected can be found in Annex 2.

Seed Testing Laboratory

In 2011, the Seed Testing Laboratory continued seed testing for purity determination. This is being carried out in connection with the use of high quality local seeds of cereals and fodder plants for which financial aid is being given to local farmers under agri-environmental measure 3 of the Rural Development Programme 2007-2013. The number of samples received in the first batch and that were submitted between October 2010 and April 2011 amounted to 182 on which 182 tests have been carried out. The second batch of seed samples started to be submitted in October 2011. Till the end of the year, 188 samples were received of which 26 were tested. This testing shall be continued in the coming year.

Soil and Irrigation Water Laboratory

The main aim of the Soil and Irrigation Water Laboratory is to provide a service to farmers through the testing of soil and irrigation water in support of fertiliser planning and irrigation control.

In 2011, the laboratory received a total of 480 samples which consisted of 316 soil samples and 164 water samples and conducted a total of 3872 tests. These tests include routine and non-routine analysis for nutrients and characteristics of soil as well as irrigation water quality (salinity).

Tissue Culture Lab

Micropropagation

Ornamental plants:

Micropropagation of the ornamental plants, Boston ferns and African violets was continued during 2011. During this year, a total of 265 Boston ferns and 182 African violet plantlets were produced and then acclimatised in the glasshouse while a number of other plants are still being grown in the laboratory. *Ex situ* conservation *in vitro* of local tulips and orchids was also continued throughout the year.

Globe artichokes:

A request for received by the Directorate from a third party for the micropropagation of globe artichokes (*Cynara scolymus*) at the Tissue Culture Lab. Meetings were held on this issue during which it was agreed that a trial shall be held locally. Literature review for the identification of the appropriate method of sterilisation and micropropagation was carried out and the trial commenced following the supply of the initial material. Various attempts at surface sterilisation were attempted, however these were not successful due to bacterial contamination. The healthy plantlets were then successfully multiplied and rooted *in vitro*.

Sanitation of local varieties

With regards to sanitation of local citrus species through somatic embryogenesis, the trial which had been commenced in November 2010 on local lemon explants has been continued and a second trial on grapefruit explants was commenced in November this year. Explants from both trials have produced callus however no somatic embryogenesis has been observed. Towards the end of the year, a project proposal on the clonal and sanitary selection and sanitation of local citrus species was submitted under measure 214 of the Rural Development Programme 2007-2013.

Communication was held this year between the Plant Health Directorate, the Agricultural Directorate and the Viticulture Unit so as to discuss the way forward with regards to the attempted sanitation of the local vine accessions of *Girgentina* and *Ġellewza* which forms part of an FP7 project on the valorisation of the vine varieties of Malta. Initially, the micropropagation work on the vine plantlets available at the laboratory was carried out by the lab officials but the person responsible for the project was then trained on *in vitro* techniques by Plant Health Directorate's staff and all transfers are now being carried out by the Viticulture Unit within the Directorate's premises.

10. ADVISORY AND INFORMATION SERVICES

During 2011, the Plant Health Directorate continued to assist farmers and the general public on a number of phytosanitary issues. Most queries are resolved by the telephone, by email and others investigated on site and samples taken when necessary.

In addition, the Plant Health Directorate has organised meetings and information seminars in 2011 for stakeholders as part of awareness and information campaigns, as indicated in the list hereunder. Officials also participated in a number of local television and radio programmes.

In 2011 the Directorate published a number of press releases and notices as indicated hereunder:

Date	Topic addressed
4 th April, 2011	Guidelines for Palms to be used during Palm Sunday
2 nd May, 2011	The control of <i>Tuta Absoluta</i>
25 th July, 2011	Notice by the Plant Health Directorate regarding palms to be used by fishermen
3 rd August, 2011	The control of <i>Tuta Absoluta</i>
17 th October, 2011	Susa li tattakka s-sigar tat-tin, tat-tut u tac-cawsli

In 2011, the Plant Health Directorate also updated and published a number of leaflets on plant health pests and diseases of local importance.

The Soil and Irrigation Water Laboratory at *Ghammieri* hosted two groups as part of a project organised by Wasteserv Malta and other entities entitled “Care creates change in people’s lives and the environment”. This project was launched by the Ministry for Resources and Rural Affairs. The same group also visited the Tissue Culture Laboratory at *Ghammieri*. Students following the MCAST Agribusiness course visited the Soil and Irrigation Water Laboratory in order to familiarise themselves with the services provided by this lab. The Soil and Irrigation Water Lab was also in contact with local private entities who requested to make use of the lab’s facilities. An Italian student from the Leonardo da Vinci Project visited the Soil & Irrigation Water Lab. He familiarized himself with some soil and irrigation water procedures by doing some hands-on experience in the ongoing routine analysis carried out in such lab. A University of Malta student continued with her familiarisation experience at the Soil and Irrigation Water Lab on the 10th August and 20th and 27th September 2011 in order to gain experience on the work performed in such lab. Following communication with a University of Malta student (B.A. (Hons) Geography) and her tutor, the student commenced the determination of organic matter in soil at the Soil and Irrigation Water Lab.

The Tissue Culture Laboratory was visited by students from various educational institutions; these include Higher National Diploma students, *San Benedittu* College, *San Gorg Preca* College, Mosta Boys Secondary School, WasteServ, B.Sc. Chemistry and Biology students, as well as students following the Earth Systems Diploma. The laboratory has also hosted an Italian student who was participating in the EU Leonardo da Vinci programme. The Plant Health Directorate has also granted permission to University students who will be carrying out part of her thesis within the laboratory. Other students also made use of the facilities offered at the various labs within the Plant Biotechnology Centre and the Plant Health Laboratories at *Ghammieri*.

A foreign University student also carried out a work experience with the Plant Health Directorate from the 18th May to the 31st July, 2011. In summer, four other University students also carried their work experience with the PHD.

Parliamentary Questions

During 2011, the Plant Health Directorate received thirteen (13) Parliamentary Questions. They mainly focused on the registration of palm trees in previous years, infected palm trees with Red Palm Weevil, tomato growers and *Tuta Absoluta*, imported seeds, the introduction of new species and varieties of fruit trees in Malta and Gozo in the Plant Biotechnology Centre and other general PQs.

II. COMMUNICATION AND CONSULTATION

During 2011 the Plant Health Directorate continued taking part in the evaluation of the Community Plant Health regime, on the Community *Acquis* on the marketing of seeds and other plant propagation material and the Community Plant Variety Rights Regime commissioned by DG SANCO.

Consultation with relevant stakeholders was carried out on the draft Legal Notice transposing Commission Decisions 2010/777/EU and 2010/781/EU on the extension of importation of fruit plant propagation material and fruit trees in the EU

Consultation with relevant stakeholders was carried out on the draft Legal Notice transposing Council Directive 2010/60/EU on the marketing of fodder plant seed mixtures for use in the preservation of

the natural environment and the two draft Legal Notices transposing Commission Implementing Directive 2011/68/EU on the minimum characteristics and conditions to be covered by the examination of certain varieties of agricultural plant and vegetable species. The latter directive shall amend Legal Notices 246 of 2006 and 87 of 2007.

Consultation was carried out by MCCA with the PHD on draft Legal Notices on the addition of active substances to the national Legal Notice on Biocides, the placing of plant protection products on the market and on the notification system for products that are being placed on the market including chemicals, cosmetics, detergents, fertilizers, plant protection products and biocides.

12. PROJECTS

In 2011, the PHD applied for two projects under Measure 214 of the Rural Development Programme related to the support for the conservation of genetic resources in agriculture.

13. PLANT BIOTECHNOLOGY CENTRE MANAGEMENT

Facilities Management

During 2011 several maintenance works and services were carried out at the PBC premises (Tal-Kmand, Lija) related to the upkeep of the laboratories, offices, glasshouses and ancillary equipment.

Throughout the year routine work such as general cleaning, cleaning of benches and pots, application of pesticides and fertilisers, weeding, pruning and propagation were carried out in the glasshouses, screen houses, shade house, mother block and outdoor areas. Routine works for the up keeping of the PBC grounds formed also part of the work carried out, including general cleaning and maintenance, caring of the various plants and trees situated around the premises, weeding and cultivation of fields.

Wheat sown in the fields forming part of PBC was later harvested and donated to *Ghammieri* farm.

Ornamental plants were continually cared for with regular applications of insecticides where necessary to control pests. Continuous conventional propagation of various ornamental plants was also carried out within the glass house. Other work consisted in the acclimatisation of Ferns and African violets transferred from the Tissue Culture laboratory.

A continuous production of herbaceous indicator and indexing plants for virus diagnosis was continued throughout the whole year. Apart from the regular herbaceous plants, cucumbers and tomatoes were also grown as indicator plants. Works for this production include regular sowing, transplanting, repotting, irrigation and spraying with pesticides for the control of insect pests such as sciarid flies, thrips, whiteflies, caterpillars and red spider mites. Hygiene measures such as cleaning of benches, floors and pots as well as discarding of old material were maintained throughout the year.

The production and upkeep of herbaceous indicator mother plants which are kept for seed collection was continued during 2011. These plants were given regular care. Maintenance work was also carried out on the benches inside the plastic house.

The screen houses containing healthy and infected plants/trees required regular irrigation, pruning, weeding, application of pesticides and drenching with fungicides for the control of pests and fungal diseases.

Sale and Donation of Plants

In 2011 the PHD sold a total of 167 plants amounting to €617. In addition, a total of 1,240 ornamental plants were donated to various entities of the Ministry, governmental organisations and other non-governmental organisations. Moreover, 1,529 *Myrabolan* plants were donated to the Ministry of Gozo while another 138 plants were lent to various governmental and non-governmental organisations for the various activities held throughout the year.

162 wheat bales from the wheat grown on PBC grounds were donated to the Animal husbandry section at Ghammieri, 60 *Chaemaerops* seedlings were donated to Naturetrust Malta while another 150 *Chaemaerops* seedlings were donated to the PARK's Directorate.

Participation in Fairs

The PHD had participated in several fairs organised by MRRA and these included the Festa tal-Halib in April, Mnajra event in June, the Fishfest in September and the Festa tal-Majjal in December. During these fairs plants propagated and grown at PBC were exhibited and sold.

Risk Assessment within the PBC

Following the commencement of a Risk Assessment within the PBC in 2010, during 2011 the Directorate took action and implemented numerous necessary changes as requested in the Risk assessment report. These included fitting of eye wash stations, first aid boxes, fire extinguishers, new ergonomic chairs and footrests, procurement and distribution of PC tower stands in accordance to the H&S requirements, safety boots and helmets, heavy duty aprons and waterproof raincoats, adequate H&S signage, fire detection system as well as other safety measures introduced according to the enlisted risks including a fire drill under the supervision of the risk assessor in order to evaluate the performance. A Health and Safety Policy is now displayed in the entrance of the PBC.

Other reports were drawn up for the Border Inspection Post at the Malta International Airport and the *Ghammieri* premises and work on them is to commence in 2012.

Other activities

The PHD has been following the MEPA application submitted in July 2008 for the extension of the Diagnostic Laboratory. Various reports including an application for an Environmental permit and another application for the renewal of the Public Sewer Discharge Permit were requested prior to the final approval and issuing of the permit. Eventually, an operational permit valid for four years was issued by MEPA regarding the proper use and disposal of chemicals and waste. The MEPA permit bearing number PA 03691/08 for the extension to the laboratory at PBC was granted during the board hearing held on the 11th March, 2011. The tenders for the construction of the laboratory extension will be drafted by the Project Design and Engineering Directorate and are planned to be issued in the beginning of 2012.

Restoration works on Tal-Kmand historic arch and pillars were finalised at the PBC by the Restoration Unit. The structures have been professionally restored thus re-enhancing the historical value of the site.

During 2011 various meetings and consultations were held for the setting up of a proposed public garden within the PBC. An application was submitted to MEPA for this project.

14. OPERATIONAL AND ADMINISTRATIVE

Human resources development

A number of officials within the Plant Health Directorate attended courses, both locally and abroad in a wide range of topics, including management and leadership skills, EU affairs, ICT skills, fire fighting, team building and use of pesticides. Technical staff also attended a number of courses and meetings specific to the area under their responsibility, these included courses organised by Better Training for Safer Foods under DG SANCO.

An EU-Mediterranean Forum on Plant Health and Plant Health Protection was held at the Westin Dragonara Hotel, Malta and Training Session on Union Controls in member States and Third Countries in Ireland.

In-house training was also organised within PHD. These include a workshop on EU documentation; training course on Reverse-Transcriptase-Polymerase Chain Reaction (RT-PCR) Diagnostic Procedure for the testing of *Citrus Tristeza Virus*; a training course on Mycology & Bacteriology and a number of workshops for the PHD inspectors on Import and Internal Controls.

Procurement

During September 2011, the PHD published a call for tenders (Advt. No. 104/2011) on the Government Gazette for the felling, removal from site, transportation and disposal of palm trees infected with the Red Palm Weevil. These were later adjudicated and in December 2011 tender was awarded to ECM Ltd. of Mellieha.

Income

During 2011, the Plant Health Directorate had a total income of €22,075.82 from laboratory testing, sale of plants and import inspections.

Audits

During 2011, the PHD has had an external audit carried out, as provided by Regulation (EC) No 882/2004 on the official controls was performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules, in order to verify that the required system of control is in place and is being effectively implemented. The audit was carried out by the MCCA on monitoring and control.

In October a full Data Protection audit of the PHD was carried out by the Data Protection Unit, OPM. This audit entailed an investigation of all aspects of the Directorate's activities and which are affected by the provisions of the Data Protection Act 2001. This audit was carried out to review the extent of compliance with the said Act, identify resulting gaps, highlight any observations, as well as specify any corresponding necessary corrective actions.

Customer Care

During 2011, an Associate Consultant from the Management and Efficiency Unit conducted a monitoring exercise on the PHD's compliance with Directive 4. All communications with the public, stakeholders and customer complaints were reviewed.

Better Regulation

During 2011, Pricewaterhouse Coopers on behalf of the Better Regulation Unit within the Management and Efficiency Unit (OPM) held meetings with the various Ministries and their respective entities to assist in the implementation of best practices across government to improve the service provision to citizens and reduce administrative burdens by 15% by year 2012.

Green Measures

In 2011 the Plant Health Directorate continued implementing and discussing green measures amongst which a number of fittings and lights were changed to energy saving ones both at the PBC and at Ghammieri, all electric water heaters at PBC were fitted with an electronic timer in order to reduce their electricity consumption while still having hot water available, and some PIR sensors were installed to light fittings. A short energy audit meeting was attended by the Directorate's Green Leader. During 2011 the Directorate's Green Leader also continued with his efforts in raising awareness about environmental measures to be followed at the workplace.

Memorandum of Understanding

In 2011 the Ministry for Gozo (MGOZ) and PHD have drafted a MoU to facilitate monitoring of pests and diseases in Gozo. A training workshop was also held by PHD in July to MGOZ staff (44 participants) as part of this MoU.

Website of the Plant Health Directorate

During 2011 the PHD website was updated as necessary on a regular basis. Such updates included uploading of various news items, Legal Notices, Government Notices, various guidelines, PHD posters and leaflets as well as implementing necessary corrections.

Annex 1: Details of surveys carried out by the Diagnosis and Control Unit in 2011

	SURVEY	COMMODITY	INSPECTION SITE	NUMBER OF INSPECTIONS / AREA COVERED	NUMBER OF SAMPLES COLLECTED
VIROLOGY	Citrus Tristeza Virus Survey	Citrus samples	Orchards / Private Gardens / Nurseries	18 inspections / 2.99 ha	298 samples
	Citrus Tristeza Virus Contingency Area	Citrus samples	Orchards	32 inspections / 8.89 ha	1898 samples
	Pepino Mosaic Virus	Tomato seeds/seedlings/fruit and plant samples	Greenhouses / open fields / importers / warehouses / nurseries	47 inspections / 3.69 ha	83 samples
	Tomato Spotted Wilt Virus	Tomato seeds/seedlings and plant samples	Greenhouses/open fields/importers/warehouses/nurseries	46 inspections / 3.69 ha	83 samples
	Tomato Yellow Leaf Curl Virus	Tomato seeds/seedlings and plant samples	Greenhouses/open fields/importers/warehouses/nurseries	46 inspections / 3.69 ha	83 samples
	Potato Spindle Tuber Viroid	Seed and ware potatoes / tomato plants / <i>Solanum jasminoides</i>	Greenhouses / open fields / importers / warehouses / nurseries	37 inspections / 14.72 ha	54 samples
	Grapevine Flavescence Doree	Grapevine samples	Vineyards	4 inspections / 1.06 ha	8 samples
	Plum Pox Virus	Stone fruit samples	SVDP/PARKS/nursery/orchard	6 inspections / 0.00 ha	47 samples
BACTERIOLOGY	Brown Rot	Ware potatoes / Seed potatoes / Export potatoes / Open and Greenhouse tomatoes / Tomato seedlings / Water samples	Open fields / Greenhouses / Ware houses / Watercourses / Nurseries	55 inspections / 25.22 ha	71 samples*
	Ring Rot				
*7 of these samples shall not be included in the annual survey report for Brown Rot/Ring Rot 2011, since they were only tested by LFT					

MYCOLOGY	<i>Giberella circinata</i>	Pines	Woodland areas/Public gardens/Nurseries	11 inspections / 48.31 ha	17 samples
	<i>Phytophthora ramorum</i>	<i>Quercus ilex</i> / <i>Laurus nobilis</i> / <i>Rhododendron</i> / <i>Azalea</i> / <i>Magnolia</i> / <i>Viburnum</i> / <i>Camelia</i>	Nurseries / public Gardens / Woodland Areas	13 inspections / 49.13 ha	25 samples
ENTOMOLOGY	Colorado potato beetle	Potatoes	Open fields/warehouses	47 inspections / 29.60 ha	0 samples
	Anoplophora cinensis	Citrus / <i>Quercus</i>	Public and private gardens / Forestry / Nursery / Open fields	18 inspections / 117.61 ha	0 samples
	Red Palm Weevil	Palm and traps monitoring	Public gardens/Fields	154 inspections / 0 ha	0 samples
	Brown citrus aphid	Citrus	Orchards / private gardens	50 inspections / 11.88 ha	0 samples
NEMATOTOLOGY	Potato Cyst Nematode	Soil / Compost	Open fields / nurseries	27 inspections / 4.39 ha	27 samples (tested as 11 compound samples)
	<i>Bursaphelenchus xylophilus</i> (PWN)	<i>Pinus</i> spp. / WPM	Nurseries / Forestry / Wood inspections	264 inspections / 19.7	26 samples

Annex 2: Details of diagnostic testing in Virology, Bacteriology, Mycology, Entomology and Nematology

▪ VIROLOGY

Obligatory testing				
Target Organism	Aim	Type of plant material	Number of tests	Number of positive/suspect samples
Citrus Tristeza Virus – Survey	Council Directive 2000/29/EC and amendments	Citrus	298	0
Citrus Tristeza Virus – Contingency area	Council Directive 2000/29/EC and amendments and L.N. 97 of 2004 in which the Maltese Islands are considered as a protected zone for this virus	Citrus	1926	25
Pepino Mosaic Virus	Commission Decision 2004/200/EC and amendments	Tomato seeds/seedlings/fruit and plant samples	85	0
Tomato Spotted Wilt Virus	Council Directive 2000/29/EC and amendments		83	7
Tomato Yellow Leaf Curl Virus			124	16
Potato Spindle Tuber Viroid	Commission Decision 2007/410/EC	Seed and ware potatoes / tomato plants / <i>Solanum jasminoides</i>	39	0
Grapevine Flavescence Doree	Council Directive 2000/29/EC and amendments	Grapevine	8	0
Plum Pox Virus	Council Directive 2000/29/EC and amendments	Stone fruit	93	0

Other diseases			
Type of plant material	Number of Samples	Number of tests	Aim
Tomato fruit-plant sample, Petunia, seed potatoes	5	6	Viral problems

▪ BACTERIOLOGY

Obligatory testing				
Target Organism	Aim	Type of plant material	Number of tests	Number of positive/suspect samples
<i>Ralstonia solanacearum</i>	Council Directive 2006/63/EC	Ware potatoes / Seed potatoes /	135	0
<i>Clavibacter michiganensis ssp. speedonicus</i>	Council Directive 2006/56/EC	Export potatoes / Open and Greenhouse tomatoes / Tomato seedlings / Water samples	135	0

▪ MYCOLOGY

Obligatory testing				
Target Organism	Aim	Type of plant material	Number of tests	Number of positive/suspect samples
<i>Giberella circinata</i>	Commission Decision 2007/433/EC	Pines	17	0
<i>Phytophthora ramorum</i>	Commission Decision 2002/757/EC	<i>Quercus ilex</i> / <i>Laurus nobilis</i> / <i>Rhododendron</i> / <i>Azalea</i> / <i>Magnolia</i> / <i>Viburnum</i> / <i>Camelia and Magnolia</i>	25	0

Other diseases			
Type of sample	Number of samples	Number of tests	Aim
Wheat samples	1	1	<i>Tilletia Indica</i>
Samples include: Olives, Cypress, Pines, tomatoes, Potatoes, Geranium, Carissa, Galletta, Vici faba, Lettuce, Carnations, Carob tree, Stone fruit tree, Eucalyptus, Beans, Roses, Strawberry, Rosemary	51 samples	39 tests (the other 19 samples were visually inspected only)	Samples were analysed for: Fungal, <i>Seridium cardinal</i> , Fusarium, <i>Phytophthora</i> , <i>Spongospira subterranea</i> Verticillium

▪ ENTOMOLOGY

Obligatory testing				
Target Organism	Aim	Type of plant material	Number of tests	Number of positive/suspect samples
Colorado potato beetle	Council Directive 2000/29/EC and amendments	Potatoes	0	0
Anoplophora cinensis	Commission Decision 2008/840/EC	Citrus / <i>Quercus</i>	0	0

Other diseases			
Type of sample	Number of samples	Number of tests	Aim
Tomato sample	0 samples / 8 inspections	0	Tuta absoluta monitoring
Yellow Traps	8 traps	8	<i>Scaphoideus titanus</i> monitoring
Samples include: Kola tree, Oranges, Citrus, Mulberry tree, Insect specimens, Water samples with insects, Tomatoes, Peppers, Fig tree, Mulberry trees, Yellow traps from vineyards,	3.05 ha / 17 samples	17	Samples were analysed for: Identification of insects, leafminer, tuta absoluta, aphids

Eucalyptus, Potato sample, Pine, Loquat tree			
--	--	--	--

▪ NEMATOTOLOGY

Obligatory testing				
Target Organism	Aim	Type of plant material	Number of tests	Number of positive/suspect samples
Potato Cyst Nematode	Council Directive 2007/33/EC	Soil / Compost	11	0
<i>Bursaphelenchus Xylophilus</i> (PWN)	Commission Decision 2006/133/EC	<i>Pinus</i> Spp. / WPM	25	0

Other diseases			
Type of sample	Number of samples	Number of tests	Aim
Samples include: Soil samples,	11	11	Samples were analysed for the presence and identification of nematodes.