

Ministry for Resources and Rural Affairs

The background features abstract, overlapping geometric shapes. A large, light beige shape dominates the lower half. A dark blue shape is positioned on the right side, partially overlapping the beige one. A light blue shape is also visible, overlapping the dark blue one. The overall composition is clean and modern.

Plant Health Department

I. BACKGROUND

The Plant Health Department 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.

The Community plant health regime is 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.

Harmful organisms are defined as any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plants products.

The Plant Health Department 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 Department also deals with plant variety rights and the conservation of plant genetic resources.

In order to meet the above aim, rights and obligations are placed upon Member States to regulate the movement of plants or plant products within their territory and to regulate the introduction of plants or plant products into the Community from third countries. Obligations are placed upon third countries which want to export plants or plant products to the Community.

2. INTRODUCTION

In 2009 the Plant Health Department continued to implement measures with the aim to prevent the introduction and spread of harmful organisms in the community. The main results achieved by the Department during this year were related to the fight against the Red Palm Weevil and included the publication of relevant legal notice, the registration of palm trees, dendrosurgery as a preventive insecticide treatment for the control of the pest, and eradication of the pest through tree uprooting and destruction. Malta also managed to secure funds as compensation for costs incurred for the control of the Red Palm Weevil during 2008 and 2009, through a request for financial assistance under the Solidarity Dossier.

Another event that marked the year 2009 was the outbreak of the tomato leaf miner pest, *Tuta absoluta*. In Malta it was reported for the first time in a greenhouse at Dingli in April 2009. Consequently the Plant Health Department issued Government Notice accordance to Part V (Containment and Eradication of Plant Pests) of the Plant Quarantine Act, to notify the presence of the tomato leaf miner, *Tuta absoluta*, in Malta, classifying it as a harmful pest, and empowering the Department to take any actions accordingly. A number of diagnosis, control and monitoring actions were put in place by the Department during this year, and at the same time, information and awareness campaigns were launched in order to sensitise stakeholders to this new problem that has already had significant economic impacts on the agricultural sector, particularly the tomato growing sector, including tomato processing.

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 one government notice were issued in 2009.

L.N. 33 of 2009 PLANT QUARANTINE ACT (CAP. 433) Plant Quarantine (Harmful Organisms) Amendment Regulations, 2009 Government Gazette of Malta No. 18,373 - 30.01.2009

L.N. 42 of 2009 PLANT QUARANTINE ACT (CAP. 433) Control of the Red Palm Weevil Regulation, 2009 Government Gazette of Malta No. 18,376 - 06.02.2009

L.N. 100 of 2009 PLANT QUARANTINE ACT (CAP. 433) Plant Quarantine (Harmful Organisms) Amendment No. 2 Regulations, 2009 Government Gazette of Malta No. 18,396 - 30.03.2009

L.N. 134 of 2009 PLANT QUARANTINE ACT (CAP. 433) Control of the Red Palm Weevil (Amendment) Regulations, 2009 Government Gazette of Malta No. 18,410 - 28.04.2009

L.N. 27 of 2009 – “Seeds of Agricultural Plants and Vegetables (Amendment) Regulations, 2009”

L.N. 45 of 2009 – “Vegetable Propagation and Planting Material (Amendment) Regulations, 2009”

L.N. 46 of 2009 – “Fruit Trees Propagation Material (Amendment) Regulations, 2009”

L.N. 199 of 2009 – “Seeds of Agricultural Landraces and Varieties Regulations, 2009”

Government Notice: 27th March, No. 242 Plant Quarantine act (Cap. 433) Contingency Measures laid down on the Areas of San Blas Valley and Dahlet Qorrot Valley in Gozo for the control of Citrus Tristeza Virus (CTV).

Two draft Legal Notices transposing Commission Directive 2009/97/EC on the examination of varieties of agricultural plant and vegetable species have been forwarded by the PHD for the necessary approvals in December 2009.

Memorandum of Understanding

The Plant Health Department and the Customs Division have signed a Memorandum of Understanding on the 22 December 2009 in order to facilitate the reciprocal operations of both parties and to enhance their respective capabilities in the fight against the spread of harmful organisms within the Community. The two entities have come to this agreement to establish a protocol of working methods to be ordinarily applicable to their mutual operations.

4. EU AFFAIRS

The Plant Health Department continued to participate in EU-related meetings for discussion of new proposals, working parties, and justification of country positions and a number of officials attended the meetings organised by the EU Commission and other EU structures.

For a number of meetings, Malta was represented by the Technical Attachée of the Permanent Representation of Malta in Brussels. On such occasions, all documents were scrutinised, and instruction notes and comments were formulated accordingly.

Communications

Information was sent to the Commission on the national Pine Wood Nematode monitoring programmes, import controls of susceptible wood, and controls of susceptible wood moving from PWN-demarcated areas in the EU to free areas.

The following information concerning seeds and propagation material was sent to the Commission.

- Comments and information on the quantitative restrictions for the marketing of seeds belonging to conservation varieties of vegetables in view of the adoption of a Commission directive controlling such marketing;
- Comments on derogations by various Member States for authorisation to market seeds of agricultural plants that do not satisfy the established minimum germination capacity;
- Information on the implementation of Commission Decision 2004/842/EC on the marketing of seeds of not yet listed varieties;
- Comments on the revision of the common names and other nomenclature in the directives concerning the marketing of seeds of agricultural plants covered by EU directives;
- Comments on a draft Commission directive covering the examination of varieties of agricultural plants and vegetables;
- Comments on the working documents of the European Commission on the implementing measures that shall be adopted at Commission level on propagation material and whole plants of fruit trees;
- Comments on the adoption of a directive regulating the marketing of local varieties and landraces of vegetable propagation and planting material; and
- Communication regarding vegetable varieties that enter Malta from other Member States and that are being used in Malta as rootstocks.

Reporting obligations

The following is a list of reporting obligations that Malta reported upon in 2009.

1. Commission Decision 2003/61/EC, and its amendments, authorising 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
2. Council Directives 93/85/EEC and 98/57/EEC and their amendments re : Brown rot and Ring rot
3. Directive 2002/499/EC and Directive 2002/887/EC and amendments on authorising 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
4. Commission Decision 2004/4/EC and amendment (Egypt potatoes)
5. Commission Decision 2003/63/EC and amendments (potatoes from Cuba)
6. Commission Directive 95/44/EC and amendments (material for research)
7. Article 2 of Commission Decision 2007/847/EC of 6 December 2007 providing for 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. It was reported that there were no imports in Malta during 2009 import season.
8. With respect to Commission Decision of 2004/200/EC on measures to prevent the introduction into and spread within the Community of Pepino mosaic virus, survey data was forwarded.
9. Commission Decision 2002/757/EC as amended by Commissions Decisions 2004/426/EC & 2007/201/EC on provisional emergency phytosanitary measures to prevent the introduction into and the spread within the Community of *Phytophthora ramorum* Werres, De Cock & Man in 't Veld sp.nov (notified under document number C(202) 3380)
10. Commission Decisions 2003/248/EC, 2003/249/EC and 2003/250/EC authorizing Member States to provide for temporary derogations from certain provisions of Council Directive 2000/29/EC in respect of plants of strawberry (*Fragaria* L.), intended for planting, other than seeds, originating in Argentina, Chile and Republic of South Africa respectively. Malta reported that there were no imports of plants of strawberry from the above-mentioned countries during 2009 to date.
11. Commission Decision 2004/96/EC authorizing Member States to provide for temporary derogations from certain provisions of Council Directive 2000/29/EC in respect of plants of *Vitis* L., originating in Switzerland. Please note that there were no imports of plants of *Vitis* L. from Switzerland during 2009 to date.
12. Commission decision 2007/433/EC on provisional emergency measures to prevent the introduction into the spread within the Community of *Gibberella circinata* Nirenberg & O'Donnel

13. Commission Decision 2006/133/EC 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 (notified under document number C(2006) 345)
14. Communication as stipulated in Commission Decision 2005/51/EC as amended by Decision 2007/156/EC which authorizes members States to provide for temporary derogations of Council Directive 2000/29/EC, in respect of the importation of soil contaminated by pesticides or persistent organic pollutants for decontamination purposes was forwarded as per reporting obligation checklist. Malta reported that there were no imports in Malta of such soil, during 2009 import season.
15. With reference is made to Article 5 of Commission Decision 2006/464/EC concerning the surveys for the presence of, or for evidence of infestation by *Dryocosmus kuriphilus* Yasamatsu, the oriental chestnut gall wasp, due to the fact that this pest infests only chestnut trees, and due to the fact that this sole host plant species is not grown in Malta, no official surveys were conducted for the possible presence of *Dryocosmus kuriphilus* during 2009.
16. In relation to Article 2 of Commission Decision 2003/766/EC on emergency measures to prevent the spread within the Community of *Diabrotica vigifera* Le Conte, Malta reported that Zea mays is not commercially cultivated in Malta, hence, no surveys for the presence of *Diabrotica vigifera* Le Conte were conducted.
17. Commission decision 2007/410/EC (PSTVd)

Notifications

7 notifications were sent to the European Commission via the EUROPHYT database and these were 5 notifications about missing documentation, 1 about the presence of harmful organisms and 1 about prohibition of plants. Besides another 4 internal communications to the European Commission were sent, 1 about Citrus Tristeza virus, 1 about *Tuta absoluta*, 1 about *Paysandisia archon* and 1 about Potato Spindle Tuber Viroid.

Notifications from other Member States on the lists of varieties of seeds of agricultural plants and vegetables that are authorised for marketing in the EU according to EU law were reviewed daily. Communication was held with the respective foreign authorities to enquire about information on proposed varieties and places of trials when the need arose.

EU Documentation

Documents, instruction notes and explanatory memoranda on food security, EC biodiversity action plan, EU strategy on invasive species, export of fruit and vegetables from the EU to USA, the agreements between the EU and the Swiss Confederation, Korea and Canada on trade in agricultural products and intellectual property rights were reviewed and comments forwarded as requested.

Restricted and unrestricted memoranda were drafted on the codified version [COM(2009)299 final] of all the EU legislation in force on the marketing of seed potatoes in the European Union and on COM(2009)424 final on a new Proposal for a Council Directive as regards the delegation of tasks of laboratory testing.

5. MULTILATERAL AND NATIONAL AFFAIRS

The Plant Health Department 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 Materials Unit (SPMU) and the Community Plant Variety Office (CPVO) and comments provided by the former mainly on the examination offices to be entrusted for the testing of plant species, various draft technical protocols used for the examination of varieties, the EU legislation that covers the quality of plant material for examination, CPVO strategic plan and the contents of Official Gazettes.

The Plant Health Department continued to participate in a number of national committees including the Plant Protection Board, the Red Palm Weevil Commission, the Food Safety Commission and the Bio-Safety Coordinating Committee.

The Plant Protection Board which has been set up in 2008, is a statutory advisory board and is constituted in terms of the Plant Quarantine Act (Chapter 433). During the year 2009 the board met a total of seven times, on the following dates: 3 March, 7 April, 12 May, 19 June, 9 October, 6 November, and 11 December.

Current issues concerning Plant Quarantine were discussed during Plant Protection Board meetings. This year's main issues were Red Palm Weevil, Citrus Tristeza Virus (CTV), and the Tomato Leafminer (*Tuta absoluta*). The board was continually updated with the plan of actions being taken by the Plant Health Department with regards the Red Palm Weevil. With respect to the CTV, the board has unanimously endorsed the proposed compensatory measures and the line of action being suggested by the PHD to monitor and control the virus, which was discovered in areas of San Blas Valley and Dahlet Qorrot Valley in Gozo. Since the outbreak of the *Tuta absoluta* in Malta, which was first mentioned during a PPB board meeting in April, the board has put forward various suggested measures for the control of the disease. The board also recommended carrying out further monitoring for the moth in tomato fields. Financial aid to growers as an incentive for mass trapping was also recommended.

6. DIAGNOSIS AND CONTROL

Monitoring and Surveys

As in previous years, in 2009, the Plant Health Department 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 2009 a total of 18 surveys were carried out in relation to the following areas of diagnosis – virology, bacteriology, mycology, entomology, and nematology covering approximately 82.3 hectares during which a total of 2,716 samples were collected. A more detailed list of the surveys conducted in 2009, 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.

Outbreak of Pests

In 2009 a new Lepidopteran pest to the Maltese Islands: *Tuta absoluta* (Tomato leafminer) from a tomato greenhouse was recorded for the first time in April.

Contingency, Emergency and Eradication Plans

Contingency plans have been drawn up and submitted to the Commission in respect of the following pests: Brown Rot/Ring Rot, Red Palm Weevil, Citrus Tristeza Virus, Colorado Beetle, *Tilletia indica* and Pine Wood Nematode.

Controls

The Plant Health Department destroyed a number of CTV infected trees at San Blas Gozo via an enforcement action during which a total of 66 CTV infected citrus trees were cut by chain saws until officials were stopped from the destruction process by a legal mandate produced by the same farmers (vide Section 8.6). Another 26 trees were subsequently destroyed on another date, after the Gozo Court of Justice refused the mandate order. Following monitoring carried out by the Plant Health Department in the area under contingency, another case of CTV infected tree was found in the same location and action was taken for its destruction.

Financial Assistance

In April 2009 Malta had introduced a request for financial contribution in respect of control measures implemented in 2008 and in 2009 for the control of the Red Palm Weevil, *Rhynchophorus ferrugineus*. Malta, together with other Member States, has established a programme of actions to eradicate the pest affecting palm trees in its territory, specifically on the island of Malta which is considered as a demarcated zone. The dossier submitted by Malta was deemed to be eligible due to the fact that it is impossible to trace back the origin of the infected consignment. This is because the organism spends a long incubation period inside its host before symptoms are evident. The sum allocated to Malta was EUR 354 613, amounting to 50% of eligible expenditure incurred for control measures. These measures are to be financed from the European Agricultural Guarantee Fund.

7. SEEDS AND OTHER PROPAGATION MATERIALS

Production and marketing of plant material

Letters were sent to Maltese suppliers and importers of seeds and other propagation material of agricultural plants, vegetables, fruit trees and vines covered by the national legislation in connection with the registration of varieties of all plant material being propagated and/or marketed in Malta. A number of suppliers provided relevant information to the SPMU. Each notified variety was checked for its inclusion in the current EU Common Catalogues of varieties and their supplements. Communication with the relevant notifiers had to be held for clarification purposes and other EU Member States had to be contacted about some varieties which were not found in the catalogues. National catalogues of varieties have been updated accordingly.

Communication and coordination was held mainly between the SPMU and other MRRA units in order to amend the SIU notification forms in connection with the entry of commodities in Malta, conduct inspections at local entities, gather information on the cultivation of local varieties of vegetables and preservation seed mixtures that are also being marketed in the Maltese Islands, provide data on the varieties of seed potatoes introduced in Malta, gather statistical data on potatoes with respect to the issues of farm-saved seeds, agricultural exemptions and protection of material with Community plant variety rights.

21 inspections (physical and documentary) were carried out at local nurseries and producers by the SPMU together with the SIU during which checklists based on the provisions of the national legislation on the marketing of seeds and propagation material of vegetables, fruit trees and ornamentals were followed. In general, the plant material inspected was found to be healthy but nurseries and suppliers have to work more on record keeping and traceability. Other checklists on the marketing, production and critical control points for vines, seeds of agricultural plants and vegetables and forest trees were being drafted. These shall also be used for future inspections.

Trials on local varieties of agricultural plants and vegetables

The trials on varieties that are known to be local have been conducted during this year in the fields of the Plant Biotechnology Centre. Varieties of cauliflower, onion, carrot, broad bean, kohlrabi, garlic and a type of radish have been grown. Due to the bad weather at the beginning of the year, a number of plants were

destroyed. Information on the characteristics of the varieties has been collected where possible following international guidelines.

Production of fruit trees

Work was carried out on the possibility of propagation of virus-free local varieties of citrus trees, conditions that need to be satisfied by mother plants from where propagation material is taken for further propagation, sanitation of local plant material and the availability of the necessary facilities for the keeping of plant stock and for the testing of plant material. A scheme for the certification of Citrus plant material has been drafted for this matter.

Agri-measures and rural development funds

During this year, the SPMU undertook the permanent registration of old fruit trees that are still being grown in Malta and Gozo as part of the PHD's aim to collect information on local varieties and also for financial support that is given to farmers that are in possession of endangered old varieties that are at risk of genetic erosion. Such registration was held between 16th March and 9th June 2009. The financial support is covered by the Rural Development Programme 2007-2013 (agri-environmental measure 9). This activity which was held in collaboration with the Paying Agency, IACS Section (Gozo) and the Rural Development Department involved discussions on the inclusion of new species under the measure, the preparation of all the necessary documentation and amendment to existing databases, problem solving in connection with the information received, etc.. 184 persons from Malta and Gozo registered their fruit trees. 368 certificates have been issued by the SPMU and 6,193 trees of various species have been registered.

Also during 2009, the SPMU commenced work related to agri-environmental measure 3 on the sowing of weed-free seeds by farmers for forage purposes and avoidance of the use of herbicides in the post-emergence period. This consisted in testing of seed samples of sulla, wheat, barley and oats that were submitted by farmers who applied for such measure for the determination of purity of such seeds. The SPMU prepared all the necessary documentation and guidelines in view of this activity.

8. SURVEILLANCE AND INSPECTORATE

Registration

During 2009 there were 19 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 262.

Certification

During 2009, 34 inspections took place in nurseries and garden centres in accordance with LN 97/2004 regarding the annual inspections for plant passport. A total of 21,481 plant passports were issued, for those plants and plant products that need plant passports. A total of 28 export phytosanitary certificates for exports were issued during 2009. A total of 4 re-export phytosanitary certificates were issued during 2009.

Market Surveillance

All consignments imported in Malta are subject to documentary checks and 340 documentary checks took place in 2009. All 340 consignments were inspected both for identity and phytosanitary checks. In addition, all consignments having wood packaging material attached to them which varies from dunnage and pallets were physically inspected whether to conform with the ISPM no.15 standards and for any other pests of Pine wood nematode and *Monochamus* spp.

Sampling and Inspections for Quarantine organisms

During 2009 a total of 205 samples were collected and sent to the various laboratories within the Plant Health Department for further analysis.

Registration of Palm Trees

During 2009 a new legal notice, LN 42/2009 was issued where one of the provisions is that it became obligatory that anyone who has palm trees had to register them with the Plant Health Department. A total of 3,826 applications from the general public were received. The total number of registered palm trees was 35,599 palms. Furthermore Local councils had to submit the list of palm trees situated within their jurisdiction as per DLG circular dated 12 December 2008. The total number of palm trees notified by the 67 Local councils amounted to 4,964. Also Government entities were obliged by OPM circular 31/2008 to register their palm trees, and a total of 46 entities submitted this information. The number of palm trees thus registered was 5905. Due to more requests from the public who was not aware of the deadline imposed by LN 42/2009 and its amendment a late registration was initiated by the PHD. A total of 69 late registrations were received by the end of December 2009, with a total amount of 227 palm trees being registered. All these applications were acknowledged. Besides 304 information letters were sent to individuals through e-mail or letter.

Eradication and enforcement

During 2009 the surveillance of Red Palm Weevil continued and there were 417 inspections of which 355 were in private residences and 62 in public areas. 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 776 palms had to be destroyed as a consequence of red palm weevil. 93 registered enforcement letters were sent to various individuals for palm removal. There were 5 notices of removal issued as per LN 42 of 2009.

Regarding *Tuta absoluta* a total of 144 destruction letters were issued and sent to the respective producers organizations to be submitted to their respective members.

With respect to cases of citrus trees infected with Citrus Tristeza Virus in San Blas/Dahlet Qorrot area under contingency (vide Section 6.4), there were 4 cases reported for prosecution. 66 trees were destroyed through an enforcement action without notice by the Plant Health Department. During this enforcement, a legal mandate made from 4 growers was issued against the PHD. Following a refusal of the mandate from the Gozo Court of Justice the destruction process by the PHD continued and all trees, amounting 26 were destroyed.

Another separate case was reported for prosecution by the PHD and this is still pending. This concerns the interception by Plant Health Department inspectors of the movement of citrus fruits with leaves. Since Malta hold protected zone status for the Citrus Tristeza virus, it is prohibited to move fruits that contain leaves, because these may act as agents for transmission of vectors of viral diseases.

9. LABORATORIES

Diagnostic Laboratories (Harmful organisms)

The diagnostic laboratories within the Plant Health Department 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 2009, the Bacteriology Laboratory participated in an Interlaboratory test on detection of *Clavibacter michiganensis* ssp. *sepedonicus* and *Ralstonia solanacearum* in potato tubers. This interlaboratory test was organised under an EU-funded ERA-Net project EUPHRESKO (European Phytosanitary Research Coordination).

In 2009, a total of 3,315 samples were tested in the plant pathology (mycology), virology, bacteriology, entomology and nematology laboratories. A more detailed breakdown of the number of samples tested in relation to the target organism and the number of positive or suspect samples detected is provided in Annex 2.

Soil and Irrigation Water Laboratory

The main aim of the soil and irrigation water laboratory is to provide an advisory service to farmers through the testing of soil and irrigation water in support of fertiliser planning and irrigation control.

In 2009, the laboratory received a total of 406 samples, of which 264 soil samples and 142 water samples, and conducted a total of 2,868 tests. These tests include routine analysis for soil nutrients and characteristics, as well as irrigation water quality (salinity).

Seed testing laboratory

In 2009 the seed testing laboratory of the Seeds and Propagation Materials Unit also started to perform seed testing for purity. The number of samples received amounted to 347, and 50 tests have been carried out till the end of the year. These tests are being continued.

Tissue Culture Lab (In vitro Laboratory)

Micro-propagation

Boston ferns: 22 jars containing about 110 plantlets of Boston ferns were being maintained at the laboratory at the end of this year. Throughout the year, these plantlets had been transferred to fresh nutrient media at the prescribed intervals and were inspected daily in order to monitor any developments and to detect problems at an early stage. 20 jars of ferns containing around 95 plants were forwarded to the glasshouse for acclimatisation.

A trial for micro-propagation of this plant (*Farfugium japonica*) was commenced. The explants were maintained in the climatic grown room and inspected daily in order to monitor any developments and to detect problems at an early stage. Regular sub-culturing was carried out and the explants produced roots, however an attempt to induce leaf formation failed.

African violets: The micro-propagation of African violets started in April 2009. The plantlets have multiplied and are continuing to multiply successfully. The plantlets were sub-cultured at regular intervals. A number of these plants have been transferred to a medium in plastic containers and distributed to schools during the Science and Technology festival held by MCST in November 2009. Towards the end of the year there were around 98 jars containing approximately 700 plants in the laboratory. 66 jars containing around 1034 plantlets of such species were forwarded to the glasshouse for acclimatisation.

Tulips: Literature review on different media formulations for root production of tulips was continued as the plantlets have failed to produce roots. Following further sub-culturing it was noted that 4 plants had produced roots on a particular medium. These 4 plants were then transferred to compost for an acclimatisation trial in different types of containers. The remaining plantlets were sub-cultured onto multiplication or rooting medium at regular intervals as part of the experimentation programme.

Orchids: Plantlets of *Spiranthes spiralis* and *Barlia robertiana* have continued to multiply satisfactorily during this year. 74 jars containing 2, 5, or 16 plantlets of various species of Maltese orchids were available at the laboratory at the end of the year. 89 and 170 plantlets of *S. spiralis* and *B. robertiana* respectively were transferred to the glasshouse for acclimatisation. A number of trials on the medium to be used for the acclimatisation of orchids have been carried out in order to determine which mixture would be the best. During the year, 2 of the plants produced flowers while in vitro and upon comparison to pictures, it was determined that the plantlets most probably belong to *Ophrys bombyliflora* rather than the *Barlia robertiana*. An attempt on the acclimatisation of *Spiranthes spiralis* has been carried out using different types of substrate and containers.

Sanitation of local varieties

Work on a trial on the sanitation (somatic embryogenesis) of local citrus was commenced. The available publications were reviewed thoroughly and standard operating procedures have been drafted. A work plan on the clonal and sanitary selection was established and a number of orchards where perpetual lemon trees are being cultivated have been visited for collection of flower buds to be used as explants. Samples were collected from a perpetual lemon tree infected with the citrus tristeza virus in the Maltese Islands. The explants are being maintained in the growth room and calli have been formed however no further development was noted.

The possibility of carrying out sanitation of local trees of various species has been sought.

Oenology Laboratory

The oenology laboratory was dismantled and items transferred from the Viticulture Section to the AS&RD laboratories. This laboratory will begin functioning again once the appropriate site for its installation is identified and the necessary staff is recruited and trained.

10. ADVISORY AND INFORMATION SERVICES

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

In addition, the Plant Health Department has organised a number of meetings and informative seminars in 2009 for stakeholders as part of awareness and information campaigns, as indicated in the list hereunder.

Seminar	Date	Stakeholders
Red Palm Weevil Seminars by Prof. Porcelli at FCCS premises, Ta' Qali	February 2009	Local councils, production centres (nurseries) and the general public
<i>Tuta absoluta</i> at Pitkali markets	9th October 2009	Growers
Citrus Tristeza Virus – Gozo	15th February 2009	Citrus Growers
Tomato Growers for Processing (Malta)	12th November 2009	Tomato Growers and Processors, PO`s.
Production and Marketing of Plant Material (Malta)	25th November 2009	Nurseries
Information on <i>Tuta absoluta</i> (Gozo)	27th November 2009	Tomato Growers, PO`s

In 2009 the Department published a number of press releases as indicated hereunder:

No	Date	Topic addressed
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187	6 February 2009	<i>Ippublikat Avviż Legali Dwar il-Kontroll fuq il-Bumunqar l-Aħmar</i>
477	19 March 2009	<i>Linji Gwida dwar il-qtuġ tal-frieghi tal-palm fl-okkażjoni ta' Hadd il-Palm u l-Festi marbuta mal-Għid, b'rabta mal-prevenzjoni tal-firxa tal-Bumunqar l-Aħmar</i>
953	30 May 2009	<i>Jintemm kors ta' taħriġ fuq il-kontroll tal-Bumunqar l-Aħmar</i>
905	25 May 2009	<i>Tagħrif dwar it-Tomato Leafminer (Tuta Absoluta)</i>
1081	23 June 2009	Department of Agriculture notice regarding Tuta Absoluta pest
1203	13 July 2009	Plant Health Department notice regarding cutting of Palm Trees for 'Kannizzati'

The Plant Health Department participated in the Science and Technology festival organised by the Malta Council for Science and Technology between the 23rd and the 29th November 2009.

Two University students, reading for a B.Sc. degree in Biology and Chemistry, were hosted at the Laboratories at the Plant Biotechnology Centre from 13th July to 11th September 2009. The students were involved in the micropropagation of ornamental plants at the Tissue culture laboratory and in the testing of plant bacteria and viruses at the Virology/Bacteriology Laboratory. A French student from the LaSalle Institut Polytechnique, was trained at the PHD from 20th July to 4th December 2009. She was involved in the testing of plant bacteria, viruses and fungi at the Diagnostic Laboratories, sampling carried out by the Diagnosis and Control Unit in connection with obligatory surveys and in the micropropagation of African violets at the Tissue Culture Laboratory.

11. COMMUNICATION AND CONSULTATION

The Plant Health Department took part in the evaluation of the Community Plant Health Regime commissioned by DG SANCO and being conducted by the Food Chain Evaluation Consortium, and submitted questionnaires related to general costs of implementing the regime, specific costs, and general evaluation.

In 2009, the Plant Health Department initiated the consultation with respect to the draft legal notice on the implementation of the Potato Cyst Nematode Directive.

12. PROJECTS

In 2009 the Plant Health Department was informed that insufficient funds were available to support the FP7 project ADOPT: Advanced On-Site Detection of Invertebrate Pests in Plants that had been favourably evaluated by the EU Commission in the first phase of evaluation. On the basis of the proposal's position in the resulting ranking lists, and given the budgetary limits, the Commission services were not in a position to proceed with negotiations for a Grant Agreement on this proposal. The Department had submitted its application to participate in this project as a partner having specific tasks in the workpackage programme.

In January 2009, the Plant Health Department submitted its nominations for the national members and substitutes of the COST project FA0807 Integrated Management of Phytoplasma Epidemics in Different Crop Systems.

In March 2009 the project proposal for PHYTOGREEN was delivered to the Joint Technical Secretariat of the Med Programme (Europe in the Mediterranean). The Plant Health Department confirmed its intention to participate as project partner in this project for the Application of innovative models for eco-friendly phytosanitary management of urban green areas to protect city-dwellers' health. To date, the outcome of the selection process has not been communicated.

In March 2009, the Plant Health Department submitted its intention to participate in the proposed draft COST action – Standardisation and Harmonisation of Detection, Diagnosis, Monitoring and Control

Protocols for citrus tristeza and huanglongbing agents and their main vector species (*T. citricidus*, *D. Citri*, *T. erythrae*) about the transfer of knowledge on Citrus tristeza and Huanglongbing, two important citrus diseases.

In 2009 work on the initial phases of an FP7 funded project “Valorisation of the indigenous vine varieties of Malta: Conservation, Assessment and Innovation” was carried out by the Oenology Research Section in conjunction with the Institute of Agriculture at the University of Malta. Technical support through site inspections, sampling and data interpretation was given to vine growers.

In October 2009 a project proposal entitled ‘Preservation and enhancement of the genetic heritage of fruit tree species of the Mediterranean Sea Basin’ – FruitGerm - was submitted by the Agricultural Research Centre of Egypt for funding under the European Neighbourhood and Partnership Instrument (ENPI) of the CBCMED (Cross Border Cooperation in the Mediterranean) under priority 1. The Plant Health Department is one of the participating partners in the proposed project, that shall be implemented in Egypt, Greece, Lebanon, Malta, Syria and Italy and that has duration of 36 months. The main activities in the proposed project are the development, harmonisation, and implementation of common innovative protocols for the selection, mapping, characterisation, conservation and use of native fruit tree species; the definition of a common innovative tool for the data management of native fruit tree species genotypes; and the consolidation of the public-private Mediterranean Network for the enhancement and use of fruit tree species.

In October 2009 the Plant Health Department sent an expression of interest for participation in EUPHRESKO II as an Observer Partner. As an observer partner, the PHD had already been involved in the EUPHRESKO ERA-NET and had participated in the Europe-wide workshop on Building and Influencing Trans-national Phytosanitary Research Strategies for Europe, and in the Ring Test on Diagnostic Methods for *Clavibacter michiganensis* ssp. *Sepedonicus* and *Ralstonia solanacearum*.

Through a Twinning Light Project ‘Auditing the Authorities represented within the Food Safety Commission’, an official from the PHD received local training in internal audits by two experts and also participated in a study visit in internal audits in Northern Ireland (Annex 3 refers).

13. PLANT BIOTECHNOLOGY CENTRE MANAGEMENT

Facilities Management

Routine work such as cleaning of pots, application of pesticides and fertilisers was carried out in the glasshouses, screen houses, shade house, mother block and outdoor areas. Routine works for the up keeping of the PBC grounds were carried out. These included weeding and rotovation of fields and general cleaning and maintenance of the premises.

Rootstocks and ornamental plants were continually cared for and regular applications of insecticides were necessary to control sciarid flies and other insects. Preventative drenching with fungicides was carried out to avoid soil borne fungal diseases and fertilisers were applied during irrigation. Acclimatised rootstocks were transferred to the shade house for hardening and certification. Conventional propagation of various ornamental plants was also carried out within the glass house.

A continuous production of herbaceous indicator and indexing plants for virus diagnosis was carried out throughout the whole year. Apart from the regular herbaceous plants, pumpkins, cucumbers, tomatoes, aubergines, fava beans and others were used as indicator plants. Works includes regular sowing, transplanting, repotting, irrigation and spraying with pesticides for the control of insects pests such as sciarid flies, thrips, whiteflies and red spider mites. Old material was discarded. Hygiene, such as cleaning of benches and floors was carried out. A stock of mother plants for the collection of seeds was maintained.

The ornamental and endemic plants are being maintained in the 3rd compartment and required regular irrigation and spraying. Commercial propagation of spider plants, *Myrtus*, *Cremnophyton*, *Helichrysum* and other ornamental plants was carried out.

The plastic house was mainly used for the production and upkeep of herbaceous indicator Mother Plants which are used for seed collection. These plants were given regular care. Maintenance work was also carried out on some of the benches.

Regular irrigation, application of pesticides and drenching with fungicides for the control of insect pests was carried out. Other work included organisation of plants and weeding. Plants were regularly cared for and required irrigation, weeding and spraying for insect pests. The stonefruits and vines were pruned and organised and slow release fertilisers were applied.

Sale and Donation of Plants

In 2009 the Plant Health Department's Facilities Management and Maintenance Unit sold a total of 90 plants. In addition, a total of 646 plants, including 60 olive rootstock, were donated to various entities of the Ministry and non-governmental organisations.

Participation in Fairs

The PHD had participated in several fairs organised by MRRA and these include the *Festa tat-Tigieg*, *Tal-Qaqocc*, *Echofest*, *Tal-Majjal*, *tat-Tonn*, *ta' l-Ghasel*, *Il-Buskett* and also at the Trade Fair. The total number of plants sold during these fairs amounted to 174.

14. OPERATIONAL AND ADMINISTRATIVE

Human resources development

A number of officials within the Plant Health Department attended courses, both locally and abroad in a wide range of topics, including management and leadership skills, EU affairs, and ICT skills. In addition, the Plant Health Department organised a number of topic-specific training sessions, such as the use of dendrosurgery and endotherapy in the control of the Red Palm Weevil, and mycology techniques in diagnosis and control. Inspectors from the Surveillance and Inspectorate Unit continued to participate in the Better Training for Safer Food Initiative of the DG Health and Consumers of the EU.

On the 27 October a team building workshop was organised by the Staff Development Organisation through an initiative of the Plant Health Department. Media Coop animated the workshop for which all Department staff attended.

A number of staff movements, including those due to promotions and transfers took place in 2009. In spite of some new additions, through recruitment and transfers from other departments, the Plant Health Department still suffers from low staffing levels, especially in key management positions.

Procurement

In 2009 the Plant Health Department through the Department of Contracts issued a tender for the supply and commissioning of a heavy duty palm tree shredder for the shredding of infected palm trees. The tender proposals received by the closing date (11 November 2009) were evaluated and a recommendation was made to the Department of Contracts.

On 3rd December 2009, a request for information was issued on a Laboratory Information Management System (LIMS) for the Plant Health Department in order to help in the automation of laboratory activities.

An Expression of Interest for the provision of monitoring services (phytosanitary diagnosis and control of *Tuta absoluta* – tomato leaf minor moth) to the Plant Health Department was drafted by the Department and published by the Procurement and Contracts Section on the 27 November 2009.

Missions

In 2009, the Plant Health Department participated in two missions of the Food and Veterinary Office of DG SANCO. The first mission DG(SANCO)/8109/2009 FVO General Review Mission to Malta took place from 6 to 10 July for the purpose of updating the Country Profile. In addition to reviewing the description of responsibilities of competent authorities, the mission reviewed in detail the state of play on all outstanding recommendations from previous FVO inspections in Malta. Following this mission, the Department submitted additional information as requested by same office by 30 October 2009. An FVO Preliminary General Audit was then held on 16th December 2009.

Audits

During 2009, the Plant Health Department has had one external audit carried out, as provided by Regulation (EC) No 882/2004 of the European Parliament and of the Council on official controls to verify compliance with feed and food law, animal health and animal welfare rules to verify that the required system of control is in place and is being effectively implemented. The audit by MSA was carried out on 22nd April 2009 and involved onsite witnessing of plant health inspectors in performing an inspection on third country imports. The areas assessed during the course of the visit were found to be effective.

Customer care

In 2009 the Plant Health has drafted the Quality Service Charter. This Charter shall serve as a declaration of our commitment to offer an excellent service to our customers. The Department has also implemented a number of provisions in order to strengthen its customer care particularly in relation to the provision of inspectorate and advisory services to the general public. It is expected that the Quality Service Charter shall be launched in 2010.

Green Measures

In 2009, the Plant Health Department continued implementing green measures including resource-efficient measures and waste management. Some of the water flushers at the PBC were in the latter part of the year replaced with dual flush mechanism type in order to save water. In addition, the Department's Green Leader continued raising awareness about environmental measures at the workplace, including the appropriate waste separation.

On the 23 July 2009, a question and answer session was held at the PBC for all Plant Health Department employees about green measures and waste management. This session was addressed by the Ministry's green leaders and a Wasteserv representative and focused on energy efficiency, climate change and sustainable waste management.

Marica Gatt
Director, Plant Health Department

Annex 1: Details of surveys carried out by the Diagnosis and Control unit in 2009

	Survey	Commodity	Inspection site	Number of Inspections/ Area Covered	Number of samples collected
Virology	Citrus Tristeza Virus Survey	Citrus samples	Orchards / Private Gardens / Nurseries	19 Inspections / 1.1958 ha	763 Samples
	Citrus Tristeza Virus Contingency Area	Citrus samples	Orchards	17 Inspections / 3.7504 ha	1259 Samples
	Tomato Survey including Pepino Mosaic Virus Survey; Tomato Spotted Wilt Virus Survey and Tomato Yellow Leaf Curl Virus Survey	Tomato seeds/seedlings/ fruit and plant samples	Greenhouses / open fields / importers / warehouses / nurseries	32 Inspections / 5.105 ha	93 Samples
	Potato Spindle Tuber Viroid Survey	Seed and ware potatoes / tomato plants / <i>Solanum jasminoides</i> / <i>Solanum nigrum</i>	Greenhouses / open fields / importers / warehouses / nurseries	55 Inspections / 22.206 ha	69 Samples
	Grapevine Flavescence Doree Survey	Grapevine samples	Vineyards	11 Inspections / 23.7387 ha	8 Samples
	St. Vincent De Paule Certification	Stone fruit samples	Nursery	5 Inspections including mother plots and demonstration plots	384 Samples
Bacteriology	Brown Rot/Ring Rot	Ware Potatoes, Seed Potatoes, Export Potatoes, Open and Greenhouse Tomatoes, Tomato Seedlings, Water and hosts such as <i>Solanum nigrum</i> .	Open Fields, Greenhouses, Ware Houses, Watercourses, Nurseries	Potatoes 29 inspections/ 20.53 Ha Tomatoes 5.77 Ha 15 inspections	43 Samples 28 Samples
	CAC Certification <i>Erwinia amylovora</i>	PomeFruits	St. Vincent de Paul Government Nursery.	270 Trees inspected visually	4 Samples with typical symptoms
	CAC Certification <i>Pseudomonas syringae</i>	StoneFruits	St. Vincent de Paul Government Nursery.	102 Trees inspected Visually	None
Mycology	<i>Gibberella circinata</i>	Pines	Fields, Greenhouses, Ware Houses, Watercourses, Nurseries	24 inspections	3 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> and <i>Magnolia</i> .	Nurseries, Public Gardens, Woodland Areas, Embellishment projects.	15 inspections	23 Samples
Entomology	Mulberry trees monitoring	Mulberry trees	Green area	1	0
	Colorado potato beetle	Potatoes	Open Fields	N/A	0
	Carob tree borer	Carob Trees	Open Fields	1	1
	<i>Tuta absoluta</i> monitoring	Tomatoes	Open Fields/Greenhouses	24	5
	<i>Anoplophora cinensis</i>	<i>Citrus</i> , <i>Quercus</i>	Public/private gardens, forestry, nursery, open fields.	55	0
Nematology	Potato cyst nematode	Soil/Compost	Open Fields/nurseries	25 inspections	33 Samples
	<i>Bursaphelenchus Xylophilus</i> (PWN)	<i>Pinus</i> Spp./WPM	Nurseries, forestry, wood inspections.	282	5

Annex 2: Details of diagnostic testing in virology, mycology, bacteriology, entomology and nematology

Obligatory virus testing

Target Organism	Aim	Type of plant material	Number of samples tested	Number of positive/suspect samples
Citrus Tristeza Virus	CTV survey The CTV survey is an annual obligation as per Council Directive 2000/29/EC and its amendments in Annex II, Part A, Section II, (d)4	Citrus	763 samples	0
Citrus Tristeza Virus	CTV contingency area The CTV survey is an annual obligation as per Council Directive 2000/29/EC and its amendments in Annex II, Part A, Section II, (d)4, and L.N. 97 of 2004 in which the Maltese Islands are considered as a protected zone for this virus		1259 samples	1 positive sample
Pepino Mosaic Virus	PepMV is an annual obligation as per Commission Decision 2004/200/EC and amendments.	Tomato seeds/seedlings/ fruit and plant	93 samples	0
Tomato Spotted Wilt Virus	TSWV/TYLTV is an obligation as per Council Directive 2000/29/EC and its amendments in Annex II, Part A, Section II.		37 samples	0
Tomato Yellow Leaf Curl Virus			37 samples	0
Potato Spindle Tuber Viroid (PSTVd)	PSTVd survey is an obligation as per Commission Decision 2007/410/EC on measures to prevent the introduction into and spread within the Community of the PSTVd.	Ware potatoes / tomato plants / <i>Solanum jasminoides</i> / <i>Solanum nigrum</i>	67 samples	0
Grapevine Flavescence Dorée	Flavescence Dorée survey as per Council Directive 2000/29/EC and its amendments in Annex II, Part A, Section II	Grapevine	8	Results are not yet available
Plum Pox Virus (PPV)	PPV survey as per Council Directive 2000/29/EC and its amendments in Annex II, Part A, Section II.	Stone fruit	384	0
Prune Necrotic Ringspot Virus	PNRV survey on mother plots/demonstration plots at SVDP is required for CAC certification for Stone fruits L.N. 271 of 2004 Schedule III.	Stone fruit	116	2 positive samples
Prune Dwarf Virus		Stone fruit	76	0

Non-obligatory virus testing

Target Organism	Type of plant material	Number of samples tested	Aim
Tomato Spotted Wilt Virus	Pepper plant and fruit	1	The symptoms seen on the

(TSWV)			sample resembled that of TSWV
Nothing specific	Clivia plant	1	Sample brought in by public
Nothing specific	Onion sample	1	Sample brought in by public
Nothing specific	Cauliflower sample	2	Sample brought in by public
Pepino Mosaic Virus	Tomato Sample	1	Sample brought in by public – the symptoms seen on the sample may be attributed to a combination of 2 viruses - cucumber mosaic virus and Potato virus Y
Tomato Spotted Wilt Virus			
Pepino Mosaic Virus	Vegetable Marrows	1	Sample brought in by SIU – The symptoms seen on the samples may be attributed to a combination of 2 viruses - Cucumber mosaic virus and Zucchini yellow mosaic virus
Tomato Spotted Wilt Virus		1	

Tests for Quarantine Harmful Fungal Organisms

Target organism	No of samples tested	Commodities concerned	No of positive/suspect samples
<i>Phytophthora ramorum</i>	23	<i>Quercus ilex, Laurus nobilis, Rhododendron, Azalea, Viburnum and Camelia, Magnolia</i>	None
<i>Gibberella circinata</i>	3	Pines	None
<i>Phoma tracephila</i>	34	Citrus	None
<i>Tilletia indica</i>	5	Wheat grains.	None

Tests for Quality Affecting Fungal Diseases

Total Number of Samples	List of Commodities	List of Organisms
71	Most common: Potatoes, Olives, Citrus, Grapevine, Tomatoes, Stone – Fruits Others include: Carnations, Turf-grass, Pines, Tamarisk Tree, Eucalyptus, Louiza, Bambinella, , Cypress Trees, Ortensia and Mulberry Leaves.	Most common: <i>Alternaria, Fusarium, Verticillium</i> . Others include: <i>Penicillium, Phytophthora spp, Venturia, Rhizoctonia, Cronatorium and Inonotus tamaricis</i>

Bacteriology tests for Quarantine Harmful Bacterial Organisms

Target organism	No of samples tested	Commodities concerned	No of positive/suspect samples
<i>Ralstonia solanacearum</i>	91	Potatoes, Tomatoes, Water and Tomato Seedlings	0
<i>Clavibacter michiganensis</i> ssp. <i>sepedonicus</i>	91	Potatoes, Tomatoes, Water and Tomato Seedlings	0
- <i>Erwinia amylovora</i> - <i>Pseudomonas syringae</i> pv. <i>syringae</i>	4 0	Pome Fruits Stone-Fruits	0 0

Tests for quality affecting bacterial diseases

Total Number of Samples	List of Commodities	List of Organisms
4	Onions, Citrus, Olives.	<i>Pseudomonas</i>

Entomology

Target organism	No of samples tested
Scale Insect	11
Bug	1
Citrus Leafminer	7
Borers	8
<i>Phrynetta leprosa</i>	1
Thrips	3
<i>Tuta absoluta</i>	9
Aphids	2
White Fly	1
Possibly <i>P. archon</i>	2
<i>Scaphoideus titanus</i>	10
Larvae in wood	2

Nematodes

Target organism	No of samples tested
Pine wood Nematode	5
Dead tree nematodes	1
Soil nematodes	55
Tomato roots nematodes	2
Carnation roots nematodes	1
Potato Cyst nematode (Compost)	8
Potato Cyst Nematode (Soil)	12