STEPPED-UP SURVEILLANCE FOR EARLY DETECTION OF *ANOPLOPHORA CHINENSIS* PLANTAREGINA DISTRICT: A PEST FREE AREA, SPECIALISED IN FULL-SIZE DECIDUOUS ORNAMENTAL TREES PRODUCTION

Authors:
M. Ciampitti[1], B. Cavagna[2], A. Bianchi[1], V. Cappa[1], S. Asti[1], A. Fumagalli[1]
[1] Plant Health Service, ERSAF, Via Pola 12, 20124 Milan, Italy;
[2] Health Service, Regione Lombardia - Piazza Città di Lombardia 1, 20124 Milan, Italy;

The Plantaregina district area extends for more than 50.000 ha in Canneto sull'Oglio, between the provinces of Mantova and Cremona, and hosts the biggest concentration of commercial nurseries in Lombardy. The area businesses specialize in the cultivation of full-size deciduous ornamental trees. The plan of reinforced surveillance includes the following steps: planning, inspection of the urban green spaces, surveillance of the territory and sources of risk.

The urban green spaces were inspected using the methods already applied in the demarcated areas, but a new methodology was defined for the enhanced territorial surveillance, as there were no established guidelines to follow.

A buffer zone was delineated, with a 2 km radius around all the areas dedicated to nursery cultivation, and a grid of 500x500 m was superimposed on it. 1-4 key points were defined for each cell, depending on the risk to plant health, and more than 3,450 key points were identified, for a total of 11,233 plants. In addition 16 nurseries classified as high risk sources were checked, with a buffer zone of 100 m radius around them.

The annual cost of the surveillance is 30,000 euro, corresponding to about 0.025% of the district's annual production value.

INTRODUCTION

Each year in Plantaregina district almost 3 million plants of the species most vulnerable to *Anoplophora chinensis* are grown in open fields.

In order to protect this district and to ensure its continued economic well-being, the Regional Plant Health Service (PHS) has designed and applied a stepped-up surveillance system, in line with the FAO ISPM international standards 4, 6, 8.

From the very beginning the staff of PHS planned a survey strategy for the early detection of *Anoplophora chinensis* in this important horticultural area.

METHODOLOGY

1. PLANNING

The planning stage is very important and is based on preparation of the requisite cartography, to be used as an operational tool, and the involvement of the nursery operators in the district and others in the area so that they can participate in the planned actions.

Principal steps are:

- definition of survey areas and of the municipalities involved;
- notification letters and coordination meetings for districts and municipalities;
- drawing up working maps based on orthophotos 2007 - Lombardy Region and Dusaf (Destination Use of Agricultural and Forestry soils 2007/10)

2. INSPECTION OF URBAN GREEN SPACES

The urban green areas in Plantaregina district were inspected with the same methods used in the demarcated areas.

All the specific species that host *Anoplophora chinensis* according with the Decision 2012/138/UE were checked.

Photo n.1: use of gps during the monitoring activties.

Photo n. 2: Activity of monitoring

3. SURVEILLANCE OF THE TERRITORY

A new methodology was defined to enhance territorial surveillance (countryside areas and nursery fields), as there were no established guidelines to follow.

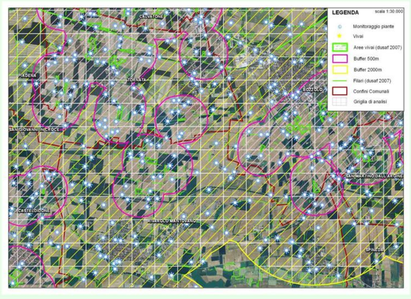
In Plantaregina district buffer zones were defined around nursery production fields:

- 500 m buffer zones (22.150 ha)
- 2000 m buffer zones (31.750 ha)

A grid of 500x500 meters was superimposed on the map, generating 2,156 grid units. In the 500 m buffer zones 2 or 4 sentinel points/grid unit were identified, as against only 1 sentinel point/grid unit in the 2,000 m buffer zone .

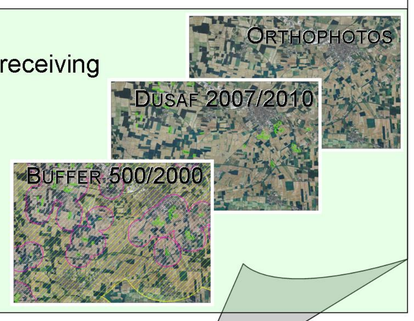
Photo n.3: Plants inspected in nursery

4. SOURCES OF RISK



Regarding nursery fields, according to international reports of findings and notifications, 16 sources of risk - nurseries receiving supplies from high risk countries, particularly China, either directly or through other MS like NL– have been identified.

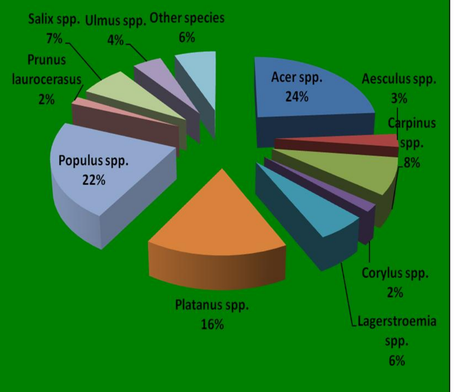
Buffer zones with a radius of 100 m around these company headquarters were also surveyed. In these fields, only trees planted in the last 5 years and with a diameter > 1 cm were checked (self - production excluded



RESULTS

- Survey of 6,223 host plants in urban green areas of 31municipalities;
- Survey of 5,746 host plants – monitoring 54,000 ha in buffer zones;
- Survey of 82,275 host plants in 16 nursery fields;
- 3,450 total inspections;
- 140 working man-days.

Survey area	Number of grid units	Number of spy points
500 m buffer zones	886	2.018
2000 m buffer zones	1.270	1.432
Total	*2.156*	*3.450*



CONCLUSIONS

The plan allows for:

· the carrying out of an effective eradication action to eliminate the pest organism;
· the application of an exception to the demarcation procedure indicated in EU Decision 38/2012/CE;
· reduction of costs associated with the application of the official measures;
· reduction of the obligations that producers must fulfill;
· avoidance of a sales ban on products cultivated in the district;

· The cost of the first year of application of the plan was 40,000 €.
· Annual maintenance is 30,000 €.
· The district's annual production value is 120,000,000 €.

0,025%