



Better Training for Safer Food *Initiative*

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Surveys for specific pests

Content

- Requirements for mandatory surveys for quarantine organisms (QP)
- Targeting of survey inspections based on risk
- Statistical principles
- Specific survey requirements for selected priority pests

Requirements for mandatory surveys for quarantine pests (QP) – based of the new Regulation on protective measures against pests of plants

Mandatory surveys for QP

**PROTECTED
ZONE PEST**

**REGULATED AND
NOT LISTED AS
UNION QP
(em. measures)**

**UNION
QUARANTINE
PEST**

**NON
REGULATED
PESTS**

**REGULATED
NON
QUARANTINE
PEST**

**PRIORITY
PEST
(10%)**

**DEMARKATED
AREAS**

**ANNUAL SURVEY
PROGRAMME**

**MULTI-
ANNUAL
SURVEY
PROGRAMME
(5-7 years)**

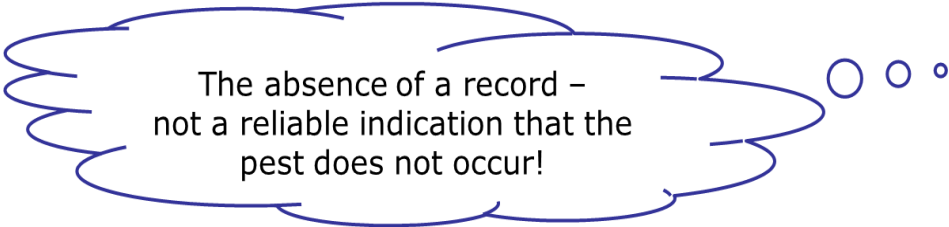
**NOT FOR PESTS WHICH
CAN NOT ESTABLISH OR
SPREAD**

How to design the survey?

- ✓ *Based on the risk that the pest concerned occurs in the respective area*
- ✓ *They shall consist of visual examinations by the competent authority, and, where appropriate, collection of samples and performance of tests*
- ✓ *Based on sound scientific and technical principles, and carried out at appropriate times with regard to the possibility to detect the pest concerned*

Where to survey?

- ✓ ***All areas where pest is not known to be present (to know not to be present)***
 - ✓ *But not needed for pests which can not establish or spread due to the ecoclimatic conditions or the absence of its host species.*
- ✓ ***Demarcated areas***
- ✓ ***Protected zones***
- ✓ ***For each area annually select different locations!***



The absence of a record –
not a reliable indication that the
pest does not occur!

Where to survey?

- ✓ *Natural and public green areas*
- ✓ *Premises*
- ✓ *Vehicles*
- ✓ *Machinery and*
- ✓ *Packaging*



Multi-annual survey programmes (5-7 years)

- ✓ *Specific objective of each survey*
- ✓ *Area concerned*
- ✓ *Time covered*
- ✓ *Plants and commodities targeted*
- ✓ *Survey methodology*
- ✓ *Procedure: visual examination, sampling and testing, timing, frequency and numbers of planned visual examinations, samples and tests*
- ✓ *Methods of recording of information collected.*

Targeting of survey inspections based on risk

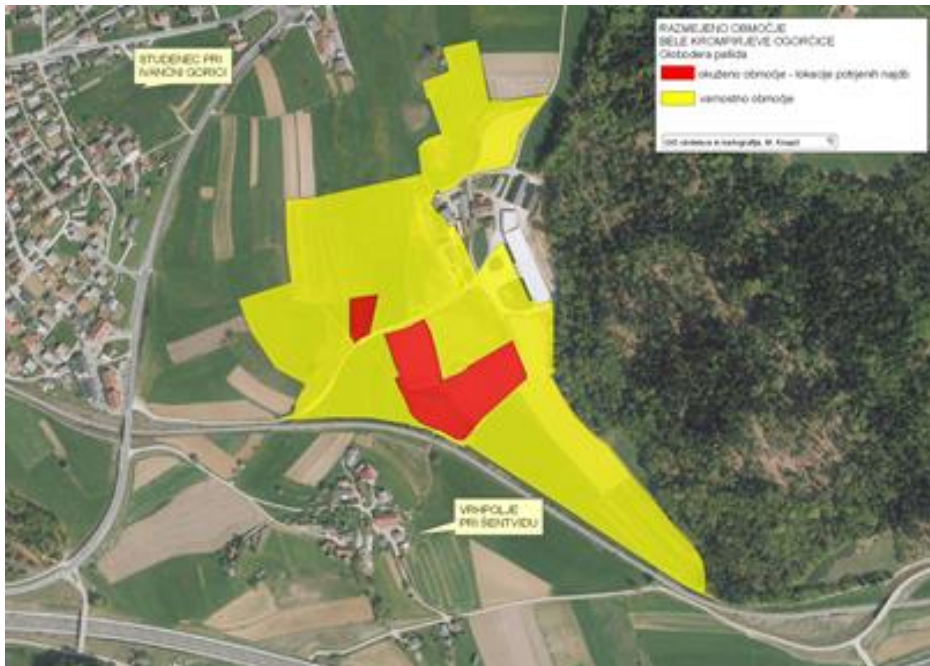
Choice of observation points, high risk sites, commodities

- where are you most likely to find a pest?



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High risk sites - previously reported presence of the pest



High risk sites – entry points of plants, plant products and other objects



High risk sites - where imported commodities are marketed/stored/repacked/processed

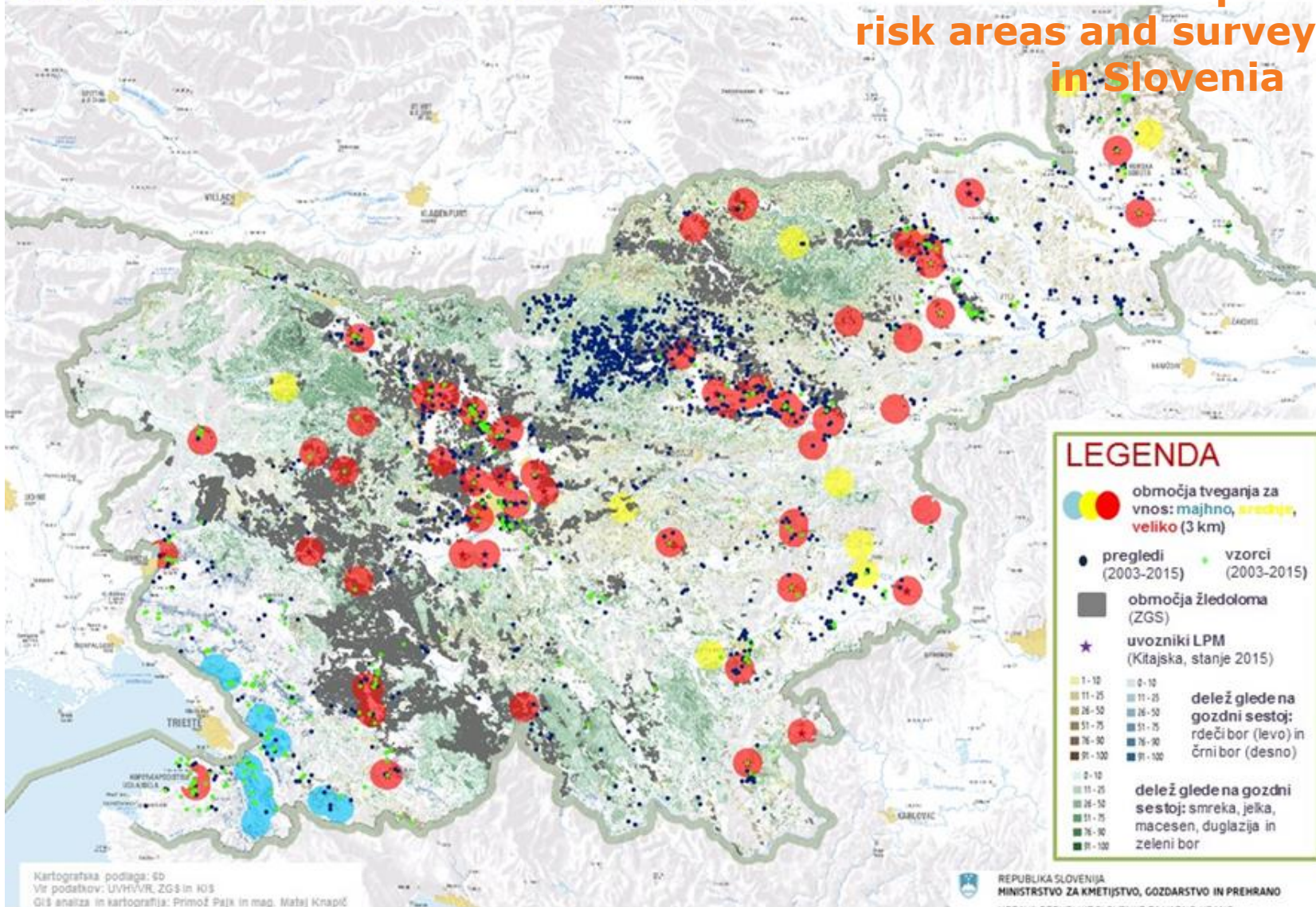


High risk sites - where imported commodities are used as planting material





Bursaphelenchus xylophilus (Steiner et Buhner) Nickle et al. Distribution of host plants for Bx, risk areas and survey history in Slovenia



Kartografska podlaga: 6D
 Vir podatkov: UVNI/VR, ZGŠ in KOS
 GIS analiza in kartografija: Primož Pajk in mag. Matjaž Knapč
 DECEMBER 2015

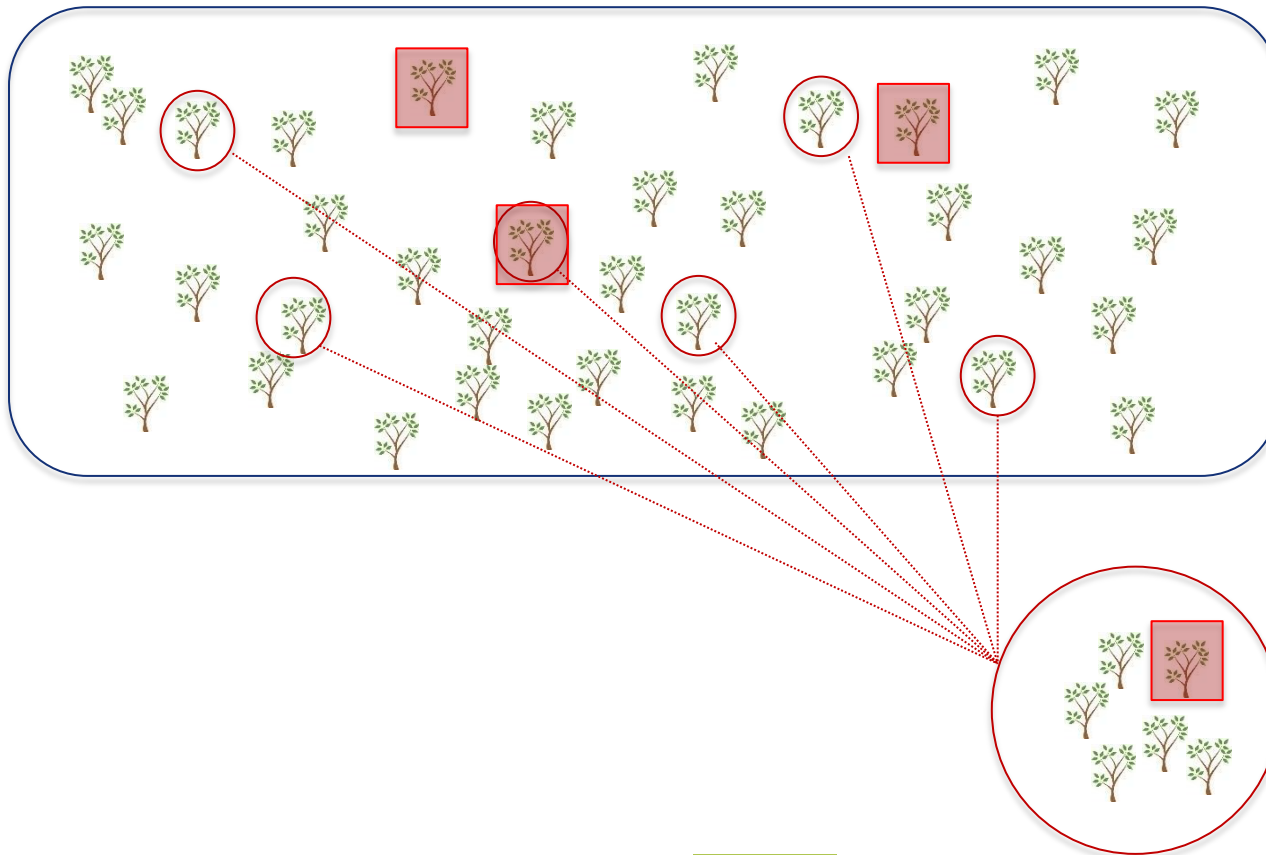
Statistical principles

- ***The population to be surveyed?***
- ***The population is a collection of similar units of concern and may be of various types:***
 - *geographical unit with a trapping grid placed over an area*
 - *a field planted with a host crop*
 - *individual host plants in an unmanaged area*
 - *storage facility.*
- ***Most common statistically based sampling methods:***
 - *simple random*
 - *systematic*
 - *stratified*
 - *targeted*
- *ISPM 31: Methodologies for sampling of consignments*



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Key concept: Populations and samples



Population

Sample



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Specific survey requirements for selected pests



visual inspection



sampling



Specific survey requirements for selected pests



traps (color, pheromone, other)

Specific survey requirements for selected pests

- **X. fastidiosa (CID 2015/789)**
 - ✓ In buffer zones, the surveyed area shall be based on a grid split into 100 m × 100 m squares. Visual inspections shall take place in each of those square.
- **Guidelines for the survey of X. fastidiosa in the Union territory (16 Dec. 2015)**
- **G. rostochiensis and G. pallida (CD 2007/33/EC)**
 - ✓ on at least 0,5 % of the acreage used in the relevant year for the production of potatoes, other than seed potatoes

Specific survey requirements for selected pests

- **Pseudomonas syringae pv. actinidiae**

Not required in CID 2017/198 but in a format for reporting)

- ✓ fruit production areas
- ✓ survey results on production of Actinidiae: plants for planting and pollen
- ✓ records of checks of imported material.

A brief description of survey required.



- **Pomacea**

Not required in CID 2012/697 but in a format for reporting)

Survey results from:

- ✓ Rice plots
- ✓ Other host plants in wetlands
- ✓ Irrigation and drainage network
- ✓ Rivers



Project Perseus

- Plant health surveys for the EU territory: an analysis of data quality and methodologies and the resulting uncertainties for pest risk assessment
- Datasheets for 283 regulated (Council Directive 2000/29/EC Annex I and Annex II) harmful organisms
- <http://www.efsa.europa.eu/en/supporting/doc/676eax1.pdf>



Better Training for Safer Food **BTSF**

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