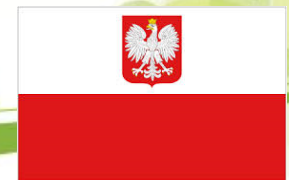




## Twinning projekt EU

**”Dalje jačanje kapaciteta u fitosanitarnom sektoru iz oblasti sredstava za zaštitu bilja, zdravlja bilja, sjemena i sadnog materijala, uključujući fitosanitarne laboratorije i fitosanitarnu inspekciju”**



# **Surveys and inspections of crops of fruit, ornamentals and vegetables grown outdoor**



# INTRODUCTION

Outdoor crops maybe divided into:

➔ field grown ( in soil)



➔ containerised



# INTRODUCTION

## Containerised outdoor grown crops

➔ Not isolated from the ground  
(in soil)



➔ Isolated from soil

- concrete
- plastic foil



# MANAGING WITH SOIL

## → Field grown outdoor crops

For plants which are moved with soil it's necessary to ensure that the soil is free from quarantine organisms (PCN, free living nematodes, *Synchytrium endobioticum*, certain bacteria, etc.)

- *soil sampling and lab testing (area, place of production, field)*
- *history of field*

E.g. nursery stock plants are moved in soil, so it should be ensured the requirements of the PCN Directive are complied and soil is free from *Clavibacter michiganensis* ssp *sepedonicus* & *Synchytrium endobioticum*

# MANAGING WITH GROWING MEDIA

In case of containerised rooted propagating material attention shall be paid growing media is free from specific harmful organisms

## Type/composition of growing media

usually composed of peat, some other organic substances, **soil**, fertilizers, etc.

- usually sterile
- sometime lab tested

used first time or re-used

(original sterile growing media are re-used for next cultivations)



## MANAGING WITH SOIL

**For containerised crops not isolated from the ground, if roots may have contact with soil (open ground) it's worth to ensure that the soil is free from quarantine organisms**



# INSPECTION TECHNIQUE

- ➔ **Optimum time to inspect for relevant pests and diseases – when symptoms are most clearly visible**
- ➔ **An inspection has to confirm that no symptoms of HO have been observed on plants and if appropriate at the whole place of production and neighbourhood**
- ➔ **If this cannot be achieved at one inspection during the growing season then more should be made**



# INSPECTION TECHNIQUE

- ➔ **Walk along rows/pathways/container beds to enable a view of all susceptible host plants**
- ➔ **For field grown crops ensure that all plants are visible by walking enough rows – in practice this may involve walking between 1 in every 3 rows up to 1 in every 6 rows depending on spacing, observing plants on both sides whilst walking**
- ➔ **If more detail inspection is required plants maybe selected at random from across the field and inspected carefully with naked eye, loupe or lens for symptoms of infection/infestation**

# INSPECTION TECHNIQUE

- ➔ **In case of plants with any symptoms more detail examination of suspected plants with naked eye, loupe or lens is required**
- ➔ **If more detail inspection is required plants maybe selected at random from across the field and then inspected carefully for symptoms of infection/infestation**
- ➔ **Carryout an inspection of host plants to a level whereby you are able to satisfy yourself that there are no quarantine organisms on site**

# INSPECTION TECHNIQUE

- ➔ Where suspect material is found (in result of detail examination of selected plants) the inspector must ensure that a representative sample of the material with symptoms is taken
- ➔ In certain cases it may be required to take samples for testing for latent form of relevant quarantine organisms ( mainly bacteria, viruses, virus-like pathogens)
- ➔ **If appropriate, for highly suspect findings prohibition of movement of plants from the infested lot / field should be determined until the results of testing**

# EXAMINATION OF INSECTS

Use of traps for the purpose of:

- ➔ **Monitoring of occurrence**
- ➔ **Mass trapping, as a mean of control**





## **CONCLUSIONS:**

- ➔ **Visual examinations of outdoor grown crops is a basic method for plant health status assessment**
- ➔ **Inspection of host plants should be detailed enough to ensure that quarantine plants/place of production is free of HO**
- ➔ **Any suspicions of new, emerging or quarantine harmful organisms shall be examined in a laboratory**



Thank you for your  
attention!!!



NIRÁS

Agrotec

AETS

PIORIN