



Overview on the EFSA GD on emissions from protected crops

Introduction to the proposed procedure
for assessments for walk-in tunnels and
greenhouses

EFSA technical stakeholder meeting,
Parma, 17/18 June 2014

Outline

Introduction to procedures

- Walk-in tunnels
 - What do they look like
 - How can they differ

- Greenhouses
 - What do they look like
 - How do they differ



Walk in tunnels



- Different approach than for greenhouses because of temporary character
- More open character if holes are made or side walls are rolled up
- However, clearly more closed than open field

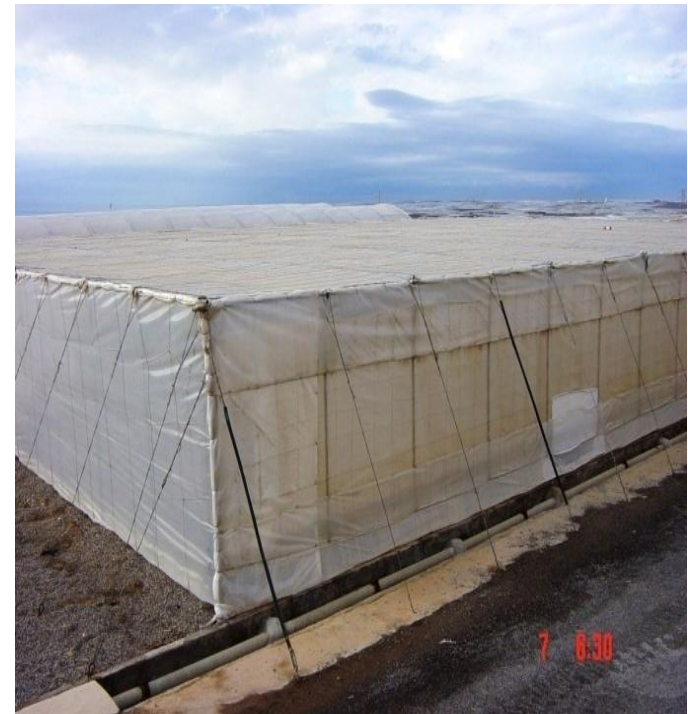
Walk-in tunnels

- receptor soil (revision of soil persistence guidance)
- receptor air (FOCUS AIR)
- receptor surface water (FOCUS drainage scenarios)
 - Exposure due to drift and drainage
- receptor groundwater
 - Example scenario for soil bound crop SE



greenhouses

- Low technology greenhouses



Often soil bound cropping systems and no recycling of water

Greenhouses

- High technology greenhouses



Soilbound but moreover soil-less cropping systems with recycling of water

Both low- high tech greenhouses: controlled climate and exchange of materials

Greenhouses

Growing systems

soil bound:

- ✓ crops planted direct into 'soil'
- ✓ soil is enriched material high in organic matter

soil less:

- ✓ hydroponics
- ✓ coco material
- ✓ pots

Not related to original soil



Growing systems



Greenhouses/growing systems

Receptor soil

- risk assessment for persistent substances only

Receptor groundwater

- example scenarios for soil bound growing systems

Receptor air

- not different from open field

Receptor surface water

- soil bound
- soilless



Soil bound crop



- Leaching

- can be assessed using one of the currently used FOCUS models (MACRO, PEARL, PELMO and/or PRZM).

- Drainage

- A model capable of handling preferential flow (e.g. MACRO or PEARL)

Example scenarios in next presentation

Soil-less crop

- Leaching
 - assessment of leaching is not considered necessary.
- Emission to surface water
 - Greenhouse Emission Models (GEM) package

More details in next presentation

