



Department
for Environment
Food & Rural Affairs

ToBRFV: EU legislation and UK outbreak management

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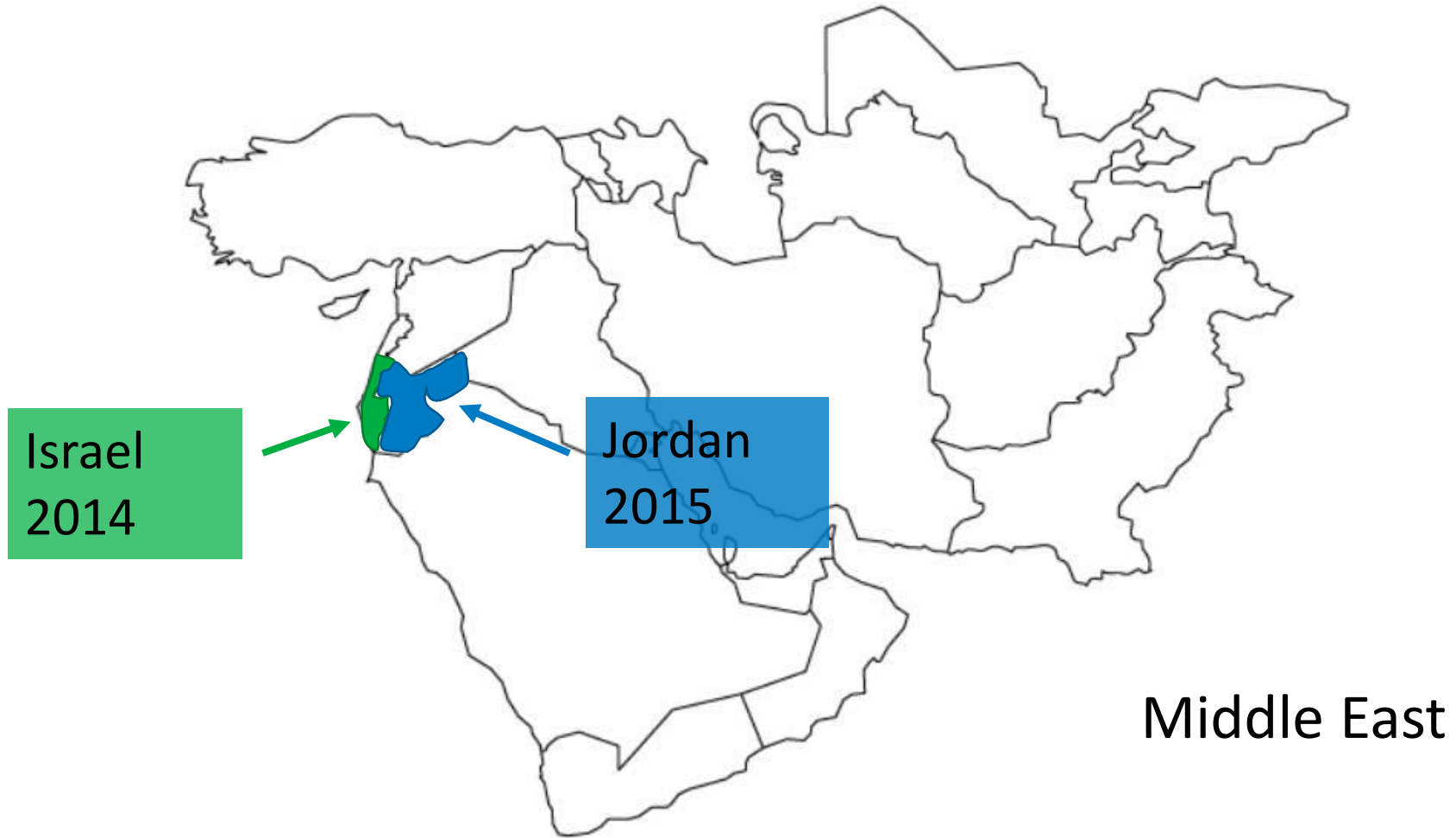


Forestry Commission
England

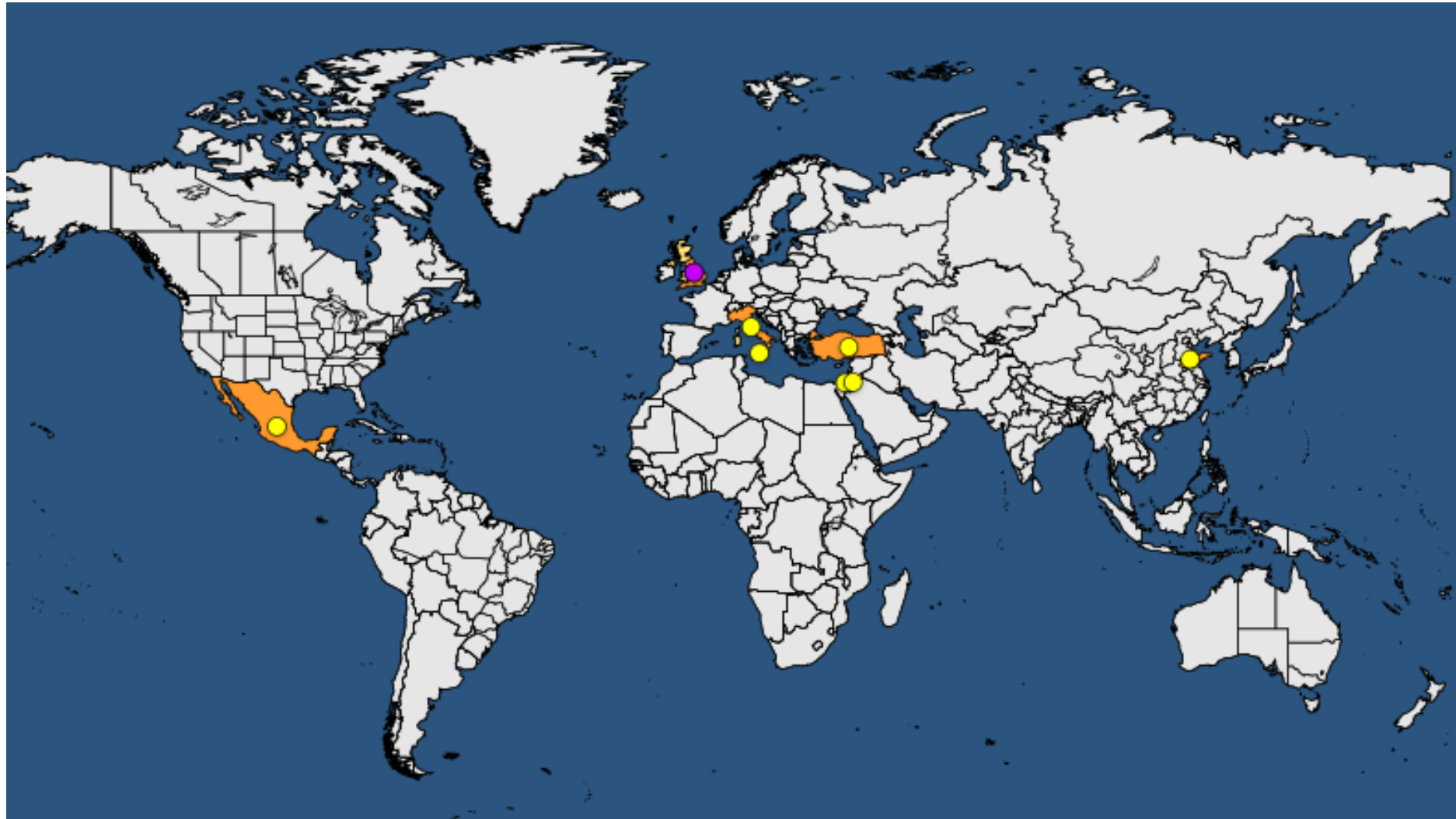


Environment
Agency

Background



Distribution



2014
Israel

2015
Jordan

2018
Germany
Italy
Mexico
USA

2019
Turkey
China
UK

Hosts



Tomato (*Solanum lycopersicum*)

* Can overcome gene Tm-2², which gives resistance against tobacco mosaic virus and tomato mosaic virus



Chilli pepper (*Capsicum annuum*)

* Natural infection only observed in Mexico

Impacts

Disease incidence is generally 10-20%, but there are records of 50% in China and almost 100% in Jordan



Impacts

Particular issue for
vine tomatoes



Outbreaks in Europe

Germany

- ToBRFV found in at least 7 glasshouses covering 25 ha in Nordrhein-Westfalen in 2018
- 10% of plants showed signs of infection
- Eradication measures were applied
 - Destruction of plants
 - Clearing of crop, and cleansing and disinfection
- Extensive sampling in May and June 2019, but the virus was not found
- Declared eradicated



Nordrhein-Westfalen, Germany

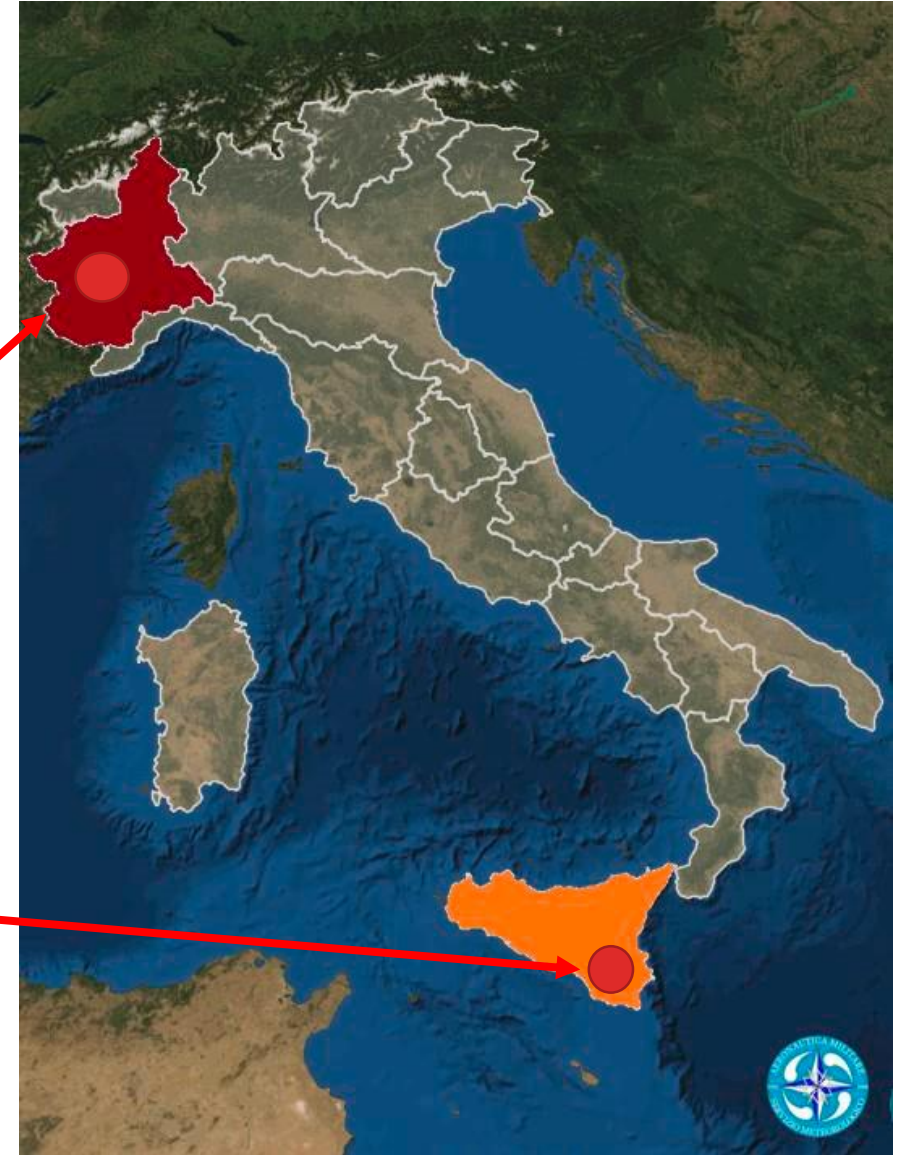
Outbreaks in Europe

Italy

- ToBRFV was found at 8 sites in Sicily
- It was also found in one tomato glasshouse in Piemonte
- 10-15% infection
- Eradication measures are being applied

**Bra, Cuneo
province,
Piemonte**

**Ispica, Ragusa
province, Sicily**



Mechanisms of spread

Long distance spread



Plants for planting



Seeds



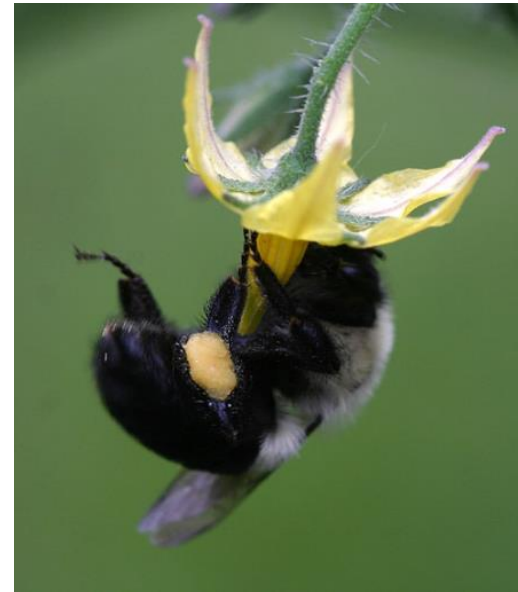
Fruit

Mechanisms of spread

Local spread



Tools and people



Bumblebees

Levitzky *et al.* (2019)

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0210871>

Current EU legislation



Solanaceous plants for planting are prohibited from countries outside Europe and the Mediterranean

- But only Mexico and China are outside the Euro-Med area

Seeds can be imported from any part of the virus's range

- But seeds must be acid extracted or have undergone equivalent measures
- Seed borne tobamoviruses are carried on the seed coat, so acid extraction may have some impact

Seeds are mainly brought in from outside of Europe and plants grown in Europe to be sold on

New EU measures

EU emergency measures to prevent the introduction into, and spread within, the Union of ToBRFV

- Italian PRA considered in June 2019
- Approved in July 2019
- Comes into force on 1st November 2019
- If we leave the EU, the emergency measures will be transposed into our national legislation
- Applies to tomato (*Solanum lycopersicum*) and pepper (*Capsicum annuum*)



New EU measures: requirements for the NPPO

- 1) To check tomato and pepper plants for planting at the point of entry or place of destination when imported into the union
- 2) To carry out annual surveys for the presence of the virus
- 3) To ensure that any person which may have infected plants are immediately informed of:
 - The presence or suspected presence of the virus
 - The possible consequences and risks
 - The measures to be taken to prevent establishment and spread of the virus

New EU measures: requirements for industry (seeds)

Movement into the EU	Movement within the EU
<p>Seeds</p> <p>Must be accompanied by a phytosanitary certificate and fulfil the following requirement:</p> <ul style="list-style-type: none">• Have been officially sampled and tested for the virus (and are negative)	<p>Seeds</p> <p>Must be accompanied by a plant passport and fulfil the following requirement:</p> <ul style="list-style-type: none">• Have been officially sampled and tested for the virus (and are negative)

New EU measures: requirements for industry (plants for planting)

Movement **into** the EU

Plants for planting

Tomato and pepper plants must be accompanied by a phytosanitary certificate and fulfil one of the following requirements:

- Originate in a country free of the virus; or
- Originate in an area free of the virus; or
- Originate in a registered production site known to be free of the virus on the basis of inspection, and derive from seeds that originate from an area free of the virus or from seeds that have undergone testing for the virus (and are negative)

Movement **within** the EU

Plants for planting

Tomato and pepper plants must be accompanied by a plant passport and fulfil one of the following requirements:

- Originate in an area free of the virus; or
- Originate in a production site known to be free of the virus on the basis of inspection, and derive from seeds that originate from an area free of the virus or from seeds that have undergone testing for the virus (and are negative)

'No deal' scenario

Importing plants and plant products

Import requirements
for 3rd countries



No new prohibitions
(those which apply to ROW
will not apply to EU imports)

Unregulated Imports
from the EU

(plants and plant products
not currently managed
under the plant passport
regime)



No change on Day 1
(biosecurity risks will be kept
under continuous review to
determine what future
changes might be needed)

'No deal' scenario

Importing plants and plant products

**Regulated
Imports from
the EU** →



The list of regulated plants and plant products remains the same as that under the plant passport scheme

A phytosanitary certificate is required instead of a plant passport

Plants and plant products will not be stopped at the border, with documentary and ID checks being carried out remotely

'No deal' scenario

Importing plants and plant products

**3rd country
transit**



If not inspected upon entry into the EU, regulated plants and plant products will require a plant health inspection in the UK

If entering via Roll-on roll-off (RoRo) ports, this inspection will have to take place at a registered Place of First Arrival (PoFA), not at the border.

'No deal' scenario

Movement of plant and plant products within the UK

Movement within the
UK



Plant and plant products currently covered by EU plant passports will now be covered by UK plant passports.

Businesses already authorised to issue EU Plant Passports will not be required to re-register to issue UK plant passports but will need to change references from 'EU' to 'UK'.

'No deal' scenario

Exporting plants and plant products

Exports to 3rd
countries



No change on Day 1

Exports of EU regulated
goods to the EU



The EU will treat the UK as
a third country in a no deal
scenario

'Deal' scenario

Smarter Rules for Safer Food (SRSF) Regulations

A major revision of existing legislation across the agri-food chain with three main regulations:

- Animal Health Regulation 2016/429
- Official Controls Regulation 2017/625
- Plant Health Regulation 2016/2031

Intended to provide a more risk-based approach and more efficient control tools, giving better control against animal and plant pests

Applicable from 14th December 2019

'Deal' scenario

Smarter Rules for Safer Food (SRSF) Regulations

Main changes:

- More goods require a phytosanitary certificate
- High risk commodities banned until there has been a risk assessment
- New trade flows are treated as high risk until there has been a risk assessment
- Some pests will be classified as priority pests
 - Enhanced surveillance
 - Contingency plans
- Plant passports extended to all plants for planting
- All professional operators need to be registered

'Deal' scenario

Smarter Rules for Safer Food (SRSF) Regulations

Change for tomatoes:

Plant passports are required for all plants that are intended to remain planted, to be planted, or to be replanted



Plant passports required down to retail

UK outbreak management

Statutory action will be taken against findings of ToBRFV

- The objective will be containment of the virus

In the growing season

- Cut plants exhibiting severe symptoms at the stem base to kill plants, and remove and dispose of any fruit (plants may be kept in situ until the end of the season to avoid spread of the virus)
- Restriction of fruit direct to retail/wholesale
 - Packing may only occur at another production site if there is no risk of spread
- Restriction of movement of people into the affected glasshouse
- Good hygiene measures
- Monitoring of symptoms in other glasshouses growing host crops
- Minimising the risk of bumblebee transmission



UK outbreak management



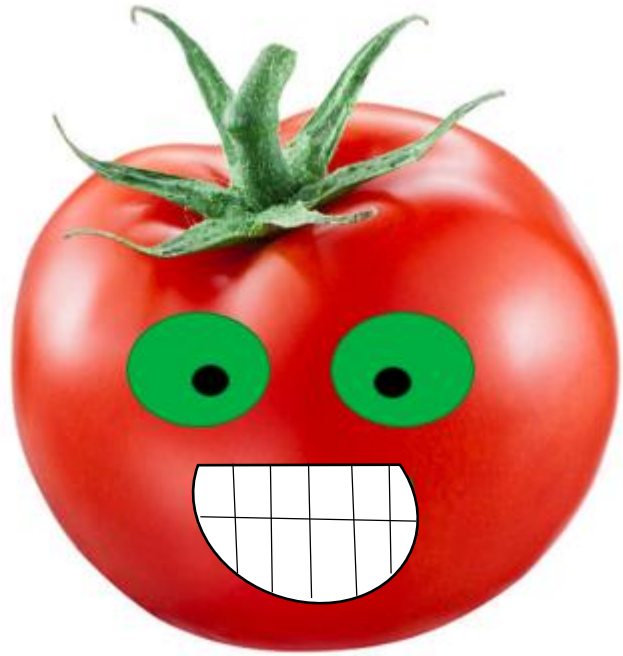
End of season clean up

- Removal and disposal of the infected crop, associated plant debris, and other material, such as string and growing media
 - Appropriate disposal methods include burning and deep burial
- Clean the glasshouse with water and detergent to remove traces of organic matter
- Use of disinfectant
- Prevent self-sown tomato seed germination



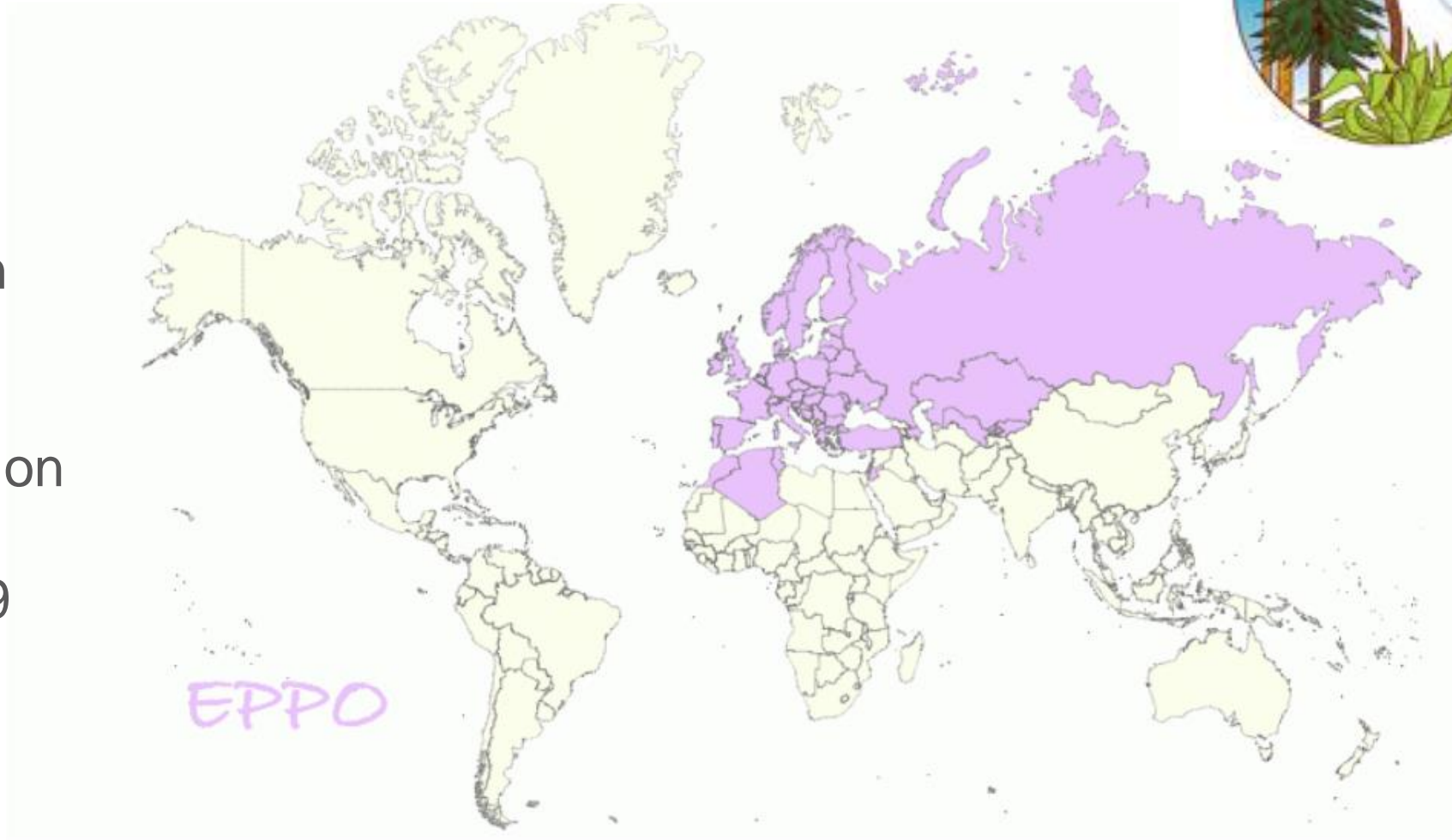
After the new crop is planted

- Removal of self-sown tomato seedlings or solanaceous weeds growing in or near to the glasshouse
- Inspection in late spring/early summer of the following season



Future work

Attending the European and Mediterranean Plant Protection Organisation (EPPO) Expert Working Group on ToBRFV in November 2019



Thank you
for listening

