

Keep the Netherlands Xylella-free



There are serious concerns about the further spread of the bacterial disease caused by *Xylella fastidiosa* from southern Europe. The bacteria, which causes the dreaded olive quick decline syndrome in olive trees, has been encountered in the heel of Italy. Another strain of *Xylella* was found in the south of France: around Nice and on Corsica, where it has primarily affected the ornamental plant *Polygala myrtifolia* (myrtle-leaf milkwort). All strains of *Xylella* are regulated in the EU and may affect different host plants depending on local circumstances and vectors present, although all strains have a very broad range of host plants which largely overlaps. An outbreak of *Xylella* in the Netherlands could have major economic consequences for the tree and perennial plant sector, herbaceous plants (including container- and pot plant sectors) and public green. *Xylella* is not harmful to humans or animals. This factsheet provides available information regarding the quarantine organism *Xylella fastidiosa* and how to prevent the introduction of this destructive bacteria.

Distribution and symptoms

The bacterial disease caused by *Xylella fastidiosa* can manifest in a large number of plant species (around 350). Almost the entire tree nursery assortment, several perennials and many herbaceous plants and ornamentals, container and pot plants are at risk.

The most important host plants in Europe are:

- *Olea europaea* (olive)
- *Polygala myrtifolia* (myrtle-leaf milkwort)
- *Vitis vinifera* (grape)
- *Coffea spp* (coffee)

But it can also infect *Catharanthus roseus*, *Citrus*, *Hebe*, *Lavandula angustifolia*, *Nerium oleander*, *Prunus spp*, *Rosmarinus officinalis*, *Spartium junceum* and *Vinca*.

The bacteria are spread by xylem-sucking cicadas (about 0.5 cm in size), especially froghoppers and brightly coloured cicadas in red-black, yellow-black or brown-black. These insects feed on the sap from vessels (xylem). They suck up *Xylella* as well and can move to other, healthy plants and infect them quite quickly.

In infected plants the water transport is disrupted.

Plants often remain symptom-free for a long time. When symptoms appear, they include:

- dehydration of the leaves
- dying branches, plants and trees
- brown discolouration of leaf edges (leaf scorch)
- brown spots with dying leaf tissue
- leaf yellowing (variegated chlorosis)
- delayed growth, increasingly thinner crown

These symptoms may also be caused by other pests or deficiencies and are not necessarily caused by *Xylella*.

Mechanical transfer of *Xylella* by handling an infected plant does not occur (except with grafting). If you unintentionally bring an infected plant into your company, you run the risk of *Xylella* being spread by cicadas to other plants.

For symptoms in particular crops, consult the EPPD website (European and Mediterranean Plant Protection Organisation):

<https://gd.eppo.int/taxon/XYLEFA/photos>

Government measures

When there is an outbreak of *Xylella*, the government is required by European legislation to implement demarcation measures to eliminate the bacteria. A buffer zone 5 km wide is created around the source and can be maintained for five years, depending on eradication measures and results of monitoring. No host plants of *Xylella* may be traded from this buffer zone.

Outbreak and interception.

The legislation distinguishes between an **outbreak** and an **interception** of *Xylella*. An interception means that *Xylella* was found in a recently delivered trading lot and is unlikely to have spread to other plants. To limit the risk of spread consequences apply only to the infected lot. The shipment is destroyed in any case. In the case of an outbreak, the contamination is not restricted to the delivered lot(s). When an outbreak is declared a buffer zone is established and infected plants are destroyed, as well as healthy host plants in the immediate surroundings (100 m) of the contaminated lots. A restriction in trade of plants for planting is enforced for at least 5 years in a zone of 10 km.

Current information

Check the latest status of information and regulations on *Xylella*, there are often new developments.

Stay informed via the NVWA website: www.nvwa.nl/xylella.

It lists up-to-date information about:

- The host plant list: this is regularly revised;
- Symptoms of the disease and the vectors;
- List of infection-free countries and regions; consult it when importing plant material from countries outside the EU.

Symptoms



Photos: NVWA

Points of attention when purchasing

- Visit the supplier where you purchase plant material and check the origin of the plant reproduction material;
- What is the background history of the plant material? At which companies was it present previously?
- Do those companies work with hygienic measures?
- How are diseases and infestations prevented at these companies?
- Check whether 0.5 cm cicadas are present (froghoppers and brightly coloured cicadas).
- Check whether diseases and/or weeds are present, for example the host plants *Capsella bursa-pastoris* (shepherd's purse), *Urtica dioica*/*Urtica urens* (stinging nettle) and 0.5 cm xylem-sucking cicadas;
- Make agreements with your supplier about hygiene measures to be followed, inspections and clean packaging;
- Be especially alert when purchasing material from:
 - South America and Latin America and the southern USA states. Import restrictions apply here. See the NVWA website for the list of host plants with regulated import into the Netherlands and the EU;
 - Southern Italy (Lecce, Brindisi and part of Taranto, in the Apulia region);
 - Corsica and southern France (near Nice); Trade restrictions apply to these regions. See the NVWA website for the list of host plant for which movement is prohibited out of these regions.
- Be especially careful when purchasing *Polygala myrtifolia* (myrtle-leaf milkwort) and *Olea europaea* (olive).

Points of attention upon arrival



- Check the presence of a plant passport, if required. Consult the NVWA website: www.nvwa.nl/xylella;
- Ensure that the plant material is free from insects and without physical damage upon arrival;
- Check for the presence of weeds, for example the host plants *Capsella bursa-pastoris* (shepherd's purse), *Urtica dioica*/*Urtica urens* (stinging nettle) and 0.5 cm xylem-sucking cicadas;
- If possible, put the lots in a separate compartment or at least physically separated from other lots of plants;
- If there is any doubt about potential damage: put the suspect plants in a separate facility and immediately contact Naktuinbouw or NVWA.

Points of attention regarding operational management



- Clearly document the lot-handling steps for plants in the company in your administration system (e.g. crop-handling steps and relocation);
- Ensure that the plant material can be easily traced from the moment of arrival until delivery;
- Use a new set of disinfected tools (knives, pruning shears) for each row or compartment;
- Always work through the crop in the same direction;
- Examine the crop for xylem-sucking cicadas and eliminate them. Note this measure clearly in your administration system;
- Eliminate weeds with herbicides. Some weeds are host plants of *Xylella*, for example *Capsella bursa-pastoris* (shepherd's purse), *Urtica dioica*/*Urtica urens* (stinging nettle) and 0.5 cm xylem-sucking cicadas;
- Monitor potential deviations and symptoms in the crop. If you have any doubts, get your plants examined by Naktuinbouw or NVWA. Mark these plants and put them in a separate facility.

General safety precautions

When ordering any plant material from another company, first verify the origin of the plant material and determine possible risks. This includes any plant material stored at your premises on behalf of other companies.

Questions and information

Do you have any questions or would you like more information? Consult the website: www.nvwa.nl/xylella. During office hours, you can contact the NVWA, at 0900-0388. You can also contact Naktuinbouw at 071 332 62 88.

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