

# Tobacco Whitefly

*Bemisia tabaci* Gennadius

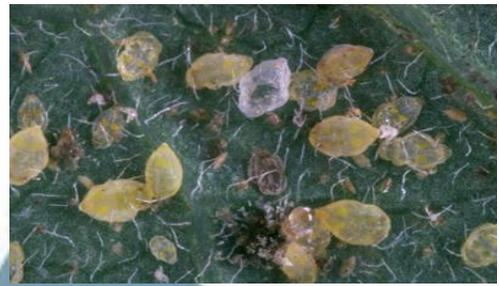
## Plant Pest Information Note

### What is it?

*Bemisia tabaci* (tobacco whitefly) is a small harmful insect which is found in most parts of the world and is a carrier of a large number of harmful viruses. Any findings in Ireland have so far been successfully eradicated. It is a plant sap-sucking insect and has a broad host range. While its feeding on the plant is in itself injurious, the insect may also be transmitting any harmful viruses that may be present. Adults are about 1mm long and similar to the glasshouse whitefly (*Trialeurodes vaporariorum*). If present, upon close examination of the underside of leaves, one should find yellow/white larval scales. In severe infestations, when the plant is shaken, numerous small white adult whiteflies will flutter out and quickly resetttle. There are also several biotypes of this fly. Identification can only be confirmed by experienced entomologists.



Adult Tobacco Whitefly



Larvae *B. tabaci*

### What are its hosts?

*B. tabaci* has an extremely wide host range, and its number of hosts appears to be increasing. In Europe, it is a major pest of glasshouse salad crops such as tomato and cucumber. Findings in this country are usually on cut flowers, vegetable and salad crops, and ornamentals, especially poinsettia.

### What are its symptoms?

Symptoms of *B. tabaci* infestation include; chlorotic spotting, vein and leaf yellowing, yellow blotching and mosaic of leaves together with leaf curling. In cases of heavy infestations, plant vigour and height, combined with quality and quantity of the yield can be affected. The presence of the pest on tomatoes can cause Tomato Yellow Leaf Curl Virus (TYLCV) which results in small, abnormally developed leaves and flower drop. In tomato plants, the disease can lead to failure of fruit formation and subsequent yield loss. In addition to the spread of viruses, *B. tabaci* causes damage by its' feeding activity and indirect damage through development of sooty moulds that appear on the honeydew excreted on host plants.

## How does the pest spread?

The main method of long distance spread is on traded plants, such as cut flowers, herbs and poinsettia. The pest is regularly intercepted on traded produce coming into Ireland from other European countries, North and South America and Asia. Ireland has a Protected Zone status for this insect, which means that any plants coming into Ireland should be free from it and any findings eradicated.

## What can you do?

The following preventative measures should be implemented to prevent the introduction/spread of *Bemisia tabaci*:

- Thoroughly inspect all new plant material for all stages (particularly on the lower leaves) of the pest on arrival at the nursery.
- Monitor crops throughout the growing season with yellow sticky traps. Check for the presence of whiteflies. Also monitor and inspect the lower leaves for immature “scales”.
- Isolate newly arrived plants and flowers and monitor closely so as to prevent the spread of any potential infestation.
- Do not mix ornamental and vegetable crops in the same area.
- If any signs of the pest are detected, begin whitefly treatment programmes immediately to ensure eradication.
- At the end of the season, dispose of any remaining plants appropriately and thoroughly clean and sterilise the glasshouse/polytunnel area(s). Adopting a strict crop rotation policy will help ensure complete eradication of the pest and prevent carry-over to future crops.

## Action in the event of suspect cases:

*Bemisia tabaci* is a quarantine pest, listed in the EU Plant Health Directive, and is notifiable in Ireland. All imported host plants from third countries are inspected by DAFF officials at points of entry e.g. Ports and Airport for signs of *B. tabaci* infestation. Growers, merchants and importers are requested by DAFF to examine host plants for signs and symptoms of *Bemisia tabaci* infestation. If it is suspected that host plants are infected please contact your local plant health inspector or contact:

**Horticulture and Plant Health Division,**  
Ground Floor, Block 1,  
Department of Agriculture, Fisheries and Food,  
Backweston Campus, Young’s Cross,  
Celbridge, Co. Kildare  
Phone: 01-5058885  
Fax: 01-6275994  
Email: [planthealth@agriculture.gov.ie](mailto:planthealth@agriculture.gov.ie)

Further information and symptoms on this pest can be viewed on the website of the European and Mediterranean Plant Protection Organization (EPPO) by clicking on the links below.

[B. tabaci Data Sheet](#)

[B. tabaci Photographs](#)