Mini data sheet on Neotoxoptera formosana

Added in 2000 - Deleted in 2005

Reasons for deletion:

PRA (02-9177 and comments from NL and IT) concluded that the risk presented by *Neotoxoptera* formosana was not significant for the EPPO region. In 2005, it was therefore removed from the EPPO Alert List.

Neotoxoptera formosana (Homoptera: Aphididae) - Onion aphid

Why

The NPPO of UK suggested that *Neotoxoptera formosana* could be added to the EPPO Alert List. This pest has been found in September 1999, on a stock of Welsh onions (*A. fistulosum*) growing in a plastic tub in the Model Vegetable Garden at RHS Wisley, Surrey, UK. Nearby tubs of garlic (*A. sativum*) and Chinese chives (*A. tuberosum*) were also lightly infested. Infested tubs were destroyed. Other potential hosts in the vegetable garden were inspected: *A. fistulosum* cv. Saville and *A. porrum* were found infested.

Where

EPPO region: It was reported for the first time in Italy, near Verona (Veneto) in July 2000. *N. formosana* was found on chives (*A. schoenoprasum*) grown under glasshouse. It was also reported that *N. formosana* was found in Finland in 1994 on onions imported from the Netherlands. Reported in France (since 1984), but no data is available on its economic impact.

Asia: China, Japan, Korea, Taiwan.

North America: Mexico, USA (California, Hawaii, New York, North Carolina, Pennsylvania).

South America: Brazil, Chile (these are apparently rather recent findings made in the 1990s).

Oceania: Australia (reported as now widespread, including Tasmania, but was not recorded there before 1974), New Zealand, Papua New Guinea.

On which plants

Allium species (A. bakeri, A. ascalonicum, A. cepa, A. cernuum, A. chinense, A. fistulosum, A. neopolitanum, A. porrum, A. sativum, A. schoenoprasum). Reported as a pest of beans (without further details) in Hawaii.

Damage

Feeding damage on leaves. In Japan, it was shown that N. formosana can transmit Garlic latent carlavirus. In Australia, serious outbreaks have been reported on onions in storage, particularly on those just beginning to sprout. More data is needed on the biology and damage caused by this pest.

Pathway Possible risks Plants for planting, bulbs, vegetables from countries where *N. formosana* occurs. *Allium* crops are widely grown in the EPPO region. The isolated findings in Europe, and its presence in Tasmania, may suggests that *N. formosana* could survive in the European and Mediterranean region, but biological and ecological data is lacking. It appears also that this pest has a potential for spread over long distances (e.g. relatively recent records in South America and in Europe). Data is lacking on its economic importance to *Allium* crops, and the possibilities for control.

Source(s)

Barbagallo, S.; Ciampolini, M. (2000) The onion aphid, *Neotoxoptera formosana* (Takahashi), detected in Italy. Bolletino di Zoologia Agraria et di Bachicoltura, Serie II, 32(3), 245-258.

Canadian Food Inspection Agency, 2001-05.

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Stary, P.; Rodríguez, F.; Remaudiere, G. (1994) [Plant-aphid-parasitoid association (Hom., Aphidoidea; Hym., Aphidiidae) in central area of Chile.] Agricultura Tecnica Santiago, 54(1), 46-53. (abst.)

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EPPO RS 2000/061, 2001/051, 2001/097

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