Mini data sheet on Iris yellow spot tospovirus

Added in 1999 – Deleted in 2011

Reasons for deletion:
Iris yellow spot tospovirus has been included in EPPO Alert List for more than 3 years and during this period no particular international action was requested by the EPPO member countries. The economic impact was considered to be limited. In 2011, it was therefore considered that sufficient alert has been given and the pest was deleted from the Alert List.

Iris yellow spot tospovirus (a new tospovirus of iris and onions)

Why	This newly characterized tospovirus came to our attention as it has been reported in several countries on onion, leek and iris crops.
Where	**EPPO region:** France (on leek, onion, garlic and chives, but no economic damage observed), Germany (found on onion in 2007, under eradication), Greece (found in 2008 in onion crops), Israel, Italy (in 2007 on onion crops in Emilia-Romagna, Veneto, then also found in Piemonte), Netherlands (incidental findings on onion, leek, *Eustoma, Iris* and *Alstroemeria*), Serbia (in 2007 in 1 onion seed crop), Slovenia (reported in 2002 on leek, onion and weeds), Spain (on leek and onion), United Kingdom (found on glasshouse *Eustoma* in 2007, under eradication). **Asia**: India, Iran, Japan. **Africa**: Egypt, Réunion, South Africa. **North America:** Canada (found on onion in Ontario), USA (first in 2001 on onion in Colorado, now also found in Arizona, California, Georgia, Hawaii, Idaho, Nevada, New Mexico, New York, Oregon, Texas, Utah, Washington). **Central America:** Guatemala. **South America:** Brazil, Chile, Peru, Uruguay. **Oceania**: Australia (New South Wales, Western Australia, Victoria), New Zealand (probably widespread but with low economic impact).
On which plants	*Allium cepa* (onion) and *A. porrum* (leek). The virus has occasionally been found on *Alstroemeria*, *Eustoma grandiflorum (lisianthus), Iris hollandica*, *Lilium* hybrids and *Hippeastrum*. IYSV has also been detected on a weed species, *Atriplex micrantha* (Chenopodiaceae). The experimental host range is narrow (*Nicotiana benthamiana*, *Datura stramonium*).
Damage	On iris, symptoms are characterized by chlorotic spots which later developed into yellow and necrotic spots. Affected onion plants show numerous eyelike spots on the leaves and flower stalks resulting in flower abortion. It is noted that the economic impact of *Iris yellow spot tospovirus* in iris and leek is low in the Netherlands but this is not the case in Brazil on onion, as up to 100% loss has been observed in onion fields. Studies done in 2008 showed that in the Netherlands, latent infections of IYSV were common in onion crops but did not cause economic damage.
Transmission	*Thrips tabaci* can transmit the virus (but *Frankliniella schultzei* and *F. occidentalis* are not vectors). Studies recently showed that onion bulbs and seeds did not transmit the virus to progeny. Further studies are needed to better understand the epidemiology of the disease in the field.
Pathway	Plants for planting?, cut flowers ? vegetables? viruliferous thrips
Possible risks	Iris are grown in many countries and onions are widely grown in the EPPO region. The thrips vector (*Thrips tabaci*) is widespread. More data is needed on the epidemiology of the disease and its host range (can other important monocotyledonous crops be infected?).
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