

Spodoptera praefica (Lepidoptera: Noctuidae)

This short description has been prepared in the framework of the EPPO Study on Pest Risks Associated with the Import of Tomato Fruit. The whole study can be retrieved from the EPPO website.

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Africa	Asia	Oceania	North America	South-Central America and Caribbean
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***Spodoptera praefica* (Lepidoptera: Noctuidae) (Western yellow-striped armyworm)**

Why	Identified in the EPPO tomato study. It is identified as a pest of vegetable and herbaceous plants in the USA. It has a more limited distribution than <i>S. ornithogalli</i> , being limited to the Western USA and Canada.
Where	EPPO region: absent North America: USA (at least California, Oregon, Utah, Idaho, Colorado, Nevada, Wyoming? - Capinera, 2005, UC IPM, 2011, PNW Moths, 2013), Canada (southern part of Alberta, British Columbia –PNW Moths, 2013; Troubridge and Lafontaine, ND; Entomology Collection, 2013)
Climatic similarity	Medium-High. 8 common climates considering the areas listed above, possibly fewer. It is migratory and spreads northwards from the Southwest each year (PNW Moths, 2013). It may not be able to overwinter throughout its range. In Alberta, it is probably only migratory (Entomology Collection, 2013)
On which plants	No comprehensive host list was found, but this pest seems to have a more limited host range than <i>S. ornithogalli</i> . The following hosts are mentioned in various publications: tomato (UC IPM, 2011; CABI CPC), lucerne, potato, rice, sugarbeet, sweet potato, various herbaceous plants (Opler et al., 2012; PNW Moths, 2013). It is regulated by New Zealand on pears from Idaho (Biosecurity NZ, 1999)
Damage	On tomato, <i>S. praefica</i> feeds on foliage and fruit (rarely deeply, eats at surface, creating cavities) (UC IPM, 2011, Ephytia, 2013). It is mentioned amongst major pest of economic importance for tomato for North America by Berlinger (1987). In California, it is not a serious pest of tomato every year, but is occasionally very destructive (UC IPM, 2011). PNW Moths (2013) note it is often a major agricultural pest in herbaceous crops (without details).
Dissemination	Adults fly. The pest is migratory, moving northwards in North America. In Alberta (Canada), it is probably only migratory (Entomology Collection, 2013)
Pathway	Plants for planting, fruits and vegetables of host plants from countries where <i>S. praefica</i> occurs.
Possible risks	Tomato and lucerne are grown in many areas of the EPPO region. The climatic similarity according to the EPPO Study between the area where it occurs and the EPPO region is medium-high (although its northern limit of overwintering is uncertain). To establish in the EPPO region, <i>S. praefica</i> would have to enter in an area where it can overwinter.
Categorization	Quarantine pest for Korea Rep 2011 (from IPP)
Sources	Berlinger MJ. 1987. Pests. pp 391-441 In The Tomato Crop, A scientific basis for improvement (eds Atherton JG and Rudich J). Chapman and Hall, London - New York. Biosecurity NZ. 1999. Import Health Standard Commodity Sub-class: Fresh Fruit/Vegetables Pear, <i>Pyrus communis</i> from the United States of America - State of Idaho. Date Issued: 4 November 1999. http://www.biosecurity.govt.nz/files/ihs/pear-us-id.pdf CABI CPC. 2013 Entomology Collection. 2013. Searchable database of the E.H. Strickland Entomological Museum of the Department of Biological Sciences at the University of Alberta. http://entomology.museums.ualberta.ca/index.html . (Accessed January 2014) Ephytia. 2013. Portail ePhytia de l'INRA. http://ephytia.inra.fr (Accessed January 2014) Opler PA, Lotts K, Naberhaus T (coordinators). 2012. Butterflies and Moths of North America. http://www.butterfliesandmoths.org/ . (Accessed January 2014) PNW Moths. 2013. http://pnwmoths.biol.wvu.edu/browse/family-noctuidae/subfamily-noctuinae/tribe-prodeniini/spodoptera/spodoptera-praefica/ (Accessed January 2014) Quarantine list for Korea Rep 2011 (from the IPP) Troubridge JT, Lafontaine JD. ND. The Moths of Canada, Part 1: Noctuoidea. Tribe Caradrini. http://www.biology.ualberta.ca/facilities/strickland/noctuoidea/noctuidae3g.htm (Accessed January 2014) UC IPM. 2011. Pest Management Guidelines: tomato. University of California.