

## *Austroasca viridigrisea* (Hemiptera: Cicadellidae)

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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### ***Austroasca (Empoasca) viridigrisea* (Hemiptera: Cicadellidae) (vegetable leafhopper)**

Why	Identified in the EPPO tomato study. It is a pest of vegetables in Australia.
Where	<b>EPPO region:</b> absent <b>Oceania:</b> Australia (all States and territories, Lord Howe Island – from NSW, ND)
Climatic similarity	High. 8 common climates.
On which plants	Originally native Solanaceae, then potato, tomato, beans, tobacco, lucerne (Page, 1983). NSW (ND) also mentions leafy vegetables and carrots. Cotton (Cotton CRC, 2012). Lettuce (Asteraceae), other vegetables and a wide range of other herbaceous plants (NSW, ND) (according to AusVeg, ND, leafhoppers may be key pests of lettuce, celery and spinach).
Damage	Eggs are laid into plant tissue (leaf, stem, petiole – depending on host, Page, 1983). Nymphs and adults feed on plant (mostly foliage). They mostly suck sap from leaves; fruit may be attacked (whitish spots) (ACIAR, 2013). <i>A. viridigrisea</i> is reported as a pest of leafy vegetables in most parts of Australia, also attacking beans, carrots, potato and non-irrigated tomatoes (NSW, ND). Feeding leads to distortion of leaves and stunting. Trebicki et al. (2010) note it is a common pest of potatoes, tomatoes, beans, tobacco and lucerne (referring to Page), and mention it among economically-important leafhoppers of Australia. On cotton, the pest feeds preferably on mature leaves after flowering, but occasionally damages seedlings and new growth. Yield is reduced only when very high numbers occur before the production of new growth ceases (Cotton CRC, 2012). Mensah (1996) notes it is an important early season pest of cotton. ACIAR (2013), in relation to tomato, chilli, capsicum and eggplant, mentions that it is normally not a problem in these crops, for which it is minor and infrequent. No mention of virus or phytoplasma transmission found.
Dissemination	Adults fly and hop, nymphs can walk (to the other side of leaf or stem if disturbed). Several life stages may be associated with host material.
Pathway	Fruit if green parts attached, plants for planting, leaf vegetables, vegetables, of host plants from countries where <i>A. viridigrisea</i> occurs.
Possible risks	The host plants are major crops in the EPPO region. The climatic similarity according to the EPPO Study between the area where it occurs and the EPPO region is high.
Categorization	Regulated by New Zealand for tomatoes from Australia (Biosecurity NZ, 2000)
Sources	ACIAR. 2013. Tomato, capsicum, chilli and eggplant. Australian Centre for International Agricultural Research AusVeg. ND. Leafy vegetables. AusVeg – national peak industry body for vegetable and potato growers. <a href="http://ausveg.com.au/intranet/technical-insights/cropprotection/leafy-vegetables.htm">http://ausveg.com.au/intranet/technical-insights/cropprotection/leafy-vegetables.htm</a> . Biosecurity NZ. 2000. Import Health Standard Commodity Sub-class: Fresh Fruit/Vegetables Tomato, <i>Lycopersicon esculentum</i> from Australia. Issued pursuant to Section 22 of the Biosecurity Act 1993. Date Issued: 9 June 2000. Cotton CRC. 2012. leafhoppers (jassids). The Cotton Catchment Communities CRC. <a href="http://www.cottoncrc.org.au/industry/Publications/Pests_and_Beneficials/Cotton_Insect_Pest_and_Beneficial_Guide/Pests_by_common_name/Jassids_and_leafhoppers">http://www.cottoncrc.org.au/industry/Publications/Pests_and_Beneficials/Cotton_Insect_Pest_and_Beneficial_Guide/Pests_by_common_name/Jassids_and_leafhoppers</a> Mensah RK. 1996. Evaluation of Coloured Sticky Traps for Monitoring Populations of <i>Austroasca viridigrisea</i> (Paoli) (Hemiptera: Cicadellidae) on Cotton Farms. Australian Journal of Entomology, 1996, 35: 349-353 NSW. ND. Data sheet on <i>Austrosaca viridigrisea</i> . New South Wales Government. <a href="http://www1.dpi.nsw.gov.au/keys/cicadell/species/ecokey26.htm">http://www1.dpi.nsw.gov.au/keys/cicadell/species/ecokey26.htm</a> (Accessed January 2014) NSW. NDb. Subfamily Typhlocybinae: Tribe Empoascini. New South Wales Government. <a href="http://www1.dpi.nsw.gov.au/keys/leafhop/typhlocybinae/empoascini.htm">http://www1.dpi.nsw.gov.au/keys/leafhop/typhlocybinae/empoascini.htm</a> Page FD. 1979. The Immature Stages of <i>Austroasca viridigrisea</i> (Paoli) (Homoptera: Cicadellidae: Typhlocybinae). J. Aust. enr. Soc., 1979, 18 1 11-1 14 Page FD. 1983. Biology of <i>Austroasca Viridigrisea</i> (Paoli) (Hemiptera: Cicadellidae) J. Aust. ent. SOC., 1983,22: 149-153 149.

- Trebicki P, Harding RM, Rodoni B, Baxter G, Powell KS. 2010. Diversity of Cicadellidae in agricultural production areas in the Ovens Valley, north-east Victoria, Australia. *Australian Journal of Entomology* (2010) 49, 213–220
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