

This short description was prepared in the framework of the EU FP7 project DROPSA - Strategies to develop effective, innovative and practical approaches to protect major European fruit crops from pests and pathogens (grant agreement no. 613678). This pest was listed in the DROPSA alert lists for apple and *Vaccinium* fruit.

Sparganothis sulfureana (Lepidoptera: Tortricidae)

Fruit pathway: larvae feed on fruit (Gilligan and Epstein 2014). On *Vaccinium*, larvae of second generation feed on berries, emptying the fruit; larger larvae attack the surface of berries (Le Duc et al., 2014; AgricultureCanada, 2007).

Other pathways: plants for planting; eggs are laid on leaves, larvae also feed on buds and leaves (Gilligan and Epstein 2014). On *Vaccinium*, larvae of 2nd generation also feed on leaves, larvae of 1st generation feed on flower buds, the pest overwinters as young larvae in the leaf litter, adults lay eggs on leaves or weeds (AgricultureCanada, 2007).

Uncertain pathway: soil.

Hosts: Polyphagous (nearly 20 families), incl. *Vaccinium macrocarpon*, *V. corymbosum*, *Vaccinium* (AgricultureCanada, 2007; Averill and Sylvania, 1998; Brown et al., 2008; Gilligan and Epstein, 2014), also *Malus*, *Apium graveolens*, *Aster*, *Helianthus*, *Thuja occidentalis*, *Medicago sativa*, *Trifolium*, *Mentha*, *Lilium*, *Abies balsamea*, *Larix*, *Picea glauca*, *Pinus*, *Zea mays*, *Fragaria*, *Citrus*, *Salix*, *Ulmus americana*, *Vitis* (Gilligan and Epstein, 2014).

Distribution: North America: Canada (Martin 1966, AgricultureCanada, 2007), USA (Deutsch et al., 2014).

Damage: On cranberry, each larva consumes 3-5 berries during its development (IPMCenters, 1998). Feeding by 1st-generation larvae decreases yield; second generation larvae cause direct damage to fruit (AgricultureCanada, 2007). *S. sulfureana* is a secondary pest according to AgriReseauQuebec (2015a), but a severe pest of cranberry in the Midwest and North-Eastern USA (Deutsch et al., 2014; IPMCenters, 1998; Averill and Sylvania, 1998). Infestations are more severe in the USA than in Eastern Canada, where no specific treatments are made but the pest is controlled through treatments applied against *Acrobasis vaccini* (Le Duc et al., 2014). In the past, resistance to organophosphates was suspected when its importance increased (Averill and Sylvania, 1998). On apple, larvae feed on foliage until midsummer and after a second flight, larvae may feed on fruit in late summer causing pinhole or excavation damage. Economic infestations can be controlled by the use of selective (e.g. *Bacillus thuringiensis*) or broad-spectrum insecticides. (Michigan State University 2014). Severe pest in cranberries in a part of North America (Deutsch et al. 2014). This pest has become more serious in US apple orchards at some point, because it developed resistance to organophosphate insecticides (Agnello et al. 2015). Possible damage on other hosts was not considered here.

Recorded impact: High on <i>Vaccinium</i> , Moderate on apple	Intercepted: Not known	Spreading/invasive: Not known
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