Western flower thrips - *Frankliniella occidentalis* Pergande


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Due to its tiny size (male is ca 1.2 mm, female is ca 1.3 mm) by the bare eye it seems that some minor hairs have been captured on the sticky sheet. By a magnifyer glass one can observe the typical shape of this pest thrips species, having two pairs of wings with lashes. The insect is a surprisingly good flyer. Telling apart the different thrips species is a task for the taxonomist. Characteristic features of the western flower thrips are: the antenna consists of 8 segments; on the head, behind the single eyes the third bristle is outstandingly long; the lashes on the forewing form a continous row; the summer form is yellowish, the winter form is yellowish brown. The western flower thrips is a glasshouse pest in temperate Europe. In warmer regions it can cause damage also in the field. In Hungary its host plants include ornamentals, as *Gerbera*, *Saintpaulia,* roses, pinks, *Begonia, Chrysanthemum,Gloxinia*, etc., but also vegetables as paprika and cucumber. Its damages havebeen observed on 139 plant species belonging to 45 families. The larvae live hidden in buds and flowers.

The adult thrips, which is captured in the trap


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Damages: one can observe whitish spots on the damaged flowers, and they can become distorted. On *Saintpaulia* a characteristic sign of damage is the dusting of pollen on the petals. In Hungary the pest cannot overwinter in the field, but during the summer and autumn it can survive on many weeds (i.e. *Chenopodium, Amaranthus, Melilotus, Datura*), and retreating from them back into the glasshouses as the weather gets colder it can transfer many virus infections.


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The damage of the pest, which should be averted

Selectivity of the CSALOMON® trap (based on tests performed in Hungary): the western flower thrips is predominantly attracted to the blue part of the trap; to a lesser extent to the yellow part.

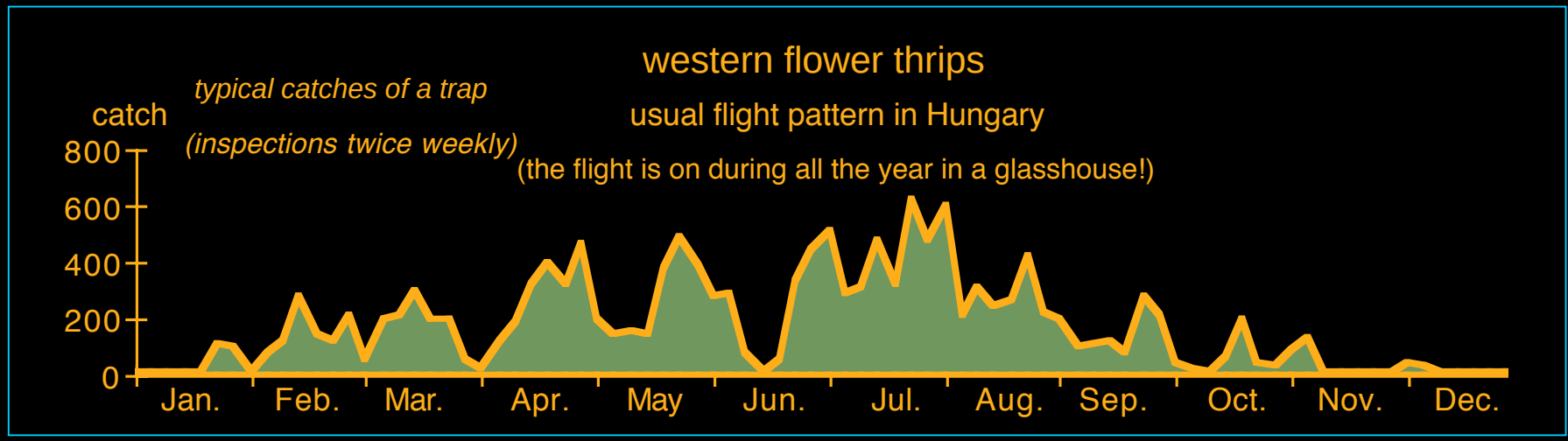
Other thrips spp. (i.e. *Thrips tabaci*) are more readily attracted to the yellow part. All of these spp. are pests so that their capture may make control measures necessary.

Longevity of the CSALOMON® trap: in this trap type insects are attracted by the visual cue of the bright colour of the trap. The trap remains effective as long as the sticky surface is not totally covered by captured insects. This usually happens only after 6-8 weeks of exposure, unless there is a mass outbreak in the glasshouse. After this period exchange the trap for a new one for most reliable monitoring.

The damage of the pest, which should be averted

The method of using coloured sticky traps is widespread worldwide in the control of the western flower thrips, for the timely detection of the settling in and seasonal occurrence of the pest, and to locate the centers of infection[1]. For this purpose blue traps proved to be most effective in Europe, while in North America yellow traps are preferred[2]. According to experience until the population is low, the traps capture mostly males; later the captures of females are increasing[3]. Centres of infection can easily be located and liquidated by visual checks on flowerheads after the first catches appear in the traps[4]. Traps can be applied combined with biological control of beneficial insects; for this purpose one can use predatory mites (*Amblyseius* spp.) and bugs (Heteroptera)[5]. By the application of larger numbers of traps the pest population can be decreased and kept at a low, acceptable level; in this case there is no need for further control measures.[2]

[1] *H. Zsellér I., Agrofórum, 8:60, 1997;* [2] *Vernon, R.S., Gillespie, D.R. J. Econ. Ent., 88:288, 1995;* [3] *Higgins C.J. Myers, J.H. Environ. Entomol. 21:322, 1992;* [4]*Higgins, C.J. J. Econ. Ent. 85:1891, 1992;* [5]*Horváth, J. Tüske, M. Agrofórum, 8:68, 1997*



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or <h2371tot@ella.hu>; internet: <http://www.julia-nki.hu/traps/>.

Frankliniella occidentalis prefers and is mostly captured on the light blue part of the CSALOMON® SZINb (combined yellow/blue) sticky trap