

# Evaluation of *Frankliniella occidentalis* different body colours and their development in a pepper crop greenhouse in the Region of Moknine in Tunisia

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## Abstract

Regular observations realized during 2009 in a pepper crop greenhouse in the region of Moknine in Tunisia permitted to distinguish different *Frankliniella occidentalis* (Pergande) (Thysanoptera Thripidae) body colours. Temporal evolution of these three forms was studied depending on thermal conditions of the greenhouse. Indeed, based on their body colour, three forms were found: dark, pale yellow and intermediate colour. In fact, the dark one was shown to be mostly abundant during winter and spring seasons reaching mean values during April over 1800 individuals per trap, and decreased lately approaching summer season reaching mean values about 1000 individuals per trap. However, the pale yellow one was completely absent during cold season, appeared in spring and early summer with very low values, and continued to increase gradually throughout the study period with temperature's increase till reaching mean values over 800 individuals per trap. Individuals having intermediate body colour were present all through the observations' time without showing too many variations and did not exceed 500 individuals per trap.

**Key words:** temperature, western flower thrips, dark, pale yellow and intermediate form.

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**Figure 3.** Dark body colour of *F. occidentalis* (dark throughout) (photo: Elimem 2009).  
(In colour at [www.bulletinofinsectology.org](http://www.bulletinofinsectology.org)).



**Figure 4.** Intermediate body colour of *F. occidentalis* (with orange thorax and brown abdomen) (photo: Elimem 2009).  
(In colour at [www.bulletinofinsectology.org](http://www.bulletinofinsectology.org)).



**Figure 5.** Pale yellow body colour of *F. occidentalis* (pale throughout) (photo: Elimem 2009).  
(In colour at [www.bulletinofinsectology.org](http://www.bulletinofinsectology.org)).