

Monitoring of Aphid Species Landing in a *Prunus* Nursery Plot from Bistrita Area

Luminita ZAGRAI, Ioan ZAGRAI, Angela FESTILA

Fruit Research & Development Station Bistrita, 3 Drumul Dumitrei Nou Street, 420127,
Bistrita, Romania; lumizagrai@yahoo.com

SUMMARY

Plum pox or Sharka caused by *Plum pox virus* (PPV) is considered as the most destructive disease of stone fruits. This virus is naturally transmitted in a non-persistent manner by aphid vectors. It is very important to know the maximum pick of aphid populations in each area in order to concentrate the insecticide treatments especially on this period. To evaluate the peak of flying aphids and type of species landing in *Prunus* species from Bistrita area, a nursery plot with six different *Prunus*-rootstocks was established in spring of 2008. During the vegetation periods of 2008 and 2009 were monitored the aphid populations landing on the nursery plot by the sticky shot method (Avinent *et al.*, 1993; Cambra *et al.*, 2004). From April to October, an adhesive spray (Soveroude aerosol) was applied in order to capture the aphid species. The maximum peak of aphid populations in Bistrita area was recorded on the beginning of June in 2008 and on the middle of June in 2009 (Fig. 1). The number of winged aphids caught in 2008 was significantly lower than that recorded in 2009. This situation is probable due to the different climatic conditions between the two years (drier and higher temperatures during the vegetative period of 2009 than 2008). From a total of 885 aphids caught during the vegetative period of 2008, 48% of the captures were *Aphis sp.*, 29% were *Hyalopterus pruni*, 5% were *Tetraneura sp.*, and 18% resulted from other species. In 2009, from a total of 3,127 aphid individuals caught during the vegetative period, 69% belonging to *Aphis sp.*, 6.8% were *Myzus sp.*, 6.5% *Hyalopterus pruni*, 4.7% *Rhopalosiphum sp.*, 3.2% *Phorodon humuli* and 9.8% resulted from other species. The results obtained led to recommendation of treatments against aphids vector in Bistrita area, especially in June. These treatments could reduce the spread of PPV by vectors.

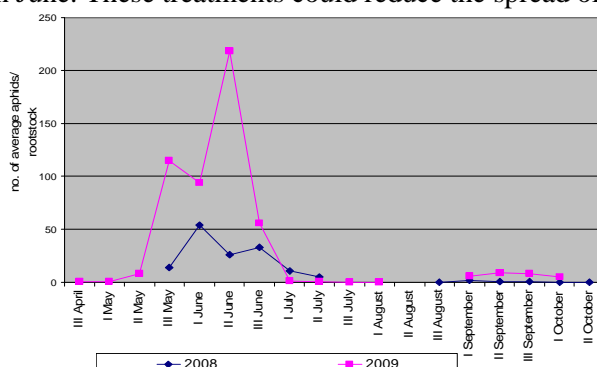


Fig. 1. The dynamic of aphids landing in nursery plot 2008-2009 (Bistrita)

Keywords: *Plum pox virus*, aphids, nursery, Romania

REFERENCES

1. Avinent, L., A. Hermoso de Mendoza and G. Llácer (1993). Comparison of sampling methods to evaluate aphid populations (Homoptera Aphidinae) alighting on apricot trees. *Agronomie* 13: 609-613.
2. Cambra M, M. T. Gorris, N. Capote, M. Asensio, M. C. Martínez, E. Bertolini, C. Collado, A. Hermoso de Mendoza, E. Mataix and A. López (2004). Epidemiology of *Plum pox virus* in Japanese plums in Spain. *Acta Hort.* 657: 195-200.