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COMBATING THE ROSE TIP-INFESTING SAWFLY- *ARDIS BRUNNIVENTRIS* HTG.

GUTUE CĂTĂLIN, UNGUREANU FLORIN¹

Summary: For its great decorative value, the rose is present in parks and gardens as an ornamental plant isolated or in groups. Along with biotic factors, pests can affect the decorative value of these plants. Among them are *Tenthredinidae* wasps. The paper presents data on *Ardis brunniventris* attack frequency on rose plants from four landscape designs. It is also presented the negative impact of this pest on rose plants in suggestive images. Control measures are applied depending on the specific arrangements (public, private or with closed circuit). The urban environment influence the pest management. By applying preventive measures in association with the chemicals ensures a good protection against this pest.

Keywords: rose, pests, wasp, control.

INTRODUCTION

Rose plants have a significant share both in particular landscaping designs and in public ones [1, 3]. They are frequently attacked by many pests, including the *Tenthredinidae* wasps family. Of all these, *Ardis brunniventris* HTG. produces a significant damage to landscaping aesthetics.

MATERIAL AND METHOD

The detection of this pest was done by observing the rose plants from Kiseleff Park, the Park of Patriarchal Residence and private gardens.

Control methods used by us were preventive and curative measures (Table 1). These were applied only to private ornamental gardens and ornamental gardens with narrow circuit (Park of Patriarchal Residence).

Experimental options of control were based on biology of this species. The attack frequency was determined (F%) in several options of combat (Table 1) and in locations (Figure 1) in the period 2012-2014.

Table 1

Experimental options of controlling the rose tip-infesting sawfly - *Ardis brunniventris* Htg.

Option	Location
O ₁ – witness	Kiseleff Park
O ₂ – prophylactic measures (cutting and destruction of attacked shoots + digging soil)	Particular garden
O ₃ – prophylactic measures (cutting and destruction of attacked shoots + digging soil + chemical treatment of adult emergence (Actellic 50 EC - 0.15%))	Park of Patriarchal Residence
O ₄ – prophylactic measures (cutting and destruction of attacked shoots + digging soil) + chemical treatment of adult emergence (Fastac 10 EC - 0.02%)	Particular garden

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Notations were made on the frequency of attacks on shoots in the tested options (Figure 2).



Fig. 1 – Rose rabate (Kiseleff park)



Fig. 2 – Notes referring to *Ardis brunniventris* Htg. attack (Kiseleff park)

The attack frequency (F%) was determined following the form: $F\% = \frac{n \times 100}{N}$ where:

n = the number of attacked plants;

N = total number of examined plants.

RESULTS AND DISCUSSION

On the plants attacked by the the rose tip-infesting sawfly, larvae destroy the piercing rose buds and enter in sprouts where they form a downward to 5 cm in length gallery. (Figure 3). The attacked shoots wither, lose turgor, and dry (Figure 4). Rose plants with strong infestation the first wave of flowering is lost [2].



Fig. 3 – *Ardis brunniventris* Htg. larva in gallery



Fig. 4 – Rose shoots attacked by *Ardis brunniventris* Htg. (original)

By applying prophylactic measures to combat, cutting and destruction of infested shoots before the larvae descend into the ground and before autumn digging, f their destruction frequency attack decreased from 77.27% in 2012 to 22.72% in 2013 and 5, 71% in 2014 (table 2). Also, prophylactic measures in association with the chemical ones ensure a good protection for this pest.

Table 2

Data referring to controlling the rose tip-infesting sawfly –
Ardis brunniventris Htg.

Option	Location	Frequency of attacked shoots (F%)		
		2012	2013	2014
O ₁ – witness	Kiseleff Park	93,88	94,44	91,66
O ₂ – prophylactic measures (cutting and destruction of attacked shoots + digging soil)	Particular Garden	77,27	22,72	5,71
O ₃ – prophylactic measures (cutting and destruction of attacked shoots + digging soil + chemical treatment of adult emergence (Actellic 50 EC - 0.15%))	Park of Patriarchal Residence	34,28	11,22	2,50
O ₄ – prophylactic measures (cutting and destruction of attacked shoots + digging soil) + chemical treatment of adult emergence (Fastac 10 EC - 0.02%)	Particular Garden	32,00	15,36	2,70

CONCLUSIONS

1. The *Ardis brunniventris* attack of the plant drops the decorative value of the rose .
2. The rose wasp is a pest that can be kept under control through control measures.
3. In particular ornamental gardens, where there is possibility of application of phytosanitary measures, the frequency of attacks is reduced by 30% in the first year of application, reducing to under 10% in the third year.
4. Prophylactic measures in association with the chemical ones ensure a good protection for this pest.
5. The management of controlling this pest in public parks is influenced by urban environment (place of rest and relaxation, playground for children, ground cover, isolated plants).

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