

A stepwise assessment of *Daktulosphaira vitifoliae* infested grapevines in a Viennese vineyard site



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Abstract

Daktulosphaira vitifoliae Fitch, the grape phylloxera, occurs in high numbers on the leaves of leaf-forming rootstocks in a Viennese vineyard site. Later in the season the appearance of leaf-galls on *Vitis vinifera* was also observed in commercial vineyards. Assessing five different areas in a Viennese vineyard site the distribution of the phylloxera infestation was determined in eight categories.

Methods

- Five different areas (Neustift + Hackenberg (79,5 ha), Nussberg (144 ha), Wilhelminenstift + Galizienstift (14,1 ha) in the northwest of Vienna were examined for phylloxera infestation.
- A total of 34 locations with leaf-forming rootstocks (referred to as "Drische") were observed over the vegetation period in 2010.
- Data was evaluated in two weeks intervals from 26.05 till 15.09.

Results

The first leaf-galls were observed in May, reaching the maximum potential during August - September mainly on sunny sites that were sheltered from the wind. First leaf-galls were observed in vine yards planted with *V. vinifera* in mid-July close to „Drischen“ in Neustift, Hackenberg and Nussberg.

Outlook:

- Assessing the root infection of leaf-forming rootstocks and *V.vinifera*.
- Biotyping the phylloxera population of the different areas.
- Assessment which cultivars are infested in phylloxera.

Table 1. Eight categories referring to the level of phylloxera infestation.

category 0 no leaf-galls	category 1 few leaf-galls	category 2 1/4 of leaves have 1 gall	category 3 1/4 of leaves with more than 1 gall	category 4 every 2 nd leaf has at least 1 gall
	category 5 every 2 nd leaf has more than 1 gall	category 6 more leaves with galls than uninfested ones	category 7 all leaves have galls	category 8 all leaves have galls, no full development



Fig. 1 State of infestation in the area of Neustift at 15.09.2010.

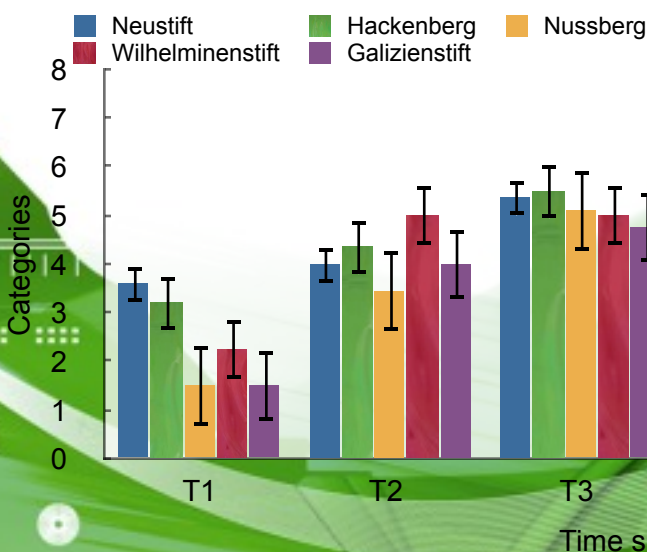


Fig. 2 Evaluation of phylloxera leaf-infestation in five different areas of a Viennese vineyard site. See Table 2 for time specification.

Table 2 Time intervals in which phylloxera infestation was assessed in each area.

T1	(26.05. - 02.06.2010)
T2	(18.06. - 23.06.2010)
T3	(11.07. - 22.07.2010)
T4	(10.08. - 18.08.2010)
T5	(21.08. - 30.08.2010)
T6	(09.09. - 15.09.2010)