

The importance of cultivar in the protection against raspberry cane midge (*Resseliella theobaldi* /Barnes/)

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In the year of 2004, the resistance of five raspberry cultivars to raspberry cane midge (*Resseliella theobaldi* Barnes) was examined. Research was carried out in raspberry plantations in Berkenye, Nógrád county, Hungary. Three traditional, *Tulameen*, *Fertődi Zamatos*, and *Rubacca* (*Niniana*), and two autumn-fruiting, *Autumn Bliss* (*Blissy*) and *Golden Bliss* cultivars were studied during the vegetation period. Primocanes of each cultivated variety were collected every second week for laboratory work. All the samples consisted of 25–25 primocanes chosen at random from the plantations. In the Department of Entomology the accumulated length of splits and the average extent of bark peeling per cane were measured, and the number of larvae per cane was counted as well. Statistical analyses were made to find correlation between the characters mentioned above. The correlation between the accumulated length of splits and the average number of larvae turned out to be weak, while that of between the average extent of bark peeling and the average number of larvae was found to be relatively strong. The average number of larvae per cane was significantly higher in *Rubacca* than in the other four cultivars at $P = 5\%$ level (ANOVA, Games-Howell test), and the bark of this cultivated variety peeled at the higher rate as well. The fewest larvae were counted on *Tulameen* and *Fertődi Zamatos* primocanes, the cultivars having hardly peeling barks. The higher the number of larvae on canes the more the chance for *Leptosphaeria coniothyrium* to invade the canes through larval feeding sites. Taking into consideration that the bark of *Fertődi Zamatos* primocanes hardly peels, and that the primocanes lignify quickly and stand the frost well (contrary to *Tulameen*), this cultivar can be recommended to growers' attention for large-scale production. *Autumn Bliss* has almost the same characteristics as *Golden Bliss*. A considerable number of larvae invaded the primocanes of both autumn-fruiting cultivars, but due to the special growing method as all canes are cut at the end of each vegetation period, there is no significance of cane death caused by *L. coniothyrium* in these two cultivated varieties.