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Life history traits and population growth of *Trialeurodes vaporariorum* on different tomato genotypes

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The effect of different tomato genotypes on life history traits and population growth of greenhouse whitefly *Trialeurodes vaporariorum* (Hemiptera: Aleyrodidae) was examined. Five tomato genotypes were tested: 'Narvik', 'NS-6', 'Tamaris', 'Alliance' and 'Marko'. A laboratory population of *T. vaporariorum* had been reared on tobacco for three years prior to trial set up. The trial was conducted in a climate chamber ($t=27\pm 2^{\circ}\text{C}$, $\text{RH}=50\pm 10\%$, $\text{L:D}=16:8$) and had three replicates. Five one-day-old females were placed in each canvas cage to lay eggs on tomato leaves. The females were transferred to new leaves at 48 h intervals until the last one died. Leaves were examined under stereomicroscope and records were made of the number of living females, number of eggs laid, number of insects hatched from those eggs and reaching adult stage, and the data provided a basis for calculating gross and net fecundity, and gross and net fertility. Development time, longevity of females, cumulative survival time, oviposition period and instantaneous rate of increase (for intervals of 10 and 18 days after the beginning of egg laying) of *T. vaporariorum* were calculated.

Statistically significant differences in fecundity and fertility were detected between the genotype 'NS-6' with the lowest and 'Marko' with the highest values of the measured parameters. Also, net fertility on the genotype 'Narvik' was significantly lower than the corresponding value on the genotype 'Marko'. Females laying eggs on the genotype 'Marko' lived significantly longer than females on the genotype 'Narvik'. A comparison of the survival curves showed a significant difference between the genotype 'Narvik' and the genotypes 'Alliance' and 'Marko'. Comparing the duration of offspring development periods we found that it was longest on the genotype 'Alliance' ($21,48\pm 0,1$), and shortest on 'Marko' ($20,15\pm 0,21$) and 'NS-6' ($20,5\pm 0,1$), and the difference was significant. Comparing instantaneous

rates of increase no significant difference was detected during the 10 day interval, while a significant difference was found between the genotype 'Marko' and genotypes 'Narvik' and 'NS-6' for the 18 day interval.

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