

# Life Table Parameters of Increase of *Tetranychus urticae* and *T. kanzawai* (Acari: Tetranychidae) on Grapevines

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Six species of mites were observed in Korean grapevine yards; *Tetranychus urticae* (hereafter as TSSM), *T. kanzawai* (hereafter as TK), *Eotetranychus smithi*, *Polyphagotarsonemus latus*, *Panonychus ulmi* and *Calepitrimerus* sp. Severe injury caused by TSSM and TK occurred in 3 of 64 vine yards surveyed. The development time (egg to adult) of TSSM and TK on grapevine leaves ('Campbell early' and 'Kyoho') at 25°C showed little difference compared with that of on kidney bean leaves, but they showed very lower fecundity on grapevines than kidney beans. The intrinsic rate of increase ( $r$ ) of TSSM was 0.210, 0.050, and 0.067 on kidney bean, 'Kyoho' and 'Campbell early', respectively, and the value of TK was 0.219, 0.079, and 0.061 on the same host plants, respectively. Thus, the population build-up of TSSM and TK on grapevines was difficult because their increasement rates were low on grapevine. A population growth potential for TSSM and TK on grapevines was predicted using the exponential population growth model of overlapping generations. Assuming an action threshold density, 3 mites per leaf, in apple orchards, the threshold densities of TSSM and TK were 19-24 and 17-21 mites per leaf in grapevine yards, respectively. Such a high initial density in grapevine yards could be formed when ground weeds become undesirable caused by herbicide spray.