

RESISTANCE LEVEL OF SOME CITRUS CULTIVARS TO THE CITRUS NEMATODE (*TYLENCHULUS SEMIPENETRANS* COBB) IN WEST JAVA, INDONESIA

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Abstract

This study aimed to determine resistance level of some citrus cultivars to the citrus nematode (*Tylenchulus semipenetrans* Cobb). Number of *T. semipenetrans* female penetrated per cm root not significantly different on all citrus cultivar. Number *T. semipenetrans* female per cm root on all citrus cultivar was < 1 nematode per cm root. This fact showed that *Citrus jambhiri*, *C. reticulata*, *C. aurantium*, *C. nobilis*, *C. medica*, *C. macrocarpa*, and *C. hystrix* ABC showed resistant reaction on *T. Semipenetrans*. Citrus cultivars have effect on *T. semipenetrans* female development. Number *T. semipenetrans* female that penetrated root system on *C. medica*, *C. microcarpa*, *C. aurantium*, *C. hystrix* ABC, *C. nobilis*, and *C. reticulata* that were 1.254.25 nematodes. This fact showed that the sixth citrus cultivars retarded *T. semipenetrans* development. Resistance level of citrus cultivar to *T. semipenetrans* could determined based on reproductive index (R). Citrus cultivar have effect on number J2 *T. semipenetrans* in the soil. *C. jambhiri*, *C. reticulata*, *C. aurantium*, *C. nobilis*, and *C. medica* have reproductive index was low (< 1), mean that final population *T. semipenetrans* in the soil decrease. This fact showed that cultivars resistant on *T. semipenetrans*. On the contrary, *C. microcarpa* and *C. hystrix* ABC have reproductive index high (>1), mean showed that cultivars susceptible on *T. semipenetrans*. Some citrus cultivars have resistance level that different on *T. semipenetrans* attacking. *C. jambhiri*, *C. reticulata*, and *C. aurantium* were resistant to *T. Semipenetrans*.

Key words : citrus, resistance, slow decline, *Tylenchulus semipenetrans*