

**PATHOGENICITY OF *MELOIDOGYNE INCOGNITA* (KOFID & WHITE)
CHITWOOD AND *ROTYLENCHULUS RENIFORMIS* LINFORD &
OLIVERA ON CHAMOMILE, *MATRICARIA CHAMOMILLA* L.**

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Abstract

The effect of different initial population densities (P_i) on root-galls and egg-mass formation by *Meloidogyne incognita*, the reproductive potentials of *Rotylenchulus reniformis* and growth response including flower yield of *Matricaria chamomilla* were studied under greenhouse conditions. The number of root-galls, number of egg-masses, the nematode final population (P_f) and rate of build-up (P_f/P_i) were affected by the initial populations. Positive regressions were found between the inoculum levels of *M. incognita* and each of galls, egg-masses numbers (galls: $Y = 0.87 + 7.7X$; egg-masses: $Y = 3.4 + 4.5X$). Positive regressions were found between the inoculum levels of *R. reniformis* and numbers of juveniles, females, egg-masses and the nematode final population ($Y = 84.4 + 63.1X$; $Y = 3.1 + 0.49X$; $Y = 0.5 + 3X$ and $Y = 84.6 + 63.1X$, respectively). However, its rate of build-up was negatively correlated with the progressive increase in the inoculum levels ($Y = 47.8 - 12.5X$). Negative relationship existed between the inoculum levels of both *M. incognita* and *R. reniformis* and the growth of shoots and roots as well as flower yield.