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Plant growth and yield of cowpea as affected by population density of root knot nematode, *Meloidogyne incognita*

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Abstract: Under screen house conditions, cowpea plant was inoculated with root knot nematode, *Meloidogyne incognita* at different population levels viz., 0,10,100,1000,2000 and 4000 at planting time. Results indicated that as initial population increased, the final nematode population gradually increased, but this population tended to decrease at higher nematode densities 2,000 and 4,000 levels. The rate of nematode build up tended to decrease with increasing initial nematode inocula. Negative correlation coefficient (r) was found between initial and final population and cowpea plant yield or growth criteria averages (plant vigor index). Coefficient of determination (r^2) was calculated to determine the percentages reduction in yield and plant growth criteria caused by nematodes only.

Key words: Cowpea, plant growth, pod yield, population densities, *Meloidogyne incognita*.

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