

Host suitability of South African and foreign soybean cultivars to
Meloidogyne incognita race 2

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Abstract. Eighty-five local and foreign soybean (*Glycine max* (L.) Merr.) genotypes, including cultivars and breeding lines, were evaluated for host suitability to *Meloidogyne incognita* race 2 in two separate greenhouse experiments. *In vivo* reared *M. incognita* race 2 second-stage juveniles (J₂) and eggs were inoculated on roots of soybean seedlings. Nematode egg and egg mass counts were made 56 days after inoculation (DAI). The number of egg masses as well as eggs per root system were counted, while reproduction factors (RF), egg-laying-female indices (ELF) and eggs per g of root were determined. Substantial variation existed among the soybean cultivars and breeding lines with regard to the parameters evaluated. Several local as well as foreign cultivars and breeding lines were identified with RF-values lower than 1 for *M. incognita* race 2. The commercial local soybean cultivar LS5995 had the lowest number of egg masses and eggs per root system, eggs per g of root, RF-values and ELF-indices in the present study. Based on RF-values this is the first

report that LS5995 is resistant to *M. incognita* race 2. Results obtained in the present study could be used for the planning of crop rotation systems as well as the identification of resistance sources for breeding purposes.

Keywords. *Glycine max*, host suitability, *Meloidogyne incognita* race 2, root-knot nematodes, soybean.

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