

Reaction of black pepper germplasm to root-knot nematode, *Meloidogyne incognita**

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Thirty-one black pepper cultivars and 74 wild collections were screened against *Meloidogyne incognita* for recording reactions.

Rooted cuttings of cultivars/wild collections were raised in methyl bromide fumigated soil mixture (sand, forest soil and cowdung at 1 : 2 : 1 ratio) contained

TABLE 1. Reaction of black pepper germplasm to root-knot nematode, *M. incognita* (Mean of five replicates)

Mean Root-knot Index	Cultivars/wild collections
2.0-2.9	<i>Cultivar</i> : Unidentified—812 (175)
3.0-3.9	<i>Cultivars</i> : Neyyatinkarimundi—816(5840), Jeeragamundi—135(3550); Kudirugunda—872(6150); Aimperian—983(3625); Arakulamunda—997(8980); Unidentified Nos—919(1400); 990(8625); 933(7250). <i>Wild collections</i> : VTP Nos—140(2800); 141(8040); 145(10,207); 146(6,840); 153(7112); 156(4920); 158(44,060); 160(21,735); 167(10,074); 168(12,448); 169(10,693); 178(9974); 191(12,390); 196(2469); 197(33,433); 205(23,200); 219(5560); 221(8720); 258(10,266); 281(4468); 292(5820); 339(3420); 369(3416); 370(9030); 431(6385); 663(3708); 970(5970).
4.0-4.9	<i>Cultivars</i> : Vellanamaban—814(3181); Yohanankodi—824(1500); Kaniyakadan—901(4800); Vellamundi—904(13,575), Vellaramunda—910(10650); Thekkan—922(5794); Balankotta—955(7980); Kottanadan—959(6230); Mundi—993(12,500); Karimkotta—1184(8500); Unidentified—942(10280). <i>Wild collections</i> : VTP Nos—139(33213); 142(2693); 144(26400); 166(48075); 177(28456); 179(8200) 182(55185); 184(22740); 185(20280); 194(12200); 195(30666); 216(17050); 220(20413); 222(18930); 228(17,131); 230(8775); 236(12040); 241(34,600); 252(12770); 259(21154); 261(7427); 264(18330); 266(7564); 269(6930) 270(8650); 275(58340); 280(7890); 287(21436); 288(51770); 290(12242); 296(8480); 300(10290); 353(23,620); 366(30,600); 368(10,290); 393(23,620); 394(8920); 481(7850); 682(24200). <i>Cultivars</i> ; Nilgirie—855(9300); Panniyur—1874(5794); Kalluvally—880(3000); Malamundi—902(13237); Cheppukulamundi—907(5550); Marankodi—914(15600); Karimunda—916(4084); Charadupiriyam—918(22832); Thulamundi—923(5150); Cheriya kaniyakadan—924(6425); Unidentified—813(3625). <i>Wild collections</i> : VTP Nos—163(14250); 193(10920); 209(14335); 286(8290); 293(23033); 325(27055); 387(52350); 655(25090).

Number after the cultivars and the VTP numbers of wild collections denote germplasm accession numbers.

Figures in parentheses are nematode population per gram of root.

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in polythene bags (15 × 10 cm). At 4 to 5 leaf stage, the plants were inoculated with freshly hatched second stage juveniles of *M. incognita* @ 1000 per plant. Each treatment had 5 single plant replications and the plants were maintained under green house conditions. Four months after nematode inoculation, all the plants were carefully removed from the polythene bags and the roots were washed free of soil particles. The root infection was assessed using a root-knot index on 0-5 scale (Taylor and Sasser, 1978). Root of each plant were cut into 0.5 cm bits, mixed thoroughly and one gram sample was used for estimating the nematode populations (all stages of the nematodes).

Only one cultivar (accession No. 812) was moderately resistant with a root-knot index of 2.0 and nematode population as 175/g root. All other cultivars/wild collections were either susceptible or highly susceptible (Table 1).

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REFERENCE

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