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EFFECT OF DIFFERENT MEDIA ON OLIVE EXPLANTS IN *IN VITRO* SCREENING FOR RESISTANCE TO *MELOIDOGYNE INCOGNITA*

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Root-knot nematodes *Meloidogyne* spp. can cause severe damages to olive (*Olea europaea* L.). Identification of nematode-resistant olive varieties is considered as an effective and sustainable method for nematode management. Selection of resistant varieties often occurs in field or in glasshouse, and more recently also *in vitro* conditions. This last methodology avoids the rooting seasonality problems, which occurs by using olive cuttings, overcomes the low rooting capacity of some olive cultivars and reduces the duration of screening of olive germplasm for resistance to root-knot nematodes to about 1/3 of the time for *in vivo* trials. To improve the effectiveness of the methodology the effect of different rooting media (agar, compost and liquid) was investigated in *in vitro* screening trials for resistance of olive cultivars (Ascolana, Canino, Kalamata and Moraiolo) to the root-knot nematode *Meloidogyne incognita* (Kofoid *et* White) Chitw. All tested cultivars were susceptible to *M. incognita* independently of the substrate used. However, *M. incognita* attack and reproduction were significantly more severe in the liquid substrate than the others.