

**AVRDC International Cooperators' Fact Sheet**

**Cucurbit Diseases**

**Root Knot Nematode**

*Meloidogyne incognita* and *Meloidogyne spp.*

Found worldwide

---

**Damage Symptoms**

All cucurbit crops are susceptible to Root Knot Nematode. Aboveground symptoms include reduced growth, pale green or yellow foliage, and plants that tend to wilt with only a minimum of water stress. Underground symptoms are most characteristic for the disease with root galls two to three times the diameter of healthy roots which give the root system a knobby appearance. Decay of infected roots is common in advanced stages due to invasion by secondary organisms.

---

**Conditions for Development**

The nematode can survive in a dormant egg stage for a few months and on susceptible plant hosts indefinitely. The disease is most severe in light sandy soils and at relatively warm soil temperatures. If populations of the nematode are high in the soil from a previous crop, losses can be very great. The disease occurs commonly in field or glasshouse grown crops.

---

**Control**

Resistant cultivars should be used when available, but resistance is usually specific for a particular *Meloidogyne* sp. and may not hold up in all cases. Soil fumigation or pasteurization is the most effective means of root-knot control. Crop rotation, fallow plowing and deep plowing can reduce nematode populations in the soil. Crop rotation with a flooded crop such as rice can greatly reduce population levels.