NEMATODE MANAGEMENT

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Fortunately, nematodes have been a relatively minor problem on peanuts in South Carolina. Peanut root-knot (race 1) nematode is capable of causing severe losses, but economic injury has been very rare. Lesion nematode frequently causes hull injury on green peanuts and can cause yield reduction under extremely high populations. Sting nematode is rarely found in peanut fields in South Carolina, but when observed damage can be severe even at relatively low populations. Hull injury from nematode infection can also lead to increased fungal colonization and disease of pods.

Nematode management is not recommended for peanuts in South Carolina unless injury or damage to peanuts has been documented. Crop rotation and resistance are the most economical and desired management strategies for minimizing nematode problems. A nematode resistant variety (Georgia 14N, Tifguard, TifNV-High O/L) is recommended for fields with a documented history of peanut root-knot nematode injury on peanut. A fumigant like Telone II (field-wide: 6 – 9 gal/A, in-row: 4.5 – 6 gal/A) or Vapam HL (6.61 fl oz/100 linear row ft) applied 2 weeks at a depth of 12" prior to planting can be used to suppress nematodes. Alternatively, Velum Total (18 fl oz/A) can be applied in-furrow or through root-zone chemigation to manage nematodes near the taproot. Propulse (13.6 fl oz/A) can be applied at pegging (~45 DAP) to manage nematodes in the fruiting zone but must be watering in to be effective (0.10 – 0.25 in/A water). AgLogic 15G (aldicarb) (7 lb/A at-planting, with an optional pegging application at 10 lb/A) may also be used for nematode management, though current supply may be limited.

Peanuts are an excellent rotation crop to suppress Reniform, Southern Root-knot and Columbia lance nematodes in cotton.

Field Crop Hosts for Common Nematodes

Crop	Root-knot				Lesion	Lance	Soybean cyst	Sting	Ring	Reniform
	Southern	Peanut race 1	Peanut race 2	Northern						
Peanut	-	+	-	+	+	-	-	±	+	-
Cotton	+	-	-	-	+	+	-	+	+	+
Corn	+	+	+	+	+	+	-	+	±	-
Soybean	+	+	+	+	+	+	+	+	±	+
Tobacco	+	+	+	+	+	-	-	-	+	+
Small grain	+	+	+	+ **- (wheat)**	+	+	-	+	+	-
Grain sorghum	+	+	+	?	+	?	-	+	-	-
Tomato	+	+	+	+	+	-	-	+	+	?

+ indicates host; - indicates non-host; ± indicates host reaction can vary based on population.

Adapted by J.D. Mueller from: Powell, W.M. 1990. Plant susceptibility to major nematodes in Georgia. Univ. of Georgia Extension Bulletin 904; and Dickerson, O.J., J.H. Blake, and S.A. Lewis. 2000. Nematode guidelines for South Carolina. Clemson Univ. Extension Circular 703.