Management of Peanut Root Knot Nematode with Nematicides Applied In Furrow or as Foliar Sprays.

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Peanut root knot nematode (RKN = *Meloidogyne arenaria*) is a devastating pest of peanut in Georgia, particularly in fields with sandy soils and short crop rotations. Fluopyram is an SDHI fungicide/nematicide marketed for use either in furrow as Velum Total (18.0 fl oz/A) or sprayed and washed in as Propulse (13.7 fl oz/A). It has activity on RKN as well as leaf spot (*Cercospora arachidicola* and *Cercosporidium personatum*) and stem rot (*Sclerotium rolfsii*). The efficacy of both products was evaluated in a heavily infested field on GA-06 peanuts sprayed with a conventional fungicide program. In two years of field trials, Velum Total had no effect on stem rot incidence, but reduced leaf spot at harvest in 2017 and 2018. It also reduced nematode galling on roots both years, and on pods in 2018 only. Propulse applied in addition to the Velum Total usually reduced damage from leaf spot, stem rot and nematodes. The maximum benefit of Propulse for control of both diseases and root knot came from applications at 45-75 days after planting (DAP) versus 30 DAP. Pod yields generally reflected the level of disease control, and pod yields were about 1000 lb/A higher in the best treatments versus the fungicide-only control. The nematode-resistant cultivar GA-14N was included with no Velum Total or Propulse applied. It had much lower levels of stem rot and nematode injury, but yields were lower both years than in the best treatments on GA-06G. In an additional study, the timing of irrigation after application to wash off Propulse was evaluated and compared to a chemigation application in 0.10 inch of water. The sprayed applications were at least as good or better than the chemigated treatment for nematode control and pod yield. Timing of irrigation after spraying ranged from immediately after application up to 66 hours later. All treatments with Propulse had significantly less pod galling than the control, and there were no differences in pod galling among the times of washoff.