NEM 204

EXAMPLES OF INTEGRATED MANAGEMENT PROGRAMS
SUGARBEET CYST NEMATODE ON SUGARBEETS:

(RASKI & ALLEN. 1948. CALIFORNIA AGRICULTURE)

PROTECTION OF UNINFESTED LAND
CLEAN CULTIVATION OF HOST WEEDS
CROP ROTATION
EARLY PLANTING (TEMPERATURES TOO LOW FOR INFECTION)
COLUMBIA ROOT-KNOT NEMATODE ON POTATOES:

PREVENTION
  WASHING EQUIPMENT
  CERTIFIED PLANTING STOCK
DAMAGE THRESHOLDS (BASED ON FALL POPULATION LEVELS)
CROP ROTATION
  ALFALFA     BARLEY
  WHEAT       ONIONS
  FALLOW      POTATO VARIETIES
HARVEST DATES DETERMINED BY ACCUMULATED DEGREE DAYS
CHEMICAL CONTROL ONLY IN FIELDS WITH LOW POPULATIONS
ECONOMIC EVALUATION OF ALTERNATIVES
LONG RANGE COMPUTER ASSISTED PLANNING (3-5 YEARS)
Root-knot and stem and bulb nematode on alfalfa:

Selection of Planting Site
Certified Seed
Clean Equipment
Irrigation Management (for *D. dipsaci*)
Weed Management (fall burning for *D. dipsaci*)
Choice of Variety
Crop Rotation (for *D. dipsaci*)
Fallow
Chemicals
PTSL (Peach Tree Short Life):

1. Before planting, apply lime to adjust soil pH in the top 20 cm to 6.0-6.5.
2. Subsoil during site preparation to break up the hardpan, thereby improving water infiltration, drainage, root growth, nutrient uptake, and diffusion of nematicides.
3. In sandy soils where peach trees have been grown previously and in other soils where ring and root-knot nematodes are a problem, fumigate the soil before planting trees.
4. Plant trees that have been grown in fumigated soil or in soil free of parasitic nematodes and other diseases.
5. Plant trees propagated on Lovell or Halford rootstocks (both are very susceptible to root-knot nematodes; thus, preplant fumigation often is essential).
6. Apply nutrients and lime as needed based on soil tests, foliar analysis, and local recommendations.
7. Prune as late as possible, never before 1 January and preferably after 1 February.
   If earlier pruning is unavoidable, prune older trees first. Early pruning is especially hazardous for trees grown on locations where peaches were previously grown.
   Discontinue summer pruning (including topping and hedging) by 15 September.
8. Use recommended herbicides for weed management. Mechanical cultivation, if used, should be shallow to avoid root injury.
9. In sites where preplant fumigation was necessary, use a postplant nematicide if ring nematode populations increase. Assay soil for nematodes annually.
10. Promptly remove from the orchard and destroy all dead and dying trees.