Pale Cyst Nematode Infested Field Deregulation Protocol (if remaining in host crop production)

Summary: A field is declared positive (infested) for pale cyst nematode (PCN). Pressure washing and steam sanitation requirements are implemented for all equipment in contact with field soil. Additional regulatory requirements are implemented for movement of commodities from the field. Growing PCN host crops (susceptible potatoes or host weed species) is prohibited until two viability testing methods (live/dead staining assay and bioassay) are negative for viable PCN. To become deregulated, the field must complete a stepwise series of tests to demonstrate that the infestation has been fully eradicated. Step 1: APHIS conducts an initial survey (full field, fixed grid pattern 80,000 cc of soil per acre sampling rate, equivalent to approximately 200 pounds of soil per acre). Sampling results (number of cysts per sample) are used to map the relative distribution and population of cysts in the field. Infestation foci are located. Initial cyst viability is assessed using a live/dead staining assay. The field may undergo a series of optional PCN Program sponsored eradication treatments. Step 2: Yes. return Infestation foci are sampled annually at to step 2. the rate stated in Step 1. If undergoing Are viable eradication treatments, sampling cysts occurs after each treatment. Cysts detected? No, advance found in soil samples undergo viability to step 3. testing with a live/dead staining assay. Step 3: Infestation foci are sampled at the rate stated in Step 1 to collect additional cysts. Cyst viability is Yes, return to assessed using a greenhouse step 2. Are viable bioassay method (equivalent to three cysts consecutive susceptible potato detected? No, advance crops). Alternatively, an in -field to step 4. bioassay method can be used (three consecutive crops of susceptible potatoes grown in infestation foci or over entire area of the field). Step 4: Yes, return The field is eligible to return to host to step 2. crop production (susceptible Are viable potatoes). Steam sanitation cysts requirement is lifted; pressure detected? No washing requirement remains in place. The field is sampled following harvest of the next three host crops (full field, fixed grid pattern, 20,000 cc soil per acre sampling rate, The field is eligible for full deregulation equivalent to approximately 50 if no viable cysts are detected after pounds soil per acre). Host crops each of three host crops are harvested. may be grown consecutively or in a crop rotation.