

Journal of Nematology 46(2): 239p.

MOLECULAR IDENTIFICATION OF PLANT-PARASITIC NEMATODES OF QUARANTINE CONCERN AT THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA). **Skantar, A.M., Z.A. Handoo, L.K. Carta and D.J. Chitwood.** USDA-ARS Nematology Laboratory, Beltsville, Maryland, 20705.

One mission of the USDA Agricultural Research Service Nematology Laboratory in Beltsville, Maryland is to provide nematode identifications that are urgently required by regulatory agencies, federal and state authorities, or other ARS scientists for research, regulatory actions, and control purposes. In addition to traditional morphology-based taxonomic approaches, molecular methods are often required to confirm diagnoses or to provide conclusive identification in those instances when species morphology is ambiguous or when adult specimens are unavailable for microscopic examination. Current approaches, challenges, and new developments in nematode molecular identification will be discussed within the context of some recent diagnostic scenarios involving *Globodera*, *Meloidogyne*, and *Anguina* spp.