

## **8.- BIBLIOGRAFÍA**

- AGUDELO-SILVA, F., J.E. LINDEGREN y K.A. VALERO. 1987. Persistence of *Neoaplectana carpocapsae* (Kapow selection) infectives in almonds under field conditions. *Flor. Entomol.* 70(2): 288-291.
- AKHURST, R. J. 1982a. Antibiotic activity of *Xenorhabdus* spp., bacteria symbiotically associated with insect pathogenic nematodes of the families Heterorhabditidae and Steinernematidae. *J. Gen. Micro.*, 128: 3061-3065.
- AKHURST, R. J. 1982b. A *Xenorhabdus* sp. (Eubacteriales: Enterobacteriaceae) symbiotically associated with *Steinernema kraussei* (Nematoda: Steinernematidae). *Rev. Nématol.*, 5: 277-280.
- AKHURST, R.J. 1986. Controlling insects in soil with entomopathogenic nematodes. En: *Fundamental and Applied Aspects of Invertebrate Pathology*. Samson, R.A., J.M. Vlack y D. Peters. Ed. Fourth International Colloquium of Invertebrate Pathology, Wageningen. The Netherlands, pp. 265-267.
- AKHURST, R.J. y W.M. BROOKS. 1984. The distribution of entomophilic nematodes (Heterorhabditidae and Steinernematidae) in North Carolina. *J. Inv. Pathol.*, 44: 140-145.
- AKHURST, R.J. y R.A. BEDDING. 1978. A simple cross-breeding technique to facilitate species determination in the genus *Neoaplectana*. *Nematologica* 24: 328-330.
- AKHURST R.J. y R.A. BEDDING. 1986. Natural occurrence of insect pathogenic nematodes (Steinernematidae and Heterorhabditidae) in soil in Australia. *J. Aus. ent. Soc.*, 25: 241-244.
- AKHURST, R.J. y N.E. BOEMARE. 1988. A numerical taxonomic study of the genus *Xenorhabdus* (Enterobacteriaceae) and proposed elevation of the subspecies of *X. nematophilus* to species. *J. Gen. Micro.* 134: 1835-1845.
- AKHURST, R.J. y N.E. BOEMARE. 1990. Biology and taxonomy of *Xenorhabdus*. En: *Entomopathogenic nematodes in biological control*. Editado por R. Gaugler y H.K.Kaya. CRC Press. Florida. pp. 75-90.

- ALATORRE-ROSAS, R. y H.K. KAYA 1990. Interspecific competition between entomopathogenic nematodes in the genera *Heterorhabditis* and *Steinernema* for an insect host in sand. J. Invertebr. Pathol. 55: 179-188.
- ALM, S.R., T. YEH, J.L. HANULA, y R. GEORGIS. 1992. Biological control of Japanese, Oriental, and black turfgrass Ataenius beetle (Coleoptera: Scarabeidae) larvae with entomopathogenic nematodes (Nematoda: Steinernematidae, Heterorhabditidae). J. Econ. Entomol. 85(5): 1660-1665.
- ARRIGONI, E.B., L.L. DINARDO, A.J. CONDE, y F.O. TERÁN. 1986. Aplicação de *Neoaplectana carpocapsae* Weiser, 1955 em condições de campo para controle de *Migdolus* spp. (Coleoptera, Cerambycidae). Nemat. Brasileira, vol X: 181-189.
- ARROYO MARTÍN, C. 1927. Un caso de habronemosis con eosinofilia hemática (nota preliminar). Rev. Hig. San. Pec., 17: 735.
- BARBERCHECK, M.E. 1992. Effect of soil physical factors on biological control agents of soil insect pest. Florida Entomologist 75(4): 539-548.
- BARBERCHECK, M.E. y H.K. KAYA. 1991. Effect of host condition and soil texture on host finding by the entomogenous nematodes *Heterorhabditis bacteriophora* (Rhabditida: Heterorhabditidae) and *Steinernema carpocapsae* (Rhabditida: Steinernematidae). Environ. Entomol. 20(2): 582-589.
- BARI, M.A. y H.K. KAYA. 1984. Evaluation of the entomogenous nematode *Neoaplectana carpocapsae* (= *Steinernema feltiae*) Weiser (Rhabditida: Steinernematidae) and the bacterium *Bacillus thuringiensis* Berliner var. *kurstaki* for suppression of the artichoke plume moth (Lepidoptera: Pterophoridae). J. Econ. Entomol. 77: 225-229.
- BEDDING, R.A. y R.J. AKHURST. 1975. A simple technique for the detection of insect parasitic rhabditid nematodes in soil. Nematologica, 21(1): 109-110.
- BEDDING R.A. y L.A. MILLER. 1981a. Disinfesting blackcurrant cuttings of *Synanthedon tipuliformis*, using the insect parasitic nematode, *Neoaplectana bibionis*. Environ. Entomol. 10: 449-453.

- BEDDING, R.A. y L.A. MILLER. 1981b. Use of a nematode, *Heterorhabditis heliothidis*, to control black vine weevil, *Otiorhynchus sulcatus*, in potted plants. Ann. appl. Biol. 99: 211-216.
- BEDDING, R. A. y A. S. MOLYNEUX. 1982. Penetration of insect cuticle by infective juveniles of *Heterorhabditis* spp. (*Heterorhabditidae*: *Nematoda*). *Nematologica*, 28: 354-359.
- BEDNAREK, A. 1986. Estimation of the occurrence in soil of infective juveniles of entomogenous nematodes (*Rhabditida*: *Steinernematidae*, *Heterorhabditidae*). *Revue Nématol*, 9(4): 414-416.
- BEDNAREK, A., T. NOWICKI, y W.F. WOJCIK. 1986. Sex structure in populations of *Steinernema feltiae*. *Zesz. Probl. Postepow Nauk Roln.*, 323: 213-223.
- BEDNAREK, A. y T. NOWICKI. 1991. New estimation method for the density of entomogenous nematodes (*Rhabditida*: *Steinernematidae*) in the soil. *Rev. Nematol.* 14: 638-639.
- BEGLEY, J.W. 1990. Efficacy against insects in habitats other than soil. En: *Entomopathogenic nematodes in biological control*. Editado por R.Gaugler y H.K.Kaya. CRC Press. Florida. pp. 215-231.
- BENHAM G.S. y G.O. POINAR 1973. Tabulation and evaluation of recent field experiments using the DD-136 strain of *Neoplectana carpocapsae* Weiser: A review. *Exp. Parasitol.* 33: 248-252.
- BENLLOCH, M. 1949. *Mermis nigrecens*, observaciones fitopatológicas en el año 1948. *Bol. Pat. Veg. Ent. Agri.* 16: 203-242.
- BLACKSHAW, R.P. 1988. A survey of insect parasitic nematodes in Northern Ireland. *Ann. appl. Biol.*, 113: 561-565.
- BLACKSHAW, R.P., y M. SENTHAMIZHSELVAN. 1991. The effect of sand particle size on *Steinernema feltiae* sensu Filipjev (1934) (= *N. bibionis* Bovien) activity against *Galleria mellonella* larvae. *Ann. appl. Biol.*, 118: 637-643.

- BOAG, B., R. NEILSON, y S.C. GORDON. 1992. Distribution and prevalence of the entomopathogenic nematode *Steinernema feltiae* in Scotland. *Ann. appl. Biol.*, 121: 355-360.
- BOEMARE, N. E., R.J. AKHURST, y R.G. MOURANT. 1993. DNA relatedness between *Xenorhabdus* spp (Enterobacteriaceae), symbiotic bacteria of entomopathogenic nematodes, and a proposal to transfer *Xenorhabdus luminescens* to a new genus, *Photorhabdus* gen nov. *Int. J. Syst. Bacteriol.*, 43: 249-255.
- BONNEMAISON, L., 1976. Enemigos animales de las plantas cultivadas y forestales. Tomo II. Ediciones Oikos-tau. Barcelona 1976. 496 pp.
- BOVEY, R., 1984. La defensa de las plantas cultivadas. Ed. Omega. Barcelona 1984. 897 pp.
- BOVIEN, P. 1937. Some types of associations between nematodes and insects. *Videnskabelige Meddelelser fra Dansk naturhistorisk Forening i Kjobenhavn*, 101: 1-114.
- BURMAN, M. y A.E. PYE. 1980a. *Neoaplectana carpocapsae*: Movements of nematode populations on a thermal gradient. *Exp. Parasitol.*, 49: 258-265.
- BURMAN, M. y A.E. PYE. 1980b. *Neoaplectana carpocapsae*: respiration of infective juveniles. *Nematologica*, 26: 214-219.
- BURMAN, M., K. ABRAHAMSSON, J. ASCARD, A. SJOBERG, y B. ERIKSON. 1986. Distribution of insect parasitic nematodes in Sweden, p.312. En: R.A. Samson, j.m. Vlak & D. Peters [eds.], *Fundamentals and applied aspects of invertebrate pathology*, Foundation 4th International Colloquium on Invertebrate Pathology, Wageningen, Netherlands.
- BYERS, J. A. y G. O. POINAR. 1982. Location of insect hosts by the nematode, *Neoaplectana carpocapsae*, in response to temperature. *Behaviour*, 79: 1-10.
- CABALLERO, P., E. VARGAS-OSUNA y C. SANTIAGO-ALVAREZ. 1989. Presencia de "gusanos grises" sobre diversos cultivos en Andalucía y Extremadura y sus parásitos y patógenos asociados. *Bol. San. Veg. Plagas*. 15(1): 3-7.

- CAMPBELL, L.R. y R. GAUGLER. 1991. Role of the sheath in desiccation tolerance of two entomopathogenic nematodes. *Nematologica* 37: 324-332.
- CASANELLAS, J.P. 1986. Técnicas y experimentos en edafología. Universitat Politècnica de Catalunya. Escola Tècnica Superior d'Enginyers Agrònoms. Lleida. Col·legi Oficial d'Enginyers Agrònoms de Catalunya.
- CHITWOOD, B.G. y M.B. CHITWOOD. 1937. An introduction to nematology. Monumental Printing Co., Baltimore, Maryland.
- CHOO, H.Y., H.K. KAYA, T.M. BURLANDO y R. GAUGLER. 1989. Entomopathogenic nematodes: Host-finding ability in the presence of plant roots. *Environ. Entomol.* 18(6): 1136-1140.
- COMAS CAMPS, M. 1928. Contribución al conocimiento de la biología de *Chironomus* y de su parásito *Paramermis contorta*. *Mem. R. Soc. Española His. Nat.*, 13: 369.
- CREIGHTON, C.S. y G. FASSULIOTIS. 1981. A laboratory technique for culturing *Filipjevimermis leipsandra*, a nematode parasite of *Diabrotica balteata* larvae (Insecta: Coleoptera). *Journal of Nematology*, 13: 226-227.
- CROLL, N.A. 1972. Behaviour of larval nematodes. En: Behavioural aspects of parasite transmission. (Eds E.U. Canning and C.A. Wright). pp. 31-52. (Academic Press, London).
- CROLL, N.A. y B.E. MATTHEWS, 1977. Survival of nematodes. En: "Biology of nematodes", pp. 152-165. Wiley, New York.
- CUMBERLAND, D.J. 1985. Optimisation of packing of powder particles as an aid to solid phase compaction. Report N° 1588, Department of Mechanical and Industrial Engineering, The Queen's University of Belfast. (en Blackshaw y Senthamizhselvan, 1991).
- DESEO, K.V. 1982. Prove di lotta col nematode entomopatogeno (*Neoplectana carpocapsae* Weiser) contro i rodilegno *Cossus cossus* L. e *Zeuzera pyrina* L. (Lepidoptera; Cossidae). *Atti Giornate Fitopatologiche* 3: 3-10.

- DESEO K.V. y P. FLORI. 1983. Osservazioni sulle malattie del rodilegno rosso (*Cossus cossus* L. Lepidoptera; Cossidae) con particolare riferimento a quella fungine.
- DESEO, K.V., S. GRASSI, F. FOSCHI, L. ROVESTI. 1984a. Un sistema di lotta biologica contro il rodilegno giallo (*Zeuzera pyrina* L.; Lepidoptera Cossidae). Atti Giornate Fitopatologiche 2: 403-414.
- DESEO, K.V., F. FOSCHI, L. ROVESTI. 1984b. Results of biological control experiments in apple and pear orchards against the larvae of *Zeuzera pyrina* L. (Lepidoptera; Cossidae). Poster n° "17 F" Sip-Davis USA.
- DESEO, K.V. y R. DOCCI. 1985. Lotta microbiologica contro *Zeuzera pyrina* L. (Lepidoptera: Cossidae). La difesa delle piante 2: 285-292.
- DESEO, K.V. y L.A. MILLER. 1985. Efficacy of entomogenous nematodes *Steinernema* spp., against clearwing moth, *Synanthedon* spp. in north italian apple orchards. Nematologica 31: 100-108.
- DESEO, K.V., P. FANTONI, y G.L. LAZZARI. 1988. Presenza di nematodi entomopatogeni (*Steinernema* spp., *Heterorhabditis* spp.) nei terreni agricoli in Italia. ATTI Giornale Fitopatol., 2: 269-280.
- DOUCET, M.M.A. 1986. Técnica rápida para detectar nematodos entomófagos. Rev. Cs. Agropec., V: 57-63.
- DOUCET, M.M.A. de, y R. GABARRA. On the occurrence of *Steinernema glaseri* (Steiner, 1929) (Steinernematidae) and *Heterorhabditis bacteriophora* Poinar, 1976 (Heterorhabditidae) in Catalogne. Spain. Fund. Appl. Nematol. (en prensa).
- DOWNES, M.J. y C.T. GRIFFIN. 1991. Recovery of heterorhabditid nematodes from Irish and Scottish soils. Procc. third European Meeting "Microbial control of pests" IOBC-OILB. 24-27 february 1991 Wageningen. pp:216-218.
- DOWNING, A.S., C.G. ERICKSON, y M.J. KRAUS. 1991. Field evaluation of entomopathogenic nematodes against citrus root weevils (Coleoptera Curculionidae) in Florida citrus. Florida Entomologist, 74(4): 584-586.

- DUNPHY, G.B. y G.S. THURSTON. 1990. Insect immunity. En: Entomopathogenic nematodes in biological control. Editado por R.Gaugler y H.K.Kaya. CRC Press. Florida, pp. 301-323.
- DUTKY, S.R., J.V. THOMPSON y G.E. CANTWELL, 1964. A technique for mass propagation of the DD-136 nematode. J. Insect Pathol. 6:417-422.
- EHLERS, R.U. , K.V. DESEO, y E. STACKEBRANDT. 1991. Identification of *Steinernema* spp. (Nematoda) and symbiotic bacteria *Xenorhabdus* spp. from Italian and German soils. Nematologica 37: 360-366.
- EPSKY N.D. y J.L. CAPINERA. 1988. Efficacy of the entomogenous nematode *Steinernema feltiae* against a subterranean termite, *Reticulitermes tibialis* (Isoptera: Rhinotermitidae). J. Econ. Entomol. 81(5): 1313-1317.
- EPSKY, N.D., D.E. WALTER y J.L. CAPINERA. 1988. Potential role of nematophagous microarthropods as biotic mortality factors of entomogenous nematodes (Rhabditida: Steinernematidae, Heterorhabditidae). J. Econ. Entomol. 81(3): 821-825.
- EPSKY N.D. y J.L. CAPINERA. 1993. Quantification of invasion of two strains of *Steinernema carpocapsae* (Weiser) into three lepidopteran larvae. J. Nematol. 25(2): 173-180.
- FAN, X. 1989. Bionomics of British strains of entomopathogenic nematodes (Steinernematidae). PhD. thesis. Imperial College, London University, London.
- FAN, X. y W.M. HOMINICK. 1991a. Effects of low storage temperature on survival and infectivity of two *Steinernema* species (Nematoda: Steinernematidae). Rev. Nematol. 14: 407-412.
- FAN, X. y W.M. HOMINICK. 1991b. Efficiency of the *Galleria* (wax moth) baiting technique for recovering infective stages of entomopathogenic rhabditids (Steinernematidae and Heterorhabditidae) from sand and soil. Rev. Nematol. 14: 381-387.
- FEDORKO, A., M. KAMIONEK, J. KOZEOWSKA, y E. MIANOWSKA.



- 1977a. The effects of some insecticides on nematodes of different ecological groups. *Polish Ecol. Studies*, 3(2): 79-88.
- FEDORKO, A., M. KAMIONEK, J. KOZEOWSKA, y E. MIANOWSKA. 1977b. The effects of some carbamide herbicides on nematodes from different ecological groups. *Polish Ecol. Studies*, 3(2): 23-28.
  - FEDORKO, A., M. KAMIONEK, J. KOZEOWSKA, y E. MIANOWSKA. 1977c. The effect of vydate-oxamyl on nematodes of different ecological groups. *Polish Ecol. Studies*, 3(2): 89-93.
  - FIGUEROA, W. 1990. Biocontrol of the banana root borer weevil, *Cosmopolites sordidus* (Germar), with Steinernematid nematodes. *J. Agric. Univ. P.R.*, 74(1): 15-19.
  - FIGUEROA, W., J. ROMAN, y M.A. ACOSTA. 1993. Isolates of entomogenous nematodes *Heterorhabditis* spp. and mortality of larvae of *Galleria mellonella*, *Cylas formicarius*, *Euscepes postfasciatus* and *Cosmopolites sordidus*. *J. Agric. Univ. P.R.*, 77(1-2): 53-60.
  - FILIPJEV, I.N. 1934. The classification of the free-living nematodes and their relation to parasitic nematodes. *Smithson. Misc. Coll.* 89: 1-63.
  - FINNEY, J.R. y W. MORDUE. 1976. The susceptibility of the elm bark beetle *Scolytus scolytus* to the DD-136 strain of *Neoaplectana* sp. *Ann. appl. Biol.*, 83: 311-312.
  - FINNEY, J.R. y C. WALKER. 1977. The DD-136 strain of *Neoaplectana* sp. as a potential biological control agent for the European elm bark beetle, *Scolytus scolytus*. *J. Inv. Pathol.* 29: 7-9.
  - FINNEY, J.R. y C. WALKER. 1979. Assessment of a field trial using the DD-136 strain of *Neoaplectana* sp for the control of *Scolytus scolytus*. *J. Inv. Pathol.* 33: 239-241.
  - FINNEY, J.R., y J.B. HARDING. 1981. Some factors affecting the use of *Neoaplectana* sp. for mosquito control. *Mosquito News*, 41: 798-799.

- FORSCHLER, B.T. y G.L. NORDIN. 1988. Suppression of carpenterworm, *Prionoxystus robiniae* (Lepidoptera: Cossidae), with the entomophagous nematodes, *Steinernema feltiae* and *S. bibionis*. J. Kansas Entomol. Soc. 61(4): 396-400.
- FORSCHLER, B.T. y W.A. GARDNER. 1991. Parasitism of *Phyllophaga hirticula* (Coleoptera: Scarabeidae) by *Heterorhabditis heliothidis* and *Steinernema carpocapsae*. Journal of Invert. Pathol. 58: 396-407.
- FOSCHI, S. y K.V. DESEO. 1983. Risultati di lotta con nematodi entomopatogeni su *Zeuzera pyrina* L. (Lepidopt.; Cossidae) nel 1982. La difesa delle piante 3-4: 153-156.
- FUJII, J.K. 1975. Effects of an entomogenous nematode, *Neoaplectana carpocapsae* Weiser, on the Formosan subterranean termite, *Coptotermes formosanus* Shiraki, with ecological and biological studies on *C. formosanus*. Ph. D. dissertation, University of Hawaii, Honolulu. [referenciada en Epsky y Capinera (1988)].
- GARCIA DEL PINO, F. 1986. Contribución al estudio de la biología de *Zeuzera pyrina* L. (Lepidoptera, Cossidae), parásito de los avellanos del campo de Tarragona. Tesis de Licenciatura. Facultad de Ciencias. Universidad Autónoma de Barcelona.
- GARCÍA DEL PINO, F. 1988. Susceptibilidad de las larvas de *Gortyna xanthenes* (Germar) (Lep.: Noctuidae) al nematodo entomopatógeno *Neoaplectana carpocapsae* Weiser (Nematoda: Rhabditida). Bol. San. Veg. Plagas, 14(1): 119-126.
- GARCIA DEL PINO, F. y A. DE HARO. 1986. Cultivo en el laboratorio en una dieta artificial del taladro de la madera *Zeuzera pyrina* L. (Lepidoptera: Cossidae). Bol. San. Veg. Plagas 12: 281-289.
- GARRIDO, A. 1984. Bioecología de *Capnodis tenebrionis* L. (Coleop: Buprestidae) y orientaciones para su control. Bol. Serv. Plagas 10: 205-221.
- GARRIDO, A., T. DEL BUSTO, Y J. MALAGON 1987. Método de recogida de huevos de *Capnodis tenebrionis* L., (Coleop.: Buprestidae) y algunos factores

- abioticos que pueden condicionar la puesta. Bol. San. Veg. Plagas 13: 303-309.
- GARRIDO, A., J. MALAGON, T. DEL BUSTO. 1990. Toxicidad de plaguicidas por contacto e ingestión sobre adultos de *Capnodis tenebrionis* (L.), (Coleop.: Buprestidae). Bol. San. Veg. Plagas 16: 165-172.
  - GAUGLER, R. y G.M. BOUSH. 1978. Effects of ultraviolet radiation and sunlight on the entomogenous nematode, *Neoaplectana carpocapsae*. J. Invertebr. Pathol. ,32: 291-296.
  - GAUGLER, R., L. LEBECK, B. NAKAGAKI y G.M. BOUSH, 1980. Orientation of the entomogenous nematode, *Neoaplectana carpocapsae* to carbon dioxide. Environ. Entomol. 9: 649-652.
  - GAUGLER, R. y D. MOLLOY. 1981a. Instar susceptibility of *Simulium vittatum* (Diptera: Simuliidae) to the entomogenous nematode *Neoaplectana carpocapsae*. J. Nematol., 13(1): 1-5.
  - GAUGLER, R. y D. MOLLOY. 1981b. Field evaluation of entomogenous nematode, *Neoaplectana carpocapsae*, as a biological control agent of black flies (Diptera: Simuliidae). Mosquito News, 41(3): 459-464.
  - GAUGLER, R., B. KAPLAN, C. ALVARADO, J. MONTOYA, y M. ORTEGA. 1983. Assessment of *Bacillus thuringiensis* serotype 14 and *Steinernema feltiae* (Nematoda: Steinernematidae) for control of the *Simulium* vectors of onchocerciasis in Mexico. Entomophaga, 28(4): 309-315.
  - GAUGLER, R., T.R. McGUIRE y J.F. CAMPBELL. 1989a. Genetic variability among strains of the entomopathogenic nematode *Steinernema feltiae*. J. Nematol. 21(2): 247-253.
  - GAUGLER, R., J.F. CAMPBELL y T.R. McGUIRE. 1989b. Selection for host-finding in *Steinernema feltiae*. J. Invertebr. Pathol. 54: 363-372.
  - GAUGLER, R., J.F. CAMPBELL, y T. McGUIRE 1990. Fitness of a genetically improved entomopathogenic nematode. J. Invertebr. Pathol. 56: 106-116.

- GAUR, H.S. y R.N. PERRY. 1991. The role of the moulted cuticles in the desiccation survival of adults of *Rotylenchulus reniformis*. *Revue Nématol.* 14(4): 491-496.
- GEDEN, C.J., R.C. AXTELL, y W.M. BROOKS. 1986. Susceptibility of the house fly, *Musca domestica* (Diptera: Muscidae), to the entomogenous nematodes *Steinernema feltiae*, *S. glaseri* (Steinernematidae), and *Heterorhabditis heliothidis* (Heterorhabditidae). *J. Med. Entomol.* 23(3): 326-332.
- GEDEN, C.J. y R.C. AXTELL. 1988. Effect of temperature on nematode (*Steinernema feltiae* [Nematoda: Steinernematidae]) treatment of soil for control of lesser mealworm (Coleoptera: Tenebrionidae) in turkey houses. *J. Econ. Entomol.* 81(3): 800-803.
- GEORGIS, R. 1987. Nematodes for biological control of urban insects. Division of environmental chemistry of the American Chemical Society Meeting, 30 August-4Sep. New Orleans 6pp. (extended abstract).
- GEORGIS, R., 1987. Nematodes for biological control of urban insects. 14th National meeting of American chemical society. New Orleans, 1987 Vol 27. 816-821.
- GEORGIS, R. 1990. Formulation and application technology. En: Entomopathogenic nematodes in biological control. Editado por R.Gaugler y H.K.Kaya. CRC Press. Florida. pp. 173-191.
- GEORGIS, R. y G.O. POINAR 1983a. Effect of soil texture on the distribution and infectivity of *Neoplectana carpocapsae* (Nematoda: Steinernematidae). *J. Nematol.* 15: 329-332.
- GEORGIS, R. y G.O. POINAR. 1983b. Vertical migration of *Heterorhabditis bacteriophora* and *H. heliothidis* (Nematoda: Heterorhabditidae) in sandy loam soil. *J. Nematol.* 15(4): 652-654.
- GEORGIS R. y G.O. POINAR. 1984. Greenhouse control of the black vine weevil *Otiorrhynchus sulcatus* (Coleoptera: Curculionidae) by heterorhabditid and steinernematid nematodes. *Environ. Ent.* 13: 1138-1140.

- GEORGIS, R. y G.O. POINAR. 1989. Field effectiveness of entomophilic nematodes *Neoaplectana* and *Heterorhabditis*. En: Integrated Pest Management for Turfgrass and Ornamentals, Leslie, A.R., and Metcalf, R.L., Eds., U.S. Environmental Protection Agency, Washington, D.C. 213.
- GEORGIS, R. y R. GAUGLER. 1991. Predictability in biological control using entomopathogenic nematodes. *J. Econ. Entomol.* 84: 713-720.
- GEORGIS, R., y N.G.M. HAGUE. 1991. Nematodes as biological insecticides. *Pestic. Outlook* 2: 29-32.
- GERRITSEN, L. J. M., G. RAAJ y P.H. SMITS. 1992. Characterization of form variants *Xenorhabdus luminescens*. *Appl. envir. Microbiol.*, 58: 1975-1979.
- GILMORE, S.K. y D.A. POTTER. 1993. Potential role of collembola as biotic mortality agents for entomopathogenic nematodes. *Pedobiologia.* 37(1): 30-38.
- GLASER, R.W. 1929. *Neoaplectana glaseri*, n.g., n.sp. (Oxyuridae), a new nematode parasite of the Japanese beetle (*Popillia japonica* Newm.). *J. Wash. Acad. of Sciences*, 19(19): 436-440.
- GLASER, R.W. 1932. Studies on *Neoaplectana glaseri*, a nematode parasite of the Japanese beetle (*Popillia japonica*). *N. J. Dept. Agric. Cir.*, 211, 34.
- GLASER, R.W., y FARRELL, C.C. 1935. Field experiments with the Japanese beetle and its nematode parasite. *J. N. Y. Entomol. Soc.*, 43, 345-371.
- GLAZER, I. 1991. Ecological considerations for entomopathogenic nematodes activity under sub-optimal conditions. *Procc. third European Meeting "Microbial control of pests" IOBC-OILB. 24-27 february 1991 Wageningen.* pp: 28-31.
- GLAZER, I, y A. NAVON. 1990. Activity and persistence of entomopathogenic nematodes tested against *Heliothis armigera* (Lepidoptera: Noctuidae). *J. Econ. Entomol.* 83: 1795-1800.
- GLAZER, I., S. GALPER, y E. SHARON. 1991. Virulence of the nematode (Steinernematids and *Heterorhabditis*) - Bacteria (*Xenorhabdus* spp) complex to the Egyptian cotton leafworm, *Spodoptera littoralis* (Lepidoptera: Noctuidae). *J.*

Invertebr. Pathol., 57: 94-100.

- GLAZER, I., M. KLEIN, A. NAVON, y Y. NAKACHE. 1992. Comparison of efficacy of entomopathogenic nematodes combined with antidesiccants applied by canopy sprays against three cotton pests (Lepidoptera: Noctuidae). J. Econ. Entomol. 85(5): 1636-1641.
- GÖTZ, P., A. BOMAN, H.G. BOMAN. 1981. Interactions between insect immunity and an insect-pathogenic nematode with symbiotic bacteria. Proc. Roy. Soc. London Ser. B 212: 333-350.
- GRAY, P.A. y D.T. JOHNSON. 1983. Survival of the nematode *Neoaplectana carpocapsae* in relation to soil temperature, moisture and time. Journal of the Georgia Entomological Society 18, 454-460.
- GREEN, R.H. 1966. Measurement of non-randomness in spatial distributions. Researches Population Ecology, 8: 1-7.
- GREWAL, P.S., P.N. RICHARDSON, G. COLLINS, y R.N. EDMONDSON. 1992. Comparative effects of *Steinernema feltiae* (Nematoda: Steinernematidae) and insecticides on yield and cropping of the mushroom *Agaricus bisporus*. Ann. appl. Biol., 121: 511-520.
- GREWAL, P.S. y P.N. RICHARDSON. 1993. Effects of application rates of *Steinernema feltiae* (Nematoda: Steinernematidae) on biological control of the mushroom fly *Lycoriella auripila* (Diptera: Sciaridae). Biocontrol Science and Technology, 3: 29-40.
- GREWAL, P.S., S. SELVAN, E.E. LEWIS, y R. GAUGLER. 1993. Male insect-parasitic nematodes: a colonizing sex. Experientia 49: 605-608
- GRIFFIN, C.T., J.F. MOORE, y M.J. DOWNES. 1991. Occurrence of insect-parasitic nematodes (Steinernematidae, Heterorhabditidae) in the Republic of Ireland. Nematologica, 37: 92-100.
- HAGUE, N.G.M., Ms S. HAUKELAND, y A.A. OTTO. 1991. Effect of temperature on the efficacy of steinernematid nematodes. Med. Fac. Landbouww. Rijksuniv. Gent, 56(3b): 1245-1251.

- HARA, A.H. y H.K. KAYA. 1982. Effects of selected insecticides and nematicides on the in vivo development of the entomogenous nematode *Neoaplectana carpocapsae*. J. Nematol. 14(4): 486-491.
- HARA, A.H. y H.K. KAYA. 1983. Toxicity of selected organophosphate and carbamate pesticides to infective juveniles of the entomogenous nematode *Neoaplectana carpocapsae* (Rhabditida: Steinernematidae). Environ. Entomol. 12: 496-501.
- HARA, A.H., R. GAUGLER, H.K. KAYA, y L.M. LEBECK. 1991. Natural populations of entomopathogenic nematodes (Rhabditida: Heterorhabditidae, Steinernematidae) from the Hawaiian Islands. Environ. Entomol., 20(1): 211-216.
- HARRIS, M.A., J.W. BEGLEY, y D.L. WARKENTIN. 1990. *Liriomyza trifolii* (Diptera: Agromyzidae) suppression with foliar applications of *Steinernema carpocapsae* (Rhabditida: Steinernematidae) and Abamectin. J. Econ. Entomol. 83(6): 2380-2384.
- HAUGEN, D.A. y M.G. UNDERDOWN. 1990. *Sirex noctilio* in the Green Triangle: review from detection to severe outbreak (1977-1987). Australian Forestry, 53: 24-32.
- HERNANDEZ CRESPO, P. 1993. La langosta mediterránea, *Dociostaurus maroccanus* (Thumb.), sus enemigos naturales autóctonos y el posible control de sus plagas por medios de microorganismos patógenos. Tesis Doctoral. E.T.S.I.A.M. Universidad de Córdoba, 251 pág.
- HERNANDEZ CRESPO, P. y C. SANTIAGO ALVAREZ. 1991. On the occurrence of a mermithid on spanish acridids. Bull. SROP/WPRS XIV (7): 208-211.
- HERNANDEZ CRESPO, P. y C. SANTIAGO ALVAREZ. Description of *Hexameris serenensis* sp. n. (Nematoda: Mermithidae) a parasite of *Dociostaurus maroccanus* (Thumb.) (Orthoptera: Acrididae) in Spain. Nematologica (en prensa).
- HEUNGENS, A. y G. BUYSSE. 1987. Toxicity of several pesticides in water

solution on *Heterorhabditis* nematodes. Med. Fac. Landbouww. Rijksuniv. Gent, 52(2a): 631-638.

- HOMINICK, W.M. y A.P. REID. 1990. Perspectives on entomopathogenic nematology. En: Entomopathogenic nematodes in biological control. Editado por R. Gaugler y H.K. Kaya. CRC Press. Florida. pp. 327-345.
- HOMINICK, W.M. y B.R. BRISCOE. 1990 a. Occurrence of entomopathogenic nematodes (Rhabditida: Steinernematidae and Heterorhabditidae) in British soils. Parasitology, 100: 295-302.
- HOMINICK, W.M. y B.R. BRISCOE. 1990 b. Survey of 15 sites over 28 months for entomopathogenic nematodes (Rhabditida: Steinernematidae). Parasitology, 100: 289-294.
- HOY, J.B. y P.J. SHEA. 1981. Effects of lindane, chlorpyrifos, and carbaryl on a California pine forest soil arthropod community. Environ. Entomol., 10: 732-740.
- HUAIWEN, Y., Z. GANGYING, Z. SHANGAO y J. HENG. 1993. Biological control of tree borers (Lepidoptera: Cossidae) in China with the nematode *Steinernema carpocapsae*. En: Nematodes and the biological control of insect pests. Bedding, R., R. Akhurst y H. Kaya Ed. , CSIRO, Australia. pp: 33-40.
- ISART, J., 1970. El "taladro de la alcachofa" *Hydraecia xanthenes* (Germ.) y medios para combatirlo (Lep. Noctuidae). Graellsia 25: 317-324.
- ISHIBASHI, N. y E. KONDO. 1986a. A posible quiescence of the applied entomogenous nematode, *Steinernema feltiae*, in soil. Jap. J. Nematol. 16: 66-67.
- ISHIBASHI, N. y E. KONDO. 1986b. *Steinernema feltiae* (DD-136) and *S. glaseri*: Persistence in soil and bark compost and their influence on native nematodes. J. Nematol. 18(3): 310-316.
- ISHIBASHI, N. y E. KONDO. 1987. Dynamics of the entomogenous nematode *Steinernema feltiae* applied to soil with and without nematicide treatment. J. Nematol. 19(4): 404-412.



- ISHIBASHI, N. y E. KONDO. 1990. Behavior of infective juveniles, pp. 139-150. En: R. Gaugler and H.K. Kaya (eds.). Entomopathogenic nematodes in biological control. CRC Press. Boca Raton, FL.
- JACKSON, J.J. y M.A. BROOKS 1989. Susceptibility of immune response of western corn rootworm larvae (Coleoptera: Chrysomelidae) to the entomogenous nematode, *Steinernema feltiae* (Rhabditida: Steinernematidae). J. Econ. Entomol. 82: 1073.
- JAQUES, R.P. 1967. Mortality of five apple insects induced by the nematode DD-136. J. Econ. Entomol., 60:741.
- JOUVENAZ, D.P., C.S. LOFGREN, y R.W. MILLER, 1990. Steinernematid nematode drenches for control of fire ants, *Solenopsis invicta*, in Florida. Florida Entomologist, 73(1): 190-193.
- KAKOULI, T., N.G.M. HAGUE, y A.A. OTTO. 1993. Evaluation of the entomopathogenic nematode, *Steinernema carpocapsae*, against the black vine weevil, *Otiorrhynchus sulcatus*. Ann. appl. Biol. 122 (Supplement). Tests of Agrochemicals and Cultivars 14: 190-191.
- KAMIONEK, M., I. MASLANA, y H. SANDNER. 1974. The survival of invasive larvae of *Neoaplectana carpocapsae* Weiser in a waterless environment under various conditions of temperature and humidity. Zesz. Probl. Postepow Nauk Roln., 154: 409.
- KAYA, H.K., 1985. Entomogenous nematodes for insect control in IPM systems. Biological control in Agricultural IPM systems. 283-302.
- KAYA, H.K. 1986. *Steinernema feltiae*: use against foliage feeding insects and effects on nontarget insects. En: Fundamental and Applied Aspects of Invertebrate Pathology, Samson, R.A., Vlak, J.M., and Peters, D., Eds., Proc. 4th Int. Coll. Invertebr. Pathol., Wageningen, 268.
- KAYA, H.K. 1990. Soil ecology. En: Entomopathogenic nematodes in biological control. Editado por R. Gaugler y H.K. Kaya. CRC Press. Florida. pp. 93-115.
- KAYA, H.K., 1993. Entomogenous and Entomopathogenic nematodes in

Biological Control. En: Plant Parasitic Nematodes in Temperate Agriculture. Evans, K., D.L. Trudgill y J.M. Webster Ed. CAB International. Wallingford. U.K.

- KAYA, H.K. y R.D. MOON. 1978. The nematode *Heterotylenchus autumnalis* and face fly *Musca autumnalis*: a field study in norther California. *Journal of Nematol.*, 10: 333-341.
- KAYA, H.K. y A.H. HARA. 1981. Susceptibility of various species of lepidopterous pupae to the entomogenous nematode *Neoaplectana carpocapsae*. *J. Nematol.*, 13(3): 291-294.
- KAYA, H.K., A.H. HARA, y R.C. REARDON. 1981. Laboratory and field evaluations of *Neoaplectana carpocapsae* (Rhabditida: Steinernematidae) against the elm leaf beetle (Coleoptera: Crysmelidae) and the western spruce budworm (Lepidoptera: Tortricidae). *Can. Entomol.*, 113: 787.
- KAYA, H.K., J.L. JOOS, L.A. FALCON, y A. BERLOWITZ. 1984. Suppression of the codling moth (Lepidoptera: Olethreutidae) with the entomogenous nematode, *Steinernema feltiae* (Rhabditida: Steinernematidae). *J. Econ. Entomol.*, 77: 1240-1244.
- KAYA H.K., R. GAUGLER. 1993. Entomopathogenic nematodes. *Annu. Rev. Entomol.* 1993. 38: 181-206.
- KERMARREC, A. y H. MAULEON. 1989. Synergie entre le chlordécone et *Neoaplectana carpocapsae* Weiser (Nematoda: Steinernematidae) pour le contrôle de *Cosmopolites sordidus* (Coleoptera: Curculionidae). *Revue Nématol.* 12(3): 324-325.
- KIM, H.K., M.J. JEONG, H.Y. CHOO y C.S. PARK. 1988. Decrease of nematode population by introduction of nematophagous fungi into the soil as affected by inoculum concentration and temperature in vitro. *Korean Jour. Appl. Entomol.* 27(3): 159-164.
- KLEIN, M.G. 1990. Efficacy against soil-inhabiting insect pests. En: Entomopathogenic nematodes in biological control. Editado por R.Gaugler y H.K.Kaya. CRC Press. Florida. pp. 195-214.

- KLEIN, M.G. 1993. Biological control of scarabs with entomopathogenic nematodes. En: Nematodes and the biological control of insect pests. Bedding, R., R. Akhurst y H. Kaya Ed. , CSIRO, Australia. pp: 49-57.
- KLEIN, M.G. y R. GEORGIS. 1992. Persistence of control of Japanese beetle (Coleoptera: Scarabeidae) larvae with steinernematid and heterorhabditid nematodes. J. Econ. Entomol., 85: 727-730.
- KONDO, E. y N. ISHIBASHI. 1986a. Infection efficiency of *Steinernema feltiae* (DD-136) to the common cutworm, *Spodoptera litura* (Lepidoptera: Noctuidae), on the soil. Appl. Ent. Zool., 21(4): 561-571.
- KONDO, E. y N. ISHIBASHI. 1986b. Infectivity and propagation of entomogenous nematodes, *Steinernema* spp., on the common cutworm, *Spodoptera litura* (Lepidoptera: Noctuidae). Appl. Ent. Zool. 21: 95-108.
- KOZODOI, E.M., D.A. VORONOV, y S.E. SPIRIDONOV. 1987. New data on taxonomic studies of *Neoplectana feltiae* (Nematoda, Rhabditida). Zool. Zhur. 66: 980-988.
- KUNG, S.P. y R. GAUGLER. 1990. Soil type and entomopathogenic nematodes persistence. J. of Inv. Pathol. 55: 401-406.
- KUNG, S.P., R. GAUGLER, y H.K. KAYA. 1990. Influence of soil pH and oxygen on persistence of *Steinernema* spp. J. Nematol., 22(4): 440-445.
- KUNG, S.P. y R. GAUGLER. 1991. Effects of soil temperature, moisture, and relative humidity on entomopathogenic nematode persistence. J. Invertebr. Pathol. 57: 242-249.
- LAUMOND, C. 1972. Utilisation pratique des *Neoplectanidae* contre divers Lépidopères des cultures maraichères. Abstr. XIth Int. Symp. Nematol., Reading (G.B.) 3-8 sep. 1972 pp. 41.
- LAUMOND, C., H. MAULEON, y A. KERMARREC. 1979. Données nouvelles sur le spectre d'Hotes et le parasitisme du nematode entomophage *Neoplectana carpocapsae*. Entomophaga 24: 13-27.

- LeBECK, L.M., R. GAUGLER, H.K. KAYA, A.H. HARA, y M.W. JOHNSON. 1993. Host stage suitability of the leafminer *Liriomyza trifolii* (Diptera: Agromyzidae) to the entomopathogenic nematode *Steinernema carpocapsae* (Rhabditida: Steinernematidae). J. Inv. Pathol. 62: 58-63.
- LEVINE, E. y H. OLOUMI-SADEGHI. 1992. Field evaluation of *Steinernema carpocapsae* (Rhabditida: Steinernematidae) against black cutworm (Lepidoptera: Noctuidae) larvae in field corn. J. Entomol. Sci., 27(4): 427-435.
- LEWIS, E.E., R. GAUGLER, y R. HARRISON 1992. Entomopathogenic nematode host finding: Response to contact cues by cruise and ambush foragers. Parasitology 105: 309-315.
- LEWIS, E.E., R. GAUGLER, y R. HARRISON 1993. Response of cruiser and ambusher entomopathogenic nematodes (Steinernematidae) to host volatile cues. Can. J. Zool. 71:765-769.
- LINDEGREN J.E., T.T. YAMASHITA, y W.W. BARNETT. 1981. Parasitic nematode may control carpenterworm in fig trees. Calif. Agric. 35(1-2): 25-26.
- LINDEGREN, J.E., W.W. BARNETT. 1982. Applying parasitic nematodes to control carpenterworms in fig orchards. Calif. Agric. nov-dec. : 7-8.
- LINDEGREN, J.E., T.T. WONG, y D.O. McINNIS. 1990. Response of Mediterranean fruit fly (Diptera: Tephritidae) to the entomogenous nematode *Steinernema feltiae* in field tests (Wawaii, 1983 and 1984). Environ. Entomol.
- LIPA. J.J.; C. SANTIAGO ALVAREZ; E. VARGAS OSUNA; H. ALDEBIS; P. CABALLERO y P. HERNANDEZ CRESPO. 1993. Microorganisms, nematodes and parasitoids of *Ocnogyna baetica* (Rambur) (Lep. Arctiidae) in Southern Spain with potential for use in biological control. Biocontrol Science and Technol. 3: 347-353.
- LÓPEZ NEYRA, C. R. 1947. Helminths de los vertebrados ibéricos, 3 vol., Imprenta Urania. Granada.
- LÓPEZ NEYRA, C. R. 1953. Filariosis autóctonas en España. IV Congr. Int.

Hig. y Med., Barcelona.

- LÓPEZ NEYRA, C. R. 1955. Nematodos tisulares del perro en la Península ibérica. *Veterinaria* (SEU, León), nº 7:5.
- LÖSSBROEK, T.G. y J. THEUNISSEN, 1985. The entomogenous nematode *Neoaplectana bibionis* as a biological control agent of *Agrotis segetum* in lettuce. *Entomol. exp. appl.* 39: 261-264.
- LUDWIG, J.A. y J.F. REYNOLDS. 1988. *Statistical Ecology. A primer on methods and computing.* John Wiley & Sons, Inc. New York. pp. 337.
- MACVEAN, C.M. y J.W. BREWER. 1981. Suitability of *Scolytus multistriatus* and *Dendroctonus ponderosae* as hosts for the entomogenous nematode *Neoaplectana carpocapsae*. *J. Econ. Entomol.* 74: 601-607.
- MACVEAN, C.M., J.W. BREWER, y J.L. CAPINERA. 1982. Field tests of antidesiccants to extend the infection period of an entomogenous nematode, *Neoaplectana carpocapsae*, against the colorado potato beetle. *J. Econ. Entomol.* , 75(1): 97-101.
- MAMIYA, Y. 1987. Application of entomogenous nematode on pine logs infested with pine sawyer, *Monochamus alternatus*. En: *Recent Advances in Biological Control of Insect Pests by Entomogenous Nematodes in Japan*, Ishibashi, N., Ed., Ministry of Education, Japan. Grant N° 59860005, 1987: 31
- MAULDIN J.K. y R.H. BEAL. 1989. Entomogenous nematodes for control of subterranean termites, *Reticulitermes* spp. (Isoptera: Rhinotermitidae). *J. Econ. Entomol.* 82(6): 1638-1642.
- MILLER, L.A. y R.A. BEDDING. 1982. Field testing of the insect parasitic nematode, *Neoaplectana bibionis* [Nematoda: Steinernematidae] against currant borer moth, *Synanthedon tipuliformis* [Lep.: Sesiidae] in blackcurrants. *Entomophaga*, 27(1): 109-114.
- MILSTEAD, J.E. y G.O. POINAR. 1978. A new entomogenous nematode for pest management systems. *Calif. Agric.*, 32: 12.

- MOLLOY, D., R. GAUGLER, y H. JAMNBACK. 1980. The pathogenicity of *Neoaplectana carpocapsae* to blackfly larvae. J.Inv. Pathol., 36: 302-306.
- MOLTA, N.B., y W.M. HOMINICK. 1989. Dose and time-response assessments of *Heterorhabditis heliothidis* and *Steinernema feltiae* (Nematoda: Rhabditida) against *Aedes aegypti* larvae. Entomophaga, 34: 485.
- MOLYNEUX, A.S. 1985. Survival of infective juveniles of *Heterorhabditis* spp., and *Steinernema* spp. (Nematoda: Rhabditida) at various temperatures and their subsequent infectivity for insects. Revue Nématol. 8(2): 165-170.
- MOLYNEUX, A.S. 1986. *Heterorhabditis* spp. and *Steinernema* (= *Neoaplectana*) spp.: temperature and aspects of behaviour and infectivity. Experimental Parasitol. 62: 169-180.
- MOLYNEUX, A.S. y R.A. BEDDING 1984. Influence of soil texture and moisture on the infectivity of *Heterorhabditis* sp. D1 and *Steinernema glaseri* for larvae of the sheep blowfly, *Lucilia cuprina*. Nematologica 30: 358-365.
- MOORE, G.E. 1970. *Dendroctonus frontalis* Infection by the DD-136 strain of *Neoaplectana carpocapsae* and its bacterium complex. J. Nematol. 2(4): 341-344.
- MORRIS, O.N. 1985. Susceptibility of 31 species of agricultural insect pests to the entomogenous nematodes *Steinernema feltiae* and *Heterorhabditis bacteriophora*. Can. Ent. 117: 401-407.
- MOYLE, P.L. y H.K. KAYA 1981. Dispersal and infectivity of the entomogenous nematode, *Neoaplectana carpocapsae* Weiser (Rhabditida: Steinernematidae), in sand. J. Nematol. 13: 295-300.
- MRACEK, Z. 1980. The use of "Galleria traps" for obtaining nematode parasites of insects in Czechoslovaquia (Lepidoptera: Nematoda, Steinernematidae). Acta. entomol. bohemos., 77: 378-382.
- MRACEK, Z. 1982. Estimate of the number of infective larvae of *Neoaplectana carpocapsae* (Nematoda: Steinernematidae) in a soil sample. Nematologica, 28: 303-306.

- MRACEK, Z. y G. JENSER. 1988. First report of entomogenous nematodes of the families Steinernematidae and Heterorhabditidae from Hungary. *Acta Phytopathol. Entomol. Hungarica*, 23(1-2): 153-156.
- MRACEK, Z. y J.M. WEBSTER. 1993. Survey of Heterorhabditidae and Steinernematidae (Rhabditida, Nematoda) in Western Canada. *J. Nematol.* 25(4): 710-717.
- MRÁČEK, Z., K. JISKRA, y L. KAHOUNOVA. 1993. Efficiency of steinernematid nematodes (Nematoda: Steinernematidae) in controlling larvae of the black vine weevil, *Otiorrhynchus sulcatus* (Coleoptera: Curculionidae) in laboratorii and field experiments. *Eur. J. Entomol.* 90: 71-76.
- MULLENS, B.A., J.A. MEYER, y T.L. CYR. 1987a. Infectivity of insect-parasitic nematodes (Rhabditida: Steinernematidae, Heterorhabditidae) for larvae of some manure-breeding flies (Diptera: Muscidae). *Environ. Entomol.* 16: 769-773.
- MULLENS, B.A., J.A. MEYER, y R. GEORGIS. 1987b. Field tests of insect-parasitic nematodes (Rhabditida: Steinernematidae, Heterorhabditidae) against larvae of manure-breeding flies (Diptera: Muscidae) on caged-layer poultry facilities. *J. Econ. Entomol.*, 80: 438-442.
- NACHTIGALL, G., 1991. Discussion of factors influencing a surface-application of entomopathogenic nematodes with special reference to *Synanthedon myopaeformis* (Sesiidae). *Procc. third European Meeting "Microbial control of pests" IOBC-OILB. 24-27 february 1991 Wageningen.* pp: 202-207.
- NGUYEN, K.B. y G.C. SMART. 1989. Preliminary studies on survival of *Steinernema scapterisci* in soil. *Soil and Crop Sc, Soc. Flor. Procc.*, 49: 26-28.
- NGUYEN, K.B. y G.C. SMART. 1990. Vertical dispersal of *Steinernema scapterisci*. *J. Nematol.* 22(4): 574-578.
- NICKLE, W.R. y H.E. WELCH. 1984. History, development, and importance of insect nematology. En: Nickle, W.R. (ed.). *Plant and Insect Nematodes.* Marcel Dekker Inc., New Yorck, pp. 627-653.

- NOGUEROLES ANDREU, C., F. GARCIA DEL PINO y A. CARNERO. 1992. Estudio de la fauna de nematodos entomopatógenos de las Islas Canarias. Actas XXIV Org. Nematol. de Trópicos Americanos (ONTA). Lanzarote (Islas Canarias).
- PAREDES, A. 1936. Nota sobre algunos helmintos parásitos de los équidos. Trab. Ins. Biol. Anim., 4: 122.
- PARKMAN, J.P. y J.H. FRANK, 1993. Use of a sound trap to inoculate *Steinernema scapterisci* (Rhabditida: Steinernematidae) into pest mole cricket populations (Orthoptera: Gryllotalpidae). Florida Entomol. 76(1): 75-82.
- PARRERA, M.P. 1983. Evaluation of selected insecticides for control of permethrin-resistant *Liriomyza trifolii* (Diptera: Agromyzidae) on chrisanthemum. J. Econ. Entomol. 76: 1460-1464.
- PARRELLA, M.P., K.L. ROBB, G.D. CHRISTIE, J.A. BETHKE. 1982. Control of *Liriomyza trifolii* with biological agents and insect growth regulators. Calif. Agric. , nov-dec.: 17-19.
- PETERSEN, J.J. 1984. Nematode parasitism of mosquitoes, 797-820.
- PIJUÁN JIMÉNEZ, M. 1948. *Setaria cervi* (Rud. 1819) en bovinos andaluces. Rev. Ibér. Parasitol., 8: 343.
- POINAR, G.O. 1967. Description and taxonomic position of the DD136 nematode (Steinernematidae, Rhabditoidea) and its relationship to *Neoplectana carpocapsae* Weiser. Proc. helminthol. Soc. Wash. 34: 199-209.
- POINAR, G.O. 1975a. Description and biology of a new insect parasitic rhabditoid, *Heterorhabditis bacteriophora* n. gen. n. sp. (Rhabditida; Heterorhabditidae N. Fam.), Nematologica, 21: 463-470.
- POINAR, G.O. 1975b. Entomogenous nematodes. A manual and host list of insect-nematode associations. E.J. Brill, Leiden, The Netherlands. 317 pp.
- POINAR, G.O. 1979. Nematodes for Biological Control of Insects. CRS Press, Inc. Boca Raton, Florida. 277 pp.



- POINAR, G.O. 1986. Entomophagous nematodes. En Biological Plant and Health Protection. Franz, J.M., Ed., G. Fischer Verlag, Stuttgart. pp. 95-121.
- POINAR, G.O. 1988. Redescription of *Neoaplectana affinis* Bovien (Rhabditida: Steinernematidae). Rev. Nématol. 11: 143-147.
- POINAR, G.O. 1989. Examination of the neoaplectanid species *feltiae* Filipjev, *carpocapsae* Weiser and *bibionis* Bovien (Nematoda: Rhabditida). Rev. Nématol. 12: 375-377.
- POINAR, G.O. 1990. Taxonomy and biology of Steinernematidae and Heterorhabditidae. En: Entomopathogenic nematodes in biological control. Editado por R.Gaugler y H.K.Kaya. CRC Press. Florida. pp. 23-6.1
- POINAR, G.O. 1993. Origins and phylogenetic relationships of the entomophilic rhabditids, Heterorhabditis and Steinernema. Fundam. appl. Nematol., 16(4): 333-338.
- POINAR, G.O. y N. DESCHAMPS. 1981. Susceptibility of *Scolytus multistriatus* to neoaplectanid and heterorhabditid nematodes. Environ. Entomol. 10: 85-87.
- POINAR, G.O. y H.N. KAUL. 1982. Parasitism of the mosquito *Culex pipiens* by the nematode *Heterorhabditis bacteriophora*. J. Inv. Pathol., 39: 382.
- POINAR, G.O. y A. HOM. 1985. Survival and horizontal movement of infective stage *Neoaplectana carpocapsae* in the field. J. Nematol. 18(1): 34-36.
- POINAR, G.O. y H.B. JANSSON. 1986a. Infection of *Neoaplectana* and *Heterorhabditis* (Rhabditida: Nematoda) with the predatory fungi, *Monacrosporium elliposporum* and *Arthrobotrys oligospora* (Moniliales: Deuteromycetes). Revue Nématol. 9(3): 241-244.
- POINAR, G.O. y H.B. JANSSON. 1986b. Susceptibility of *Neoaplectana* spp. and *Heterorhabditis heliothidis* to the endoparasitic fungus *Drechmeria coniospora*. J. Nematol. 18(2): 225-230.

- POINAR, G.O. y M. KOZODOI. 1988. *Neoaplectana glaseri* and *N. anomali*; Sibling species or parallelism?. *Rev. Nématol.* 11: 13-19.
- POINAR G.O. y R. GEORGIS, 1989. Biological control of social insects with nematodes. En: *Integrated Pest Management for Turfgrass and Ornamentals*, Leslie, A.R., and Metcalf, R.L., Eds., U.S. Environmental Protection Agency, Washington, D.C. 255.
- POOLE, M.A. 1976. Survey and control efficacy of endoparasites of *Solenopsis richteri* Forel and *S. invicta* Buren in Mississippi. Ph D. Dissertation, Clemson University, Clemson, S.C. 92 pp. [referenciada en Jouvenaz et al. 1990].
- POPIEL, I., D.N. GROVE, Y M.J. FRIEDMAN. 1989. Infective juvenile formation in the insect parasitic nematode *Steinernema feltiae*. *Parasitology* 99: 77-81.
- PORTA, J., ALCANIZ, J.M., CRUAÑAS, R., DANES, R., FELIPO, T. y TEIXIDOR. 1987. Introducció al coneixement del sol. En: *Els sols del Països Catalans*. p. 31. Assoc. Agrònoms Catalunya. Fund. Enc. Catalana. Barcelona 160pg.
- PYE, A. E. y M. BURMAN. 1981. *Neoaplectana carpocapsae*: Nematode accumulations on chemical and bacterial gradients. *Exp. Parasitol.*, 51: 13-20.
- QUATTLEBAUM, E.C. 1980. Evaluation of fungal and nematode pathogens to control the red imported fire ant, *Solenopsis invicta* Buren. Ph. D. Dissertation, Clemson University, Clemson, S.C. 54 pp. [referenciada en Jouvenaz et al 1990].
- QUENTIN, J. C. 1973. Un nouveau nématode rictulaire *Pterygodermatites hispánica* n. sp. parasite de rongeurs en Espagne. *Bull. Mus. Nat. Hist. Nat.*, 183, 3<sup>a</sup>. Ser (122). 1935-1401.
- QUIN, X., R. KAO, H. YANG, y G. ZHANG. 1988. Study on application of entomopathogenic nematodes of *Steinernema bibionis* and *S. feltiae* to control *Anoplophora glabripennis* and *Holcocerus insularis*. *Forest Res.* 1:179.
- RAO, P.S.P., P.K. DAS, y G. PADHI. 1975. Note on compatibility of DD-136 (*Neoaplectana dutkyi*), an insect parasitic nematode with some insecticides and

- fertilisers. *Indian J. Agric. Sci.* 45(6): 275-277.
- RAULSTON, J.R., S.D. PAIR, J. LOERA, y H.E. CABANILLAS. 1992. Prepupal and pupal parasitism of *Helicoverpa zea* and *Spodoptera frugiperda* (Lepidoptera: Noctuidae) by *Steinernema* sp. in cornfields in the Lower Rio Grande Valley. *J. Econ. Entomol.* 85(5): 1666-1670.
  - REMILLET, M. y C. LAUMOND. 1991. Sphaerularioid nematodes of importance in agriculture. En: Nicckle, W.R. (ed.), *Manual of Agricultural Nematology*. Marcel Dekker Inc., New York, pp. 967-1024.
  - RENN, N. 1990. A comparasion of nematode-containing baits with commercially available insecticidal baits for the control of adult *Musca domestica* infestations of intensive animal units. Brighton crop protection conference. *Pest and Diseases*, 1990. pp. 269-274.
  - RENN, N., G. BARSON, y P.N. RICHARDSON. 1985. Preliminary laboratory test with two species of entomophilic nematodes for control of *Musca domestica* in intensive animal units. *Ann. appl. Biol.* 106: 229-233.
  - RENN, N., G. BARSON, y P.N. RICHARDSON. 1986. Potential housefly control in intensive animal units using entomophilic nematodes. *British crop protection conference. Pest and Diseases*, 4c-17: 615-622.
  - RICHARDSON, P.N. 1987. Susceptibility of mushroom pests to the insect-parasitic nematodes *Steinernema feltiae* and *Heterorhabditis heliothidis*. *Ann. appl. Biol.*, 111: 433-438.
  - RICHARDSON, P.N., y P.S. GREWAL. 1991. Comparative assessment of biological (Nematoda: *Steinernema feltiae*) and chemical methods of control for the mushroom fly *Lycoriella auripila* (Diptera: Sciaridae). *Biocontrol Science and Technology*, 1: 217-228.
  - RING, D.R. y H.W. BROWNING. 1990. Evaluation of Entomopathogenic nematodes against the mexican rice borer (Lepidoptera: Pyralidae). *J. Nematol.* 22(3): 420-422.
  - ROMAN, J. y J.B. BEAVERS. 1982. A survey of Puerto Rico soils for

- entomogenous nematodes which attack *Diaprepes abbreviatus* (L.) (Coleoptera: Curculionidae). J. Agric. Univ. Puerto Rico., 67: 311-316.
- ROVESTI, L., E.W. HEINZPETER, F. TAGLIENTE, y K.V. DESEO. 1988. Compatibility of pesticides with the entomopathogenic nematode *Heterorhabditis bacteriophora* Poinar (Nematoda: Heterorhabditidae). Nematologica 34: 462-476.
  - ROVESTI, L. y K.V. DESEO. 1990. Compatibility of chemical pesticides with the entomopathogenic nematodes, *Steinernema carpocapsae* Weiser and *S. feltiae* Filipjev (Nematoda: Steinernematidae). Nematologica 36: 237-245.
  - ROVESTI, L. y K.V. DESEO. 1991. Compatibility of pesticides with the entomopathogenic nematode, *Heterorhabditis heliothidis*. Nematologica 37: 113-122.
  - RUTHERFORD, T.A., D. TROTTER, y J.M. WEBSTER. 1987. The potential of heterorhabditid nematodes as control agents of root weevils. Can. Ent. 119: 57-63.
  - SALERNO, G. 1950. Sobre la oncocercosis de los équidos. Veterinaria, 14(8): 617.
  - SAUNDERS, M.C. y J.N. ALL. 1982. Laboratory extraction methods and field detection of entomophilic rhabditoid nematodes from soil. Environmental Entomol., 11(6): 1164-1165.
  - SCHMIDT, J. y J.N. ALL. 1978. Chemical attraction of *Neoaplectana carpocapsae* (Nematoda: Steinernematidae) to insect larvae. Environ. Entomol., 7: 605-607.
  - SCHMIDT, J. y J.N. ALL. 1979. Attraction of *Neoaplectana carpocapsae* (Nematoda: Steinernematidae) to common excretory products of insects. Environ. Entomol., 8: 55-51.
  - SCHMITT, A.T., S.R. GOWEN, y N.G.M. HAGUE. 1992. Baiting techniques for the control of *Cosmopolites sordidus* Germar (Coleoptera: Curculionidae) by *Steinernema carpocapsae* (Nematoda: Steinernematidae). Nematropica, 22(2): 159-163.

- SCHROEDER, W.J., 1987. Laboratory bioassays and field trials of entomogenous nematodes for control of *Diaprepes abbreviatus* (Coleoptera: Curculionidae) in citrus. *Environ. Entomol.* 16: 987-989.
- SCHROEDER, W.J., 1990. Suppression of *Diaprepes abbreviatus* (Coleoptera: Curculionidae) adult emergence with soil application of entomopathogenic nematodes (Nematoda: Rhabditida). *Florida Entomol.* 73: 680-683.
- SCHROEDER, W.J., 1992. Entomopathogenic nematodes for control of root weevils of citrus. *Florida Entomologist*, 75(4): 563-567.
- SCHROEDER, W.J. y J.B. BEAVERS. 1987. Movement of the entomogenous nematodes of the families Heterorhabditidae and Steinernematidae in soil. *J. Nematol.* 19(2): 257-259.
- SELVAN, M.S., R. GAUGLER, y J.F. CAMPBELL. 1993. Comparative evaluation of entomopathogenic nematode strains against Japanese beetle, *Popillia japonica* (Coleoptera: Scarabeidae). *J. Econ. Entomol.* 86: 353-359.
- SERRANO SANCHEZ, A. 1945. *Hammerschmidtella neyrai* n. sp. en *Periplaneta orientalis* L. en granada. *Rev. Ibér. Parasitol.* tomo extra: 213.
- SERRANO SANCHEZ, A. 1947. Nematodos parásitos intestinales de los artrópodos en España. *Rev. Ibér. Parasitol.*, 7: 279.
- SHAPIRO, D.I., E.C. BERRY y L.C. LEWIS. 1993. Interactions between nematodes and earthworms: enhanced dispersal of *Steinernema carpocapsae*. *J. Nematol.* 25(2): 189-192.
- SIMONS W.R. 1981. Biological control of *Otiorrhynchus sulcatus* with heterorhabditid nematodes in the glasshouse. *Neth. J. Path.* 87: 149-158.
- SMITS, P.H. y R.-U. EHLERS. 1991. Identification of Heterorhabditis spp. by morphometric characters and RFLP and of their symbiotic bacteria *Xenorhabdus* spp. by species-specific DNA probes. *IOBC/WPRS Bull.*, 14: 195-201.
- SMITS, P.H. y G.L. WIEGERS. 1991. Persistence of the entomopathogenic

- nematode *Heterorhabditis megidis* HE-87.3. Procc. third European Meeting "Microbial control of pests" IOBC-OILB. 24-27 february 1991 Wageningen. pp: 70-74.
- SMITS, P.H., J.T.M. GROENEN y G. RAAJ. 1991. Characterization of *Heterorhabditis* isolates using DNA restriction fragment length polymorphism. Rev. Nématol. 14(3): 445-453.
  - SOUTHEY, J.F. 1970. Laboratory methods for work with plant and soil nematodes. Ministry of Agriculture, Fisheries and Food, Technical Bull. 2. London: Her Majesty's Stationery Office,
  - SPAULL, V.W. 1988. A preliminary evaluation of entomogenous nematodes to control the african sugarcane stalk borer, *Eldana saccharina* (Lepidoptera: Pyralidae). Procc. South African Sugar Tech. Ass. , 62: 120-123.
  - SPAULL, V.W. 1990. Field tests to control the pyralid, *Eldana saccharina*, with an entomogenous nematode, *Heterorhabditis* sp. Procc. South African Sugar Tech. Ass. , 64: 103-106.
  - SPAULL, V.W. 1991. *Heterorhabditis* and *Steinernema* species (Nematoda: Rhabditida) for control of a sugar cane stalk borer in South Africa. Phytophylactica 23: 213-215.
  - STANUSZEK, S. 1970. *Neoaplectana feltiae* (Filipjev, 1934) - a facultative parasite of the caterpillars of Agrotinae in Poland. Zesz. Probl. Postępów Nauk Roln. 92: 355-358.
  - STANUSZEK, S. 1974a. *Neoaplectana feltiae* complex (Nematoda: Rhabditoidea, Steinernematidae) its taxonomic position within the genus *Neoaplectana* and intraspecific structure. Zesz. Probl. Postępów Nauk Roln. 154: 331-360.
  - STANUSZEK, S. 1974b. *Neoaplectana feltiae pieridarum*. ecotype (Nematoda; Rhabditoidea, Steinernematidae)-- a parasite of *Pieris brassicae* L. and *Mamestra brassicae* L. in Poland. Zesz. Probl. Postępów Nauk Roln. 154: 361-393.
  - STEINER, G. 1923. *Aplectana kraussei* n. sp., einer in der Blattwespe *Lyda* sp. parasitierende Nematoden-form, nebst Bemerkungen über das Seitenorgan der

- parasitischen Nematoden. Zentral. Bakteriolog. Parasit. Infekt. Hyg. Abt. 59: 14-18.
- STEINER, G. 1929. *Neoaplectana glaseri* n. g., n. sp. (Oxyuridae) a new nematode parasite of the Japanese beetle (*Popillia japonica* Newm.). J. Wash. Acad. Sci. 19: 436-440.
  - TANADA, Y. y C. REINER. 1960. Microbial control of the artichoke plume moth, *Platyptilia carduidactyla* (Riley) (Pterophoridae, Lepidoptera). J. Insect Pathol. 2:230-246.
  - TARTAGLIA, A. y R. BARTOCCI. 1984. Interventi dimostrativi di lotta biologica contro il rodilegno giallo delle pomacee (*Zeuzera pyrina* L.). L'informatore agrario, 47: 71-73.
  - THEODORIDES, J. 1949. Sur la présence constante de nématodes larvaires Diplogasterinae chez des Geotrupidae (Col. Scarabeoidea) de France. Bull. Soc. Zool. France, 74: 277.
  - THOMAS, G. M. y G. O. POINAR. 1979. *Xenorhabdus* gen. nov., a genus of entomopathogenic, nematophilic bacteria of the family Enterobacteriaceae. Int. J. Syst. Bacteriol., 29: 352-360.
  - TIMPER, P. H.K. KAYA y R. GAUGLER. 1988. Dispersal of the entomogenous nematode *Steinernema feltiae* (Rhabditida: Steinernematidae) by infected adult insects. Environ. Entomol. 17(3): 546-550.
  - TIMPER, P. y H.K. KAYA. 1989. Role of the second-stage cuticle of entomogenous nematodes in preventing infection by nematophagous fungi. J. Invert. Pathol. 54: 314-321.
  - TINAUT RANERA, A. y JIMENEZ MILLAN, F. 1980. Estudio de varios ejemplares de *Pheidole pallidula* (Nylander, 1984) (Hym. Formicidae) parasitados por mermítidos. Rev. Ibér. Parasitol., 40: 527.
  - TRAVASSOS, L. 1927. Sobre o genera *Oxystomatium*. Bol. Biol. 5: 20-21.
  - TREVERROW, N., R.A. BEDDING, E.B. DETTMANN, y C. MADDOX. 1991. Evaluation of entomopathogenic nematodes for control of *Cosmopolites*

- sordidus* Germar (Coleoptera: Curculionidae), a pest of bananas in Australia. Ann. appl. Biol., 119: 139-145.
- TREVERROW, N.L. y R.A. BEDDING. 1993. Development of a system for the control of the banana weevil borer, *Cosmopolites sordidus* with entomopathogenic nematodes. En: Nematodes and the biological control of insect pests. Bedding, R., R. Akhurst y H. Kaya Ed. , CSIRO, Australia. pp: 41-47.
  - TURCO, C.P., S.H. HOPKINS, y W.H. THAMES 1970. Susceptibility of five insect pests to *Neoaplectana glaseri* Steiner, 1292. The Journal of Parasitology 56(2): 277-280.
  - VÄNNINEN, I., G.B. HUSBERG, y H.M.T. HOKKANEN. 1989. Occurrence of entomopathogenic fungi and entomoparasitic nematodes in cultivated soils in Finland. Acta Entomol. Fennica, 53: 65-71.
  - VILLANI, M.G. y R.J. WRIGHT. 1988. Entomogenous nematodes as biological control agents of European chafer and Japanese beetle (Coleoptera: Scarabeidae) larvae infesting turfgrass. J. Econ. Entomol. 81(2): 484-487.
  - VILLANI, M.G. y R.J. WRIGHT. 1990. Environmental influences on soil macroarthropod behavior in agricultural systems. Annual Rev. of Entomol. 35: 249-269.
  - WALLACE, H.R. 1971. Abiotic influences in the soil environment. En: "Plant parasitic nematodes" B.M. Zuckerman, W.F. Mai, y R.A. Rohde, Eds. Vol.I, pp. 257-280. Academic Press, New York.
  - WANG, J.X. y L.X. LI. 1987. Entomogenous nematode research in China. Revue Nématol. 10(4): 483-489.
  - WASSINK, H. Y G.O. POINAR 1984. Use of the entomogenous nematode, *Neoaplectana carpocapsae* Weiser (Steinernematidae: Rhabditida), in Latin America. Reseñas Nematológicas. Nematropica 14(1): 97-109.
  - WESTERMAN, P.R. y J.M. GODTHELP. 1990. The host-searching ability of the insect parasitic nematode *Heterorhabditis* sp. in sand columns. Med. Fac. Landbouww. Rijksuniv. Gent, 55(2b): 691-698.



- WHARTON, D.A. y BARCLAY, S. 1993. Anhydrobiosis in the free-living antarctic nematode *Panagrolaimus davidi* (Nematoda: Rhabditida). *Fundam. appl. Nematol.* 16(1): 17-22.
- WOMERSLEY, C.Z. 1990. Dehydration survival and anhydrobiotic potential. En: *Entomopathogenic nematodes in biological control*. Editado por R. Gaugler y H.K. Kaya. CRC Press. Florida. pp. 117-137.
- WOMERSLEY, C.Z. 1993. Factors affecting physiological fitness and modes of survival employed by dauer juveniles and their relationship to pathogenicity. En: *Nematodes and the biological control of insect pests*. Bedding, R., R. Akhurst y H. Kaya Ed. , CSIRO, Australia. pp:79-88.
- WOUTS, W.M. 1979. The biology and life cycle of a New Zealand population of *Heterorhabditis heliothidis* (Heterorhabditidae). *Nematologica* 25: 191-202.
- WOUTS, W.M. 1980. Biology, life cycle and redescription of *Neoplectana bibionis* Bovien, 1937 (Nematoda: Steinernematidae). *J. Nematol.* 12: 62-72.
- WOUTS, W.M. 1984. Nematode parasites of lepidopterans. En: *Plant and insect nematodes*. Editado por W.R. Nickle. Marcel Dekker, New York. pp. 655-696.
- WOUTS, W.M., Z. MRACEK, S. GERDIN, y R.A. BEDDING. 1982. *Neoplectana* Steiner, 1929 a junior synonym of *Steinernema* Travassos, 1927 (Nematoda, Rhabditida). *Sys. Parasitol.* 4: 147-154.
- WRIGHT, R.J., F. AGUDELO-SILVA, y R. GEORGIS. 1987. Soil applications of Steinernematid and Heterorhabditid nematodes for control of Colorado Potato Beetles, *Leptinotarsa decemlineata* (Say). *J. Nematol.* 19(2): 201-206.
- WRIGHT, R.J., M.G. VILLANI, y F. AGUDELO-SILVA. 1988. Steinernematid and Heterorhabditid nematodes for control of larval European chafers and Japanese beetles (Coleoptera: Scarabeidae) in potted yew. *J. Econ. Entomol.* 81(1): 152-157.
- WU, H.J., Z.N. WANG, y C.F. OU. 1991. Susceptibility of two Formosan termites to the entomogenous nematode, *Steinernema feltiae* Filipjev. *Bull. Inst.*

Zool. Academia Sinica 30(1): 31-39.

- YAMANAKA, K., K. SETA, y M. YASUDA. 1986. Evaluation of the use of entomogenous nematode, *Steinernema feltiae* (Str. Mexican) for the biological control of the fall webworm, *Hyphantria cunea*, (Lepidoptera: Arctiidae). Jpn. J. Nematol., 16: 26.
- ZERVOS, S., S.C. JOHNSON, y J.M. WEBSTER. 1991. Effect of temperature and inoculum size on reproduction and development of *Heterorhabditis heliothidis* and *Steinernema glaseri* (Nematoda: Rhabditoidea) in *Galleria mellonella*. Can. J. Zool. 69: 1261-1264.