similis, Pratylenchus coffeae, Helicotylenchus spp., and *Meloidogyne* spp. Fungi were obtained from 1,834 of 4,338 isolations from bananas. Four fungi occurred in 71% of the isolations from nematode lesions. They were: *Acremonium stromaticum* 22%, *Fusarium solani* 18%, *Cylindrocarpon musae* 17%, and *Fusarium moniliforme* 14%. Apparently these fungi are part of the root and rhizome flora of bananas throughout the world. Nematode-fungus associations on plantains were studied only in Honduras. Isolations were generally made from lesions caused by *Pratylenchus coffeae,* the nematode encountered most frequently on plantains. The fungi associated with nematode lesions on plantains are the same ones found on bananas. Fungi were obtained from 170 of 428 isolations. *Acremonium stromaticum* and *Cylindrocarpon musae* were recovered from 74% of the isolations.—*Division of Tropical Research, United Fruit Company, La Lima, Honduras, Central America.*

PLATZER, E. G. *Phosphoenolpyruvate metabolism and oxidoreductase reactions in Mermis nigrescens.*

The nature of phosphoenolpyruvate metabolism and cytoplasmic oxidoreductase reactions was investigated in *Mermis nigrescens.* Parasitic stages of *M. nigrescens* were obtained 14, 16, 21, and 30 days postinfection, and postparasites were obtained 16 and 40 days postemergence from locusts (*Schistocerca gregaria*). The characteristics of pyruvate kinase (PK), phosphoenolpyruvate carboxykinase (PEPCK), lactate (LDH), and malate dehydrogenases (MDH) were determined in homogenates of parasitic nematodes. In general, the pH optima, substrate, cofactor and ion requirements, and apparent affinity constants of these enzymes were similar to those reported for other eukaryotic organisms. The specific activity of MDH remained constant in all stages of the nematode, whereas LDH activity declined precipitously to very low levels in 21-day parasites and postparasites. This finding indicates that MDH is primarily responsible for maintenance of the cytoplasmic redox state in maturing parasitic and postparasitic stages of *M. nigrescens.* PK activity declined slightly during nematode development within the host, and upon emergence. PEPCK activity was not detectable in 14-day parasites, but it appeared by 19 days and remained at low levels in the parasitic and postparasitic stages. The low PEPCK activity suggests that CO_2 fixation is of little importance in *M. nigrescens,* although further metabolic studies are necessary to substantiate the supposition.—*Department of Nematology, University of California, Riverside, California 92521.*

PROT, J.-C., and S. D. VAN GUNDY. *The effect of clay particles on the migration of Meloidogyne incognita toward and into tomato roots.*

The effect of four soil types on the attraction and migration of *M. incognita* juveniles toward tomato roots was tested in 20-cm PVC columns attached to styrofoam cups and separated from the root system by a 35-μm screen. Only the juveniles that had migrated 20 cm and penetrated the roots in 7 days were counted in roots stained with 0.05% cotton blue. About 300 juveniles, not more than 24 h old, were introduced into the soil at the bottom of the column. The experiments were repeated three times, five replications per experiment, and maintained at 26 C in a growth chamber with 12-h illumination. The percent juveniles found were respectively <1%, 35%, 25%, and <1% in roots grown in: a) silica sand composed of 250-μm particles; b) silica sand with 5% clay (modeling clay) added and thoroughly mixed; c) silica sand with 10% clay; and d) silica sand with 5% clay as a layer at the bottom of the cup but not between the roots and the nematodes. If the juveniles were introduced directly around the roots growing in silica sand, about 70% of the juveniles penetrated the roots. It is hypothesized that the clay particles added to silica sand aid in the attraction of root-knot juveniles over long distances to plant roots by adsorbing and holding some root exudate, which helps the nematodes locate the roots by sensory perception.—*Department of Nematology, University of California, Riverside, California 92521.*

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