

## OLIGONYCHUS MILLERI ON PINUS CARIBAEA IN JAMAICA

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### ABSTRACT

*Oligonychus milleri* (McGregor) is recorded for the first time from Jamaica and from the caribbean pine, *Pinus caribaea* Morelet. Injury, biological control, and chemical control are discussed.

Economically important infestations of the spider mite *Oligonychus milleri* (McGregor) developed on nursery seedlings of the caribbean pine, *Pinus caribaea* Morelet, at Mount Airy in Saint Andrew Parrish, Jamaica and on 3-year-old plantation caribbean pines in a 30-acre planting at Shirley Castle in the Portland Parrish of Jamaica in September 1969. These infestations represent the first records of this mite from caribbean pine, from Jamaica, and of injurious populations on other than nursery pine seedlings.

Since this potentially important spider mite is known to infest several species of pines in California, Idaho, Utah, Arizona, Wisconsin, Louisiana, Delaware, North Carolina, and Florida, the following notes on injury, biological control, and chemical control in Jamaica seem pertinent.

Surveys of the infested nursery and plantation revealed moderate to severe yellowing of the needles on many seedlings and young pines. In a few instances, bronzed, browned, and apparently dying pines were observed.

Predators observed feeding on the spider mites included adults and larvae of the ladybeetle *Exochomus jamaicensis* Sicard, adults and nymphs of the anthocorid *Asthenidea picta* (Uhler), and all stages of the predatory mites *Galendromus floridanus* (Muma), *Neoseiulus umbraticus* (Chant), *Amblyseius aerialis* (Muma), *Typhlodromalus aripo* DeLeon, *Paraseiulella elliptica* (DeLeon), and *Iphiseiodes* n. sp. near *nobilis* (Chant and Baker). Eggs and pupae of the ladybeetle were also observed. Alcohol accumulations of the predatory mites from 3 randomly selected pine tips revealed 88.6 predatory mites per tip with 47.0% of the population *G. floridanus* and 39.0% *N. umbraticus*.

DDT-dimethoate applied as a spray at a rate of 2 lb of 50% wettable powder—1 pint of 40% emulsion concentrate per 100 gal water gave inadequate control of the spider mite on nursery seedlings. DicoFol applied as a spray by airplane at a rate of 1 quart of 42% emulsion concentrate per 100 gal water gave adequate control on plantation pines for 6 to 8 weeks.

Subsequent examinations have revealed reinfestation and population build-up, especially following periods of drought and apparently from unsprayed areas. Since the biological control potential seems to be inadequate, the need for additional chemical treatments is indicated.