## TEMPERATURE DETERMINATION FOR OPTIMUM IN VITRO GROWTH OF Phytophthora parasitica Dastur. COLLECTED FROM 'HASS' AVOCADO IN MICHOACÁN, MEXICO

C. Reyes-Amado<sup>1</sup> and <u>L Morales-García<sup>2</sup></u>

I. Tesis de la Facultad de Agrobiología "Presidente Juárez" UMSNH.

2. Profesor e investigador de la Facultad de Agrobiología "Presidente Juárez" UMSNH. Paseo Lazaro Cárdenas Ezq Berlin s/n. Uruapan, Michoacán, México <u>Jluciano@prodigy.net.mx</u>

Avocado thrives under diverse ecological conditions, being Mexico the world's top producer of this crop. In 1998, Mexico alone contributed with 69.2% of avocado world production, with a total estimate of 2.3 million tons. Among the several threats avocado production faces, root diseases are to be considered. Avocado root rot, caused by *Phytophthora cinnamomi* causes losses from 8% to 15% of avocado trees every year. The recently discovered *Phytophthora parasítica* causes symptoms similar to those caused by *P. cinnamomi* and might be associated with the latter. This is the first report on *P. parasítica* as a root rot pathogen of avocado being present in the avocado-producing area of Michoacan, Mexico. This work was carried out in order to determine optimum temperature for in vitro growth of both *P. cinnamomi* and *P. parasítica*. Both fungi were exposed to 8°, 14°, 17°, 21°, 24°, 28°, 32°, and 36 °C. For *P. parasitica*, optimum and fastest growth was observed at 24 °C, followed by temperatures of 28<sup>9</sup>, 21°, 17°, 32°, and 14°C. Although *P. parasitica* was *in vitro* for20 days, it could not fill the Petri plate at 36 °C; and it did not grow at 8°C. Healthy avocado plants were inoculated with *P. parasitica*, and about 30 days after inoculation, *P. parasitica symptoms* appeared on plants. Infected plants became totally defoliated and died soon after.