The mangosteen *(Garcinia mangostana)* is a tropical fruit of exotic flavour grown in Sri Lanka, Malaysia and Indonesia. *Botryodiplodia* sp was isolated repeatedly from the internal tissues of fruits showing external hard shell symptoms. The hardening of the shell was accompanied by a characteristic mouse grey to black fluffy mycelial growth on the berries and on the inner surface of the shell. The disease was confirmed by Koch's postulates. Several methods of inoculation and the symptoms induced were studied. These results indicate that natural infection of fruits by the pathogen occurred via wounds. Mycelial growth of the pathogen was more abundant on mangosteen pulp dextrose agar media than on potato dextrose agar media.

Conidial germination and mycelial growth rate of the fungus were tested under laboratory conditions with 4 systemic fungicides including benomyl, carbendazim 50%, thiabendazole 45% and Baycor EC 300 and 2 non systemic fungicides including mancozeb and antracol, at concentrations ranging from 0-1000 ppm. Conidial germination did not occur when exposed to mancozeb at 100 ppm, while antracol inhibited germination at 100 ppm. Baycor EC 300, carbendazim 50% and thiabendazole 45% did not inhibit germination at concentrations upto 1,000 ppm. Benlate and carbendazim 50% retarded growth at 500 ppm and 100 ppm respectively. Mancozeb and antracol permitted growth at a concentration of 1,000 ppm.

This study indicates possibilities of reducing the incidence of fruit rot of mangosteens via pre-harvest application of mancozeb and antracol, and the post harvest application