COMPARATIVE EFFICACY OF FIVE FUNGICIDES TO CONTROL CHARCOAL ROT DISEASE IN SESAME

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Charcoal rot disease caused by Macrophomina phaseolina has caused substantial crop damage to sesame plantation in the southern dry zone of Sri Lanka at alarming propotions. Hence as an quick solution five fungicides viz. Baycor EC 300 (30% bitertanol), Folicur EC 250, Fujione (isoprothiolane 40 EC), Fruvit WP 66% (56% propineb + 10% oxadixyl, Moncut (Flutolanil 50%) were tested to study their comparative efficacy to control Macrophomina phaseolina at the Regional Agricultural Research Station, Angunakolapelessa.

The method of Zentmyer (1955) was followed to test the sensitivity of fungicides invitro. Three different concentrations of the testing fungicides were dissolved in 50ml distilled water and were mixed with potato dextrose agar (PDA) prior to pouring plates (0.04, 0.05 and 0.06ml of 3 emulsifiers, 160, 170 and 180mg of fruvit and 1.25, 2.5 and 12.5mg of moncut). Each concentration together with the control had 3 replicates 1cm mycelial bits almost of the same age were obtained and inoculated in the centre of petri plates containing fungicides incorporated PDA media. These plates were incubated at the room temperature and colony diameter was recorded at every 24 hours.

Among the 5 fungicides tested Fruvit WP 66% and Folicur EC 250 performed best. While Baycor EC 300 and Fujione could be rated as third and four respectively comparing its degree of fungitoxicity. Moncut was least efficient compared to the rest. Field application of Fruvit @ 2.25kg/6651/ha gave satisfactory control of the disease.

References: 1. Zentmyer, G.A. (1955) Phytopathology 45 : 398.