Evaluation *in-vitro* bioefficacy of fungicides, against *Alternaria dauci*, infecting carrot crop.

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Alternaria leaf blight (*A. dauci*) is one of the most important foliar diseases of carrot and occurs worldwide. Causing serious damage to carrot crop and yield losses of about 45-60 percent. 13 fungicides (five systemic, four each, non-systemic and combi-fungicides) were evaluated *in vitro* were found effective, with significant mycelia growth inhibition of *A. dauci*, over untreated control. However, systemic fungicides tested (each @ 500, 1000 and 1500 ppm) mycelial growth inhibition was cent per cent (100%) with Propiconazole 25 EC, Hexaconazole 5EC and Difenconazole 25 EC at all three concentrations. These were followed by Penconazole 10 EC (84.26, 86.11 and 87.78 %) and Carbendazim 50 WP (53.22, 55.56 and 56.81 %), respectively @ 500, 1000 and 1500 ppm. Average mycelial growth inhibition recorded with the systemic fungicides was ranged from 55.09 to 100.00 per cent. However, it was significantly highest and cent per cent with Propiconazole 25 EC, Hexaconazole 5EC, Difenconazole 25 EC (100%), followed by Penconazole 10 EC (86.05%) and Carbendazim 50 WP (55.09%). Among the non-systemic and combi-fungicides tested (each @ 1500, 2000 and 2500 ppm), significantly inhibited mycelial growth of *A. dauci*, over untreated control, mycelial growth inhibition was significantly highest with Carboxin 37.5% + Thiram 37.5% (84.81, 85.19 and 86.67 %), followed by Cymoxanil 8% + Mancozeb64% (76.66, 77.03 and 79.63 %), Metalaxyl 8 % + Mancozeb 64% (74.81, 76.00 and 78.14%), Carbendazim 12% + Mancozeb 63% (71.11, 71.85 and 72.77%), Mancozeb75 WP (68.14, 71.11 and 72.44%), Propineb 70 WP (66.30, 67.03 and 70.74 %), Copperoxychloride 50 WP (52.58, 53.77 and 54.10%) and Chlorothalonil 75 WP (47.41, 50.00 and 51.85%), respectively each @ 1500, 2000 and 2500 ppm. Average mycelial growth inhibition with the test fungicides was ranged from 49.75 to 85.56 per cent. However, it was significantly highest with Carboxin 37.5% + Thiram37.5% (85.56 %), followed by Cymoxanil 8% + Mancozeb 64% (77.77%), Metalaxyl 8 % + Mancozeb 64% (76.32 %), Carbendazim 12% + Mancozeb 63% (71.91 %), Mancozeb 75 WP (70.56%), Propineb 70 WP (68.03 %), Copperoxychloride 50 WP (53.94%) and Chlorothalonil75 WP (49.75%).