

**INTEGRATED APPROACH FOR THE MANAGEMENT OF FOOT AND
ROOT ROT DISEASE OF LENTIL CAUSED
BY *Sclerotium rolfsii***

Abu Noman Faruq Ahmmed*

Executive Summary

An experiment was conducted for the management of foot and root rot of lentil caused by *Sclerotium rolfsii* at Sher-e-Bangla Agricultural University, Dhaka, Bangladesh during the period from October 2022 to March 2023. Fifteen different treatments and an untreated control were assessed against the disease. These treatments include chemical fungicide (eg. Tilt 250 EC @0.1%, Autostin 50 WP @0.3%), Bio-fungicides (eg. Dynamic @0.1%, Bioderma @0.4%, Lycomax @0.4%), soil amendments (Bioderma Peat soil @1t/ha, Poultry refuse @5t/ha) and integration of those. Susceptible variety BARI Masur-1 was used in this experiment. In field experiments, the lowest disease incidence was recorded in T₁₅ (Dynamic + Lycomax + Poultry refuse) which was (1%) in vegetative stage, (1.66%) in flowering stage and maturity stage. The highest disease incidence was observed in T₁₆ (control) which was (18.66%) in vegetative stage, (32.33%) in flowering stage and (46.66%) in maturity stage. In all cases of growth parameters viz. plant height (cm), no. of branch, shoot length (cm), root length (cm) were the highest in T₁₅ and lowest in T₁₆. In case of fresh plant weight (g/m²) the highest value was observed in T₁₄ (Dynamic + Bioderma + Poultry refuse) which was (1166.7 g) and the lowest was observed in T₁₆ ((199.3 g). In case of no. pod/plant, yield per plot (g/m²), yield per plant (g/m²) the highest value was observed in T₁₅ and the lowest was observed in T₁₆. From the above findings, T₁₅ (seed treated with Dynamic, soil treated with Bioderma and soil application of poultry refuse) gave the best result against foot and root rot disease of lentil disease.

*Professor, Dept. of Plant Pathology, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh