

EFFECT OF SEED TREATMENT ON THE CONTROL OF SEED BORNE *Alternaria* LEAF BLIGHT OF MUSTARD

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Extended Summary

Mustard (*Brassica spp*) is the most important oil producing crop in Bangladesh. Out of country's total oil production 71% comes from mustard. Many factors are associated with the poor yield of mustard in Bangladesh. Diseases have been identified as one of the major factors. Among the various disease leaf blight caused losses 30-60% of mustard yield in Bangladesh. In addition to direct yield losses the disease adversely affects the seed quality reducing seed size, and discoloration and reduction in oil contents. Seed cleaning before sowing has recently been proved effective in reducing infection of seed borne pathogenes and increasing production of healthy seeds. There is no information available on the resistance sources. Chemicals are being successfully used in controlling the disease. Non-chemical methods of disease control may include use of biological agents, botanicals, adjustment of cultural practices etc. Among these methods seed treatment is another important factor. The experiment was conducted at experimental field of Sher-e-Bangla Agricultural University, Dhaka and in the seed Pathology Laboratory, Department of Plant Pathology, Sher-e-Bangla Agricultural University, Dhaka-1207. The experiment was held during the period from November 2008 to March 2009. The experiment was laid out in a RCBD with three replications. There were five treatments, viz, T₁ (Provax), T₂ (Brine solution), T₃ (BAU-Biofungicide), T₄ (Rovral), T₅ (Control). The unit plot size was 1 m × 1 m. Data were collected on disease incidence and severity of the disease, yield and yield contributing characters. The study revealed that application of seed treating chemicals and BAU-Biofungicides significantly influenced all most all of the parameters. Seed treatment with Rovral as well as spraying resulted better performance. The lowest percent leaf area diseased (11.27%) lowest number of spots/siliqua (3.4%), highest plant height 123.90 cm, no of pod 222.16 and pod length increases 7.14 cm were recorded, where, BARI-6, was treated with Rovral. The highest number of LAD (18.30), Number of spot (14.97) were recorded from control plot. The highest seed yield was (273.47 g) was obtained form SAU- Sarisha plot spraying with Rovral 50 wp. The highest germination percentage and the lowest seed infection obtained from the plot spraying with Rovral. The lowest germination percentage and the highest seed infection of harvested seeds were obtained from the control treatment. The lowest yield (95 g) was obtained from untreated plot. From the present findings it may be concluded that seed treatment as well as spraying with Rovral 50 wp was found to be best for lowering gray blight incidence and severity and the highest yield of good quality seed of mustard. BAU- Biofungicide also has some promising effect against the disease.