

## Association of Seed Mycoflora and their Management in Mungbean

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Mungbean is the third most important pulse crop in India. Among the fungal diseases, powdery mildew, anthracnose, *Cercospora*, web blight and dry root rot are the most prevalent. Apart from diseases some fungi are also causing qualitative and quantitative loss in storage. The study was conducted to know the seed mycoflora associated with mungbean and their management. Seeds samples collected from different districts were plated on moist blotters. Twelve fungi belonging to ten genera viz., *Aspergillus niger*, *Alternaria alternata*, *Aspergillus flavus*, *A. candidus*, *Penicillium notatum*, *Rhizopus stolonifer*, *Cladosporium* sp., *Fusarium oxysporum*, *Mucor* sp., *Curvularia lunata*, *Macrophomina phaseolina* and *Chaetomium globosum* were observed from seed samples. Management of seed mycoflora was studied by different seed treatment methods viz., physical, chemical and biological methods. Seeds treated with hot water at 45 °C for 30 min and 50 °C for 20, 25 and 30 min reduced seed mycoflora. Seed treatment with dry heat treatment at 50 °C for one hour effectively reduced the seed mycoflora. Seed exposed to solar heat treatment between 12-2 pm effectively reduced the seed mycoflora. Seed treatment with captan recorded the maximum inhibition of seed mycoflora (78.68%) followed by carbendazim (68.30 %), thiram (65.57 %), chlorothalonil (62.29 %) and vitavax power (62.84 %) at the rate of 4 g kg<sup>-1</sup> of seed. *T. harzianum* seed treatment at the rate of 8 g kg<sup>-1</sup> of seed inhibited seed mycoflora up to 69.63 per cent followed by *P. fluorescens* (66.49 %), *T. viride* (64.39 %) and *B. subtilis* (63.79 %).

### Biography:

Muhammad Saifulla worked as an Assistant Professor in UAS, GKVK, University of Agricultural Sciences, Bangalore, India. As an Associate Professor from 1995-2003, As Professor from 2003-2015 University of Agricultural Sciences, Bangalore, India.

### Awards & Fellowships:

Member of "Rice blast working group on host resistance and pathogen population virulence. IRRI, Philippines.

Distinguished Leadership Award for having worked on the "Identification blast resistant rice genotypes and fungicides" The American Biographical Institute, Raleigh, California.

Fellow of Phytopathological Society of India. New Delhi.

Fellow of Mycology and Plant Pathology, Udaipur, India.

Honorary Appointment to "The Research Board of Advisors 1999" by the American Biographical Institute.