

RESEARCH ARTICLE

Study on seed borne mycoflora of soybean, sorghum and groundnut of different zones of Madhya Pradesh

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ABSTRACT

Stored seed-borne mycoflora of soybean, sorghum and groundnut in 18 villages, of different zones viz., Jabalpur, Rewa, Sagar, Damoh, Balaghat, Narshighpur, Seoni, Umariya, Chhaterpur, and Pipparia of Madhya Pradesh were surveyed. A total of 30 seed samples, 10 of each species, were collected during August-September 2009-2012. Data were recorded for seed germination percentage, per cent pathogen frequency and major seed-borne fungi, which were identified and quantified using the blotter method. Seed germination percentages were high in soybean 97.3 per cent followed by sorghum 93.3 per cent and groundnut 91.2%; seven, six and five fungal genera were found in seed samples of seeds crops of soybean and sorghum, groundnut, respectively. Fungi most frequently isolated and identified were species of *Alternaria*, *Aspergillus*, *Fusarium*, *Helminthosporium*, *Mucor*, *Penicillium* and *Rhizopus* from sorghum, whereas in soybean above fungal pathogens were identified except *Mucor* and *Penicillium* while in groundnut seed samples *Alternaria*, *Aspergillus*, *Fusarium*, *Helminthosporium*, *Rhizopus* and *Penicillium* were detected. Per cent pathogen frequency of seed-borne fungi was higher in groundnut 73.0 per cent and minimum in soybean 15.3 per cent.

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