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THE VARIATION OF FUNGAL INFECTIONS IN SOYBEAN SEEDS WITH TIME OF HARVEST

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The nature of fungal infections was determined for seed samples of soybean harvested at maturity, and at two and four weeks after maturity.

Visual examination of dry samples revealed discoloured and deformed seeds. Black, brownish red and purple seed coat discolorations were observed. Seeds with purple blotch showed cracking.

In blotter and agar tests, the following fungi were recorded: *Alternaria* sp., *Alternaria tenuis*, *Aspergillus* spp., *Botryodiplodia* sp., *Cercospora kikuchii*, *Chaetomium* spp., *Choanophora* sp., *Cladosporium* sp., *Curvularia* spp., *Drechslera oryzae*, *Drechslera tetramera*, *Fusarium equiseti*, *Fusarium moniliforme*, *Fusarium oxysporum*, *Fusarium semitectum*, *Fusarium solani*, *Fusarium* spp., *Macrophomina phaseolina*, *Myrothecium roridum*, *Nigrospora* sp., *Rhizopus* spp., *Stemphylium* sp. and *Trichoderma* spp.

In sand tests, emergence was generally low. Seed rot and seedling rot were commonly observed. Incubation of seedlings with lesions confirmed the presence of the following fungi: *Cercospora kikuchii*, *Curvularia* spp., *Fusarium* spp., *Phoma* spp. and *Phomopsis* sp.

The percentage incidence of fungi recorded was highest in seed samples harvested four weeks after maturity, moderate in samples harvested two weeks after maturity and lowest in samples harvested at maturity. The increase was sharp in four cultivars for *Phomopsis* sp. and in one sample for *Fusarium* spp. The increase was remarkable in other cultivars for these fungi and *Cercospora kikuchii*. The frequence of occurrence of abnormal seedlings followed the same pattern. Reverse results were obtained for normal seedlings.

Physiological changes in the seed during maturity and weather conditions prevailing at the time of harvest appear to be factors influencing the frequency of incidence of the fungi recorded.