

HEAD ROT OF SUNFLOWER - ITS EFFECT ON THE GRAIN YIELD AND OIL COMPONENTS

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Head rot of sunflower was noticed all over the state of Punjab (India) during spring, 1987. The most common pathogen isolated was Rhizopus spp. During screening of 10 hybrids and 7 open pollinated varieties for their reaction against disease under natural conditions, none was found to be free from head rot. However, seven varieties namely, NSFH-592, BSH-1, Hysun-22, Hysun-32, EC 68414, EC 68415 and Morden showed less than 2% incidence of the disease, minimum (0.39%) being in Russian cv. EC 68415. The varieties, NSFH-102, MSFH-1, Hysun-33, Rumsun Record, Kharkov-51, Kharkov-101 and Pochin showed 2-4% incidence. Above 4 per cent disease incidence was noticed in two Indian varieties i.e. KBSH-1 and NSFH-587 and one from Australia namely PAC-380. There were considerable differences in quantity and quality components of the seeds obtained from healthy and diseased heads. Seed filling was very poor in diseased heads. Seed weight was reduced from 21.05 to 61.67% in various varieties. Total oil content, phenols and protein were reduced from 32.56 to 56.66, 23.73 to 53.57, and 6.5 to 18.79 per cent respectively. Oil quality was also deteriorated considerably.