

gens of peanut, *Sclerotium rolfsii* and *Sclerotinia minor*, was tested. Soil columns in which the sclerotia of the above fungi were distributed were infiltrated with aqueous solutions of the material. At a rate of 11.2 µg of the active material per gram of soil, 100% of the sclerotia were killed, whereas 34.4 µg/g soil killed only 81% of the oospores of *Pythium myriotylum*, one of the pathogens involved in the pod rot complex.

Exposing sclerotia of *S. rolfsii* to sub-lethal concentrations of the biocide applied by soil infiltration did not reduce the native populations of *Trichoderma* or *Gliocladium* spp. present in this soil. However, the treatment predisposed the sclerotia to colonization by species of the above genera, the populations of which increased dramatically in the treated as compared with the control (untreated) soil. This increase in the populations of the saprophytic genera, concomitant with a decrease in survival of the sclerotia over a 6-week period, was believed to be due to the utilization by the saprophytes of the killed and/or weakened sclerotia as a nutrient base.

The results provide a basis for considering the use of low dosages of metham-sodium as a predisposing agent in encouraging attack by saprophytic soil fungi on weakened propagules of soilborne pathogens. (L)

INTEGRATED CONTROL OF BACTERIAL BLOTCH OF CHAMPIGNONS CAUSED BY *PSEUDOMONAS TOLAASII*

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Bacterial blotch of champignons caused by *Pseudomonas tolaasii* is widespread in mushroom production plants all over the world. Disease symptoms develop within two days after infection due to condensation of water vapor on casing soil surface and to frequent irrigation. The brown spots which develop on the fruiting body significantly decrease the marketing value of the product. Integrated control of bacterial blotch of the cultivated mushroom was tested in three mushroom-growing rooms during the summer. Two chlorine treatments were given, by spraying 0.5 l/m² of 0.015% active chlorine on the beds. The amount of fresh air during the hot hours of the day was minimized. The beds were irrigated once a day. At the end of the irrigation, the circulation system and outside ventilation were both fully opened for 30-60 min, making possible the drying of the caps without affecting casing soil moisture; then ventilation was lowered to the necessary level. This integrated control prevented the disease from spreading over the room and maintained low infection levels (2% diseased caps compared with 30% diseased caps in the control rooms in the 4th flush), thus enabling all mushrooms to be sold on the fresh market. (P)

VIRUS DISEASES IN GLADIOLI: POSSIBILITIES OF PREVENTION

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Commercial cultivation of gladioli has lately been directed mainly toward corm production for export. Virus-tested corms are a prerequisite for successful export.

The two most prevalent viruses infecting gladioli, cucumber mosaic virus (CMV) and bean yellow mosaic virus (BYMV), are easily detected by enzyme-linked immunosorbent assay (ELISA). This method enables detection of CMV in corms, as well as in leaves and flowers. It is therefore possible to test samples of stocks before or after planting and to establish regulations for producing virus-tested material. CMV invades many hosts and is easily spread by aphids. Thus material from which virus was eliminated can become re-infested when raised outdoors. The rate of re-infestation