

Disease situation of white button mushroom *Agaricus bisporus* in Iran

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Frequent infestation of white button mushroom *Agaricus bisporus* with Fungi, Bacteria, Viruses and Insect pests in different regions are seen. Specially when uncooked growing room and unpasteurized compost are used. Intensive growing system gradually forces growing condition to be unfavourable for *Agaricus* cultivation and creating favourable condition for infestation by many microorganisms.

The predominant fungal flora isolated from the colpost and casing samples were *Chaetomium globosum*, *Coprinus* spp., *Gilocladium*, *Trichoderma*, *Penicillium*, *Aspergillus*, *Mucor*, *Rhizopus*, *Myciliophthora lutea*, *Sepodonium* spp., *Scopulariopsis fimicola*, *S. brevicaulis*, *pupulaspora byssina* and *Geotrichum* sp.

The next predominant fungal flora isolated from casing and sporophores samples from different mushroom farms were *Peziza ostracoderma*, *Verticillium fungicola*, *Mycogone pernicioso*, *Trichoderma harizanum*, *Cladobotrum dendroides*, *Trichothecium roseum* and *Diehliomyces microsporus*.

Important bacterial diseases brown blotch (*Pseudomonas tolaasii*), mummy disease (*Pseudomonas* spp.) and isometric virus disease from white button mushroom isolated and reported here. Keeping above in view the present studies were undertaken on chemical and biological management of pathogenic fungi of *A. bisporus*.

check(0,10,25,50,100,150,and 500 ppm in *A.bisporus mycelium* in food poisoning method. Growth mean of colony was measured after 21 days and were analyzed. The mycelial growth inhibition per cent was calculated based on Vincent (1947) method and then the analyses of probit carried out on these data. After that the effective dose 50% (ED 50) was measured and analyzed. The results showed that there are significant differences among these compounds in their effects on mycelial growth. On the other hand, there are differences among the concentrations. Based on the results, the Bitertanol had the most inhibitory effect on *A.bisporus mycelial* growth while the Carbendazim had the least effects. The inhibition per cents had a probit trend and it was shown that the Bitertanol, Benomyl and Carbendazim had the least amounts of ED50, respectively. Nacl had the most ED50 value, so did not have any major inhibition effects on mycelial growth. Based on the results, the Carbendazim with the least inhibitory effects on *A.bisporus mycelial* growth