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Efficacy of garlic extract and yeast for the control of post harvest diseases of grape

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ABSTRACT

The present investigations were carried out with collection of diseased samples, isolation of the organisms responsible for post harvest spoilage, their pathogenicity, symptomatology, morphological characters and effect of temperature on growth and sporulation in order to suggest suitable control measures in respect of yeast as a bioagent and garlic extract as a botanical in controlling post harvest fungal diseases of grape. The causal organisms were isolated from infected grape berries and recorded association of three fungal pathogens *viz.*, *Aspergillus niger, Alternaria alternata* and *Penicillium digitatum*. The conidial size of *A. niger, A. alternata* and *P. digitatum* are measured as 4.4 µm, 42.47 x 16.37 µm and 4.33 – 4.5 µm in size (average), respectively. Use of 5 per cent yeast, (*Eremothecium cymbalariae*) was found effective against *Aspregillus niger* (both *in vitro* and *in vivo*) and 1 per cent garlic extract was found effective against *Alternaria alternata* (both *in vitro* and *in vivo*).Both yeast and garlic extract increases shelf-life and market quality of fruits, with increase in glossiness of fruits. Temperature 27 ±1⁰C was found optimum for both growth and sporulation of all isolated fungal pathogens.

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