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Management of Fungal Diseases of Onion (Allium cepa L.) by Using Plant Extracts

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Abstract : Onion is most Important Vegetable crop grown throughout the world. Onion suffers from pest and fungal diseases but the fungicides cause pollution and disturb microbial balance of soil. Under integrated fungal disease management programme cost effective and eco- friendly component like plant extract are used to control plant pathogens. Alternaria porri, Fusarium oxysporium, Stemphylium vesicarium are soil borne pathogens of onion. Effect of three different plant extract (Datura metel, Pongamia pinnata, Ipomoea palmata) at five different concentration Viz, 10,25,50,75 and 100 percentage on these pathogens was studied by food poisoning techniquie. Detura metal gave 94.73% growth of Alternaria porri at 10% extract concentraton and 26.31% growth in 100% extract concentration. As compared to Fusarium oxysporium, and Stemphylium vesicarium, Alternaria porri give good inhibitory response. In Pongamia pinnata L. at 10% extract concentration 84.21% growth and at 100% extract concentration 36.84% growth of Stemphylium vesicarium was observed. Stemphylium vesicarium give good in inhibitory response as compared to Alternaria porri and Fusarium oxysporium. Ipomoea palmata in 10% extract concentration 92% growth and in 100% extract concentration 40% growth of Fusarium oxysporium was recorded. Fusarium oxysporium give good inhibitory response as compared to Alternaria porri and, Stemphylium vesicarium.

Keywords : pathogen, onion, plant extract, Allium cepa L.
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