

FRONTIERS IN BIOLOGICAL SCIENCES



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Shri Guru Buddhswami Mahavidyalaya
Purna (Jn) Dist. Parbhani - 431511 (M.S.)




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Frontiers in Biological Sciences

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Xpress Publishing
An Imprint of Notion Press

NOTION PRESS

India. Singapore. Malaysia.

Published by Notion Press 2022

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ISBN 979-888629608-2

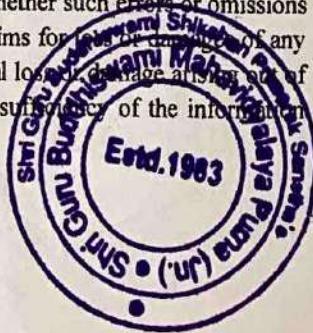
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PROTEASE ACTIVITY OF COMMON AND DOMINANT VEGETABLE MYCOFLORA OF SPINACH (*SPINACIA OLERACEA L.*)

Chowdhury, M.S.

Characterization of M_{α}

National Botanical Garden

Plant Biotechnology

Energy & Biomass

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 antioxidant activities
 from *Pleurotus cornucopiae*
 947-954. *✓*

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Spinach is a good source of minerals vitamins B complex, ascorbic acid, carotenoids, phenols and omega 3 fatty acids. The plants are medicinally important and are used in traditional medicine. It is used to treat diabetes, leprosy, urinary diseases, vomiting, sneezing fever and the diseases related to brain and heart. The total thirteen fungi were found to be showing their association with leaves and seeds of the palak. The yield of vegetable is reducing gradually every year due to the soil borne pathogen fungi. Soil Borne diseases cause significant damage to almost all crops particularly to the vegetables. The objective of present investigation is to study effect of enzyme metabolites of common dominant test vegetable on seed health of spinach and evaluated. Determination of protease activity was done with the help of cup plate method adopted by Hislop and Antoni. Total thirteen fungi were found to be associated with the Palak leaves. Out of these thirteen seed borne fungi *Alternaria tenuis*, *Aspergillus flavus*, *Aspergillus niger*, *Cercularia lunata*, *Dreschslera tetramera* found to be common and dominant on Palak leaves. These common and dominant seed borne fungi produced protease enzyme in variable quantity, which help the fungi degrade the seed and ultimately reduce seed quality yield.

Keywords: Spinach leaves, Mycoflora, Protease activity.