



Biodiversity of Endophytic Fungi

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ABSTRACT: Plants have served humankind as supply of fuel, food, clothing, refuge and medicinal drug given that the start of life. Many new contemporary-day techniques, methods, techniques and plant institutions had been placed into use to enhance the amount and high-satisfactory of plant resources. Among the microbial populations in flora, endophytes play a key function in nearly each elements proper from the manufacturing of bioactive compounds, and its function in medicinal applications. In the prevailing study, the subsequent are the listing of flora from which the leaf samples had been accrued *Mangifera indica*, *Psidium guajava*, *Catharanthus roseus* G. don, *Citrus limon*. Burm.f, *Murraya koenigii*, *Hibiscus rosasinensis*. The inoculated leaf pattern harboured a complete of fifty isolate produced from *Zygomycotina*, *Ascomycotina*, *Hypomycetes* and *Coelomycetes*. *Hymomycetes* and *Coelomycetes* had been the not unusualplace fungus grown in all of the leaf samples.

Keywords: medicinal plants; arbuscular mycorrhizal fungi; vesicles.

INTRODUCTION: Many microorganisms shape symbiosis with flora that range, on a non-stop scale, from parasitic to mutualistic. Among those, arbuscular mycorrhizal (AM) fungi are ubiquitous plant root symbionts that may be taken into consideration as ‘keystone mutualists’ in terrestrial surroundings, forming a hyperlink among biotic and abiotic surroundings additives via. carbon and nutrient fluxes that byskip among plant and fungi withinside the soil (O’Neill et al., 1991). Medicinal and fragrant flora (MAPs) are utilized in diverse structures of drug treatments in distinctive components of the globe. The call for of MAPs has been growing swiftly with the intake of natural drugs. This caused an boom withinside the cultivation of MAPs that allows you to preserve a consistent deliver to help the growing call for because of decline of their herbal population. During current years the significance of protecting and handling the organic wealth developing in the world has been assessed in many folds for sustainable improvement of the society. In addition to standard cultivation of MAPs, current emphasis is on exploiting beneficial and suitable soil microorganisms gift withinside the rhizosphere of medicinal flora. Knowledge approximately the presence and variety of AMF is an critical first step to utilizing those fungi in any application. Keeping in view the above facts, the examine of endomycorrhizal biodiversity on a few medicinal flora is, therefore, vital from green usage and conservation factor of view. Considering the significance and standing of medicinal flora in Himachal Pradesh, the prevailing research became accomplished to examine the endomycorrhizal popularity of those medicinal flora and to choose the principal AM fungi for future inocu-

lation research for manufacturing of best seedling of critical flora in nurseries and their better survival in negative conditions. Field Sampling: Roots and soil samples have been accrued from 3 people for twelve medicinal plant life at special ranges of growth (vegetative and reproductive) at some point of route of research from 2007-2008. The samples of every plant have been accrued for in addition processing for the isolation of AM spores and analyzing mycorrhizal root colonization. 1. Estimates of AM root colonization: Root samples have been rinsed with faucet water after which staining turned into achieved through ‘Rapid Clearing and Staining Method’ of Phillips and Hayman (1970). Assessment of root colonization turned into finished through estimating overall percent of root colonization through root slide technique (Giovannetti and Mosse, 1980). The applications of Edible films, especially in the packaging industry by edible coating for light fruits and vegetables where biobased polymers used as a component in (food) packaging materials is considered, different strategies for improving barrier properties of biobased packaging and permeability values and mechanical properties of multi-layered biobased plastics are also discussed. The pectin could provide a soft and shiny coat. It is also found that Pectin restricted loss of nutrient from fruits and vegetables and also pectin coating saves the volatile materials during storage and transport.

CONCLUSION: Root samples of all of the plant species confirmed a huge variety of version in phrases of AM root colonization. Table I indicates the entire AM colonization in special plant species accumulated

from diverse localities of Himachal Pradesh. The mycorrhizal systems gift with inside the roots blanketed mycelium, vesicles and arbuscules. Mycelia of diverse kind like Y-fashioned, H-fashioned and parallel mycelia had been pronounced with inside the roots of various plant life. In a few instances widespread mycelial boom become additionally found. Vesicles of various shapes like elliptical, round, globose, oval, beaked and elongated had been found. *Allium coralinianum* become discovere.