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2.	Dr. R.B. Kakde	Applied Research in Botany	FUNGAL CONTAMINATION OF PAPER CURRENCY POSSESSED BY DIFFERENT OCCUPATIONERS AND ITS CONTROL	9789390651597	2020-2021




PRINCIPAL

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VOLUME - 1

Dr. Anil Laxman Bhalerao
Dr. Rajesh Shrirangrao Gaikwad



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14. FUNGAL CONTAMINATION OF PAPER CURRENCY POSSESSED BY DIFFERENT OCCUPATIONERS AND ITS CONTROL

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ABSTRACT

In communities, paper currency are most exchangeable items which are always fell prone to association of pathogenic fungi and bacteria. Therefore these paper notes acts as vector for transmission of infectious diseases. A study was undertaken to evaluate contamination of pathogenic fungi on paper notes possessed by various stakeholders in Mantha market by using standard techniques. Paper notes were randomly collected from fruit seller, stationary shop cashier, Shoe shiner, Bus conductor, Construction labour and Butcher. For isolation of fungi PDA medium was used and genera of *Aspergillus*, *Alternaria alternata*, *Cladosporium sp.*, *Curvularia sp.*, *Epidermophyton sp.*, *Fusarium oxysporum*, *Microsporum sp.*, *Mucor sp.*, *Penicillium notatum*, *Rhizopus sp.*, *Saccharomyces sp.*, *Sporotrichum sp.*, *Trichoderma viride* and *Trichophyllum sp.* were found from paper notes. To minimize the association of these fungi, these paper notes were autoclaved at 121°C temperature and 15 psi pressure in round tin box. Minimum fungal association was observed on autoclaved paper notes.

KEYWORDS

Paper notes, Mantha market, pathogenic fungi, autoclave.

INTRODUCTION:

Currency notes are used as means of exchange and measure of value. It is used as a measuring unit in pricing transaction, settlement of loans, a medium of exchange of goods and services (Oyero and Emikpe, 2007) and it can also be stored as a savings. Such a wide use of paper currency renders its tackling to different currency possessors of varying health hygienic standards. Paper currency is also kept at varying environmental conditions and personal hygienic conditions. An individual with unhygienic habits contaminates the notes e.g., keeping currency notes in socks, shoes and pockets, under rugs and carpets and squeezing them in the hand frequently introduces number of microbes on the paper notes. In addition to that wetting of hands or fingers with saliva or use of contaminated water while counting paper notes increases the chances of contamination of paper notes, that may increase the risk of infection from contaminated person to healthy person. Due to contamination of paper currency notes due to different potential pathogenic bacteria and fungi

ABOUT THE AUTHORS



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4. EFFECT OF GA+ IAA AND GA+ NAA PRE-TREATMENTS ON SEED GERMINABILITY AND ROOTING OF STEM CUTTINGS OF JATROPHA SPECIES.

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ABSTRACT

Study was conducted to assess the effect of GA+IAA and GA+NAA pre-treatments on seed germinability and rooting of stem cuttings of *Jatropha curcas* and *Jatropha gossypifolia*. Seeds and stem cuttings of *J. curcas* and *J. gossypifolia* were treated with GA+IAA and GA+NAA growth hormones. It was observed that seeds of *J. curcas* treated with GA+IAA at 400 ppm was significantly favorable for maximum germinability and increased shoot and root length. In *J. gossypifolia* stem, cuttings treated with GA+NAA at 200 ppm showed effective for maximum rooting percentage and number of leaves per cuttings.

KEYWORDS

Seed Germinability, Stem cuttings, *Jatropha curcas*, *Jatropha gossypifolia*.

INTRODUCTION

Jatropha curcas L., is a drought resistant perennial plant belonging to family Euphorbiaceae (Kaushik et.al 2007). *Jatropha curcas* is truly a multipurpose tree species fit for agroforestry and other afforestation programme (Kaushik 2006). It has a long history of cultivation in tropical and subtropical regions of the world. *Jatropha* is a succulent that sheds its leaves during the dry season and well adapted to arid and semi-arid condition and often used for erosion control, *Jatropha curcas* has been identified as a potential biodiesel crop, National and State Governments have drawn ambitious programmes for its large scale cultivation (Openshaw, 2000., Mandpe et al., 2005 and Kou and Chou, 2007). The energy challenges of India can be met by tree-borne oilseeds focused primarily on *Jatropha curcas* for usage as renewable alternate fuel to petrodiesel (Lal and Mehera, 2006). Hence the contribution of non-edible oils such as *Jatropha* will be significant as a non-edible plant oil source for bio-diesel production. *Jatropha* is considered as one of the mainstream alternatives for biofuel development (Solanki, 2005). *J. curcas* is usually propagated by seeds which results in lots of genetic variability in terms of growth, seed yield and biomass. However, vegetative propagation of *Jatropha curcas* has shown an advantage of disease-free plant of great importance both economically and commercially (Kochhar et al, 2008).