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STUDY OF ISOLATION OF SOME LITTER DECOMPOSING FUNGI FROM *AZADIRECHTA INDICA* A. JUSS.AND *PROSOPIS JULIFERA* (SW.) DC

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ABSTRACT
In the nature process of decomposition always involves animals, fungi and bacteria. Bacteria cannot degrade whole leaves, only fungi have ability to degrade leaves and convert into compost because fungi having lignololytic and cellulocytic enzymes to degrade lignin and cellulose. Litter decomposition is important process for nutrient cycling as it is a good source of dead organic matter. To isolate fungi leaves of *Azadirechta indica* A. Juss. and *Prosopis julifera* (Sw.) D Cwere selected. From study four litter fungus were reported.

Key words: Litter, Azadirechta indica, organic matter, enzymes

INTRODUCTION

Litter is an important source of dead organic matter in terrestrial ecosystems, with inputs of tons of litter per year (Akare and et.al,2016). Litter decomposition is an important process of nutrient cycling in ecosystem (Charley and Richards, 1983), playing a major role in the transfer of energy and nutrients (Toky and Singh, 1983). In nature the process of decomposition always involves animals, fungi and bacteria. Everyday leaves fall off, animals trample leaves underfoot or ants cut the leaves. Soil animals like earthworms are more active in the fresh leaf litter, they break the leaves into small pieces or fragments which is useful for bacterial and fungal growth. If microorganisms had not decomposed, pile of leaves would have formed on the ground today. Bacteria cannot degrade whole leaves, only fungi have ability to degrade leaves and convert into compost because fungi having lignololytic and cellulolytic enzymes which degrade lignin and cellulose. Fungi convert litter into humus which increases soil fertility. In the process of decomposition different types of fungi communities may grow on different plant species because one fungus cannot degrade all type of leaf litter. Present investigation was carried out for isolation and identification of different types of degrading fungi, occurs during the different stages of decomposition on litter of A. indica A. Juss. and P. julifera (SW.) DC.

MATERIAL AND METHOD:

The samples of A. indica A. Juss. and P. julifera (SW.) DC. were collected from random locations of Ahmednagar. To measure leaf litter occurring in 1 day, 1m× 1m quadrant was laid and count leaf litter occurring within 24 hours. It can calculate leaf litter occurring in 1 month and leaf litter occurring in 1 year. At the time of collection

partially decomposed leaves were collected in a polythene bags and incubated (S. Shanthi & B.P.R. Vittal, 2010). Direct isolation method was used to isolate fungal colonies grown on leaf litter within 4-5 days after incubation. Fungal colonies were identified on the basis of morphological aids.

RESULT AND DISCUSSION:

Leaf litter occurring in 7 days from *Azadirechta indica* A. Juss. was 105.386 gm and *Prosopis julifera* (SW.) DC. 420.84 gm. After isolation and identification, *Trichothecium roseum* (Pers.) Link., *Spondylocladium* Mart. communities was reported to be associated with *Azadirechta indica* A. Juss. leaf litter and *Aspergillus* sp., *Spondylocladium* Mart. was foundon *Prosopis julifera* (SW.) DC. leaf litter.

CONCLUSION:

The present investigation is successful in isolation and identification of decomposing fungi and help to researchers and farmers to enhance the process of decomposition of leaf litter from *A. indica* A. Juss.and *P. julifera* (SW.) DC. it led to increase soil fertility. Also we can avoid the decomposition of products from *A. indica* A. Juss. and *P. julifera* (SW.) DC.

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Table No. 1: Leaf litter occurring *from A. indica A. Juss. and P. julifera* (SW.) DC. in 7 days

Sr. no.	**Day's**	***Azadirechta indica* A. Juss** (leaf litter)	***Prosopis julifera* (SW.) DC** (leaf litter)
1	Day 1	14.387 gm	11.026 gm
2	Day 2	9.182 gm	15.527 gm
3	Day 3	14.365 gm	10.590 gm
4	Day 4	12.527 gm	16.330 gm
5	Day 5	18.772 gm	12.940 gm
6	Day 6	16.921 gm	14.792 gm
7	Day 7	19.232 gm	16.993 gm