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A Study on Isolation of Fungi Isolated from Soil Cultured in Purified Soy Agar Media

Sudeesh. K[1], S.Sreeremya[2]

Department of Biotechnology

SreeNarayana Guru College, Coimbatore, Tamil Nadu

***Corresponding Authors' email id**: sreeremyasasi@gmail.com*

Abstract

Soil is a major habitat for the growth of miccorganisms, especially fungi. The isolated fungi is been cultured in several media. Among them, soybean has tremendous nutritional properties. It has both nutritional and antinutritional properties. The objective of the present study is to identify whether soy bean along with agar serves as a prime nutritional source and media for the growth of fungi.

***Keywords:** Soybean, Culture, Soil, Fungi, Nutritional, Media*

I. INTRODUCTION

The soy bean crop had never become popular on the Indian subcontinent or in other tropical countries until recently(Sreeremya,2017). While the importance of soybean as a commercial crop with immense potential for food and feed has been well recognized by developed countries, developing countries (including India) have delayed the development of this crop(Makkar et al., 1996). In India, which is dominantly a vegetarian society, fats and proteins of vegetable origin acquire special significance. The protein of soybean is considered as a complete protein, because it caters sufficient amounts of the kinds of amino acids required by the body for building and repair of tissues(Reddy et al.,1997). Its food value in heart disease and diabetes is widely known(S.Sreeremya,2018). It is important that Chinese infants using soybean milk in place of cow's milk are practically free from rickets. It also contains a large amount of lecithin and a fair percentage of fat-soluble vitamins(Okagbare et al.,2006).The commonly available soybean

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agar for media preparation is Trypticase soy agar, in the current research strategies are developed to culture fungi by using soy as a major source of nutrition.

METHODOLOGY

Collection of Sample

Soy bean chunk was collected from local stores of Palakkad region(10.7867° N, 76.6548° E).The collected samples were finely powdered .

Media Preparation

The powdered media about 3g was mixed with 100 ml distilled water, filtered the mixture through whatmann no:1 filter paper and was added with 2.5g of agar and autoclaved (Sreeremya, 2018).The next phase of study includes isolation of fungi from soil and its morphological and microscopic examination.

RESULT and DISCUSSION

Soy agar media was prepared to understand the nutritional ability of soy bean (Fig:1 to 4).In the earlier studies trypticase soy agar was majorly used majorly to culture bacteria and not for fungi(Anderson et al.,1995).In the current study soy agar media is used to culture fungi at room temperature, after the incubation for 4 to 6 days.Two organisms were isolated and named as I1 and I2.After the morphological and microbial examination, I1 was estimated to be Aspergillusniger, I2-it is an interspecies growth, there is a combination of species growth in I2 Aspergillusnidulans, Aspergillusniger(Table:1,2).



Fig: 1



Fig: 2



Fig:3 I-1

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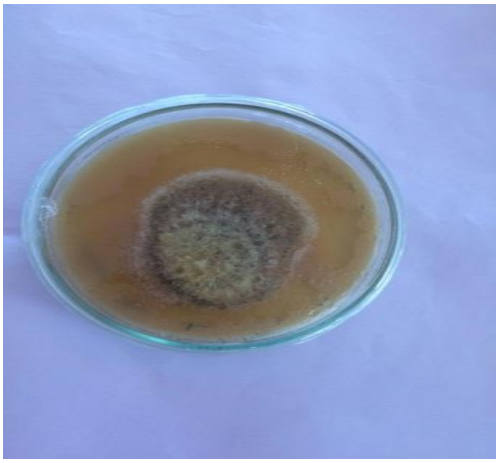


Fig: 4 I-2

Table: 1 Morphological Examination

SL NO	ISOLATE	COLOR	TEXTURE	SHAPE
1	I1	Black	Fuzzy	Spreaded
2	I2	Black color and pale green color	Both Fuzzy	Radial region of black colonies covering the pale green colonies

Table: 2 Microscopic Examination

SL NO	ISOLATE	MICROSCOPIC EXAMINATION
1	I1	Black conidia
2	I2	Black conidia and green conidia

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