

ANTIFUNGAL ACTIVITY SCREENING IN VARIOUS FLOWERS EXTRACTS

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ABSTRACT

Background: Flowers have various pigments which are responsible for their bright colors. **Methods:** In the present study, various flowers such as Hibiscus, Como mile, Arabian jasmine, Rose, and Marigold flowers used to prepare aqueous extracts. In the yeast culture medium, 10% extracts are individually added and yeast culture also inoculated at 37°C. After 48 hours of incubation, biomass production of yeast was calculated. **Results:** The minimum growth was observed in Arabian Jasmine and Marigold flower extracts. **Conclusion:** it is concluded that these extracts are not suitable for prepare new antifungal preservatives.

Keywords: Antifungal drug, preservative, Flowers extract.

INTRODUCTION

Phytomedicines are major components of the traditional system of healing in developing countries besides wide spread use of botanical as medicinal products in developing countries [1]. The flowers have variety pigments for attracting insects for pollination. In the moist plants, the flower consists of two parts, the essential and nonessential [2]. Flower purpose of reproduction the non-essential parts are not really necessary. However, they play an important role in by serving for protection and attraction of insects and bird visitors [3]. The soil is one topmost thin and composite layer of earth, and it was made up of many things like weathered rock particles, decayed plant and animal matter with varying ratios of minerals, air, water, and organic material [4]. Surfactin, produced by various *Bacillus subtilis* strains, is one of the most powerful and effective lipopeptide-type biosurfactant [5]. Then essential parts are very colorful. They have a variety of components and pigments in this study were prepared aqueous flowers extracts and test their efficacy on fungi yeast growth. Environmental pollution occurs when environmental degradation crosses limit so that. It becomes lethal to living organisms [6]. Aquatic ecosystem monitoring has been carried out in India based on either chemical or biological analysis. The chemical approach is useful in order to determine the levels of nutrients, metals, pesticides, radioactive substances, etc., while the biological approach aids in assessing the overall effect of the chemical input on organisms [7].

MATERIALS AND METHODS

Yeast is used in this experiment yeast come under Ascomycetes groups of fungi. In this study, yeast growth rate was used as bio indicator for antifungal prosperity. Various flowers were collected in the market such as Hibiscus, Chamomile, Arabian jasmine Rose and marigold prepare aqueous extract in this entire flower, filtered and stored. Prepare 3% peptone water and sterilized; this was used for yeast culture. First, take 1ml extract then add 8ml sterilized peptone water then add 1ml of 24 hours yeast culture and mixed well. For all the flowers triplicate treatments were prepared and incubated in 37°C. After 48 hours of biomass production of all the treatment were calculated. One control treatment always maintained.

RESULTS

Flowers has various colour Pigments. These pigments have unique characters. In this study, the antifungal activity of five flowers aqueous extracts was tested. The maximum antifungal activity was observed in Marigold and Arabian jasmine flowers compared to other flowers extracts. The minimum activity was observed in Hibiscus and Chamomile flowers.

The second higher activity was observed in Rose flower (Table 1). For control treatment, distilled water was used. All the extracts produce higher biomass production compared to the control treatment. So these extracts are not suitable to prepare new antifungal drugs.

Table 1: Various flowers extract effect on yeast biomass production.

S.No	Flowers (extract)	Yeast production(mg)	Biomass
1	Hibiscus	540	
2	Chamomile	370	
3	Arabian jasmine	100	
4	Rose	115	
5	Marigold	100	
6	Control	60	

DISCUSSION

The plants are a rich source of bio active secondary metabolites of a wide variety such as tannins, terpenoids, alkaloids, and Flavonoids reported to have invitro antifungal properties. A series of molecules with antifungal activity against different strains of fungi have been found in plants, which are of great importance humans [2]. These plant products are becoming part of the integrating health care system of an industrialized nation, known as a complementary and alternative system of medicines these medicines saves poor people health in developing countries [7]. In this way, antifungal pigments was screaming in flowers. In the present study, the lowest biomass production of yeast was observed in marigold and Arabian jasmine flowers, the second lowest biomass was observed in Rose treatment. These flowers extracts was not suitable to prepare antifungal medicine, because all these treatment produce higher biomass production compared to control treatment. The world's oceans, covering more than 70% of the earth's surface, represent an enormous resource for the discovery of potential chemotherapeutic agents. Taking higher Taxonomic levels as an estimate of biodiversity, more phyla are found in the oceans than on land. Of the thirty-three known phyla of extant animals, only one is exclusive of land, while as many as twenty-one phyla are exclusive of the sea. Marine biotechnology is the science in which marine organisms are used in full or partially to make or modify products, to improve plants or animals or to develop microorganisms for specific uses. With the help of different molecular and biotechnological techniques, humans have been able to elucidate many biological methods applicable to both

aquatic and terrestrial organisms. According to 10% of over 25,000 plants have been investigated for biological activity[8].

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