



**2-я Международная научно-практическая  
Конференция «Функциональные продукты  
питания: научные основы разработки,  
производства и потребления»**

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Международного радио-союза (URSI)

**«Уникальные инновационные продукты,  
разработанные факультетом  
Университета Амיתי, Дели, Индия»**



**AMITY  
UNIVERSITY**

A RESEARCH & INNOVATION DRIVEN UNIVERSITY

DELHI, INDIA

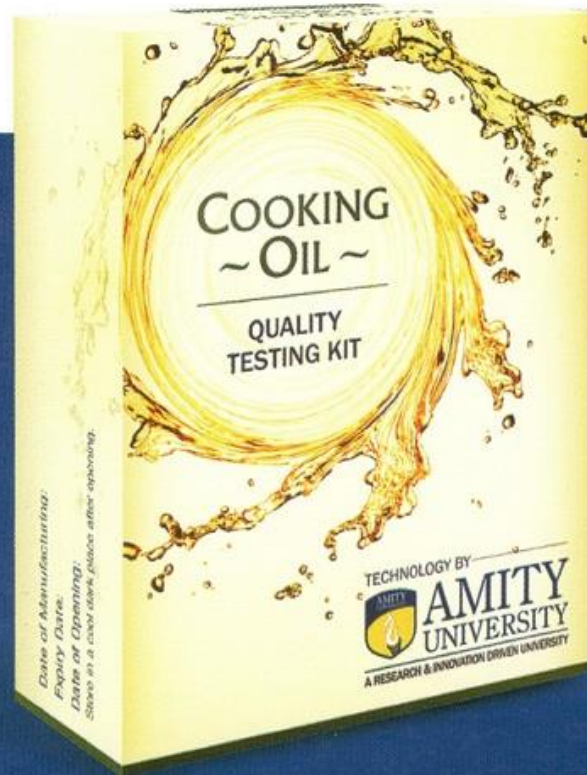
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# AMITY UNIVERSITY, NOIDA





**PRIVATE, FOUNDED AT 2005, STUDENTS:1 50000, ACADEMIC STAFF: 4500,  
CAMPUS: 95 ACRE**



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# COOKING OIL QUALITY TESTING KIT

### A Novel Cooking Oil Quality Testing Kit

- A convenient method for instant checks of the age and quality of cooking oils and fats
- Easy to use
- Gives rapid results
- Ensures optimum quality of the oil
- Highly accurate
- No instrument required
- No prior training is required to use the kit
- Suitable for use in rural areas
- Helps to keep fried food quality
- Works equally well in various types of oils

### Functions and Capabilities

Cooking Oil is oxidized during processing and storage via autoxidation and photosensitized oxidation or oxidation due to extensive or prolonged use. The oxidation of the oil yields free fatty acids. The sample oil when mixed with the test solution provided a colour change from red to yellow due to the release of fatty acids, indicating the quality of the oil.

### Specifications

Cooking Oil Testing Kit is a simple and rapid method to check the quality of edible oil by detection of oxidative changes due to repeated uses occurred in the oil.

Assay Time: 1 minute



**Oil Testing Kit**

Company Name

**COOKING OIL**

QUALITY TESTING KIT

TECHNOLOGY BY

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	Vegetable Oil	Mustard Oil	Vanaspatti /Ghee
Pure Oil			
Darkened Oil			

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# GREEN TEA EFFERVESCENCE TABLET



## WHY IDEAL CHOICE

- Camellia sinensis - antioxidant
- Natural sweetener - zero calorie
- Flavour (cardamom, lemon, clove or mix of all) with or without milk powder

## PREFERENCE OVER TEA BAGS

- All natural, no artificial sweetener
- Super antioxidant
- Green tea and caffeine are proven fat burners
- Promotes weight loss
- Improves body's metabolism
- Faster dissolution
- More effective as antioxidant, hypolipidemic
- Convenient to consume
- Easily palatable
- Ease of use & disposability

## RECOMMENDED FOR

- Revitalising your body and mind (without caffeine) at the beginning of the day
- Helping to reduce the effects of stress and worry
- Boosting your energy levels if you're studying or have a physical job
- Topping up your B-Complex vitamin levels if your dietary intake is low

## NO

Artificial sweetener, artificial colour, artificial flavor

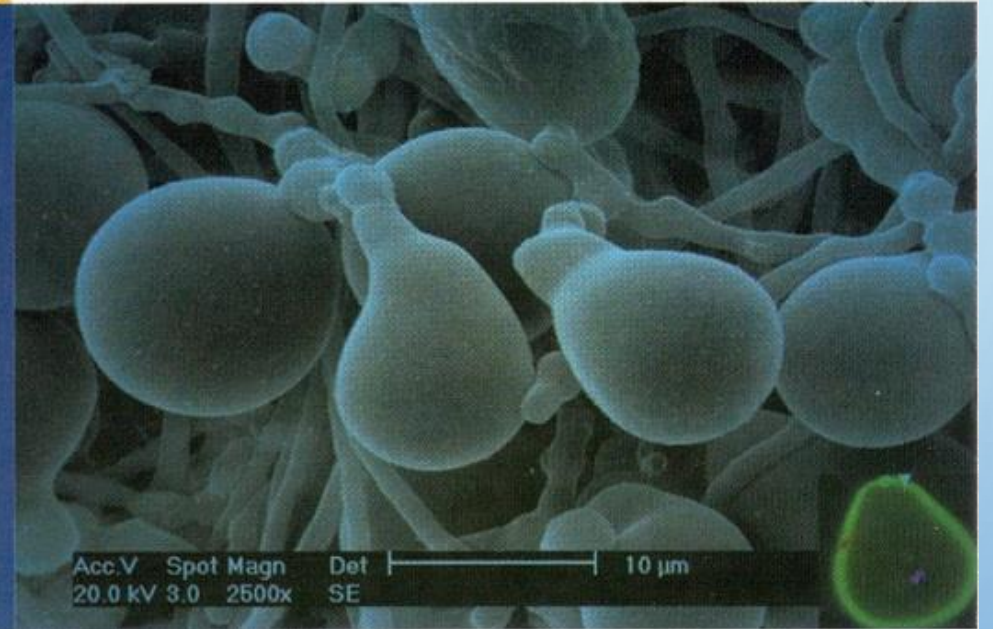


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# 'ROOTONIC'

## THE MAGIC FUNGUS

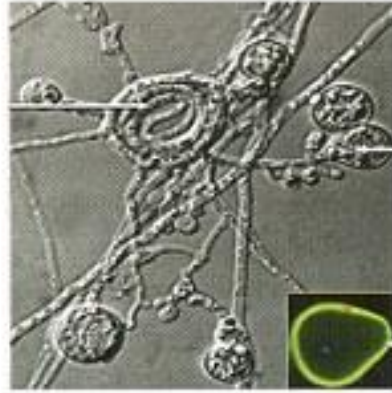
PROMOTES AGRICULTURE, HORTICULTURE  
AND FOREST PRODUCTIVITY



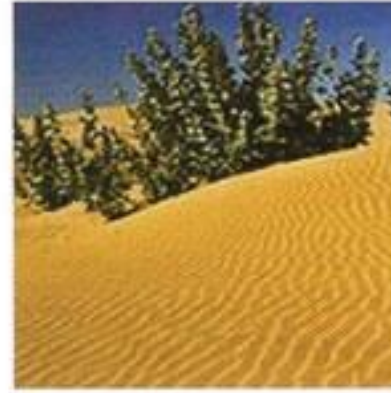
**Rootonic –  
A Novel Root Endophyte**



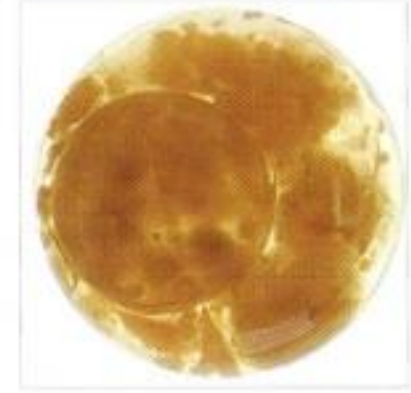
**Model Organism**



**Origin & Discovery**



**Growth on Synthetic Medium**



***Piriformospora indica*: Symbiotic fungus, isolated from Hot Desert (+50 °C) also effectively works in Cold Desert (-18 °C)**

**MANUFACTURING & APPLICATION**



Batch Culture

Formulation with Talcom Powder



Mixing with Seed



Application to the Field



**BIOCONTROL OF DISEASE – BOTTLE GOURD**



Control



Treated

## FUNCTIONS AND CAPABILITIES

- Promotes plant growth
- Provides resistance against disease
- Help value addition of harvest
- Improves soil fertility

## TECHNOLOGY HIGHLIGHTS

- Easy to culture
- Applicable to large number of plants
- Easy to formulate
- Simple one time seed/seedling/tree application

## SPECIFICATIONS

- Biomass: *Piriformospora indica*
- Carrier: Magnesium Sulphite (Talcum Powder)
- Colony Forming Unit Count:  $10^4$ /gm
- Moisture Content: 8-10%
- Shelf Life: One year at room temperature

## PLANT GROWTH PROMOTION AT EXTREME LOW TEMPERATURE



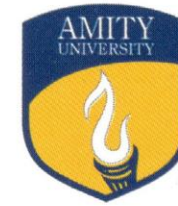
Polytunnel Greenhouse  
DRDO Leh



Control



Treated  
Beetroot



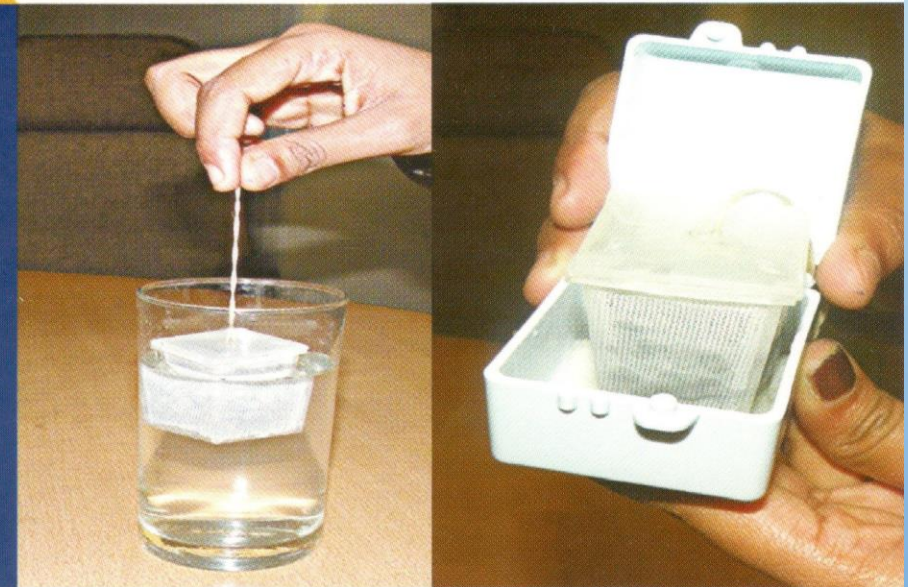
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# WATER PURIFIER

AWARD WINNING DEVICE IN  
"THE POWER OF IDEAS 2012"





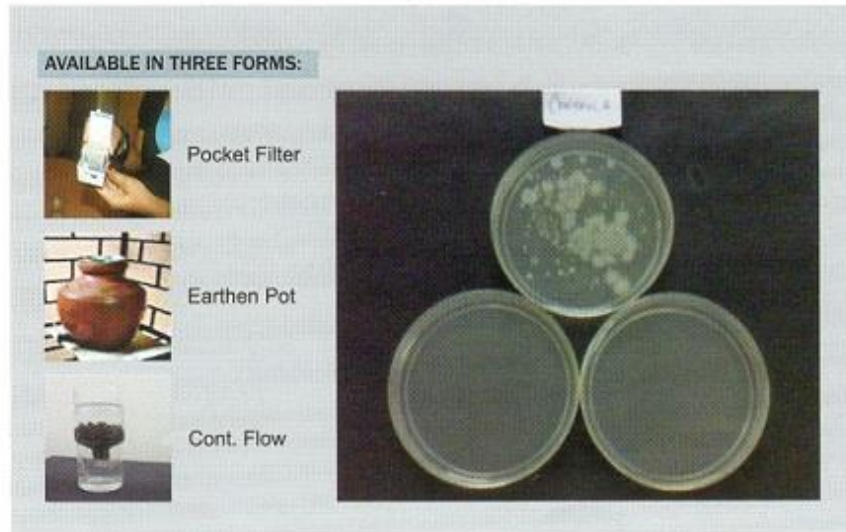
**Portable, Low Cost, Reusable Water Purifier based on Silver  
Nano embedded Porous Concrete Pebbles**

This unique product has been selected amongst the top 50 innovative ideas, out of 30,000 business plans during the “Power of Ideas” programme, a joint initiative of The Economic Times, IIM, Ahmedabad and Department of Science and Technology (DST), Government of India.

Amity has developed a reusable, economic and easy to carry first of its kind water purifier based on silver nano embedded porous concrete pebbles. The present product in the form of a small portable dip-dip container is likely to be priced at an unimaginably low cost as compared to other products in the segment. The Eco-friendly purifier provides around 100% decontamination of microbial load in the treated water. The device has very good reusability and its efficacy remains the same even after 120-125 uses within a time span of 6 months.

## UNIQUE FEATURES

- Pocket friendly
- 100% removal of microbial contamination
- Economical & reusable besides being user friendly
- No leaking of nanomaterials or any toxic chemicals
- Does not require any source of energy/voltage or UV light
- Can be modified in any form i.e, continuous system or water treatment tanks
- Can also be merged with already available treatment system in the market
- Works even in high TDS range
- An alternative to plastic bottles. Prevents environmental pollution by plastics



It was certified by SRI, that all the water samples of both Non-Pathogenic as well Pathogenic bacteria's strain becomes 100% free from any kind of Microbial contamination after treatment.

**SHIRAM INSTITUTE FOR INDUSTRIAL RESEARCH**  
(A Unit of Shiram Scientific and Industrial Research Foundation)  
An ISO 9001:2015 certified Institute

**TEST CERTIFICATE** 00248951

Client: - AMITY UNIVERSITY FOR ADVANCED RESEARCH AND EDUCATION  
Address: AMITY UNIVERSITY, NEW DELHI-110020, INDIA - 110020  
Date: 01/12/2018

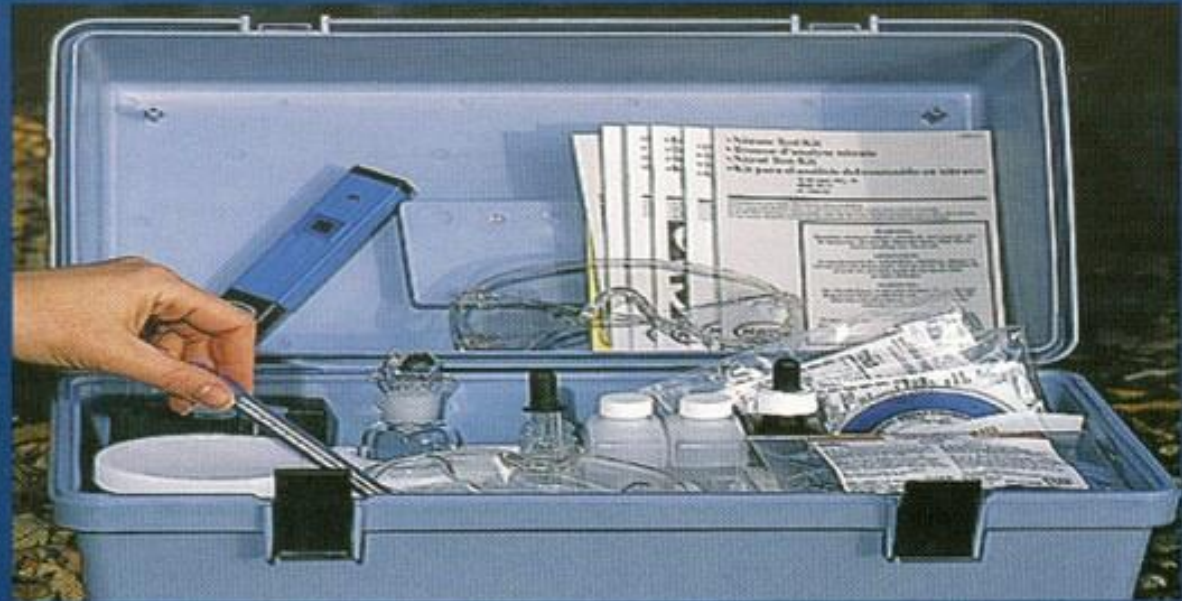
Sample Name: **NON-PATHOGENIC BACTERIA**  
Sample Particulars: **Non-Pathogenic Bacteria**  
This sample of water supplied as Non-Pathogenic Bacteria. The sample should be used for reference only and not for distribution to the public. The sample should be used for reference only and not for distribution to the public.

S.No.	ISSUE	RESULT	REFERENCE
1	Pathogenic Bacteria (Total)	No Growth Observed	IS: 1022:1981 IS: 1022:1981 IS: 2.4:2002:1991
2	Non-Pathogenic Bacteria (Total)	No Growth Observed	IS: 1022:1981 IS: 1022:1981 IS: 2.4:2002:1991
3	Spores	None	IS: 1022:1981 IS: 1022:1981 IS: 2.4:2002:1991

Signature: \_\_\_\_\_  
Date: 01/12/2018  
Page: 01/02

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# LOW COST WATER TESTING KIT



# INTRODUCTION

The present invention provides a water test kit to determine the inorganic contaminants which is based on physiological parameters and their correlations with the help of statistical analysis. Fifteen different parameters of water quality can be analyzed by using a single test kit.

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## ADVANTAGES

- Fifteen significant water quality parameters in a single kit
- Gives information on suitability of water for drinking
- Easy to use - simple steps following the manual
- Cost effective - 25 samples, 15 parameters can be tested

## USERS AND MARKET

**School and College students:** Students learning about water qualities in schools and colleges will be the primary users of our proposed water testing kit

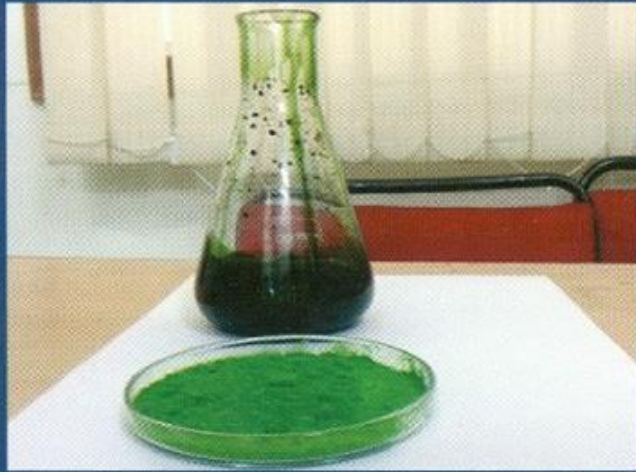
**Research scholars:** Researchers who are working on water quality analysis would be benefitted by saving a lot of time and the product being cost effective

**House hold and other:** House hold users can easily monitor drinking water quality in low cost

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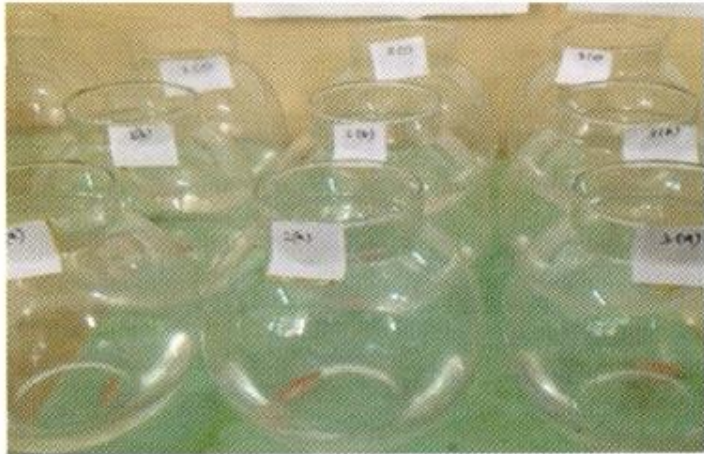
# HERBAL COLOURS FOR FOOD AND COSMETICS INDUSTRY



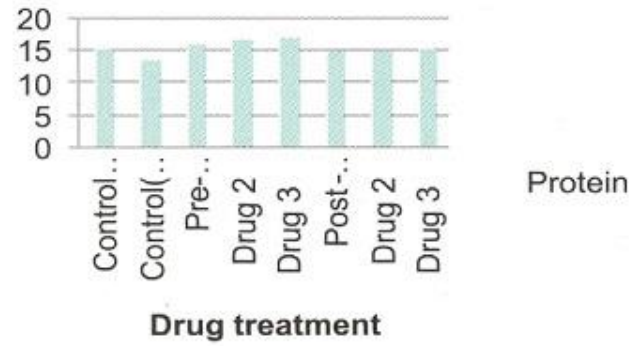


- Colours which retain their colour and texture and thus provide an alternative to synthetic colours
- It provides a method for extraction of colours from natural sources wherein the solvents used are environmental friendly
- It provides varied range of colours whose intensity can also be varied. These colours have wide applications for food items and in cosmetics for lipsticks, hair dyes, powder, gulal etc.
- These colours are tested on bacterial cell for UV protection, zebra fish and rat for their toxicity.

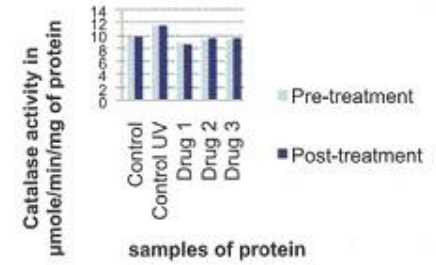
# HERBAL COLOUR FORMULATION



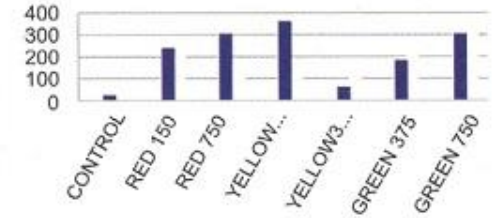
## TOTAL PROTEIN AFTER DRUG TREATMENT



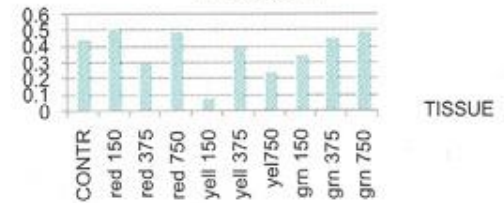
## CATALASE ACTIVITY



## NATIVE AREA TEST



## TISSUE





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*THANK YOU FOR YOUR KIND ATTENTION!*