

**EXTENSION PROGRAM**

# **SAFE WATER SAFE VILLAGE**

## **ORGANIZING COMMITTEE**

**MR. YOONUS P**  
(Teacher coordinator)

**DR. SHIJI THOMAS**  
(Head of the department)

**MR. V P DINESH**  
(Health Inspector(Hg), Pallikkal)

**MR. SHAFI MUBARACK**  
Student coordinator



## **POST GRADUATE DEPARTMENT OF MICROBIOLOGY**

**EMEA COLLEGE OF ARTS AND SCIENCE, KONDOTTI**



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nd the test is used in

iology organizes an  
village" on 23rd and  
n coliform analysis of  
tation technique.

## PROGRAMME

23-03-2022 - 10 AM

Inauguration : Sri Shaji, civil police officer Karipur station  
coordinator : Mr. Mansoor P  
(President, MASC arts and sports club, Kumminiparamba)

2 PM

## MEDIA PREPARATION AND SAMPLE INOCULATION

UG and PG students, Department of microbiology

24-03-2022 - 2PM

## RESULT ANALYSIS AND AWARENESS ON WATER SAFETY

**Mr. Yoonus P**

(Assistant professor, department of Microbiology,  
EMEA college, kondotti)

**Mr. V P Dinesh**

(Health Inspector(Hg), Pallikkal)



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EXTENSION PROGRAM  
SAFE WATER - SAFE VILLAGE**

**SUMMARY REPORT**

Post graduate department of microbiology organises extension activity in every year to inculcate a sense of social responsibility and human values amongst students by connecting them to the public people.

During academic year 2021 - 22 the department of microbiology in association with Pallikkal health centre and KASC club, Kumminiparamba, organised an extension activity titled "Safe Water Safe Village" on 23rd and 24th March 2022 under the coordination of Mr. Yoonus P, Assistant professor, department of microbiology. The program was aimed to ensure microbial safety of drinking water used in ward 7, kumminiparamba, pallikkal panchayath. 30 students from BSc and MSc microbiology were participated in the program.

Water samples were collected from Kumminiparamba village. Sample collection was inaugurated by Mr. CP Shaji, Civil police officer, Karipur station and coordinated by Mr. Mansoor, president, KASC club, Kumminiparamba. Samples were aseptically transferred to MSc microbiology laboratory and analysed for the presence of coliform bacteria by most probable number technique. Analytic procedures were led by Yoonus P. Out of 75 samples analysed unsatisfactory results obtained for 14 samples as they found as positive for coliform presence in presumptive analysis. Recommended following measures for safe water consumption.

- Inspect well or water source and septic tank for defects, repair if needed
- Prefer another water source if available

## PROGRAM DESCRIPTION

### Background

Water pollution caused by fecal contamination is a serious problem due to the potential for contracting diseases from pathogens (disease-causing organisms). Frequently, concentrations of pathogens from fecal contamination are small, and the number of different possible pathogens is large. As a result, it is not practical to test for pathogens in every water sample collected. Instead, the presence of pathogens is determined with indirect evidence by testing for an “indicator” organism such as coliform bacteria. Coliforms come from the same sources as pathogenic organisms. Coliforms are relatively easy to identify, are usually present in larger numbers than more dangerous pathogens, and respond to the environment, wastewater treatment, and water treatment similarly to many pathogens. As a result, testing for coliform bacteria can be a reasonable indication of whether other pathogenic bacteria are present.

### Coliform Testing

Testing for bacteria is the only reliable way to know if water is safe. Total coliform bacteria are commonly used as indicator organisms in potable water supplies in temperate climates. Fecal coliform bacteria, and more specifically *Escherichia coli*, are commonly used as indicator organisms for non-potable water, wastewater, bathing water and swimming water.







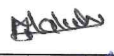






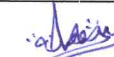

### Coliform Analysis by Most Probable Number (MPN)

The most probable number (MPN) analysis is a statistical method based on the random dispersion of microorganisms per volume in a given sample.

- In this method, measured volumes of water are added to a series of tubes containing a liquid indicator growth medium.
- The media receiving one or more indicator bacteria show growth and a characteristic color change. The color change is absent in those receiving only an inoculum of water without indicator bacteria.
- From the number and distribution of positive and negative reactions, the MPN of indicator organisms in the sample may be estimated by reference to statistical tables.
- MPN test is completed in three steps:

**Objectives**

**POST GRADUATE DEPARTMENT OF MICROBIOLOGY  
EMEA COLLEGE OF ARTS AND SCIENCE, KONDOTTI  
EXTENSION PROGRAM  
SAFE WATER - SAFE VILLAGE  
STUDENTS ENROLLMENT REGISTER**

SL. NO	NAME	CLASS	GENDER	SIGN	REMARKS
1.	Amina	1 <sup>st</sup> Yr MSc. MB	F		
2.	Arsha - P	"	F		
3.	Fathima Hansa - K.P	"	F		
4.	Hiba - V	"	F		
5.	Hiba - A	"	F		
6.	Mahadiga - P	"	F		
7.	Malavika - M.P	"	F		
8.	Mumthas - C	"	F		
9.	Rushta	"	F		
10.	Sajitha	"	F		
11.	Shafna - M.A	"	F		
12.	Shabaki - K.V	"	F		
13.	Shahana Shesin - P	"	F		
14.	Shana Nassin - V.K	"	F		
15.	Shana Shesin - T.T	"	F		





POST GRADUATE DEPARTMENT OF MICROBIOLOGY

EMEA COLLEGE OF ARTS AND SCIENCE, KONDOTTI

EXTENSION PROGRAM

SAFE WATER - SAFE VILLAGE

STUDENTS ATTENDANCE REGISTER

SL. NO	NAME	23-03-22	24-03-22
1.	AMINA	✓	✓
2.	ARSHA P	✓	✓
3.	FATHIMA HAMZA KP	✓	✓
4.	HIBA V	✓	✓
5.	HIBA V	✓	✓
6.	MAHADIYA P	✓	✓
7.	MALAVIKA MP	✓	✓
8.	MUMTHAS C	✓	✓
9.	RUSTHA	✓	✓
10.	SAJITHA	✓	✓
11.	SHAFNA MA	✓	✓
12.	SHAHALA KY	✓	✓
13.	SHANANA SHERIN P	✓	✓
14.	SHANA NASRIN V K	✓	✓

20.	MOHAMMED AGHIK	✓	✓
21.	SHIMNOJ MK	✓	✓
22.	NIHILA CHOKKAN	A	✓
23.	SHANANA VT	✓	✓
24.	SUHANA	✓	✓
25.	AHLAM E	✓	A
26.	FAYIZ	✓	✓
27.	VAHIS	✓	✓
28.	FAHMIDHA	✓	✓
29.	MURSHIDA	✓	✓
30.	MUFEE DHA	✓	✓
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**SAMPLE COLLECTION AND REPORT REGISTER**

<b>Sl.no</b>	<b>NAME AND ADDRESS</b>	<b>SAMPLE SOURCE</b>	<b>RESULT</b>	<b>INFERENCE</b>
1.	Ahmmed kuty Atthikavil house,kumminiparambu	Well	No coliforms	Satisfactory
2.	Abdul hameed K C house Kumminiparambu	Well	No coliforms	Satisfactory
3.	Surendharan Vengulathmad, kumminiparambu	Well	Coliform may present	Unsatisfactory
4.	Mammad Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
5.	Abdul hameed Azhu valappil house, kumminiparambu	Well	No coliforms	Satisfactory
6.	Aasiya Azhu valappil house, kumminiparambu	Well	No coliforms	Satisfactory
7.	Lakshmi k Kaladassery azhu valappil, kumminiparambu	Well	No coliforms	Satisfactory
8.	Salman Faris Azhu valappil, kumminiparambu	Well	No coliforms	Satisfactory

11	Kamarudheen Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
12	Mohammed rafi Kunnampally house, kumminiparambu	Well	No coliforms	Satisfactory
13	Kammad kuty Azhu valappil, kumminiparambu	Bore well	No coliforms	Satisfactory
14	Katheeja Karaat house , kumminiparambu	Well	No coliforms	Satisfactory
15	Sahitha Vengulathmad, kumminiparambu	Bore well	No coliforms	Satisfactory
16	Subaidha Nelanghara house, kumminiparambu	Well	Coliform may present	Unsatisfactory
17	Ayisha kuty Azhu valappil, kumminiparambu	Bore well	No coliforms	Satisfactory
18	Sakariya Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
19	Sami Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
20	Nazriya Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
21	Abdurahman Kakkatt house kumminiparambu	Well	No coliforms	Satisfactory
22	Marakkar Kakkatt house	Well	No coliforms	Satisfactory

26	Mohammed rafi Kakkaat house Kakkatt house Kumminiparambu	Bore well	No coliforms	Satisfactory
27	Rafeeq pm poonoormaattil kumminiparambu	Well	No coliforms	Satisfactory
28	Ayamu poonoormaattil kumminiparambu	Well	No coliforms	Satisfactory
29	Noushad Cheriyam kumminiparambu	Well	No coliforms	Satisfactory
30	Ahamed koya Azhuvalappil kumminiparambu	Well	No coliforms	Satisfactory
31	Veerankutty Parakkul;athil kumminiparambu	Well	Coliform may present	Unsatisfactory
32	Siddeeqe Kakkaat kumminiparambu	Well	Coliform may present	Unsatisfactory
33	Saidalavi Azhuvalappil kumminiparambu	Well	No coliforms	Satisfactory
34	Krishnan Melekozhisseri kumminiparambu	Public water supply	No coliforms	Satisfactory
35	Gireesh Melekozhisseri kumminiparambu	Public water supply	No coliforms	Satisfactory
36	Jalal Cheriyam Kumminiparambu	Public water supply	No coliforms	Satisfactory
37	Salih Cheriyam kumminiparambu	Public water supply	No coliforms	Satisfactory



41	Azhar ali Karukamannil kumminiparambu	Well	No coliforms	Satisfactory
42	Anwar ali Karukamannil kumminiparambu	Well	No coliforms	Satisfactory
43	Imthiyas Azhuvalappil kumminiparambu	Well	Coliform may present	Unsatisfactory
44	Noufal Kakkatt kumminiparambu	Well	No coliforms	Satisfactory
45	Shoukath ali kannanthodi kumminiparambu	Well	Coliform may present	Unsatisfactory
46	Murrath Kannanthodi kumminiparambu	Bore well	Coliform may present	Unsatisfactory
47	Chandran Thekkethil kumminiparambu	Well	Coliform may present	Unsatisfactory
48	Devaki Meleveettil kumminiparambu	Public water supply	No coliforms	Satisfactory
49	Remani Meleveetil kumminiparambu	Public water supply	No coliforms	Satisfactory
50	Azad Adoor kumminiparambu	Public water supply	No coliforms	Satisfactory
51	Moideen Adoor kumminiparambu	Public water supply	No coliforms	Satisfactory
52	Abdu Adoor kumminiparambu	Well	No coliforms	Satisfactory
	Salmanul faris			

56	Abdulatheef Kurumadan kumminiparambu	Public water supply	No coliforms	Satisfactory
57	Mohammed sha Prayankuzhi kumminiparambu	Public water supply	No coliforms	Satisfactory
58	Abdul azees Kurumadan kumminiparambu	Well	Coliform may present	Unsatisfactory
59	Usman Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
60	Shamsudheen Kunnampally house, kumminiparambu	Well	No coliforms	Satisfactory
61	Mohammed Nelanghara house, kumminiparambu	Well	Coliform may present	Unsatisfactory
62	Alavi haji Nelanghara house, kumminiparambu	Well	No coliforms	Satisfactory
63	Zubair Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
64	Ubaid Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
65	Ali Kunnampally house, kumminiparambu	Well	No coliforms	Satisfactory
66	Ashraf Kunnampally house, kumminiparambu	Bore well	No coliforms	Satisfactory
67	Subair Kunnampally house, kumminiparambu	Well	No coliforms	Satisfactory

71	Ahamed Vengulathmad, kumminiparambu	Well	No coliforms	Satisfactory
72	Abdurahman Thazhathe veetil, kumminiparambu	Well	No coliforms	Satisfactory
73	Zainudheen Nelaghara house, kumminiparambu	Well	Coliform may present	Unsatisfactory
74	Abdul kareem Nelaghara house, kumminiparambu	Well	No coliforms	Satisfactory
75	Mohammed kutty Thazhathe veetil, kumminiparambu	Bore well	No coliforms	Satisfactory