

EXTENSION ACTIVITY – 2021-2022

1. PREPARATION OF DISH WASHING LIQUID GEL & TESTING OF ADULTERATION IN FOOD MATERIALS:

Preparation of Dish washing liquid gel:

I year M.Sc – Chemistry students visited Maarampaadi village in Dindigul and interacted with the people of that area. Women in the village were given training in two sessions. First session was to prepare a Dishwashing liquid gel at low cost and to start a small scale business to sell the product.

Materials Required: Sodium Lauryl Ethyl Sulphate (SLES) – 1 Litre, Washing Soda- 50g, Tri Sodium Phosphate (TSP)-25g, Food Color- 2g & Flavoring agent- 10ml.

Preparation:

Step 1: To 1 liter of SLES 2.5 litres of water was added.

Step 2: Washing soda was dissolved in 250ml of water separately & TSP was dissolved in 200ml of water separately.

Step 3: Both the liquids in step 2 were mixed with SLES (step 1) and stirred well.

Step 4: Food coloring and flavoring agent were then added to obtain the colour and odour.

Finally the dish washing gel was obtained. Free samples were distributed to the women who attended the program.

Testing of Food adulteration - Testing of various food items with materials available at home:

Different types of food items are available today in the market. Adulteration or contamination of natural food products is one of the major challenges in today's society. Addition of adulterants reduces the value of nutrients in food. In the second session Women were given awareness about the various artificial preservatives, artificial sweeteners and coloring agents used in the food products and pocketed food items. Easy methods of identification at home was also taught to them. Harmful effects of food adulterants was also discussed. Interaction between the students and the audience was very informative.

1. Honey:

Contamination: Sugar syrup

Test: In a glass of water add one tablespoon of honey – if it settles down as a thick drop then it is pure honey, if it dissolves quickly its adulterated.

2. Turmeric:

Contamination: Metanil yellow/ Lead chromate

Test: In a glass of warm water add a small quantity of turmeric powder, do not shake or stir, as the powder settles down at the bottom after 20 minutes and the remaining water on the top layer is clear, then the powder is pure, if the water is yellow in colour then its contaminated.

3. Ghee:

Contamination: Vegetable oil/Vanaspathi

Test: Add a pinch of sugar to a teaspoon of melted ghee in a bottle. Shake well and check after five minutes – if the colour changes to red then it contains vegetable oil

4. Red chilli powder:

Contamination: Brick powder

Test: In a glass of water add a small quantity of Chilli powder, stir well, as the powder settles down at the bottom and the remaining water on the top layer is clear, then the powder is pure, if the water is red colour then its contaminated.

5. Pulses:

Contamination: Artificial color

Test: Grind some pulses into a fine powder and add warm water to it, if the water turns bright yellow in colour then the pulses are contaminated.

6. Apple:

Contamination: Wax coating

Test: Slowly Scrap the outer area of the apple mildly if a white substance peels out then its wax or pour some hot water on apple if an oily layer comes out then its coated with wax.

7. Milk:

Contamination: Detergent

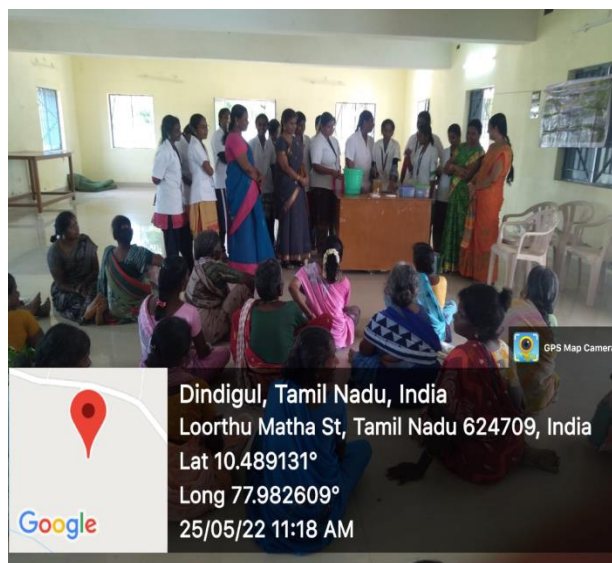
Test: Add about 15ml of milk in a closed bottle and hake well for a few minutes if it foams well then it contains detergent.

8. Salt:

Contamination: Chalk powder

Test: Add a teaspoon of salt to a glass of water and stir well if the water turns white in colour then it contains chalk powder.

Dish washing liquid gel preparation



Testing of Food adulteration

