



## **Lecture title: Test of milk(Dye reduction Test)**

**Lecturer Affiliation: University of Mosul, Aytham Saidy Ayoub, BSc, MSc,**  
**<https://orcid.org/0000-0002-5057-6337>**

### **Summary:**

It depend on reduction indicator stain due to the dye induction oxidation and reduction process by microorganism according to these microorganism metabolic activities

microorganism utilizing O<sub>2</sub> free in milk for the growth hence the condition of milk will be change from oxidation to reduction ,these proportional and relationship between number of microorganism and activity which will lead to faster reduction which added as oxidation from

### **A- mythelen blue stain**

10ml milk + 1ml stain 37c water bath ,check the tube every half hour and note the color and these table :

### **Time reserve no of bacteria grade milk for reduction in 1 ml**

Less of 2 hrs	Of 20 millions	Bad
2-6 hrs	4-20 millions	Acceptable
6-8 hrs	1-4 millions	good
More than 8 hrs	500,000	Very good



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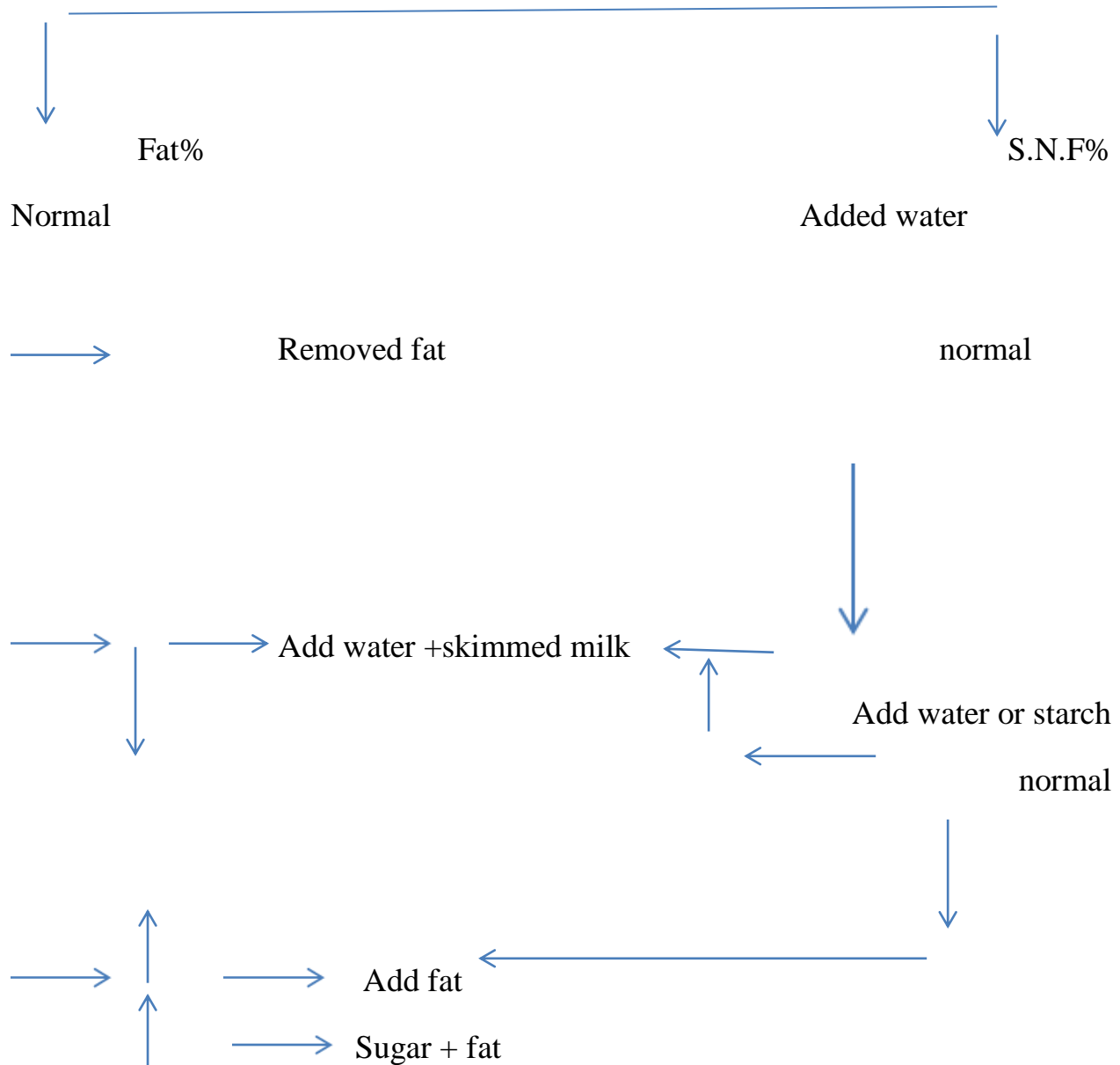
**B- Resazurine test :**

Same bases of mythelen blue test (change in color and period of test 10 min 10ml milk +1 ml Resazurine sol. Water bath 37c ,note the color at the table:

Color stage	Milk grade
Violet resazurine	Acceptable
Resorufrin (pink)	Cheese manufacturing
Dihydroersourfin (white)	bad



## Adulteration





Example:

—Fat 3% S.N.F =7.1—

Cow add water

Buffalo add skim milk and  
water

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