



**MRIGAVYA ORGANIC**  
PROMISE OF PURITY

## Test your Milk at Home

Be Aware....!! Some Local *Doodhwalas* may be poisoning your milk through following ways.

### **A cocktail of chemicals**

#### **Urea**

**Urea** is added in synthetic milk to raise the fat value. It damages the Intestinal tract and digestive system.



#### **Detergents**

**Detergents** increase the fat value and mask adulteration with water with ditto health hazards.

#### **Formalin**

**Formalin (40%)** increases shelf life. Pasteurised milk has a shelf life of only 48 hours at less than 4 degree Celsius. It causes organ dysfunction besides damaging the Intestinal tract and digestive system.

#### **Starch**

**Flour from wheat, corn, rice, tapioca** are the general starch adulterants to increase fat content and mask adulteration. They reduce nutritive value.

#### **Sugar**

**Sugar** is mixed to increase the lactometer reading to mask dilution with water. Chances of getting epidemic diseases are high if the water is bad.

#### **Salt**

**Salt** is added to tweak lactometer reading when milk is adulterated with water. This also reduces nutritive value.

#### **Others**

**Other adulterants** are hydrogen peroxide, bone dust, hydrogenated oil, animal fats and harmful preservatives.

*Source: Karnataka Milk Federation*

## What is Milk Adulteration?

Food Adulteration is an act of intentionally debasing the quality of food offered for sale either by the admixture or substitution of inferior substances or by the removal of some valuable ingredient, Food Adulteration takes into account not only the intentional addition or substitution or abstraction of substances which adversely affect nature, substances and quality of foods, but also their incidental contamination during the period of growth, harvesting, storage, processing, transport and distribution.

“Adulterant” means any material which is or could be employed for making the food unsafe or sub-standard or misbranded or containing extraneous matter;

### Tests which Can be done at Home on Milk

S. No.	Food Article	Adulterant	Method of detection	Remarks
1	Milk	Water	The presence of water can be detected by putting a drop of milk on a polished slanting surface. The drop of pure milk flows slowly leaving a white trail behind it, whereas milk adulterated with water will flow immediately without leaving a mark.	
2		Starch	Add a few drops of tincture of Iodine or Iodine solution. Formation of blue colour indicates the presence of starch.	Iodine solution is easily available in the medical stores
3		Urea	Take a teaspoon of milk in a test tube. Add half teaspoon of soybean or arhar powder, mix up the contents thoroughly by shaking the test tube. After 5 minutes, dip a red litmus paper in it. Remove the paper after half a minute. A change in colour from red to blue indicates the presence of urea in the milk.	
4		Detergent	Shake 5-10 ml of sample with an equal amount of water. Lather indicates the presence of detergent	
5		Synthetic milk	Synthetic milk has bitter after taste, gives a soapy feeling on rubbing between the fingers and turns yellowish on heating	Synthetic milk is made by adding white colour water paint, oils, alkali, urea and detergent, etc.
6		Synthetic milk - test for protein	The milk can be easily tested using Urease strips. Colour chart in Urease strips helps to arrive at the quantity of urea present in the milk.	Urease strip is a bio strip based on enzymatic assay.
7		Test for Glucose /Invert sugar	Take a strip of Diacetric strip and dip in to the milk for 30 secs to 1 min. If the strip changes the colour then it shows the sample of milk contains glucose .If there is no change in the colour of the strip , then glucose is absent.	Glucose inverts sugar syrup is added to the milk increases the consistency and taste.

### [How to test your Milk for Adulteration YouTube Videos Link](#)

[https://www.youtube.com/watch?v=iSWZsOiwHD0&index=83&list=PLdm-2\\_AHi21ReUM95IfkSQNGaSmKDu-bx](https://www.youtube.com/watch?v=iSWZsOiwHD0&index=83&list=PLdm-2_AHi21ReUM95IfkSQNGaSmKDu-bx)

