

FSSAI releases new method to detect adulteration in ghee with veg oils

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FSSAI, the country's apex food regulator, has released a new method of detection of adulteration in ghee (clarified milk fat) with vegetable oils. This method was approved by the scientific committee, scientific panel on methods of sampling and analysis and the food authority collectively after deliberations.

In an order, FSSAI has directed the food testing laboratories to use the method with immediate effect. The order added that the method was applicable to four vegetable oils, viz. soybean oil, groundnut oil, coconut oil and sunflower oil.

Experts said that the manual introduced by FSSAI on ghee adulteration with vegetable oils was an imperative one. Previously, the regulator initiated several manuals which induced ease in facilitating food processing activities, this being one of those.

Ashwin Bhadri, chief executive officer, Equinox Labs, said, "The method is much simpler and easy to follow, as it is based on the detection of cholesterol and β -sitosterol as markers in the unsaponifiable matter (USM) of pure ghee and adulteration ghee samples."

"The presence of β -sitosterol in ghee denotes adulteration with vegetable fats. However, this method is applicable only to a selective bunch of vegetable oils, namely soybean, groundnut, coconut and sunflower oil," he added.

He informed that earlier traditional methods were practiced by testing laboratories across India, adding, "The Furfural and Baudouin tests are standard methods that were implemented by the labs to ensure purity of ghee. The adulteration of ghee with sesame oil is detected by the Furfural test, whereas the Baudouin test detects presence of vanaspati hydrogenated fat, refined vegetable oil, and animal fats in ghee."

Bhadri said that the old methods were kit-based, and detected adulteration by showing different colours. These techniques were not confirmatory, as the results were ambiguous.

“The quantity of oil present in the ghee determined the success of the tests. For example, if the oil is present in lower quantities, the detection levels were low and vice-versa. Whereas, the new test methods gives and in-depth information about adulteration without any oil quantity issues. Even the minute presence of oil can help us know the ghee adulterants,” he added.

It is pertinent to mention here that the uncontrolled/rampant use of vegetable oils as adulterants in ghee has been affecting a majority of consumers, as they tend to consume it on a daily basis.

According to FSSAI, this manual shall act as a guideline on implementing new methods of detecting vegetable oil adulteration. This method has to be followed by all testing laboratories, leading to uniformity in the results. This method will not only benefit consumers in safeguarding their health, but also FBOs (food business operators) in rebuilding the trust of consumers.