

# CALF Chronicle



## CALF RECEIVES ACCREDITATION FOR PROFICIENCY TESTING (PT) SERVICE

CALF has recently set up a state-of-the-art facility to initiate Proficiency Testing (PT) service and is ready to offer PT services in Chemical and Microbiological Testing of Food and Feed. CALF has obtained National Accreditation Board for Testing and Calibration Laboratories (NABL) accreditation to be a Proficiency testing provider vide certificate no.: PC-1051 as per ISO/IEC

17043:2010 "Conformity assessment- General requirements for Proficiency Testing".

The scope of accreditation covers several product categories like milk powder, nutritional foods (Infant Milk Substitute, cereal-based complimentary foods, dietary supplements, malted milk foods & nutraceutical foods), cattle feed & poultry feed, milk and milk products.



### Proficiency Testing Services



**ISO/IEC 17043:2010**

*It gives us immense pride to become the first PT provider in Gujarat for above mentioned scope. CALF lab will provide PT service to different food and feed testing laboratories across India including dairy cooperatives.*



## What is Proficiency Testing (PT)

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Proficiency testing is a very important QC tool for every testing laboratory and helps in determining the performance of individual laboratories for specific tests or measurements. It also gives confidence in the laboratory equipment, methods and staff, and also assures that lab is delivering the quality results demanded by customer.

In a proficiency test one or more well homogenised samples are sent to number of participating laboratories. Each laboratory measures the measurand and reports its results to the Proficiency Testing Provider.

The results are compared with the reference value for that measurand by using various statistical tools and the participants are informed.

## QUALITY MANAGEMENT SYSTEM AT CALF

CALF follows a quality management system based on ISO 17025:2017 to ensure operational integrity, confidentiality and is accredited by NABL. The laboratory is recognised by the Export Inspection Council and APEDA for testing of milk, honey, and fruits & vegetables as per various Residue Monitoring Plans (RMPs).

CALF is a Referral and National Reference Laboratory (NRL) for milk and milk products by FSSAI. Under the NRL, CALF has set up a Proficiency Testing Provider (PTP) facility for milk and milk products, fats and oils, animal feeds, mineral and vitamin premixes covering compositional parameters, pesticides, antibiotics, mycotoxin, heavy metals, and pathogens in animal feed, milk powder, nutritional foods (Infant milk substitute, cereal-based complementary foods, dietary supplements, malted milk foods & nutraceutical foods).



*Currently, laboratory has renewed its BIS recognition for three years. The laboratory has obtained recognition for 17 different products covering various milk products and covered new products like infant milk substitute as per IS 14433: 2007, follow up formula-complementary foods as per IS 15757: 2007, milk-cereal based complementary foods as per IS 1656: 2007, processed cereal-based complementary foods as per IS 11536: 2007, packaged natural mineral water as per IS 13428: 2005, packaged drinking water as per IS 14543: 2016, compounded feeds for cattle as per IS 2052: 2009, Di-Calcium phosphate animal feed Grade as per IS 5470: 2002 and mineral mixtures for supplementing cattle feeds as per IS 1664: 2002.*



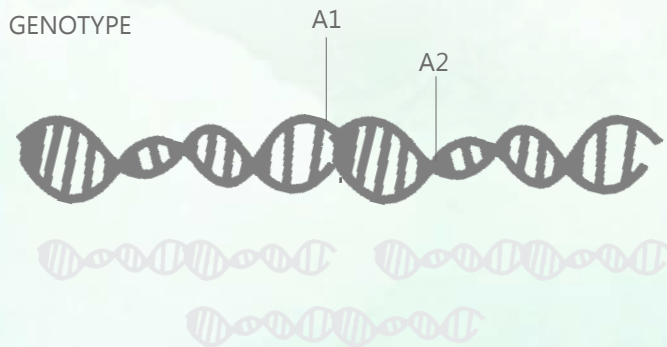


## NEW TESTING FACILITY

Various new test facilities have been developed during the year as per the requirement of FSSAI, BIS standards, APEDA, customers, and internal projects of NDDB

### A1A2 testing

The lab has standardised a PCR-based qualitative test for detection of A1A2 genotype. The services can be availed to know the type of milk produced (A2 milk/A1 milk/A1A2 milk) by the animal by submitting the blood/milk sample.



### Rapid PCR-Based Method to Test Milk Authenticity

CALF has standardised DNA-based qualitative test for authenticity testing in milk and milk products. This method can detect presence of cow, buffalo, camel and goat species in the sample.





### Other new method developments

- Betaine is one of the additives used in the feed supplement. It has important role in alleviating heat stress in cattle's especially during summer and rainy season. Method for analysis of Betaine has been standardised on HPLC (RI detector).
- Melamine is one of the contaminant known to be carcinogenic for humans. Routinely milk and milk products are tested for Melamine. Recently as per multiple requests from customers, laboratory has standardised the method for analysis of melamine in Honey by HPLC (PDA detector)
- Analysis of minerals and metals in water is a challenging task. Many laboratories analyse minerals and metals separately. Laboratory has developed method for simultaneous analysis of 21 minerals/metals (BIS requirement) in water by using ICP-MS. This would not only save time but also contribute in reducing the cost of analysis.



# PARTICIPATION IN PROFICIENCY TESTING PROGRAMMES

In 2020, laboratory participated in 23 Proficiency Testing (PT) programmes/Inter Laboratory Comparisons (ILC) from various national & international proficiency testing providers and contemporary Indian laboratories to evaluate its testing performance in a wide variety of matrices like milk products, honey, fruits & vegetables, pulses & cereals, water & beverages, nutritional & bakery products, and spices.

Laboratory performance in more than 96% of the participated PT tests was within the acceptable norms, indicating a successful implementation of the quality control programme and ISO/IEC 17025:2017 in its routine operations; and availability of well-trained and competent manpower.

## INAUGURATION OF HONEY TESTING FACILITY

A state-of-the-art honey testing facility has been established at CALF with support from National Bee Board (NBB). It was e- inaugurated in July 2020 by Shri Narendra Singh Tomar, Hon'ble Union Minister for Agriculture and Farmers Welfare. This testing facility has enabled the country to test honey samples for authenticity, which were previously being sent to foreign laboratories for testing. This facility is being used by domestic producers, exporters of honey and regulatory bodies.





**NATIONAL  
DAIRY  
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