

# Food Testing for Regulatory Compliance

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\*Testing of Foods / Food Ingredients?

\*Quality / Safety

\*Regulatory

# Determination of Fat in Various Dairy Products



## Description

## Methods

## Test parameters

Dried milk and dried milk products

**ISO 1736:2008**

Determination of fat content

Evaporated and sweetened Condensed Milk

**ISO 1737:2008**

Determination of fat content

Skimmed milk, whey and buttermilk

**ISO 7208:2008**

Determination of fat content

Milk

**ISO 2446:2008**

Determination of fat content

Cheese and processed cheese products

**ISO 1735:2004**

Determination of fat content

Milk products and milk-based foods

**ISO 8262-1:2005**

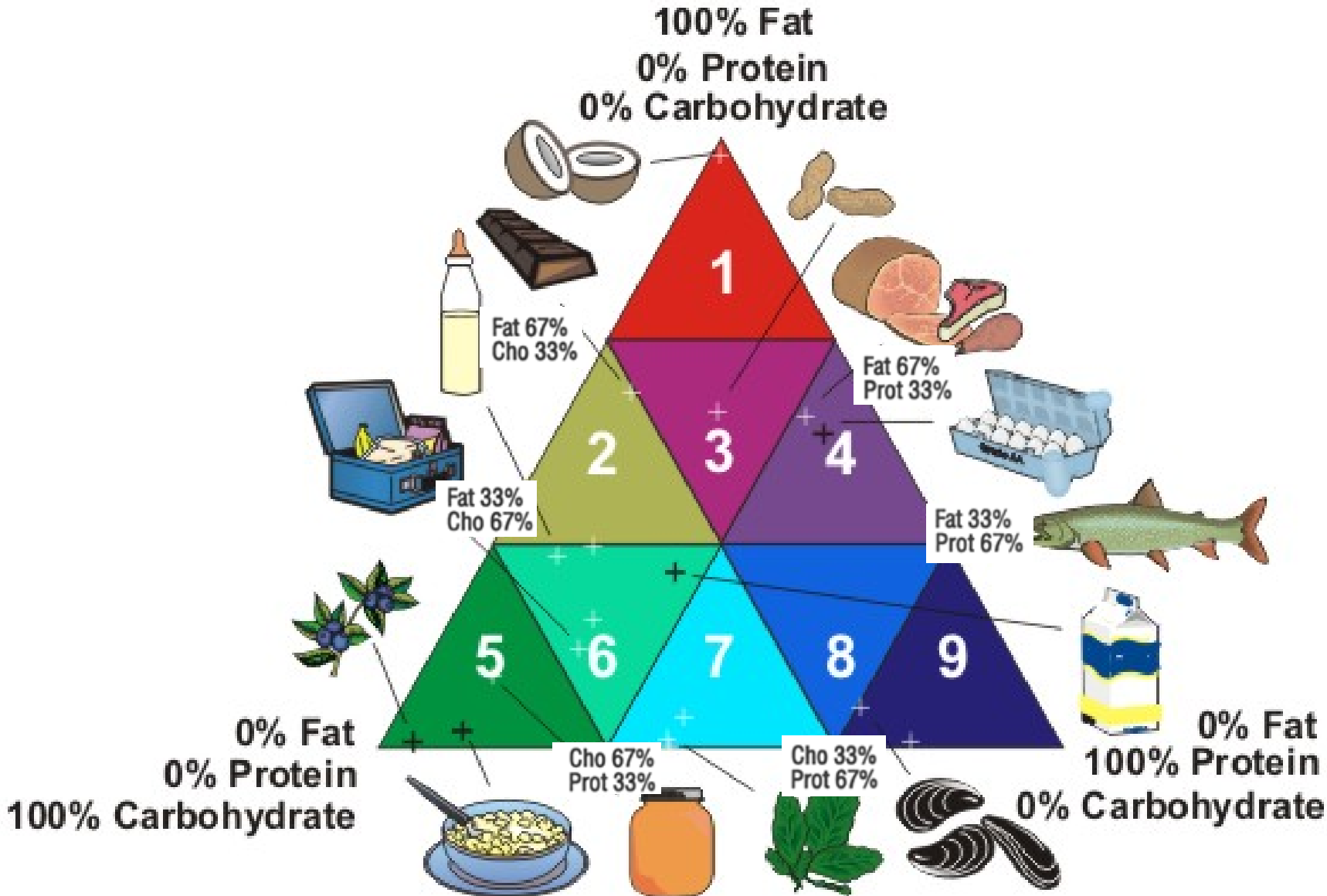
Determination of fat content

Cream

**ISO 2450:2008**

Determination of fat content

# Selection of Analytical Methods & Food Composition



## *Official Test Methods - Codex /FAO/WHO/FSSAI*

- AOAC - Association of Analytical Chemist - General food analysis
- ASTA - American Spices Trade Association - SPICES
- ICUMSA - International commission for Unified methods for Sugar analysis - SUGAR
- AACC - American Association of Cereal Chemists CEREALS
- AOCS - American Oil Chemists Society - AOCS
- IDF - International Dairy Federation - DAIRY
- IFU - International Fruit Juice Union - FRUITS AND PROCESSED FRUITS
- ISO - International Organization for Standardization - General methods - All type of Food Products.
- BIS - Bureau of Indian Standards - All type of Food Products
- NMKL - Norway Swedish FDA - General foods
- IOCCC - Chocolate, Biscuits, Confectionary (Europe)

# Challenges

- Residues and Contaminants - Spices / Oils / Processed Foods / Food Ingredients
- Food Additives - Colours, Preservatives, Thickening agents, Antioxidants, Flavour enhancers, Stabilizers
- Interpretation of Analytical Results
- Rigidity of Regulatory agencies to adopt latest analytical technology / Rapid Test kits
- Decision rule & Compliance statement for Regulatory Test requirements

# Approved Test Method

FSSAI / Codex not yet adopted official methods for residues /  
Contaminants Spices / Oils / Processed Foods/ Food Ingredients  
(Plant origin)

Pesticide Residues

PAHs

PCBs

EU rejected 84 Consignments of Indian Spices Jan - Aug 2019.

# Food Additives

Methods approved only few food additives

BHA, BHT, TBHQ, Benzoic acid, Sorbic acid etc

ISO/ Codex to identify the suitable methods for various food categories

MSG in of Noodles? - Classical Case of Example

Food Colours ( Permitted/ Banned ), Preservatives, Antioxidants



# Interpretation of Analytical results

Lab Responsibility

Labelling compliance

Micro Nutrients - Vitamin

Thaimine Mono Nitrate / Thiamine Hydro chloride.

# Not updating the Latest Analytical technology

Regulatory agencies are sceptical about the accepting latest analytical technology despite Codex / ISO recommendation

Testing Labs find its difficult to implement obsolete method

Vitamin B12 in Foods - IS 7299 - 1969 - Biological assay

Vitamin B12 in Foods - ISO 20634-2015 by HPLC

Rapid kits for Microbiological / pathogen testing

Technical Barriers in Trade ( TBT)

# Decision Rule & Compliance statement

ISO 17025: 2017 demand the Decision rule, whenever the lab gives conformity statement about the product Vs Regulatory compliance.

“ Submitted sample confirms / does not confirm to FSSAI / BIS specifications”

Laboratory to state the Decision rule applied, It should be agreed by the customer.

# Opportunities

Net working - Collaborate - Communicate

AOAC - India Section - Closely working with FSSAI and advising matter related to food analysis, Choice of suitable methods.

Updating FSSAI Testing Manual

Training to all state and central food Laboratories

Facilitated FSSAI approval for rapid kits for food testing.

Thank you

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