

MAARC LABS PVT LTD. is a leading **commercial analytical laboratory** in India for **sugar and water testing**. For last 22 years, we organize **TRAINING PROGRAMS** for **sugar mills** and so far more than 700 technologists have been benefited from this activity.

Theory lectures on important topics **by authorities** on the subject and **Practicals** under **supervision of experts** is the specialty of these programs. Through these programs **technologists get good idea about** establishment of ideal laboratory in their mills for **sugar, water and molasses testing**.

This year **TRAINING PROGRAMS** would focus on -

PROGRAM NO. 1

Significance of water analysis for High Pressure Boilers in Co-generation plants.

The number of sugar mills going for Co-generation is increasing day by day and therefore mills are facing problem of acute shortage of trained manpower in laboratories. The significance of accurate analysis of water is now well understood for high pressure boilers, as errors in results and wrong interpretations can lead to huge losses.

In our program we have included analysis of all the parameters specified by **IS: 10496** at the **desired lower detection limit**. (e.g. Silica at 0.02ppm)

PROGRAM NO. 2

Quality Evaluation of Raw & White Sugar by ICUMSA Methods

In last few years Indian sugar mills have adopted new technologies and are now producing very good quality of White & Raw sugar. For getting premium price for this sugar, factories are trying to tap the international market as well as institutional buyers.

Here knowledge about the quality requirement of buyers and testing methods is very crucial. **The sugar quality & food safety** has become major issues due to implementation of **Food safety Act**. For interested candidates this program can be extended by one day to cover IP and BP parameters.

PROGRAM NO. 3

Analytical Techniques of B-Heavy and C-Heavy Molasses Analysis

With the introduction of Alcohol policy by central government, production of alcohol from Cane juice, Syrup, B-heavy and Final molasses has become attractive revenue earning mode for sugar mills.

Quality of molasses is having direct impact on alcohol yield in distilleries. Sugar content of molasses is important parameter in molasses trade and accurate analysis plays vital role in economics of the process.

Terms & Conditions :

- **Course fee** includes **Course material** and **Lunch**.
- **10% Discount** to factories with 3 or more candidates per course.
- **Special batch** can be organized for candidates from one group of factories.
- If scheduled batches are full, **additional batch** will be taken in Sept. 2022.

Faculty :

- **Dr.(Mrs.) V. S. Keskar**, Vice President **ICUMSA**, Referee **GS 9** (PWS)
- **Dr. S. S. Nimbalkar**, Asso. Referee **ICUMSA** (Microbiology and Chemical Methods)
- **Dr. Sai Keskar**, CEO

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Visit us at : www.maarcclabs.com

PROGRAM NO. 1

Significance of water analysis for High Pressure Boilers in Co-generation plants.

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| A) PRACTICALS | Calibration - pH meter, Spectrophotometer, Conductivity meter. |
| <ul style="list-style-type: none"> • Total hardness • Total alkalinity • pH value • Chloride • Oxygen consumption in 4h • Total dissolved solids • Silica (Higher & Lower range) • Ammonia • Electrical conductance • Hydrazine • Phosphate • Dissolved O₂ • Caustic alkalinity • Turbidity | |
| | B) THEORY LECTURES |
| | <ul style="list-style-type: none"> • Principles of water chemistry • Basics in Analytical chemistry • Boiler water problems |
| | C) COURSE PERIOD : 3 days |
| | Batch I : 04th to 06th August 2022 |
| | D) COURSE FEE : Rs. 7500/- + GST Extra @ 18% |

PROGRAM NO. 2

Quality Evaluation of Raw & White Sugar by ICUMSA Methods

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|---|--|
| A) PRACTICALS | B) THEORY LECTURES |
| <ul style="list-style-type: none"> • Colour (By GS2/3-9, GS2/3-10 & GS9/1/2/3-8 methods) • Dextran and Starch • Mesophilic Bacteria • Colour of intermediates by method GS1/3-7 • Yeast & Mould • SO₂ • Sediment • Reducing Sugars • Moisture • Beverage Floc • Turbidity | <ul style="list-style-type: none"> • Introduction to ICUMSA • Colour balance of the sugar processing • National / International / Institutional Buyer/ FSSAI specifications of sugar • Dextran: Causes & problems • Microbiological quality requirements • Good Laboratory Practices |
| | C) DEMONSTRATION : |
| | Heavy Metals on ICP/MS & Pesticide Residues on GC/MS and LC/MS |
| | D) COURSE PERIOD : 4 days |
| | Batch I : 08th to 11th August 2022 |
| Calibration - Spectrophotometer, pH meter, Refractometer, Conductivity meter. | E) COURSE FEE : Rs. 9500/- + GST Extra @ 18% |
| F) ADDITIONAL 1 Day TRAINING on IP / BP parameters : | Rs. 2500/- + GST Extra @ 18% |

PROGRAM NO. 3

Analytical Techniques of B-Heavy and C-Heavy Molasses Analysis

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|---|---|
| A) PRACTICALS | B) THEORY LECTURES |
| <ul style="list-style-type: none"> • Reducing Sugars • Calcium • Total Reducing Sugars (IS & ICUMSA Method) • Conductivity Ash • Sludge Content • Sulfited Ash • Volatile Acidity • Alcohol Yield • Fermentable Sugars • Yeast Growth • Sedimentation Test • Colour | <ul style="list-style-type: none"> • Traditional & Chromatographic methods of molasses analysis • Crucial steps in TRS analysis • Fructose, Glucose & Sucrose analysis on GC/FID |
| | C) DEMONSTRATION : |
| | Sugars in molasses & syrup by GC method |
| | D) COURSE PERIOD : 3 days |
| | Batch I : 18th to 20th August 2022 |
| | E) COURSE FEE : Rs. 7500/- + GST Extra @ 18% |

SHORT TERM TRAINING PROGRAM 2022