QUALITY EVALUATION LABORATORY
Spices Board, Cochin 682 025

TRAINING PROGRAMMES: 2022

Spices Board proposes to conduct the following training programmes on the analysis of spices and spice products during 2022. The training programmes will be held in the Quality Evaluation Laboratory (NABL accredited under ISO/IEC 17025:2017) of the Board located at Sugandha Bhavan, N.H. By-Pass, P.B.No.2277, Palarivattom. P.O, Cochin – 682 025 on the dates specified against each programme.

The programme is open to candidates, mainly sponsored by spice export units registered with the Board (having registration with manufacturing facilities) and candidates from private laboratories & other institutions. The training fee is Rs.14,160/ (Rs.12,000/-+18% GST) per programme/participant.

The number of trainees in each programme will be maximum limited to SIX. The minimum qualification for the participant is graduation in Science with experience in spice/spice products analysis. Selection will be made based on the qualification and experience. Preference will be given to the candidates sponsored by spice export/processing units.

Trainees have to make their own arrangements for the travel and accommodation. However, working lunch, tea & snacks will be provided during the training period.

The nomination in the prescribed form (attached) along with the training fee in the form of Demand Draft drawn in favour of Secretary, Spices Board, should reach Scientist- C & Head, Quality Evaluation Laboratory, Spices Board, Sugandha Bhavan, N.H.By-Pass, P.B.No.2277, Palarivattom.P.O., Cochin- 682 025, within 10 days prior to the commencement of the programme. Applications submitted along with the training fee (fee once fee paid is non-refundable) only will be considered for the selection of participants.

SRILATHA C.M
SCIENTIST – C
AND QEL i/c

(*Hindi version follows*)

QUALITY EVALUATION LABORATORY
Spices Board, Cochin

REGISTRATION FORM

1	Training programme on Analysis of Mycotoxins and illegal dyes in spices and spice products	22nd to 26th August, 2022	☐
2	Training programme on Physical Chemical analysis of Spices/Spice Products	29th August to 2nd September, 2022	☐
3	Training programme on Microbiological Analysis of Spices/Spice Products based on FDA BAM	19th to 23rd September, 2022	☐
4	Training programme on GCMS/LCMS/MS analysis of Pesticide Residues in Spice & Spice Products	26th to 30th September, 2022	☐

Note: Please indicate the programme of choice with ✓ mark

Name and Address of the Unit/Institution: .....

Registration Number with Spices Board (If Applicable): .....

City:..... State:..... Pin:.....

Tel.No..... Mob.No..... E-mail:.....

Details of the Participant

Name:.....

Designation:.....

Educational qualification:.....

Nature of experience:.....

Details of DD enclosed

D.D. No. Name of Drawee Bank: Date:

....

Separate registration form should be used for each programme per participant. The duly filled-in registration form along with the training fee of Rs.14,160/- in the form of DD drawn in favour of Secretary, Spices Board, should reach the following address atleast 10 days before the commencement of each programme.

Scientist-C & QEL i/c
Quality Evaluation Laboratory
Spices Board
Palarivattom P.O.
Cochin – 682 025
Phone No: 0484 -2333610-16
e-mail: qel.sb-ker@gov.in
e-mail: srilatha.cm@nic.in

Course content
ANALYSIS OF MYCOTOXINS AND ILLEGAL DYES IN SPICES AND SPICE PRODUCTS

Day 1	Opening session
	Briefing on training material/general laboratory practices
	Introduction to Quality systems and laboratory safety
	General introdution to Mycotoxins and illegal dyes
	Sample preparation, extraction for aflatoxin analysis, Clean up, concentration and HPLC analysis of Aflatoxins
Day 2	Setting up of Aflatoxin in HPLC
	Introduction to HPLC
	Aflatoxin data processing and calculations
	Extraction of Ochratoxin A
Day 3	Clean up and setting up of Ochratoxin A in HPLC
	Theory and basics of HPLC
	Illegal dyes extraction, Setting up of illegal dyes in HPLC
	Data procesing and calculation for illegal dyes analysis by HPLC
Day 4	Basics of LCMS/MS and Theory
	Setting up of Illegal dyes in LCMS/MS
	HPLC Trouble shooting
	Data Processing and Calculation for illegal dyes analysis LCMS/MS
Day 5	Completion of Chromatograms and calculations
	General discussions
	Visit to other laboratories
	Concluding session

Course content
PHYSICAL CHEMICAL ANALYSIS OF SPICES/SPICE PRODUCTS

Day 1	Opening session
	Briefing of ISO systems general laboratory practices and safety aspects
	Briefing and demonstration of sample preparation
	Demonstration on ASTA cleanliness parameters.
	Practical session on ASTA cleanliness parameters
Day 2	Demonstration and practical training on Moisture and volatile oil analysis of selected spices.
	Demonstration and practical training on Total ash and starch analysis
Day 3	Demonstration and practical training on Capsaicin analysis.
	Demonstration and practical training on Sulphur dioxide analysis
	Demonstration and practical training on acid insoluble ash analysis
Day 4	Practical training on HPLC Capsaicin quantification.
	Demonstration and practical training on Piperine analysis.
	Demonstration and practical training on colour value analysis.
	Demonstration and practical training on Curcumin analysis.
Day 5	Demonstration and practical training on colour value analysis- continues
	Demonstration and practical training on water activity analysis.
	Visit to other laboratories.
	Concluding session

Course content
MICROBIOLOGICAL ANALYSIS OF SPICES/SPICE PRODUCTS BASED ON FDA BAM/AOAC

Day 1	Briefing on Quality Systems and Microbiological Analysis of Spices/Spice products
	Salmonella analysis using VIDAS SLM method, US FDA BAM Method and GDS Method - Practical and demonstration (Day 1)
Day 2	*Salmonella* analysis (VIDAS SLM method) Contd. (Day 2)
	Salmonella analysis (GDS Method) Contd. (Day 2)
	Salmonella analysis (US FDA BAM Method) Contd. (Day 2)
Day 3	*Salmonella* analysis (VIDAS SLM method) Contd. (Day 3)
	Salmonella analysis (US FDA BAM Method) Contd. (Day 3)
Day 4	*Salmonella* analysis (VIDAS SLM method – confirmation of positive samples using MALDI-TOF) Contd. (Day 4)
	Salmonella analysis (US FDA BAM Method) Contd. (Day 4)
Day 5	*Salmonella* analysis (US FDA BAM Method) Contd. (Day 5)
	Result and discussion on the analysis conducted
	Lab tour and closing session

Course content
GCMS/LCMS/MS ANALYSIS OF PESTICIDE RESIDUES IN SPICE & SPICE PRODUCTS

Day 1	Opening session
	Briefing on training material/general laboratory practices
	Introduction to Quality systems and laboratory safety
	Sample preparation, extraction for OC and PY analysis, Clean up, concentration[PY]
Day 2	Basics of GC and chromatographic theory
	OC analysis -Clean up and concentration
	Briefing on instrumentation, technique and calculation
	Analaysis of PY in GCMS/MS
Day 3	Sample preparation, extraction, clean up for OP
	QA/QC programme on Pesticide analaysis
	Setting up for OC in GCMS/MS
	Trouble shooting in instrumentation for PR
Day 4	Basics for LCMS/MS and GCMS/MS
	Data processing and calculation for OC and PY
	Setting up of OP in LCMS/MS, GCMS/MS and GC-FPD
Day 5	Data processing and calculations for OP and remaining PR analysis
	General discussions
	Visit to other laboratories
	Concluding session