

**QUALITY EVALUATION LABORATORY
Spices Board, Cochin-682 025.**

TRAINING PROGRAMMES : 2015-16

Spices Board proposes to conduct the following training programmes on the analysis of spices and spice products during 2015-2016. The training programmes will be held in the Quality Evaluation Laboratory (NABL accredited under ISO/IEC 17025:2005 and ISO 9001:2008 & ISO 14001:2004 certified by British Standards Institution, U.K.) of the Board, 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.11,400/ (Rs.10,000/- +14% as service Tax) per programme/participant.

The number of trainees in each programme will be maximum limited to eight. The minimum qualification for the participant is graduation in Science with experience in the field. Selection will be made based on the qualification and experience. Preference will be given to the candidates sponsored by spice export 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 "**The Scientist-D & Head, Quality Evaluation Laboratory, Spices Board, Kochi-682 025**" on or before **30th September 2015**. Applications submitted along with the training fee (fees once fee paid is non-refundable) only will be considered for the selection of participants.*

**K R K Menon
SCIENTIST -D & HEAD**

**1. Training programme on microbiological analysis of spices/spice products:
05-09th October 2015**

Course content

<i>Introduction to Quality Systems and Laboratory Safety with respect to Microbiological analysis</i>
<i>Sampling and Plating for Yeast and Mould Count</i>
<i>Sampling and Pre-enrichment for the detection of Salmonella spp.</i>
<i>Sampling and Presumptive test for Enumeration of Coliforms and E.coli</i>
<i>Sampling and Plating for Total Plate Count (TPC)</i>
<i>Sampling and Plating for the Enumeration of Enterobacteriaceae</i>
<i>Selective Enrichment of the test sample for Salmonella</i>
<i>Confirmatory Test for E.coli</i>
<i>Confirmatory test for Coliforms</i>
<i>Observation of Selective plates for Enterobacteriaceae and performing Biochemical test</i>
<i>Complete test for E.coli</i>
<i>Plating for Salmonella on selective media</i>
<i>Observation and interpretation of TPC results</i>
<i>Biochemical characterization of Enterobacteriaceae and interpretation of results</i>
<i>Performing Biochemical Test for E.coli, Salmonella</i>
<i>Observation of Biochemical test for E.coli and Salmonella</i>
<i>Serological confirmation of Salmonella spp.</i>
<i>Interpretation of Results for Yeast and Moulds, Coliforms, E.coli, Salmonella</i>

**2. Training programme on analysis of Mycotoxins and illegal dyes in spices
and spice-products using HPLC & LCMS/MS: 12-16th October 2015**

Course content

<i>Introduction to Quality Systems and Laboratory Safety with respect to Residue analysis</i>
<i>General introduction to Mycotoxins and Illegal Dyes</i>
<i>Sample preparation and extraction for Mycotoxins</i>
<i>Basics of Chromatography focusing on HPLC theory</i>
<i>Clean-up of Mycotoxins</i>
<i>Sample preparation and extraction for Illegal Dyes</i>
<i>Basics of mass spectrometry</i>
<i>Introduction to LC-MS/MS</i>
<i>Demonstration of Analysis of samples by LC-MS/MS</i>

3. Training programme on physical & chemical analysis of spices/spice-products: October 26 – 30 October 2015

Course content

<i>Introduction to Quality Systems and Laboratory Safety with respect to Chemical analysis</i>
<i>Analysis of physical contaminants in spices (ASTA cleanliness parameters)</i>
<i>Sample preparation for laboratory analysis</i>
<i>Moisture and volatile oil analysis in spices</i>
<i>Total ash and Acid insoluble ash analysis</i>
<i>Determination of Water activity content</i>
<i>Analysis of Capsaicin in chillies by HPLC</i>
<i>Starch content in spices- gravimetric method</i>
<i>Analysis of Curcumin in turmeric, Piperine content in pepper and Colour in Chillies using UV-Vis spectrophotometer.</i>
<i>Sulphur dioxide content estimation using modified Monier William apparatus</i>

4. Training programme on GC, GCMS/MS and LCMS/MS ("Q" Trap) analysis of Pesticide residues in spices and spice products: November (2-6th November 2015)

Course content

<i>Introduction to Quality Systems and Laboratory Safety with respect to Residue analysis</i>
<i>General introduction to Pesticide Residue Analysis</i>
<i>Sample preparation and extraction for OC and PY Analysis</i>
<i>Basics of Gas Chromatography focusing on GC theory</i>
<i>Clean-up of OC and PY Analysis</i>
<i>OP Extraction and Clean-up</i>
<i>QA/QC measures on Pesticide Residue Analysis</i>
<i>Introduction to LC-MS/MS</i>
<i>OP Extraction - LC-MS/MS</i>

QUALITY EVALUATION LABORATORY

Spices Board, Cochin-682 025.

REGISTRATION FORM

1. [] **Training programme on microbiological analysis of spices/spice products: October -05-09, 2015***
2. [] **Training programme on analysis of Mycotoxins and illegal dyes in spices and spice products using HPLC & LCMS/MS: October 12-16,2015***
3. [] **Training programme on physical & chemical analysis of spices/spice products: October 26-30,2015***
4. [] **Training programme on GC /GCMS/MS/ LCMS/MS with Q Trap analysis of Pesticide residues in spices and spice products: November 2-6 ,2015***

*Please indicate the programme with of choice *mark.

Name &Address of the unit/Institution :		
Regn.No. With the Spices Board : (if applicable)		
City:	State:	Pin:
Tel:	Mob No:	E-mail:

Details of the participant		
A. Name	:	
B. Designation	:	
C. Educational qualification	:	
D. Nature of experience	:	
E. Details of DD enclosed:		
D.D.No.	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.11400/ 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 program .

Scientist-D& Head, Quality Evaluation Laboratory
 Spices Board, Palarivattom P.O, Cochin-682 025
 Phone No.0484 – 2349134
 Email: sbqel@indianspices.com
 Email:krk.menon740@nic.in

