



Tamil Nadu Agricultural University
Coimbatore – 641 003



Dr. M. Rajavel, Ph.D.,
Public Relations Officer
Mobile: 94890 56730

Phone: 0422 - 6611302
Fax: 0422 – 2431821
E-mail: pro@tnau.ac.in

To
The Editor,
Sir,

Date: 18.06.2024

I request that the following message may kindly be published in your esteemed daily:

TNAU conducted Hands on training in “Mining of Bioactive Metabolites”

Tamil Nadu Agricultural University’s Centre for Plant Molecular Biology and Biotechnology has organized a three days hands-on training in “Mining of Bioactive Metabolites” from 12th to 14th June 2024 under VCS program. 16 registered participants from TNAU and other colleges participated in the training program.

On the day one of the three days training program Dr.A.John Joel, Professor and Head, Department of Plant Molecular Biology and Bioinformatics welcomed the gathering. Dr.N.Senthil, Director, CPMB&B emphasized the need of metabolite analysis in agricultural research. Dr.E.Somasundaram, Director, ABD delivered the special address emphasizing the urge for metabolite characterization and identification of target molecules for agricultural research. Followed by that Dr.P.Lalitha, Director, R&D, Avinashilingam University, Coimbatore spoke on “Quantification of metabolites by GC-MS and its interpretation”. In the afternoon session Dr.S.Vellaikumar, Associate Professor, Department of Plant Biotechnology, delivered a lecture on “Omics Platform for Metabolite Biomining”. Followed by that Dr.D.Uma and Dr.K.Chandrakumar handled practical session on compound isolation using column chromatography and thin layer chromatography followed by qualitative analysis of secondary metabolites.

On the day 2, Dr. AditiKundu, Senior Scientist, Division of Agricultural Chemicals, IARI, New Delhi delivered a lecture on “Applications of HPLC for identification of Phenolics”. Subsequently, Mr.Venkatesh Duraisamy, Field Application Specialist, Spinco Biotech, gave hands on training on the methods of GC-MS analysis, qualitative software, quantification basic, sensitivity and linearity, targeted MS and data processing, and maintenance of the GC-MS instrument. Dr.Karthikeyan, Field Application Specialist, Spinco Biotech, imparted hands-on training on the methods of HPLC and sample analysis.

On the third day of the training program Dr.D.Amirtham imparted practical session on quantification of metabolites such as Phenolics, flavonoids, salicylic acid and plant extraction procedures using soxhlet apparatus, rotary shaker and flash evaporator. In the afternoon session, Dr.P.Meenakshi and Dr.K.Gurusamy handled experiments on *In vitro* validation of bioactive metabolites using alpha amylase and protease inhibitory assay, total antioxidant DPPH assay, Protein denaturation assay and Brine shrimp assay. Dr.Anbu and Dr.Rubila assisted all the practical sessions. In the last session Dr.Veeraranjani, RA, delivered a note on “Metabolomic statistical data analysis by Metaboanalyst”.

The program was wrapped up with the valedictory session, Dr.D.Uma, Professor, DPMB&B welcomed the gathering Dr.A.John Joel, Professor and Head, DPMB&B delivered the valedictory note and elaborated the training program report of the three days event. Feedback from the participants was received and the programme came to an end with vote of thanks proposed by Dr. P. Meenakshi, Assistant Professor, DPMB&B.

Public Relations Officer