

TECHNICAL TRAINING

COURSES 2012 **ceiA3**



Microscopy Techniques

Methods and Techniques
to measure flower fertility

Advanced Greenhouse
Technology Techniques

New alternatives for the
reliable identification of
iberian pig ham: Control
field, Instrumental and
Sensory analysis

Application of advanced
chromatographic
techniques to agricultural
and food laboratory

01

Microscopy Techniques

VENUE OF THE COURSE

Estación Experimental del Zaidín. Spanish Council for Scientific Research (CSIC).
Address: Profesor Albareda 1, E-18008 Granada (Spain).

DIRECTOR

Juan de Dios Alché Ramírez (juandedios.alche@eez.csic.es)

DATES

12-16 march 2012 (8:30 to 14:00 h.)

MORE INFO

www.ceia3.es

OBJECTIVES

To create an environment in which students with interesting agro-biological problems and research lines are brought together with advanced microscopy instrumentation. Students will receive information regarding most microscopy techniques, fundamentals, applications and ways of use, as well as instructions on how to perform basic maintenance of microscopes.

REGISTRATION DEADLINE

20 January to 17th February, 2012. To register, please upload a CV and fill the application form linked [here](#)

AIMED AT

Members of research groups included in the ceiA3. Of interest for researchers, Ph. D. students, technical staff and members of technological companies integrated into the ceiA3 project.

NOTIFICATION OF ADMITANCE

Before 6th march 2012

APPLICANTS ACCEPTED

16

COURSE TYPE

Classroom

REGISTRATION FEE

Free

**02**

Methods and Techniques to measure flower fertility

PLACE

Campus of the University of Almería site in Ctra Sacramento s/n, in Almería capital (see link <http://www.ual.es/personal/fguillen/gmaps/> for further details about the venue), and other nearby facilities.

DIRECTOR

Julián Cuevas González (jcuevas@ual.es)

DATES

from 21st to 25th May 2012

MORE INFO

www.ceia3.es

OBJECTIVES

Lack of fruiting is a common failure in cultivated plants, especially in protected cultivation where pollinators' access is complicated by the closed structure and where the climate modification brings harsh conditions for plant fertility. Unfortunately, this lack of fruiting is rarely analyzed in deep determining which component of flower fertility failed. The main objective of this course is to form students in the fundamentals and methodology to evaluate reproductive success and failures in cultivated plants, more exactly in measuring male (pollen) and female (gynoecium) fertility. Students will also learn to measure flower attractiveness and rewards and their effects on insect pollinators. Evaluation of pollinators' activity and pollen-pistil interaction in response is within the program. The course also intends to form students in the evaluation of reproductive success by measuring fertilization levels, and initial and final seed set and fruit set. Fruit and seed abortion will be analyzed too.

REGISTRATION DEADLINE

Interested students must register before April 30. To register, please upload a CV and fill the application form linked [here](#)

AIMED AT

This course is of particular interest for Agronomy students, but also for students in the fields of Botany and Plant Ecology. Therefore students of Agronomy, Biological and Environmental Science, Forestry and from related fields may apply

NOTIFICATION OF ADMITTANCE

Selected students will be notified no later than on May 7

APPLICANTS ACCEPTED

12

COURSE TYPE

Classroom

REGISTRATION FEE

Free

Methods and Techniques to measure flower fertility

Advanced Greenhouse Technology Techniques

New alternatives for the reliable identification of Iberian pig ham: Control field, instrumental and Sensory analysis

Application of advanced chromatographic techniques to agricultural and food laboratory

Microscopy Techniques





03

Advanced Greenhouse Technology Techniques

PLACE

University of Almería (Spain). Laboratory 1.04 CITEII-A.

DIRECTOR

Diego Luis Valera Martínez (dvalera@ual.es)

DATES

from 21st to 25th May 2012

MORE INFO

www.ceia3.es

OBJECTIVES

Over recent years greenhouse technology has been evolving continually, with traditional structures being substituted by more resistant, larger ones. At the same time, new technology is constantly being incorporated, among which we should highlight climate control systems, fertigation and soilless crops.

This Technical Training Course will deal with cutting edge techniques applied to the greenhouse agrosystem. Amongst these techniques, we include Triaxial Sonic Anemometry, Infra-red Thermography Computational Fluids Dynamics as well as other simulation and optimisation techniques, all of which have been developed and applied by the "Rural Engineering" research group of the University of Almería.

The aims of the course, therefore, are:

- To present students with the cutting edge greenhouse technologies.
- To analyse the improvements required for the sustainability of the greenhouse agrosystem.
- To foment the knowledge and the correct use of new developments in greenhouse engineering.

REGISTRATION DEADLINE

Interested students must register 1-27 April, 2012. To register, please upload a CV and fill the application form linked [here](#)

AIMED AT

Agricultural Engineers and Agricultural Technicians. Graduates from associated fields. Students of Agronomy and associated sciences.

NOTIFICATION OF ADMITTANCE

Selected students will be notified no later than on May 4

APPLICANTS ACCEPTED

10

COURSE TYPE

Classroom

REGISTRATION FEE

Free

**04**

New alternatives for the reliable identification of Iberian pig ham: Control field, Instrumental and Sensory analysis

**PLACE**

Edificio Marie Curie. Campus Universitario de Rabanales. Universidad de Córdoba (España)

DIRECTOR

Lourdes Arce Jiménez (lourdes.arce@uco.es)

DATES

from 11th to 15th June 2012

MORE INFO

www.ceia3.es

OBJECTIVES

- Present the current status of the Iberian pig production and the weaknesses of its regulation.
- Show the possibilities to strengthen the methodology of field-level control.
- Present new analytical methodologies in order to distinguish and authenticate the different fattening diets.
- Show the sensory analysis as a reliable tool to authenticate the quality of Iberian products.
- Offer a new approach and reliable tools to be used by Protected Designations of Origin, Authorities, Industry and Dealers to differentiate air-cured hams from Iberian pigs fed on acorns from the rest of the air-cured hams from Iberian pigs fed with feed.

REGISTRATION DEADLINE

Interested students must register before May 18. To register, please upload a CV and fill the application form linked [here](#)

AIMED AT

Graduates in Food Science and Technology, Veterinary, Sciences (Chemistry, Biology, Environmental Sciences) and Chemical, Agricultural or Forest Engineers.

NOTIFICATION OF ADMITTANCE

Selected students will be notified no later than on May 28

APPLICANTS ACCEPTED

20

COURSE TYPE

Classroom

REGISTRATION FEE

Free

05

Application of advanced chromatographic techniques to agricultural and food laboratory

PLACE

Centro Andaluz de Investigaciones Vitivinícolas (CAIV) placed in the University Campus of Puerto Real. University of Cádiz.

DIRECTOR

Ramón Natera Marín (ramon.natera@uca.es)

DATES

from 2nd to 6th July 2012

MORE INFO

www.ceia3.es

OBJECTIVES

- To know the main theoretical and practical concepts of extraction techniques employed in the treatment of agricultural and food samples.
- To get laboratory skills to be able to apply different extraction techniques.
- To know the main theoretical and practical concepts of gas chromatography related to instrumentation and application to real samples.
- To know the main theoretical and practical concepts of liquid chromatography (HPLC, UPLC) related to instrumentation and application to real samples.
- To know different methodologies of sensory analysis and their application to the study of agricultural and food products.
- To get laboratory skills necessary to use the different chromatographic techniques.
- To be aware of the importance of the statistical analysis of the results and to extract conclusions from different real situations of analysis of agricultural and food products.
- To apply statistical computer packages to the obtained results from the analysis of the samples.

REGISTRATION DEADLINE

Interested students must register Feb. 20 – March 13, 2012. To register, please upload a CV and fill the application form linked [here](#)

AIMED AT

It is necessary a Degree in: Chemistry, Food Science and Technology, Chemical Engineering, Oenology, Pharmacy, Biology or Agronomy.

NOTIFICATION OF ADMITTANCE

Selected students will be notified no later than on March 23

APPLICANTS ACCEPTED

10

COURSE TYPE

Classroom

REGISTRATION FEE

Free