

# Training School on nursery production and seedling quality for forest regeneration in South Europe

COST ACTION 19128 Pan-European Network for Climate Adaptive Forest Restoration and Reforestation

## Description

Most forest plantations and forest restoration projects worldwide involve the planting of seedlings produced in nurseries. Seedlings cultivated in both container and bare-root nurseries are widely used in Europe.

The training school aims at providing an updated perspective on seedling production and quality assessment for forest plantations in southern Europe, focusing especially on container plants for dry climate conditions. The Training School is supported by the [Cost Action PEN-CAFoRR](#) and it is organized by the [Universidad de Alcalá](#) (UAH).

Cost Action Training Schools serve as tools for disseminating knowledge to stakeholders and young researchers, including PhD students and early career investigators, while also facilitating the exchange of knowledge among members from different European regions.

## Output

The Training School (TS) will alternate 1) lectures on theoretical topics and state of the art on the nursery of forest trees and shrubs, 2) lab sessions for seedling quality assessment, and 3) nursery and field site visits.

## Audience

The TS primarily targets PhD students, young researchers, and stakeholders who are currently engaged in or have a proven background in forestry, nursery cultivation, and forest restoration.

## Location of the TS

Lectures and laboratory sessions will be in the [San Ildefonso College](#) or nearby in the Historic Campus of the University of Alcalá, which is located in the center of the historic city of Alcalá de Henares, 30 km from Madrid. **However, the training school will start in Valladolid, a city located 220 km from Madrid, so meeting point will be there.**

**Number of students:** maximum of 18

## Trainers:

- Dr. Pedro Villar-Salvador. Associate professor, UAH, Spain. <https://www.researchgate.net/profile/Pedro-Villar-Salvador>
- Dr. Vladan Ivetic. Full professor. University of Belgrade, Serbia. <https://www.researchgate.net/profile/Vladan-Ivetic>
- Dr. Douglass F. Jacobs. Full professor. Purdue University, Indiana, USA. <https://www.researchgate.net/profile/Douglass-Jacobs>
- Dr. Juan A. Oliet. Full professor. Forestry School. Universidad Politécnica de Madrid. <https://www.researchgate.net/profile/Juan-Oliet>
- Dr. Alberto Vilagrosa. Senior researcher. Centro de Estudios Ambientales del Mediterráneo -CEAM-, Spain. <https://www.researchgate.net/profile/Alberto-Vilagrosa>
- Dr. Barbara Mariotti. Researcher. University of Florence, Italy. <https://www.researchgate.net/profile/Barbara-Mariotti>
- Dr. David Sánchez-Pescador. Assistant professor. Universidad Complutense de Madrid. Madrid, Spain. <https://www.researchgate.net/profile/David-Pescador>
- Dr. Angela Illuminati. Post-doc researcher. Universidad Rey Juan Carlos. Madrid. Spain. <https://www.researchgate.net/profile/Angela-Illuminati>

## Language of the TS

English. Students are expected to have good spoken and listening English level.

## How to you join the Training School

Send your *curriculum vitae* to the organizer (see contact information below), indicating your background, affiliation, and current work. Attach a motivation letter explaining briefly, why you want to enroll in the Training School. The selection of candidates will prioritize PhD students, young researchers, and stakeholders involved in forest restoration of Cost Action country members and will consider gender parity and country diversity.

## Organizers and contact

Local organizer (UAH): Dr. Pedro Villar-Salvador, [pedro.villar@uah.es](mailto:pedro.villar@uah.es).

## Lodging facilities and reimbursement of expenses

Alcalá de Henares has a diverse range of lodging facilities. However, it is possible to book a room at the [San Ildefonso Residence](#), which is located in the same building where most lectures will take place. The residence has 39 bedrooms, including 12 double rooms, 26 single rooms, and one suite. Its address is Plaza San Diego s/n 28801, Alcalá de Henares (Madrid). **e-mail:** sanildefonso@crusa.es; **Telephone:** +34 918 788 146; The price per night for a single room is 35 € and the double room is 45 €, VAT and breakfast included.

Admitted students can seek reimbursement for their trip and living expenses following the [annotated rules of the Cost Action](#). To facilitate this process, **it is essential for students to register for an e-COST profile** at <https://e-services.cost.eu/> once they have been accepted into the program.

## TS program

### Monday June 3, 2024.

9:00 h. TS welcome at the Train Station **in Valladolid**

9:15-9:45. Travel by bus to the nursery Vivero Forestal Central, Cañada Real Street, 308. 47008 Valladolid, Spain

9:45-12:45. Visit the nursery Vivero Forestal Central

12:45-14:15. Short trip to restaurant and lunch

14:15-15:30. Travel to the nursery El Ejidillo -Viveros Integrales-, Valdesimonte, Segovia

15:30-18:00. Visit El Ejidillo -Viveros Integrales-

18:00-19:45. Trip to Alcalá de Henares and check in at your hotels/apartments.

### Tuesday June 4, 2024

8:30-10:00. Lecture by Dr. Barbara Mariotti. Containers and innovative growing media

10:00-11:30. Lecture by Dr. Vladan Ivetic. Bareroot nursery production and root deformations

11:30-12:00. Coffee break

12:00-13:30. Lecture by Dr. Juan Oliet. Nutrition and fertilization of Mediterranean forest species

13:30-14:45. Lunch

14:45-15:00. Trip to laboratory

15:00-16:30. Lab work on plant morphology quality assessment. Pedro Villar Salvador

16:30-17:00. Coffee break

17:00-18:30. Lab work on plant morphology quality assessment. Pedro Villar Salvador

### Wednesday June 5, 2024

8:30-9:15. Travel to nursery

9:15-12:45. Visit the nursery of the Centro Nacional de Recursos Genéticos Forestales “El Serranillo”(MITECO), Guadalajara

12:45-15:00. Trip back to Alcalá de Henares and lunch

15:00-16:30. Lecture by Alberto Vilagrosa. Planting techniques and nursery production for forest restoration in semiarid sites

16:30-17:00. Coffee break

17:00-18:30. Lecture by Pedro Villar. Plant quality and ecophysiological processes during seedling establishment

20:30: TS social dinner

### Thursday June 6, 2024

8:15-10:30. Trip to first field site and coffee break in the middle

10:30-12:45. Visit the first forest site: recent forest plantation in the Alcorlo dam, Guadalajara.

12:45-15:00. Lunch (includes 25 minutes of trip to village)

15:00-15:30. Trip to second field site.

15:30-18:00 Broadleaf plantation in thinned pine plantation, Júcar, Guadalajara.

18:00-19:30. Trip back to Alcalá de Henares

### Friday June 7, 2024

9:00-11:00. Lecture by Dr. Douglass Jacobs. Cultivation of hardwoods

11:00-11:30. Coffee break

11:30-13:00. Lecture by Dr. David Sánchez / Dr. Angela Illuminati. Utility of NIRS (near infrared has a tool for plant quality determination).

13:00-13:15. Synthesis and end of the training school. Dr. Pedro Villar