



Invasive species and biological control: international comparison at the University of Tuscia as part of the GPS Education project

As part of the GPS Education – "Exchange of Experiences and Practices for Sustainable Agriculture" project, funded by the Ministry of University and Research as part of the PNRR – NextGenerationEU, a significant moment of international scientific exchange dedicated to the issues of sustainable agriculture and the management of invasive species was held at the University of Tuscia.

The meeting, hosted at the DAFNE Department, featured researchers coordinated by Professor Severini, with the support of Professor Mario Contarini, together with lecturers from Prince of Songkla University (Thailand). Also present were four PhD students (Roberto Masturzi, Eleonora Cresta, Lorenzo Austeri and Mattia Animobono) of the PhD Course in "Plant and Animal Production Sciences" (SPVA – UNITUS), Entomology curriculum, testifying to the strong involvement of advanced training in international scientific cooperation activities.

The delegation from Prince of Songkla University was composed of PhD Narit Thaochan, specialized in entomology and biological control of agricultural pests; Assistant Professor Krajana Tainchum, coordinator of the Master in Entomology with international experience in the agricultural and medical sector (on mobility from 10 to 19 February 2026); and Lecturer Narumon Preuksa, an expert in agricultural development and economic-social strategies for the protection of soil and marginal rural areas.

A scientific dialogue between different ecosystems

Over the course of about two hours of discussion, the participants shared research, methodologies and case studies, highlighting points of convergence and differences between their respective agro-ecological contexts. A particularly relevant aspect concerned the issue of invasive species: organisms that in Italy represent a threat to crops and biodiversity, in Thailand are not considered invasive, as they are inserted in different ecological balances.

This difference in perspective was one of the main added values of the meeting. The high competence of Thai colleagues, as entomologists specialized in these species, has in fact opened up new perspectives for the management and control of infestations. Their biological, ecological and behavioural knowledge can contribute to the development of more effective and sustainable strategies to tackle invasive species issues in the European context.

Focus on species of phytosanitary interest

Particular attention was paid to two beetles of agricultural and forestry importance:

- *Xylosandrus compactus*, a beetle present in coffee plantations and introduced into our environments with consequent damage to tree crops;
- *Hypothenemus hampei*, a pest of coffee and other crops, at risk of introduction also in Europe, with potential significant economic impacts.

The Thai professors illustrated the research activities already underway in their countries, including those on biological control bodies, offering concrete ideas for the prevention and integrated management of these species with a view to sustainability.

The initiative is fully in line with the mission of the GPS Education project: to encourage the exchange of experiences and good practices to promote a more resilient, sustainable and science-based agriculture.

The collaboration between the University of Tuscia and the Thai university represents a concrete example of how international dialogue can transform a critical issue – such as the spread of invasive species – into an opportunity for innovation, through the sharing of skills and the construction of increasingly integrated research networks.



Photos of the researchers during the meeting at the DAFNE Department of the University of Tuscia



Photo: (from left) Narit Thaochen; Mario Contarini; Mattia Animobono, Lorenzo Austeri and Roberto Masturzi.
in the foreground: Eleonora Cresta , Krajana Tainchum, Narumon Preuska