

ISSP 2025

International Summer Short-Term Program

(November Edition)

AGRICULTURAL PRODUCTIVITY AND SUSTAINABILITY

**CULTURAL
IMMERSION**

LABORATORY



**TOUR and
EXTENSION WORK**



**KNOWLEDGE
SHARING**



Track A

**Sustainable Crop
Biotechnology**



Track B

**Sustainable Tropical
Mushroom Farming**



Track C

**Precision and Digital
Agriculture**



INTERNATIONAL
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SEAMEO
SEARCA

NOVEMBER 16–30, 2025

Organized and Supported by:

Central Luzon State University (CLSU)

Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)

Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC)

**CLSU-SEARCA-UC International Summer Short-term Program on
Agricultural Productivity and Sustainability
(November 16–30, 2025)**

Program Overview

The **International Summer Short-term Program 2025** of the Central Luzon State University, Philippines in cooperation with the Southeast Asian Regional Center for Agriculture (SEARCA) and the University Consortium (UC) is an intensive training program intended for international students who are interested in the sustainability areas of **(a) crop biotechnology, (b) mushroom pharming, (c) precision and digital agriculture** in contribution to addressing multiple sustainable development goals. As a regular member of the University Consortium, CLSU aims to continuously promote mutual beneficial cooperation between and among the member institutions by optimizing the collective resources of the consortium through strong and dynamic linkages in the areas of collaborative research projects that addresses sustainable development goals through this short-term training program for student mobility opportunities.

This fifth edition of the program including all experts lectures and laboratory activities will be held full face to face/in-person, with compliments of online classrooms. The face-to-face activities are designed to elicit active participation among the delegates as well as create equal opportunities for future collaborations. Aside from content lectures and immersions, the program features a cultural component which aims to introduce and engage participants to the rich cultural heritage of the Philippines and its peoples.

Depending on the students' interest and/or specialization, they can choose from among this year's track offerings enumerated below:

- Track A: Sustainable Crop Biotechnology**
- Track B: Sustainable Tropical Mushroom Pharming**
- Track C: Precision and Digital Agriculture**

EXPECTED OUTPUT

Successful participation in this program would entail that each delegate to develop a **Concept Note/Proposal for a Collaborative Project** with fellow delegates from at least two partner countries under the guidance of an expert mentor from the host institution. Such proposals will be presented for feedback towards the end of the program. The purpose of this program component is to help and support the students to further develop their research skills, intercultural competence, and expand their international network.

PROGRAM PACKAGE

Target Participants

The program is mainly designed for students with emphasis and encouraging women's participation, who are enrolled in an undergraduate degree programs from UC members universities and have the sensibility and intellectual curiosity to further their knowledge in the sustainability areas of **crop biotechnology, mushroom pharming, and precision and digital agriculture** within the context of an internationally diverse class.

Program Period

November 16 to 30, 2025

Full face-to-face / In-Person

and with compliment activities via online

Applicable Fees

FREE except roundtrip airfare

(endorsement from home university)

Benefits:

- Scientific lectures from experts in the host university and partner institutions
- Potential research collaboration with prospective international peers and/or professor collaborators
- In-person lectures and on-site immersion on Philippine culture and heritage
- Free enrolment to two courses offered at the CLSU E-Farm Academy
- Certificate from the host university and the SEARCA-UC

OVERVIEW OF THE TRACK PACKAGE

The topics to be covered in each training track are structured into six lecture packages of at least an hour each of interaction with the area experts. The list below details the component lecture of each track for the prospective delegate's guidance:

- **Track A: Sustainable Crop Biotechnology: Basic MolBio Techniques for Bacterial ID**
 - Lecture 1 : Molecular Approaches for Bacterial Identification
 - Lecture 2 : General Laboratory Procedures, Equipment Use and Safety Considerations
 - Lecture 3 : Basic Molecular Biology Techniques I. Bacterial DNA Extraction and Isolation
 - Lecture 4 : Hands-on Bacterial Inoculation for DNA Extraction
 - Lecture 5 : Hands-on Bacterial DNA Extraction (thru Potassium acetate) Lysis, Precipitation and Purification
 - Lecture 6 : Special Lecture from SEARCA-UC Expert**
Topic: "Current state of International and Local Biotechnology Regulatory Frameworks in Crops"
- **Track B: Sustainable Mushroom Pharming**
 - Lecture 1: Ethnomycological Expedition: Exploring the Diversity and Cultural Significance of Philippine Wild Mushrooms
 - Lecture 2: Nucleotide Sequence-Based Identification: Unraveling the Genetic Signatures of Mushrooms
 - Lecture 3: Practical Mykultivation Technologies for Growing Edible and Medicinal Philippine Mushrooms Using Agro-Industrial Wastes
 - Lecture 4: Bioactivity Profiling of Edible and Useful Philippine Mushrooms
 - Lecture 5: Development of Mushroom-Based Functional Food Products
 - Lecture 6: Special Lecture from SEARCA-UC Expert**
Topic: TBA
- **Track C: Precision and Digital Agriculture**
 - Lecture 1: Soil moisture sensors for water management
 - Lecture 2: Basic automation and instrumentation
 - Lecture 3: Application of Remote Sensing in Rice Production
 - Lecture 4: Application of Drone Technology in Agriculture
 - Lecture 5: Drip Irrigation System in Agriculture
 - Lecture 6: Plenary Lecture from SEARCA-UC Expert**
Topic: TBA

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Note: In the plenary lectures, some domestic students from the host university will join as audience.

- In-person trainings per track: crop biotechnology, precision and digital agriculture, and mushroom pharming
- In-person session on Philippine culture and heritage
- 15-hour peer-to-peer collaborative sessions
- Cultural fellowship

Host College/Academic Department at CLSU:

- International Affairs Office
- College of Agriculture
- College of Science
- College of Arts and Social Sciences
- College Home Science and Industry
- CLSU Biotechnology Center
- Crop Biotechnology Center, Philippine Rice Research Institute
- Office of the Student Affairs
- Cultural Affairs Office

Registration form: Click the link or scan the QR code to register.

Please complete the registration form by **September 29, 2025**, or send us an email if you need some assistance. **For further inquiries:** International Affairs Office, clsuiao@clsu.edu.ph, or internationalization@clsu.edu.ph.