



**WAGENINGEN**  
UNIVERSITY & RESEARCH

Online Summer School

# Biotechnology, Agriculture and Food: New Technologies and Trends

**Are you aware of the challenges and opportunities in the agrifood sector? Are you eager to get to know the innovations and trends in the agrifood sector? Would you like to have a vision of the whole food chain? Connect scientific knowledge with industrial innovation? Join this online Summer School for students and learn through lectures, group interaction, assignments and an interdisciplinary approach from Wageningen University & Research (WUR) experts.**

## Target group

This programme is developed for current and about to start Master students and young professionals who are interested in boarding the insights of the agricultural and food domain. At least Bsc level of English is required.

## Results

By attending this online Summer School you will;

- Get an overview of current and future trends in the agricultural and food domain
- Expand your knowledge and learn about new technologies and innovations. The whole value chain from environment, to agriculture production, to food processing and design and also human nutrition and health will be explored
- Experience how to solve challenges from diverse perspectives together with multidiscipline team members
- Get an insight on how education is organized within WUR

**Date** 7 - 18 August 2023

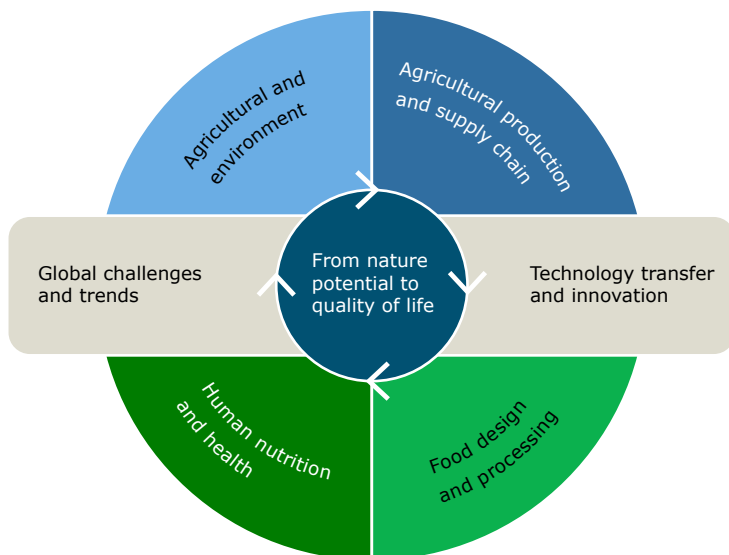
**Location** Online

Course leader Dr. Zhen Liu, Wageningen Academy, Wageningen University & Research

## Outline and topics

With the purpose of providing high-quality education students from all over the world, with an interest in the Agri & Food domain, this online Summer School is developed and offered. The programme will be delivered in the form of online courses and academic lectures covering cutting-edge technologies and new trend of biotech, agriculture food and nutrition. The 2-week programme will contain 10 online courses or lectures with 20 total teaching hours and more than 10 group study hours. All courses, lectures and assignments will be conducted through Brightspace, the online learning platform of WUR.

## Programme



The course includes a variety of lectures, knowledge clips, case study presentations and group work. The figure displays all the topics and subjects that will be discussed during the programme.

### Topics covered in this programme:

- Food transition 2030
- Postharvest interventions, key for improvement of food systems
- Agrorobotics development and application
- Soil health and management transition
- Soil pollution and potential treatments
- Soil and ground water remediation
- Integrated pest management
- LEDs for sustainable greenhouse production
- Breeding for resistance
- Food loss and waste within food value chain: an in-depth overview
- Feeding the world and keeping our planet cool by proven food losses and waste reduction strategies
- Role of food safety in food waste and losses
- Sustainable food processing
- Food emulsions: towards new ingredients and technologies
- Recycling food waste back to food value chain
- Structuring plant-based meat analogues
- Mild fractionation of plant-based food materials and its potential applications
- Extrusion-based 3D food printing and its applications
- Personalized nutrition and health
- Nutrition and health: a molecular immunity perspective

### Theme Coordinators

Innovation management - Dr. Zhen Liu  
Environment science - Dr. Xiaomei Yang  
Plant science - Ir. Davy Meijer & Ir. Els van de Zande  
Food and Environment - Dr. Weishan (Momo) Chen  
Food and Nutrition - Dr. Lu Zhang

During the programme you will work on group assignments. The winning team will be rewarded with personal recommendation letters.

## Practical information



€ 875.- per person and covers tuition and course materials.



Max. 50 participants.



Based on your attendance you will receive a certificate after the programme is finished.

## Registration

[Register](#)

## Wageningen Academy

We develop and organise courses for professionals, based on Wageningen University & Research expertise.

### Contact

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