

Graduate School of
Environmental Sciences
Nagoya University



The Graduate School of Bioagricultural Sciences at Nagoya University serves as a **multidisciplinary hub** for advanced **research and education**, addressing global challenges such as **food security, environmental sustainability, human health, and innovation in the bio-industry**. Rooted in the principles of biological and agricultural sciences, the program fosters both practical skills and scientific creativity essential for solving complex societal problems.

The school is organized into four departments: **Forest and Environmental Resources Sciences, Plant Production Sciences, Animal Sciences, and Applied Biosciences**. These programs cover a broad range of scales—from molecular biology to ecosystem-level processes and socio-environmental interactions—offering students an integrated academic experience. State-of-the-art research facilities and active collaboration with academic institutions and industries further support high-impact research activities.

Through its **Master's and Doctoral programs**, the school

emphasizes the development of logical reasoning, problem-solving skills, and global competence. Students undertake structured coursework and advanced training in their fields, culminating in independent research that contributes to their scholarly growth and prepares them for leadership roles in science and society.

International collaboration is a central pillar of the school's mission. The Graduate School maintains strong partnerships with leading universities and research institutions across Asia, Europe, and North America, facilitating joint research, student and faculty exchanges, as well as double or joint degree programs. Initiatives such as the **Global 30 Program, Asian Satellite Campuses**, and the **International Program for Agricultural Researchers** provide students with rich opportunities to engage in global scientific communities. Through these efforts, the school cultivates **future leaders** capable of addressing transboundary issues and advancing sustainable solutions on a global scale.



Forest and Environmental Resources Sciences



This department focuses on the **sustainable use** and **conservation** of forest and environmental resources. Research areas include **forest ecology, hydrology, ecosystem management**, and landscape planning. Students learn to integrate scientific knowledge with field-based approaches to tackle challenges such as **biodiversity loss, climate change adaptation, and watershed protection**. The program also emphasizes interdisciplinary collaboration to address complex environmental issues at both regional and global scales. Internationally, the department engages in collaborative research and fieldwork with institutions across Asia, Europe, and North America, contributing to **global forest management** and **climate resilience efforts**.

Plant Production Sciences

The Department of Plant Production Sciences aims to enhance the **productivity** and **resilience** of agricultural systems through an advanced understanding of **plant biology** and production techniques. Students engage in research on **crop physiology, genetics, breeding, and sustainable cultivation methods**. The curriculum integrates molecular approaches with field experimentation to support **food security** and **climate-smart agriculture** in both temperate and tropical regions. By collaborating with international agricultural research centers and universities, the department contributes to the development of globally applicable solutions for sustainable **crop production** and **food system resilience**.



Joint Degree Program (JDP)

Overview

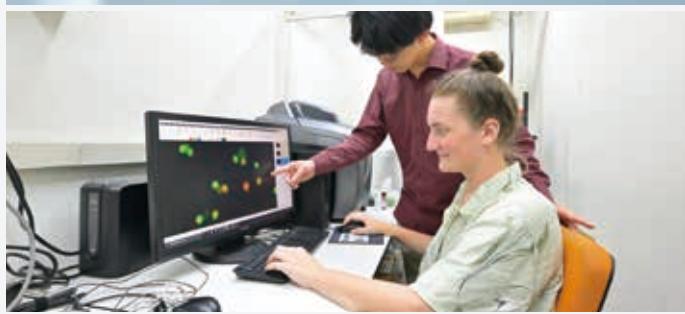
The Graduate School of Bioagricultural Sciences at Nagoya University offers a **Joint Degree Program (JDP)** in collaboration with leading international partner institutions. This innovative academic framework allows students to pursue a single, jointly conferred degree while completing integrated coursework and research under the **guidance of faculty** from both universities.

The JDP aims to foster **globally minded professionals** equipped with **cross-cultural competencies** and the ability to tackle complex, transboundary issues in **agriculture, life sciences**, and **environmental sustainability**. Students benefit from **dual academic perspectives**, access to **world-class research environments**, and **international networking opportunities**.

By completing a curriculum that combines the strengths of both institutions, graduates gain a deep understanding of **global challenges** in **bioagricultural sciences** and develop the **practical skills** needed to contribute to sustainable development worldwide. The program reflects Nagoya University's commitment to **international academic exchange** and to cultivating **leaders** who can make a meaningful impact across borders.



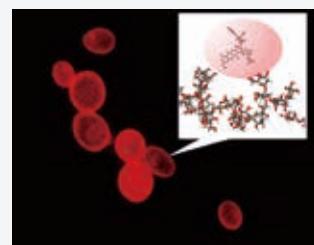
Animal Sciences



The Department of Animal Sciences explores the **biological functions, health, and sustainable management** of animals from molecular to population levels. Core research topics include **animal genetics, morphology, physiology, reproduction, nutrition**, and **animal welfare**. Students are trained to apply life science knowledge to improve **livestock productivity**, ensure food safety, and promote the ethical treatment of animals in agriculture and society. The department promotes international research exchange and participates in global discussions on animal production, welfare standards, and One Health initiatives.

Applied Biosciences

The Department of Applied Biosciences bridges **basic science** and **practical applications** by studying the **chemical, biochemical, and cellular mechanisms** underlying life processes. Research covers areas such as **bioactive compounds, metabolic engineering, functional genomics, and environmental biotechnology**. Students are trained to contribute to diverse fields, including **pharmaceuticals, food science, bio-energy, and environmental protection**, through innovation and cross-disciplinary research. Through international partnerships and joint projects, the department fosters globally relevant innovations in biotechnology and contributes to solving worldwide challenges in health, food, and the environment.



Laboratory Directory

Department of Forest and Environmental Resources Sciences

Resources Cycling in Pedosphere	Forest Ecology	Forest Chemistry
Plant-Soil Systems	Forest Protection	Biomass Resource Utilization
Forest Hydrology and Disaster Mitigation Science	Forest Resource Management	Wood Physics
	Forest Resources and Society	Timber Engineering
		System Engineering for Biology

Department of Plant Production Sciences

Plant Physiology and Morphology	Information Sciences in Agricultural Lands	Environmental Systems Biology
Plant Genetics and Breeding	Food Economics	Bioindustry
Crop Science	Agroinformatics and Phenomics	Tropical Bioresources
Horticultural Science	Plant Gene Function	Genetic Information for Bioresources
Plant Pathology	Developmental and Systems Plant Biology	Practical Studies in Africa
Plant Immunology	Plant Genomics and Breeding	Practical Studies in Asia

Department of Animal Sciences

Animal Genetics and Breeding	Animal Reproduction	Fish Biology
Genome and Epigenome Dynamics	Animal Nutrition Science	Sericulture and Entomoresources
Animal Morphology	Animal Production Science	Applied Entomology
Animal Integrative Physiology	Avian Bioscience	

Department of Applied Biosciences

Organic Chemistry	Applied Microbiology	Plant Signaling
Bioactive Molecules	Food and Biodynamics	Biochemistry
Chemical Biology of Natural Products	Molecular and Cellular Regulation	Molecular and Functional Genomics
Polymer Chemistry	Molecular Bioregulation	Plant Cell Function
Applied Enzymology	Glyco-Life Science	Plant Integrative Physiology
Molecular Biotechnology	Animal Cell Physiology	
Soil Biology and Chemistry	Alimentary Neuroscience	

Research and Education

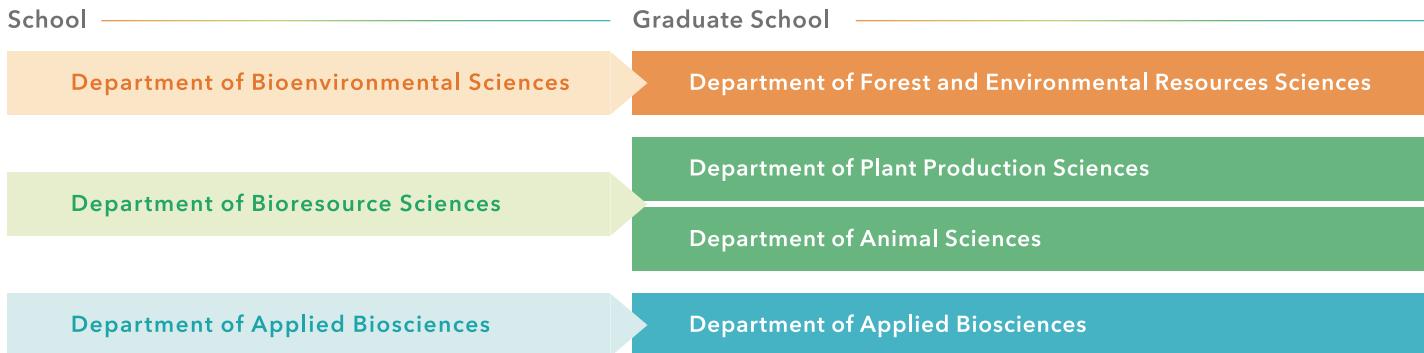
Nagoya University's Graduate School of Bioagricultural Sciences advances **international research and education** in **sustainable agriculture, forest and water management, climate change adaptation, and biotechnology**. Our programs attract students from Asia, Europe, and North America, while global collaborations foster **interdisciplinary research** on food security,

ecosystem resilience, and biocircular resource use. Students receive training in leading laboratories, publish internationally and participate in global conferences. A key pillar of this internationalization is the **Asian Satellite Campuses Institute (ASCI)**, which combines local supervision in students' home countries with distance learning and intensive training in Nagoya. By integrating **education** and **international research**, Nagoya University plays a vital role in fostering the next generation of **scientific talent**, especially from the ASEAN region, to address critical **sustainability challenges**.



Undergraduate School

The Faculty of Agriculture at Nagoya University comprises three departments: **Biological and Environmental Sciences**, **Bioresource Sciences**, and **Applied Biosciences**. Students develop a strong foundation in the basic sciences and engage in applied studies spanning agriculture, environmental and forest sciences, and life sciences. They gain practical experience through laboratory work, field training, and interdisciplinary approaches, applying their knowledge to address **global challenges**. By fostering both specialized expertise and a broad international outlook, the Faculty of Agriculture prepares future leaders in agricultural and life sciences.



Numbers of students in 2025

Undergraduate	741
Master course	361
Doctor course	130
Total	1,232

As of May 1, 2025



Field Science Center

Togo Field

Togo Field is located in Togo Town, Aichi Prefecture, 15 km east of the Higashiyama Campus. Spanning approximately **28 hectares**, the grounds feature **vegetable fields**, **rice paddies**, **orchards**, and **pastures** for raising **livestock**. Togo Field is utilized for **research activities** and **educational programs**, such as student practice, and serves as a venue for developing and applying agricultural technologies, contributing to human resource development.



Inabu Field

The **Inabu Field** supports **research on forest management**, **ecosystem conservation**, and **water recharge**, with **airborne LiDAR** data enabling detailed analyses of canopy and watershed dynamics. The **Shitara Field** focuses on the **integration of horticultural crops** and **forest environments**. Students also engage in field exercises involving a variety of practical activities.

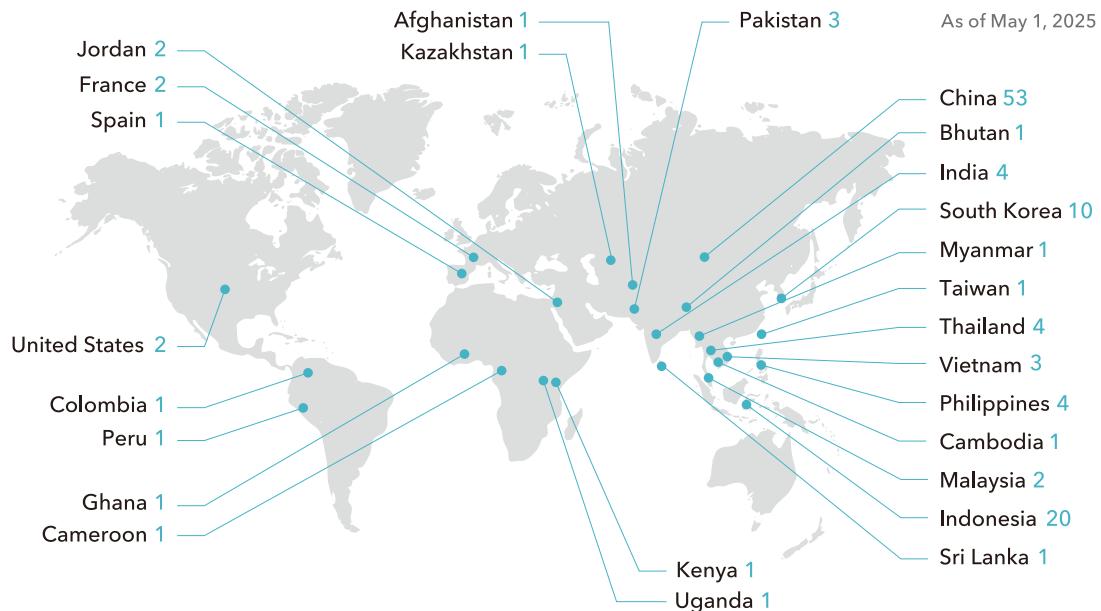


Shitara Field



Home Countries and Regions of Our International Students

The number next to each country represents its student count.



Carrier destinations of international students

This is the partial list of employers.

Japan

Nagoya University Yamaha Motor Co., Ltd.
Kewpie Corporation Sakata Seed Corporation
Amano Enzyme Inc. Keyence Corporation

China

Qingdao KingAgroot Resistant Weed Control Co., Ltd
Shanxi University
Jiangsu Hengrui Pharmaceuticals Co., Ltd.

Indonesia

Bioinformatics Research Center –
Institute of Bioinformatics Indonesia (BRC-INBIO)
Gadjah Mada University

Philippines

University of the Philippines Los Baños
International Rice Research Institute (IRRI)
Visayas State University

Malaysia

MIMS Medica Sdn Bhd
Sarawak Tropical Peat
Research Institute (STROPI)

Voices of
International Graduates



International
Research Seeds



International Affairs
Website of the School



ALWAYS NU -
All About International
Students of NU



Information

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