

**DIRECTIONS FOR APPLICATION**  
**FOR**  
**THE SPECIAL ADMISSION OF FOREIGN STUDENTS**  
**FOR ADMISSION IN APRIL • OCTOBER, 2020**  
**(THREE-YEAR DOCTORAL COURSE)**

**The United Graduate School of Agricultural Sciences, Tottori University**

The United Graduate School of Agricultural Sciences (UGSAS), Tottori University, was founded in 1989 offering an independent three-year Doctoral course. The UGSAS is organized on the bases of the three Master's Courses of Tottori, Shimane and Yamaguchi Universities, in the research facilities at the three universities. The UGSAS is operated in close alliance and cooperation with the Master's Courses of the three constituent Universities.

This graduate school aims to develop researchers and competent professionals who have the capabilities, in-depth knowledge, and advanced skills that enable them to pursue issues in agriculture and related fields, who can contribute to the development of science and technology and meet the demands of regional communities and international society. Our Graduate School seeks foreign students, (1) who have the basic knowledge and academic ability required in each major field of Bioproduction and Bioenvironmental Sciences, Bioresource and Life Sciences and Global Dryland Science; (2) who are motivated to acquire a higher level of expertise and skills and engage in original research by leveraging such expertise and skills; and (3) who are eager to contribute to the development of science and technology and the demands of regional and international communities.

**1. FIELDS OF STUDY AND NUMBER OF STUDENTS FOR ADMISSION**

(1) Fields of Study:

Applications for any field of Bioproduction and Bioenvironmental Sciences, Bioresource and Life Sciences and Global Dryland Science are accepted, provided that each applicant selects a suitable academic major supervisor at UGSAS.

(2) Number of Students for admission:

A limited number of students funded privately or by the other sources (hereafter "Personal Funds").

**2. QUALIFICATIONS**

(1) Nationality: Applicants with personal funds who are living outside of Japan at the time of application.

Applicants should be nationals from countries which have a diplomatic relation with Japan.

(2) Age: There is no age limitation for applicants with personal funds.

(3) Academic career: Applicants should have or be expected to earn a master's degree by the end of March 2020 to enroll in classes in April 2020. Applicants should be expected to earn a master's degree by the end of September 2020 to enroll in classes in October 2020.

(4) Health: Applicants should be in good mental and physical health.

(5) Language proficiency: A good working level of English or Japanese is required.

(6) Arrival in Japan: Successful applicants who wish to enroll in classes in April 2020 must arrive in Japan between April 1 and 7, 2020. Successful applicants who wish to enroll in classes in October 2020 must arrive in Japan between October 1 and 7, 2020.

(7) Note:

(A) Applicants must have a recommendation from the dean of the faculty (or someone higher in position) of the university or institution from which they graduated.

(B) Applicants must be available for an interview with the members of the oral examination committee via videoconference or other means to take an oral examination.

### 3. APPLICATION FOR ADMISSION, EXAMINATION SCHEDULE, AND ADMISSION DECISIONS

	Deadline	Remarks
Application	Applicants who wish to enroll in classes in April 2020: June 3 (Mon.), 2019 - November 29 (Fri.), 2019 Applicants who wish to enroll in classes in October 2020: June 3 (Mon.), 2019 – May 29 (Fri.), 2020	Submit the application through the desired major supervisor to the UGSAS.
Examination	An examination schedule (for an oral exam) will be reported to the applicant through the prospective major supervisor within 30 days of the submission of the application. Applicants who wish to enroll in classes in April 2020: An oral exam is scheduled sometime between July 1 (Mon.), 2019 and December 20 (Fri.), 2019. Applicants who wish to enroll in classes in October 2020: An oral exam is scheduled sometime between July 1 (Mon.), 2019 and June 30 (Tue.), 2020	An oral exam will be conducted as specified in Section “5. Procedure for the Selection of Graduate Students.”
Admission Decisions	Admission decisions will be reported to the applicant through the prospective major supervisor within 30 days of the oral exam.	Acceptance letters will be mailed to successful applicants.

### 4. APPLICATION PROCEDURE

An applicant should submit the following documents through the desired major supervisor during an application period. Applications directly mailed to UGSAS are not accepted.

Documents:

- (1) Application Form (Use Form No. 1-2)
- (2) Photograph: One photograph (4 cm x 3 cm) should be pasted on the application form. Photograph should be taken from the front, from the chest up, bare-headed, and taken within the last three months.
- (3) Curriculum Vitae (Use Form No. 2)
- (4) A certificate for the master's degree or a certificate issued by the applicant's graduate school indicating that the applicant will be receiving or has received a master's degree by the end of March/ September 2020.
- (5) Evaluation: This evaluation must be written by the dean of the applicant's graduate school (Form No. 3 can be used).
- (6) Application Fee: 30,000 JPY (paid in cash).
- (7) Master's Thesis
  - (A) Applicants who have completed a master's course:
    - (a) A copy of the master's thesis, or published manuscript equivalent to the thesis.
    - (b) A summary of the master's thesis in English (about 1,200 words). Use A4 paper and attach a cover sheet (Form No. 5).
  - (B) Applicants who anticipate receiving a master's degree:
    - (a) Describe your research program in English (A4 size, about 5,000 words). This report may include tables and figures.

- (b) A summary of the research program in English; details are the same as in ((A)-(b))
- (8) Research Proposal: Describe your research proposal (goal, objectives, experimental design). Use A4 paper and attach a cover sheet (Form No. 6)
- (9) Letter of Application: Describe why you chose our graduate course, and state your future goals. Use A4 paper and attach a cover sheet (Form No. 7)
- (10) Letter of Permission for Application (Use Form No. 8): If you are working for a public or private institution, arrange a letter of permission from your supervisor at your place of employment.
- (11) Copy of passport or Certificate of citizenship issued by the applicant's municipal authority.
- (12) Recommendation Letter from the President of the University or Dean of the Faculty.

Notes:

- ① These documents should be either typewritten or printed neatly in English or Japanese. Application forms can be downloaded from the Website (<http://rendai.muses.tottori-u.ac.jp/english/recruit/index.html>).
- ② Applications will not be accepted unless all documents are fully and correctly completed and delivered by the due dates.
- ③ None of the documents submitted will be returned to the applicants.
- ④ Each applicant should select a professor as the prospective major supervisor and contact the professor when preparing the application documents. Any application without nominating a professor as the major supervisor will not be accepted.
- ⑤ The application fee is nonrefundable once paid.

## 5. PROCEDURE FOR THE SELECTION OF GRADUATE STUDENTS

- (1) Graduate students will be selected through a comprehensive evaluation of the oral examination, the documents submitted, and other elements.
- (2) During an interview for the oral exam conducted via videoconference, at least three members of the oral exam committee (who are one or more faculty members of each of the constituent universities and which include the prospective major supervisor) will spend about 50 minutes reviewing the master's thesis and the research proposal (roughly 30 minutes for the description of the Master's thesis and 20 minutes for questions and answers).
- (3) The method of the oral exam is subject to approval by the board of representatives following the submission of the Notice of the Method of the Oral Exam (Form No. 12) by the prospective major supervisor to the dean of the faculty.

## 6. ADMISSION PROCEDURES, ETC.

- (1) Period of Admission Procedures:
- (A) Successful applicants who wish to enroll in classes in April 2020 are expected to complete the procedures by the beginning of March 2020. They will be notified of the period at a later date.
- (B) Successful applicants who wish to enroll in classes in October 2020 are expected to complete the procedures by the beginning of September 2020. They will be notified of the period at a later date.
- (2) Fees on entrance
- (A) Admission fee: 282,000 JPY (proposed).
- (B) Tuition: 267,900 JPY (proposed) for the first semester (annually 535,800 JPY). Tuition may be revised each school year.
- (C) ① Personal accident insurance for students pursuing education and research (Hereafter "Gakkensai"): This insurance compensates for physical injuries suffered students in their intra-curricular activities both on and off

campus, and extra-curricular activities on campus. All students enrolled have to pay the premium of 2,600 yen for three years.

②Insurance for International Students (Type B) : This insurance covers (1) in case of causing injury to another person or damaging the property of others, (2) compensate for the payment of transportation and accommodation expenses in case family members come to Japan to support the insured if he/she is hospitalized due to injury or illness for more than 3 days. (Unlike "Gakkensai", there is no restriction on time and place)

All International students enrolled have to pay the insurance premiums (3 years): 4, 680 yen

[Additional Benefits]

The National Health Insurance scheme is a fundamental part of Japan's medical care system. It is designed to cover a portion of the medical expenses incurred by citizens.

To apply for National Health Insurance, go to your local municipal government offices and follow the required procedures as instructed. After joining the scheme, you will only be responsible for paying 30% of any medical expenses you incur. (Exceptions apply in some cases.)

## 7. EDUCATION

The successful applicants will be enrolled as full-time graduate students and under supervision and instruction in English or Japanese. Each student is supervised by faculty members of the three constituent Universities with a professor as a major supervisor and two professors as sub-supervisors. Although each student studies at a constituent University where the major supervisor resides, the student can use the training and research facilities at the other two constituent Universities.

## 8. NOTE

- (1) If false statements were made in the application dossiers, admission shall be rejected even after having been accepted by the United Graduate School.
- (2) With enrollment, new students are advised to become well informed about the Japanese climate, customs, manners, and other cultural aspects in general before coming to Japan. It is strongly advised that they study the Japanese language. Knowledge of the Japanese language is very helpful to newcomers to Japan.

More detailed information and all correspondence about this program is available from the following:

The United Graduate School of Agricultural Sciences, Tottori University  
4-101, Koyama-Minami, Tottori, 680-8553, Japan  
Tel: +81-857-31-5446 Fax: +81-857-31-5683 (81 is the international code for Japan)  
E-mail: ag-rengaku@ml.adm.tottori-u.ac.jp

Address of Constituent Universities:

\*Tottori University

Faculty of Agriculture, Tottori University, 4-101, Koyama-Minami, Tottori, 680-8553, Japan  
Tel: +81-857-31-5446 Fax: +81-857-31-5683 (81 is the international code for Japan)

\*Shimane University

Graduate School of Natural Science and Technology, Shimane University, 1060, Nishikawatsu, Matsue, 690-8504, Japan  
Tel: +81-852-32-6492 Fax: +81-852-32-6499 (81 is the international code for Japan)

\*Yamaguchi University

Faculty of Agriculture, Yamaguchi University, 1677-1, Yoshida, Yamaguchi, 753-8515 Japan  
Tel: +81-83-933-5800 Fax: +81-83-933-5820 (81 is the international code for Japan)

# List of Major Supervisors and their Research Interests

The United Graduate School of Agricultural Sciences offers doctoral programs in the following three major courses : Bioproduction and Bioenvironmental Sciences ; Bioresource and Life Sciences and Global Dryland Science. Each course contains one to four Divisions ; and each Division offers basic and applied research programs. Faculty members (Professors and Associate Professors who serve as Major Supervisors) and their active research programs are listed below.

## 1. THE COURSE OF BIOPRODUCTION AND BIOENVIRONMENTAL SCIENCES

### (a) Division of Agricultural Production Science

Toshiki ASAO (SN)	Vegetable and Ornamental Science	Production of vegetables and ornamentals
Hideki ARAKI(YG)	Agronomy	Function of plant production under environmental stresses and its agronomical application
Katsumi OHTA (SN)	Horticultural Plant Science	Studies on growth control in horticultural plants
Ichiro KITA (SN)	Water and Vegetation use Planning	Water use planning and management, and improvement by vegetation
Nobuo KOBAYASHI (SN)	Horticultural Breeding	Evaluation of plant genetic resources and applications for breeding
Tadashi TAKAHASHI (YG)	Crop Science	Establishment of low-cost and low-input crop cultivation systems
Yoko TSURUNAGA (SN)	Food Processing	Studies on manufacturing method and functionality in food processing
Akira NAKATSUKA (SN)	Molecular Breeding of Horticultural Crop	Molecular breeding for agriculturally useful traits in horticulture crops
Yoshimichi FUKUTA*(TT)	Crop Breeding and Genetics	Breeding sciences for diversity, differentiation, and genetic mechanism for agricultural traits in rice
Shingo MATSUMOTO (SN)	Biochemistry of Soil and Plant Nutrition	Studies on the mechanism of plant nutrient acquisition in relation to soil fertility
Toshikazu MATSUMOTO (SN)	Fruit science	Studies on fruit growing and processed food
Akira YANO (SN)	Bioenvironmental Electrical Engineering	Application of electrical engineering to bioenvironmental technologies
Haruhiko YAMAMOTO (YG)	Environmental Information Science	Growth diagnosis of plant canopies by optical measuring methods

Abbreviations; TT : Tottori University, SN : Shimane University, YG : Yamaguchi University.

\* ; Cooperation with Japan International Research Center for Agricultural Sciences

### (b) Division of Managerial Economics

Yasuhiro ITO (SN)	History of Fisheries	Study on history of agricultural, fisheries and rural problems in modern Japan
Norikazu INOUE (SN)	Farm Management	Farming practices and resource management on farm businesses
Makoto NOHMI (TT)	Rural Economics	Development and application of regional analysis methods
Toshinobu MATSUDA (TT)	Economics of Consumer Behavior	Empirical analysis of consumer behavior, especially food demand
Ichizen MATSUMURA (TT)	Farm Management	Studies on the relationship between farm management and rural society
Li WAN (TT)	Marketing Information Analytics	Agricultural products distribution channels and econometric analysis of market information
Kumi YASUNOBU (TT)	International agricultural development studies	Agricultural and rural development in Southeast Asia

### (c) Division of Forest and Watershed Environmental Sciences

Masayuki ISHII (SN)	Regional infrastructure Engineering	Development of designing method for renovation of irrigation facilities
Katsuhisa ITO (SN)	Forest Policy	Forests, forestry and less-favored area problems and policy
Tomoyuki KUWABARA (SN)	Water Environmental Conservation	Studies on conservation and restoration of water environment, and purification of waste water and environmental water
Ikuo TAKEDA (SN)	Water Quality and Hydrology	Evaluation and control of nonpoint sources in watersheds
Nobuo TSURUSAKI (TT)	Animal Taxonomy	Biodiversity, chromosomes, evolution, and conservation of land invertebrates
Ryota NAGASAWA (TT)	Landscape Ecology	Landscape ecological analysis on the physical and human environment in mountainous regions
Dai NAGAMATSU (TT)	Plant Ecology	Population dynamics of forest and grassland, vegetation science and biodiversity conservation.
Yoshiyuki HIOKI (TT)	Conservation and Restoration Planning of Ecosystem	Ecological planning and engineering for conservation and restoration of biodiversity
Takaaki FUJIMOTO (TT)	Wood physics	Analysis of wood property variation, and development of measurement techniques
Hiroshi YAJIMA (SN)	Environmental Fluid Dynamics	Water environment and hydrodynamics in a water body

### (d) Division of Environmental Bioscience

Futoshi ARANISHI (SN)	Genetic Ecology	Molecular evolutionary, ecological and conservative genetics of aquatic organisms
Kazuhito ITOH (SN)	Soil Microbiology	Plant- microbe interaction
Shinichi ITO (YG)	Plant Pathology	Functional genomics of plant pathogens
Makoto UENO (SN)	Plant Pathology	Studies on the expression of resistance in plant-microbe interaction
Hironori KAMINAKA (TT)	Plant-Microbe Interactions	Molecular mechanisms of immune response and mycorrhizal symbiosis in plants
Junichi KIHARA (SN)	Plant Pathology	Photoresponses of the phytopathogenic fungi

Motoichiro KODAMA (TT)	Plant Pathology	Molecular mechanisms in plant-microbe interactions and plant disease resistance
Yoko TAKEMATSU (YG)	Ecological Entomology	Biodiversity and ecology of termites
Ryoichi MIYANAGA(SN)	Insect Ecology	Biology and management of wild bees
Keiko YAMAGUCHI (SN)	Aquatic Ecology	Studies on ecology of benthic animals and aquatic environments

## 2. THE COURSE OF BIORESOURCE AND LIFE SCIENCES

### (a) Division of Fungus and Mushroom Sciences

Tadanori AIMI (TT)	Biochemical Technology of Microorganisms	Biochemistry, molecular biology and biotechnology of microbial production
Norihiko SHIMOMURA (TT)	Mushroom Breeding and Cultivation	Studies on breeding and cultivation of mushroom resources
Akira NAKAGIRI (TT)	Fungal Biodiversity	Taxonomy, ecology and evolution of fungi adapted to aquatic habitats
Nitaro MAEKAWA (TT)	Mushroom Taxonomy and Ecology	Biodiversity and ecological function of mushrooms

### (b) Division of Bioscience and Biotechnology

Kazuhiro AKAMA (SN)	Plant Molecular Biology	Study on regulatory mechanism of tRNA gene expression and physiological function of $\gamma$ -aminobutyric acid in plants
Masaaki AZUMA (TT)	Molecular Entomology	Molecular analysis of insect cell functions and their application to insect control
Jiro ARIMA (TT)	Bio-Functional Chemistry	Functional analysis of enzymes and microorganisms, and their application to industry
Takahiro ISHIKAWA (SN)	Plant Molecular Physiology	Biosynthesis pathway of antioxidants and metabolism of reactive oxygen species in photosynthetic organisms
Makoto KAWAMUKAI (SN)	Genetic Engineering	Signal transduction, cell cycle control and biosynthesis of coenzyme Q in yeasts
Akihiko KOSUGI* (TT)	Applied Microbiology	Development of biomass utilization technology using microbial functions
Yuuki KODAMA (SN)	Symbiotic biology	Elucidation of the mechanism that establishes endosymbiosis between the Paramecium bursaria and Chlorella spp.
Takahiro SHIOTSUKI (SN)	Insect Chemical Biology and Agrobio-Regulators	Chemical biology and molecular mechanisms in regulation of insect development and their applications
Tsuyoshi NAKAGAWA (SN)	Plant Molecular Genetics	Molecular mechanisms of plant development and technology for analysis of plant genes
Akio NISHIKAWA (SN)	Developmental Biology-Animal	Studies using amphibian about cell growth, differentiation, apoptosis, and morphogenesis
Jun'ichi MANO (YG)	Mechanisms of Environmental Stress-tolerance in Plants	Elucidation and application of plant tolerance mechanisms against abiotic environmental stresses
Takanori MARUTA (SN)	Plant physiology	Redox metabolism network and stress response in plants

### (c) Division of Applied Bioresource Chemistry

Hiroyuki AZAKAMI (YG)	Molecular Microbiology	Molecular mechanisms of bacterial colonization to host surface
Atsushi ISHIHARA (TT)	Natural Product Chemistry	Function, Biological activity, and Biosynthesis of metabolites produced by plants and microorganisms
Tsuyoshi ICHIYANAGI(TT)	Organic Chemistry	The molecular design and functional analysis of bioactive compounds
Tsuyoshi KAWANO (TT)	Bioorganic Chemistry	Regulation of diapause, metabolism and longevity corresponding to the growth environment
Hidehisa SHIMIZU (SN)	Nutritional Pathophysiology	Study on the relationship between food-derived bacterial metabolites or cyanobacteria-derived toxins, and pathogenesis of diseases
Jun-ichi TAMURA (TT)	Organic Chemistry	Chemical synthesis of bioactive glycans and isolation/characterization of natural glycans
Kaeko MUROTA (SN)	Bioavailability and Food Function	Bioavailability and physiological function of lipophilic food factors
Tatsuyuki YAMAMOTO (SN)	Bio-molecular spectroscopy	Spectroscopic studies on life science and medical applications
Kazushige YOKOTA (SN)	Biochemistry and Molecular Cell Biology	Molecular cell biology of food and related substances involved in bioinformation, nutrition, and health
Fumio WATANABE (TT)	Food Science	Chemistry and nutrition of vitamin B12 and related compounds in food

## 3. THE COURSE OF GLOBAL DRYLAND SCIENCE

### (a) Division of Global Dryland Science

Kinya AKASHI (TT)	Molecular and Cellular biology	Molecular responses of drought-tolerant plants and their application to molecular breeding
Nigussie Haregeweyn AYEHU (TT)	Land Management	Watershed processes monitoring, modeling and management
AN Ping (TT)	Plant Eco-Physiology	Physiological responses and relative mechanisms of plants and plant ecophysiology in dry lands.
Toshiyoshi ICHINOHE (SN)	Livestock Feeding	Evaluation of ruminants production system
Koji INOSAKO(TT)	Soil and Water Management	Conservation, restoration and sustainable use of soil and water environment
Yasuomi IBARAKI (YG)	Bio-environmental Control Engineering	Environmental control in plant production
Tsuneyoshi ENDO (TT)	Soil Chemistry	Influence of soil properties and irrigation water quality on soil salinization/sodication in irrigated farmlands of arid regions
Hidehiko OGATA (TT)	Irrigation and Drainage Facilities Engineering	Evaluation of construction materials and structural performance of irrigation and drainage structures
Reiji KIMURA (TT)	Boundary Layer Meteorology	Heat and water balance in arid lands
Toshio SATO (SN)	Environmental Sanitary Engineering	Development of new technology and functional materials for wastewater treatment systems and control of environmental water quality
Katsuyuki SHIMIZU (TT)	Water Use and Management	Monitoring and assessment of irrigation water management
Kenji SUZUKI (YG)	Meteorology	Observational study on precipitation mechanisms and development of instruments for hydrometeor measurements



Hisashi TSUJIMOTO (TT)	Molecular Breeding	Breeding of drought tolerant crop lines by gene and chromosome engineering
Atsushi TSUNEKAWA (TT)	Conservation Informatics	Monitoring and modeling of plant production and ecosystem change in drylands
Mitsuru Tsubo (TT)	Climate Risk Management	Dryland agrometeorology and climate-smart agriculture
Masahiro HYODO (TT)	Facilities and Environmental Materials	Rehabilitation management of agricultural irrigation facilities and development of environmental materials
Haruyuki FUJIMAKI (TT)	Soil Conservation	Development of methods for preventing salt accumulation and erosion and remediation of degraded soils
Tsugiyuki MASUNAGA (SN)	Pedosphere Ecological Engineering	Control and use of soil functions of environmental protection-restoration and plant production
Satoshi YAMADA (TT)	Plant Nutrition	Mechanisms of Response to Stresses of Plants in Arid Regions
Norikazu YAMANAKA (TT)	Revegetation in Arid Land	Ecological studies on woody plants in arid lands
Sadahiro YAMAMOTO (TT)	Environmental Soil Science	Conservation of soil environment and sustainable use of farmland in arid regions