INNOVATIONS IN PLANT AND FOOD SCIENCES IPFS-2025

PLANT AND FOOD SCIENCES FOR SUSTAINABLE FUTURE – FROM BENCH TO FIELD

Date: Saturday, November 8 through Sunday, November 9, 2025

Venue: Ginga Hall, Iwate University, Ueda Campus 3-18-8 Ueda, Morioka, Iwate Japan
https://ugas.agr.iwate-u.ac.jp/en/schedule/international-symposium-innovations-in-plant-and-food-sciences-ipfs-2025/

Reception: Morioka Grand Hotel, Morioka, Iwate, Japan
https://www.m-grand.jp/

Co-sponsor: Iwate University
https://www.iwate-u.ac.jp/english/index.html

Program Committee of the IPFS-2025 Symposium

Chairperson: Dr. Kikukatsu Ito, UGAS, Iwate University
Co-Chairperson: Dr. Abidur Rahman, UGAS, Iwate University
Program Committee:
Dr. Koji Harashina, UGAS, Iwate University

Dr. Yuzi Suzuki, UGAS, Iwate University
Dr. Yasuyuki Kawaharada, UGAS, Iwate University
Dr. Arifa Rahman, UGAS, Iwate University
Registration Committee: Misaki Ito, UGAS, Iwate University
Logistics & Reception: Hiroyuki Ishi, UGAS, Iwate University

International Members:

Dr. Karen Tanino, University of Saskatchewan, Canada
Dr. Yin-Gang HU, Northwest Agriculture and Forestry University, China
Dr. Yiling Miao- Jilin University, China
Dr. Shuang Wu- Fujian Agriculture and Forestry University, China
Dr. Balakrishnan Prithiviraj- Dalhousie University, Canada

Registration of Participants

Registration time:
Nov 8, 2025: 8:30 am- 4:00 pm
Nov 9, 2025: 9:00 am- 12:00 pm
Registration fee for domestic faculties and professionals : 3,000 ¥
Registration fee for students : free
Registration fee for overseas participants: covered by IPFS-2025

※ Registration fee will include symposium materials, two lunches and drinks. The fee will be collected in cash during registration hours on November, 8-9, 2025.

Reception:

November 8, 2025: 6:30 pm- 9:00 pm, The Morioka Grand Hotel, Morioka (There will be a shuttle service from the symposium venue to hotel. The shuttle will depart from Building #1 of faculty of Science and Engineering at 18:10)

Reception fee for faculties and professionals: 10,000 ¥
Reception fee for students: 5,000 ¥
Reception fee for overseas participants- covered by IPFS
※ The fee will be collected in cash during registration hours on Nov 8, 2025.

Lunch

Lunch time:

Nov 8, 2025: 12:00 pm-12:30 pm

Nov 9, 2025: 12:00 pm-12:30 pm

Lunch will be served on the second floor of IchiyuKaikan, close to Ginga from 12:00 pm. We will prepare lunch boxes and drinks for all participants. Please refrain from bringing the lunch inside the Ginga Hall.

Drink Service during the Symposium

There are coffee and tea breaks between each session. We will serve free drinks and small snacks at the lobby of Ginga Hall. However, you are requested not to bring the drinks inside the Ginga Hall.

Guide Map


岩手大学
IWATE UNIVERSITY
岩手大学キャンパス案内図
Iwate University Campus Map
N
野球場
Baseball Field
理工学部
Faculty of Science and Engineering
理工学部東口バス停
Rikogakubu higashiguchi Bus Stop
教育学部
Faculty of Education
人文社会科学部
Faculty of Humanities and Social Sciences
農学部
Faculty of Agriculture
運動場
Track and Field
球技場
Rugby and Soccer Field
テニスコート
Tennis Courts
自然観察園
Nature Garden
馬場
Riding Ground
実習地
Experimental Nursery of Faculty of Agriculture
附属植物園
Botanical Garden
岩手大学前バス停
Iwate Daigaku-mae Bus Stop
一般前バス停
Ichiba-mae Bus Stop
正門
Main Gate
現在地
You are Here
旧正門
Original Main Gate
理工学部正門
理工学部北門
コラボMIU
専用駐車場
駐車場
Car Parking
駐輪場
Bicycle Parking
キャンパス案内図
Iwate University Campus Map
全学施設
University Facilities
A00 正門守衛所 Main Gate Guard House
A01 本部棟 Administration Bureau
A02 図書館・放送大学岩手学習センター University Library・The Open University of Japan, Iwate Study Center
A03 大学会館 University Student Union
A04 中央学生食堂 Cafeteria
A20 第一体育館 Gymnasium I
A05 第二体育館 Gymnasium II
A06 課外活動共用施設 Building I for Extracurricular Activities
A07 第二課外活動共用施設 Building II for Extracurricular Activities
A10 自然科学実験棟 Laboratory for Natural Sciences
A14 学生センターA棟 Student Center A-Building
A13 学生センターA講義棟 Student Center A-Building Lecture Hall
A12 学生センターB棟 Student Center B-Building
A15 学生センターC棟 Student Center C-Building
A17 地域協創推進棟 Regional Co-creation Building
A18 屋内プール Indoor Swimming Pool
A19 合宿研修施設 Training Camp Facility
A08 RI総合実験センター Radioisotope Research Center
A09 廃液処理施設 Waste Liquid Treatment Facility
人文社会科学部 Faculty of Humanities and Social Sciences
A11 人文社会科学部1号館 Faculty of Humanities and Social Sciences, Building 1 (Faculty Administration Office)
A16 人文社会科学部2号館 Faculty of Humanities and Social Sciences, Building 2
教育学部 Faculty of Education
A21 教育学部1号館 Faculty of Education, Building 1 (Faculty Administration Office)
A22 教職大学院棟 Professional School for Teaching Education Building
A23 芸術棟 Arts Building
その他 Others
A24 楓丘荘 Guest House "Tokyusо"
A25 国際交流会館 International House
農学部 Faculty of Agriculture
B01 農学部1号館 Faculty of Agriculture, Building 1 (Faculty Administration Office)
B02 農学部北講義棟 Faculty of Agriculture, North Lecture Hall
B03 農学部2号館 Faculty of Agriculture, Building 2
B04 農学部南講義棟 Faculty of Agriculture, South Lecture Hall
B05 農学部3号館 Faculty of Agriculture, Building 3
B06 農学部4号館 Faculty of Agriculture, Building 4
B07 農学部5号館 Faculty of Agriculture, Building 5
B08 農学部6号館 Faculty of Agriculture, Building 6
B11 農学部7号館(東棟) Faculty of Agriculture, Building 7 (east wing)
B12 農学部7号館(西棟) Faculty of Agriculture, Building 7 (west wing)
B18 動物病院(牛・馬動物診療棟) Veterinary Teaching Hospital
B19 動物病院(産業動物診療棟) Veterinary Teaching Hospital
B09 連合農学研究科棟 United Graduate School of Agricultural Sciences Building
B10 生物環境制御装置室 Bio-Environmental Research Center
B13 閉鎖系温室 Closed-System Greenhouse
B15 生物生産機械実験室 Laboratory for Biological Production Equipment
B16 林産加工実験室 Laboratory for Processing Forest Products
農学部 Faculty of Agriculture
B17 標本室 Museum of Veterinary Medicine
B21 農業教育資料館(重要文化財) Historical Museum of Agricultural Education
B22 百年記念館 Centennial Hall
B23 動物飼育舎 Animal Care House
B25 旧門番所(重要文化財) Previous Guard House
B26 森の駅ポランハウス Greenhouse
全学施設 University Facilities
B14 情報基盤センター Super-Computing and Information Sciences Center
B20 農学部学生食堂 Cafeteria
B24 弓道場 Japanese Archery Range
B27 ミュージアム本館 Museum Main Building
その他 Others
B28 学生寮(自啓寮) Dormitory (Jikei-ryo)
B29 学生寮(同柏寮) Dormitory (Doho-ryo)
B30 岩手大学・岩手銀行保育所 Iwate University-Bank of Iwate Child Care Center
理工学部 Faculty of Science and Engineering
C00 理工学部守衛所 Guard House
C01 理工学部1号館 Faculty of Science and Engineering, Building 1 (Faculty Administration Office)
C02 テクノホール Techno Hall
C03 理工学部2号館 Faculty of Science and Engineering, Building 2
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C22 理工学部6号館 Faculty of Science and Engineering, Building 6
C21 銀河ホール Ginga Hall
C23 理工学部7号館 Faculty of Science and Engineering, Building 7
C05 ものづくり総合実験センター Monozukuri Experiment Center
C06 環境風洞実験棟 Environmental Wind Tunnel Experimental Lab.
C07 理工学部北講義棟 Faculty of Science and Engineering, North Lecture Hall
C09 高圧実験室 High Voltage Lab.
C14 磁場活用ラボ Magnetic Field Lab.
C15 地域共同研究棟 Regional Co-research Building
C19 リモートセンシングデータ解析室 Remote-Sensing Analysis Room
C24 高度試作加工センター Advanced Manufacturing and Prototyping Center
C25 水域工学実験棟 Hydro Lab.
C26 見守りハウス Health Monitoring Research House
C27 一祐会館 Ichiyu Kaikan
全学施設 University Facilities
C08 ものづくり研究棟 Monozukuri Research Building
C10 銀河オープンラボ Ginga Open-Lab.
C11 電子顕微鏡室 Electron Microscope Room
C12 極低温発生装置室 Extremely Low Temperature Generator Room
C20 理工学部学生食堂 Cafeteria
その他 Others
C18 盛岡市産学官連携研究センター(コラボMIU) Research and development center by collaboration of Morioka city and Iwate University (Collabo MIU)


N
野球場
Baseball Field
コラボMIU
専用駐車場
理工学部
Faculty of Science and Engineering
理工学部東口バス停
Rikogakubu higashiguchi Bus Stop
理工学部正門
理工学部東門
C-21
Ginga
Hall

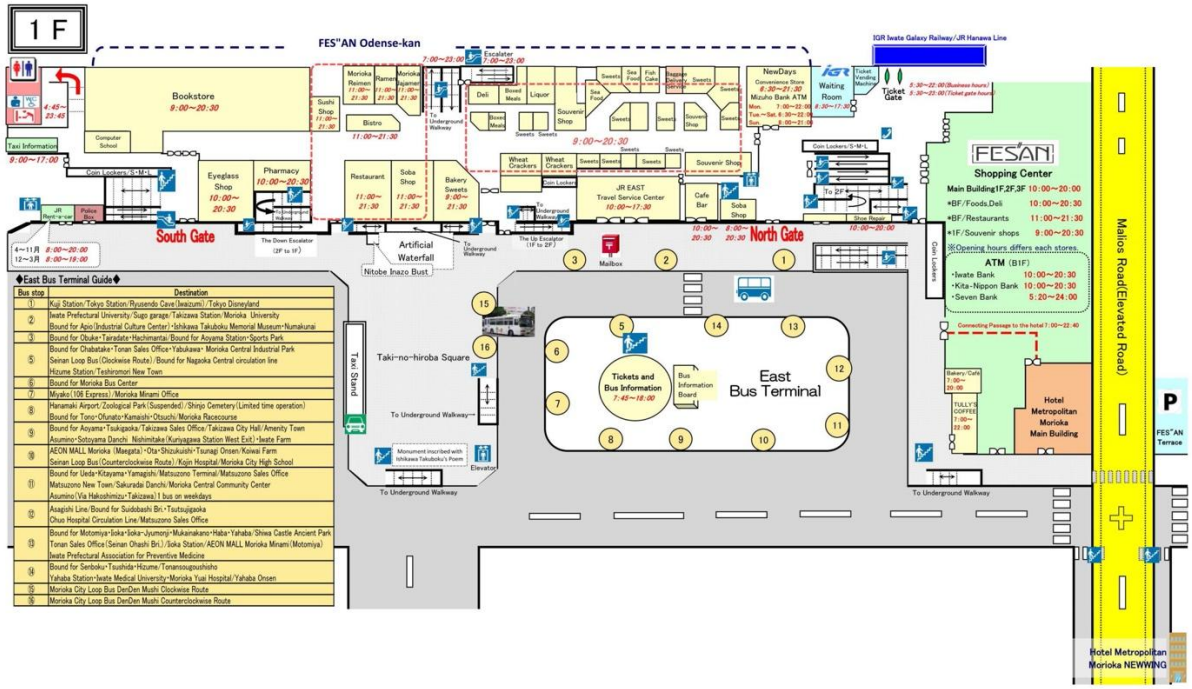
Access to the Ginga hall, Iwate University from Morioka train station

By bus

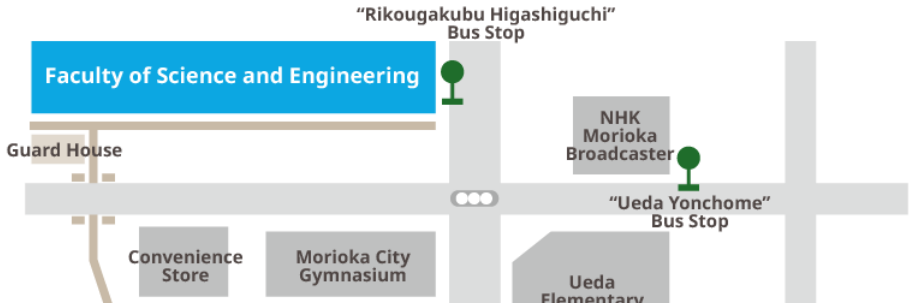
Morioka Station East Exit 11 bus stop (Iwateken Kotsu, Buss No. 307) → Ueda Yonchome (12-15 min), 270 yen (¥)/ person
a 4-min walk from Ueda Yonchome bus stop to the Ginga hall.

[Bus Schedule]
07:20, 07:35, 07:45, 07:55
08:05, 08:15, 08:25, 08:32, 08:42, 08:52
09:02, 09:12, 09:22, 09:37, 09:52

[Morioka Station East Exit 11 bus stop]



Bus station to get off
[Ueda Yonchome]



By taxi
Your hotel to faculty of Science and Engineering, the Ginga hall, Iwate University
Around 10 min, 1,000 to 1,500 yen (¥)/taxi

On foot
Morioka Station to the Ginga hall, Iwate University
Around 40 min. Please check google map helping for you.

Oral Presentation

For keynote speakers, the allocated time of the presentation is 20 minutes which includes question and answer session. We would appreciate if you please plan your talk within 15-16 minutes and keep the rest of the time for question-and-answer session. For other oral presentations in the sessions, the allocated time is 15 minutes including the question-and-answer session. We would appreciate if you please plan your talk within 12 minutes and keep the rest of the time for question and answer session.

For the young scientist's session, the allocated time is 10 minutes including the question-and-answer session. Please plan your talk within 8 minutes and keep the rest of the time for question-and-answer session. Two best oral presentations will be awarded.

Poster Presentation

The main goal of the poster session is to gain a maximum benefit from the scientific work presented and to create a lively interaction between poster authors, judges (experts in the field) and interested symposium participants.

Poster session

Poster session will be held on Saturday, Nov 8, 2025 (12:30-14:25) and Sunday, Nov 9, 2025 (12:30 – 14:00).

Core time for poster presentation:

Nov 8, 2025 (12:30-14:25)- odd numbered posters
Nov 9, 2025 (12:30-14:25)- even numbered posters
The presenter should be present in front of the poster during this time. Since best three posters will be awarded, the judges will walk around the posters and ask questions to

the presenters. Please prepare yourself for a 5 min presentation and 3-5 min question-and-answer session.

Poster Size and Preparation

Please prepare your poster with A0 size paper (841 x 1189 mm). Symposium committee will provide the presenter with the poster number before the symposium. Poster boards will have numbers on it and the presenters are requested to mount their posters accordingly. Push pins for mounting the posters will be provided.
To prepare the poster, use a clear typeface. The poster should be readable from a distance of 2-3 meters. This means that all lettering should be at least 8 mm high. Graphs and diagrams should be drawn with a minimum line width of 1 mm. Please use proper color contrast.

Mounting and removing the poster

Please mount the poster by 11:00 am of Nov, 8, 2025. Please remove your poster by 15:00 pm of December 9, 2025. If posters are not removed within the time for dismantling, your poster will be removed and disposed of.

Venue for poster session

Poster session will be held on the 2nd floor of Ginga Hall.

Free Wireless LAN service

Free wireless LAN connection will be available in Ginga Hall
The ID and check the password will be provided at the reception desk during the symposium.

Program

Day 1- Saturday- November 8, 2025

8:30-16:00- Registration

9:30-9:35- Opening Remarks- Dr. Kikukatsu Ito- Dean, The United Graduate School of Agricultural Sciences, Iwate University and Chair of the IPFS-2025 Organizing Committee.

Session 1: Developmental regulations in plants

Session Chairs: Dr. Kikukatsu Ito and Dr. Abidur Rahman

9:40-10:00- S-1-1K- Dr. Bunyamin Tar'an- **(Keynote Speaker)** (USask)- Accelerated genetic improvement of flax

10:01-10:16- S-1-2O- Dr. Yuji Suzuki- (UGAS, Iwate University)- Effects of genetic manipulation of the Calvin–Benson cycle on photosynthesis in rice

10:17-10:32- S-1-3O- Dr. Yiling Miao- (Jilin University)-Genome-wide analysis of rice panicle development

10:33-10:48- S-1-4O- Dr. Linzhou Huang- (NWAFU)-Starch metabolism contributes to the plasticity of rice plant architecture through modulating shoot gravitropism

10:50-11:25- Break

11:26-11:41- S-1-5O- Dr. Bin Li- (Jilin University)-The role of tomato SNARE proteins in regulating growth and development and response to low temperature stress

11:42-11:57- S-1-6O- Dr. Yasuyuki Kawaharada- (UGAS, Iwate University)- Molecular regulation of symbiotic nodulation through interactions between the legume and *Rhizobium*

12:00-12:30- Lunch Break

12:30-14:25- Poster presentations (Odd number)

Session 2: Biotic and abiotic stress responses in plants

Session Chairs: Dr. Arifa Rahman and Dr. Yuji Suzuki

14:30-14:50- S-2-1K- Dr. Yin-Gang HU- **(Keynote Speaker)** (NWAFU)- Improving drought resistance in bread wheat

14:51-15:06- S-2-2O- Dr. Bill Biligetu- (USask)- Improving salt stress resistance in alfalfa: integrating genomic insights with Breeding Strategies

15:07-15:22- S-2-3O- Dr. Chen Qian- (FAFU)- Viruses hijack salivary proteins of insect vectors to achieve transmission and pathogenesis in plant hosts

15:25-15:55- Break

15:56-16:11- S-2-4O- Dr. Chengguo Jia- (Jilin University)- SlNAC12, a key regulator of salt stress tolerance and leaf senescence in tomato

16:12-16:27- S-2-5O- Dr. Karen Tanino- (USask)- The continuing journey into exploring the role of barriers in plant survival

16:28-16:43- S-2-6O- Sophie Anne Duchesne (USask)- Analyzing heat resilience in interspecific chickpea: a genetic and phenotypic approach for breeding

16:43-16:59- Break

Session 3: Young Scientists Session-1

Session Chairs: Dr. Yasuyuki Kawaharda, Dr. Karen Tanino

17:00-17:10- YS-1-1O- Dr. Federica Higa- (USask)- Reduction of off-flavours in flaxseed proteins using adsorbent resins during protein extraction

17:11-17:21- YS-1-2O- Kalhari Manawasinghe- (USask)- Exploring the impact of canopy architecture on drought and heat stress resilience in spring wheat (*Triticum aestivum*)

17:22-17:32- YS-1-3O- Dezheng Liu- (NWAFU)- Mining genomic regions associated with stomatal traits and their candidate genes in bread wheat through genome-wide association study (GWAS)

17:33-17:43- YS-1-4O- Botian Zheng- (Jilin University)- Transcriptomic analysis reveals a regulatory network and significance of VcWOXs during adventitious root formation in blueberry

17:44-17:54- YS-1-5O- Yihan Men- (NWAFU)- N6-methyladenosine RNA modification regulates transcriptional and metabolic responses in wheat to drought stress

Banquet- 18:30 at The Morioka Grand Hotel (There will be a shuttle service from the symposium venue to hotel. The shuttle will depart from Building #1 of faculty of Science and Engineering at 18:10)

Day 2 – Sunday, November 9, 2025

9:00-12:00- Registration

Session 4: Food Science and Nutrition

Session Chairs: Dr. Ahmad Al-Mallahi and Dr. Shu Taira

9:30-9:50- S-4-1K- Dr. Akira Nishimura- **(Keynote Speaker)** (UGAS, Iwate University)- Inhibitory mechanisms of proline utilization in yeast: A step toward proline-free wine

9:51-10:06- S-4-2O- Dr. Takuji Tanaka- (USask)- Value addition on the agriculture products towards sustainable food and feed supply

10:07-10:22- S-4-3O- Dr. Shu Taira- (UGAS, Iwate University)- Theanine derived from tea leaves modulates monoamine metabolism: a single-hair analysis

10:23-10:50- Break

10:51-11:06- S-4-4O- Dr. Ahmad Al-Mallahi- (Dalhousie University)- Creation of potato leaf samples under indoor conditions and using bio stimulant for nutrient sensing development based on machine learning

11:07-11:22- S-4-5O- Dr. Pattama Wiriyasermkul - (UGAS, Iwate University)- Deciphering human transport systems for micronutrients and bioactives from foods

11:23-11:38- S-4-6O- Dr. Chunhong Yuan- (UGAS, Iwate University)- Advances in precision quality control technologies for seafood: insights from shellfish studies

11:40-12:30- Lunch Break

12:30-14:25- Poster presentations (Even number)

Session 5: Young Scientists Session-2

Session Chairs: Dr. Takuji Tanaka and Dr. Pattama Wiriyasermkul

14:30-14:40- YS-2-1O- Shangyi Xu- (USask)- Chemical structure and functionality of polysaccharide from *Dictyophora indusiata*

14:41-14:51- YS-2-2O- Hao Chen- (Jilin University)- Deubiquitinase ZmUBP5 is essential for maize kernel development

14:52-15:02- YS-2-3O- Yosuke Akiba- (Iwate University)- Elucidating the molecular mechanism of auxinic herbicides, dicamba and picloram in *Arabidopsis thaliana*

15:03-15:13- YS-2-4O- Qifan Guo- (NWAFU)- Genetic and molecular basis of ABA response in wheat seedlings shared with mature-stage drought tolerance revealed by integrated GWAS and transcriptomics

15:15-15:30- Break

15:31-15:41- YS-2-5O- Li Zhe- (NWAFU)- Mining of candidate genes for cadmium accumulation in wheat

15:42-15:52- YS-2-6O- Xinjie Yu- (USask)- Tapping the flax gene pool: from domestication traits to hybridization barriers

15:53-16:03- YS-2-7O- Yan Yu-(NWAFU)- Correlation study between canopy temperature (CT) and wheat yield and quality based on infrared imaging camera

16:04-16:14- YS-2-8O- Subarna Sharma- (UGAS, Iwate University)- Robust and affordable root phenotyping approaches for early-stage wheat growth

16:15-16:25- YS-2-9O- Hao Ren- (NWAFU)- Novel QTLs/genes affecting single stem elasticity, stem strength, and three lodging indices in bread wheat (*Triticum aestivum* L.) identified by genome-wide association

16:30-16:44-Break

Closing session

16:45-16:55- Award ceremony

16:55-17:00- Closing Remarks- Dr. Karen Tanino (USask)

USask- University of Saskatchewan

FAFU- Fujian Agriculture and Forestry University

NWAFU- Northwest Agriculture and Forestry University

UGAS- The United Graduate School of Agricultural Sciences

Dalhousie University

Iwate University

Poster session

Day 1- Saturday- November 8, 2025

12:30-14:25- Poster presentations (Odd number)

1. **Reo Sato**- The United Graduate School of Agricultural Sciences-Iwate University- Which fertilization component enhances cold tolerance in highly cold tolerant rice varieties “Tohoku PL1-3”, “Ouu PL4,5”?- Estimation of fertilization process using anther morphology-

3. **Hossain Md Arafat** - The United Graduate School of Agricultural Sciences, Iwate University- Nighttime-heating exposure at above ground and below ground; which is more influential on rice yield?

5. **Wang Xiangfeng-** The United Graduate School of Agricultural Sciences and Yamagata University- TBA

7. **Yusuke Sawamura-** Dept. of Plant Bio Sciences, Iwate university- Indole-3-butyric Acid (IBA) functions as an independent hormone to regulate the lateral root developmental process in *Arabidopsis thaliana*

9. **Shun Iketani-** Iwate university- Potential roles of lipid transport family protein in the cold stress response of *Arabidopsis thaliana*

11. **Arakida Satomi-**Graduate School of Arts and Sciences, Iwate University- Effect of soil inoculation on rice productivity under different soil and water conditions

13. **Takumi Tezuka-**Iwate University- Analysis of the dorsal-ventral axis formation in rice embryos as a model for monocots

15. **Tian Rui-**The Graduate School of Agricultural Sciences, Fukushima University- Temporal variation of GABA levels in tomatoes during ripening in Mori town, Hokkaido

17. **Ayano Miyabayashi**-The Graduate School of Agricultural Sciences, Fukushima University- Administration of Vitamins (A 1 , B 1 , B 6) prevent a Parkinson’s Disease Symptom

19. **Maya Matsunami**- Iwate University-Effect of two-depth split application of liquid fertilizers on rice root system architecture

21. **Soichiro Yamada-** Localization Analysis of Toxic Components in Higher Plants Using Imaging Mass Spectrometry (IMS)- Fukushima University

Day 2- Sunday- November 9, 2025

12:30-14:25- Poster presentations (Even number)

2. **Ousmane Mamadou Issa**-The United Graduate School of Agricultural Sciences, Iwate University- Genotypic variation in phenotypic plasticity of 23 rice accessions: Both root and shoot responses to low planting density

4. **Sato Ririko-** Dept. of Plant Bio Sciences, Iwate university- Identification of novel cadmium uptake transporters in *Arabidopsis thaliana*

6. **Jannat Mahbubah** The United Graduate School of Agricultural Sciences, Iwate University- *Bradyrhizobium ottawaense* type III secretionsystem mediated compatible and incompatible nodulation in *Vigna* species

8. **Tomo Kitabayashi**- Dept. of Plant Bio Sciences, Iwate university- Elucidating the response mechanism of tomato roots to cold stress response

10. **Rinto Enya-** Faculty of Agriculture, Iwate university- Control of seed dormancy using iron-powder coating in rice

12. **Yukino Kominami**- Graduate School of Arts and Sciences, Iwate University- Yield potential of a BNI elite wheat line under cool climate

14. **Kumagai Manaka-**Iwate University- Development of high-value-added products from sanriku Sea Cucumbers based on their biochemical characteristics

16. **Yuya Kuwaba**- The Graduate School of Agricultural Sciences, Fukushima University- Stress Biomarkers in Mouse Fur under Low Gravity Conditions on the International Space Station (ISS)

18. **Akane Higuchi-** Graduate School of Arts and Sciences, Iwate University- Analysis of the efficacy of phenethyl isothiocyanate on recovery from skeletal muscle atrophy induced by disuse

20. **Kotone Yoneda**- The Graduate School of Agricultural Sciences, Fukushima University- Visualization of Stress Levels from a Single Strand of Hair Using IMS