

1ST ASIA-PACIFIC CONGRESS ON ALTERNATE CROPS

Alternate crops for health and nutritional security

September 9 -12, 2024

Organised by

The Assam Royal Global University, Guwahati, Assam

in collaboration with

NECTAR, Government of India, New Delhi and

Meghalaya Farmers Empowerment Commission (MFEC), Meghalaya



CHIEF PATRON

- **Dr. A. K. Pansari, Chancellor, The Assam Royal Global University, Guwahati, India.**

PATRONS

- Sh. A. K. Modi, Pro Chancellor, The Assam Royal Global University, Guwahati, India.
- Prof. (Dr.) S. P. Singh, Vice Chancellor, The Assam Royal Global University, Guwahati, India.
- Prof. M. K. Chaudhari, Chief Advisor, The Assam Royal Global University, Guwahati & Former Vice Chancellor, Central University, Tezpur, Assam
- Sh. Ankur Pansari, Executive Vice President, Gyansagar Foundation, Guwahati.

CONGRESS OBJECTIVES

- Bring together researchers, medical practitioners, and industry experts to discuss the potential of alternate crops.
- Foster international collaborations and create a roadmap for the domestication of smart foods.
- Explore technology-driven innovations, academic collaborations, and policy initiatives for alternate crops.
- Discuss the formation of the Asia-Pacific Society for Alternate Crops to facilitate greater interactions among stakeholders.

CHAIRMAN

Prof. (Dr.) S. P. Singh,

Vice-Chancellor,

Assam Royal Global University,

Guwahati, India

ORGANIZING SECRETARY

Prof. Nikhil Kumar Chrungoo

Dean, Royal School of Life Sciences

Royal Global University

Contact detail : +919436101651

Email ID : nkchrungoo@rgu.ac

CONVENER

Dr Anushree Baruah

Co-ordinator & Asst Professor

Dept. of Botany

Royal Global University

Contact detail: +919864072177

Email ID : abaruah@rgu.ac

REGISTRATION DETAILS

| REGISTRATION FEES | | ASIAN (INR) | SAARC COUNTRIES (USD) | OTHER THAN SAARC COUNTRIES (USD) |
|---------------------|------------|-------------|-----------------------|----------------------------------|
| STUDENTS | EARLY BIRD | 5000 | 250 | 350 |
| | LATE | 8000 | 350 | 450 |
| FACULTY | EARLY BIRD | 8000 | 350 | 450 |
| | LATE | 10000 | 450 | 550 |
| INDUSTRY | EARLY BIRD | 10000 | 500 | 600 |
| | LATE | 12000 | 600 | 700 |
| ACCOMPANYING PERSON | | 2500 | 200 | 200 |

TECHNICAL SESSIONS

- Domestication of alternate crops for nutritional security
- Breeding barriers in alternate crops
- Nutritional profiling & bioactive molecules in alternate crops
- Climate resilience traits in alternate crops
- Value addition and marketing strategies for alternate crops

DATES TO REMEMBER

JULY 31, 2024

**EARLY BIRD
REGISTRATION**

AUGUST 31, 2024

**LATE
REGISTRATION**

JULY 31, 2024

**ABSTRACT
SUBMISSION**

AUGUST 31, 2024

**SUBMISSION OF
FULL LENGTH
MANUSCRIPTS**

About the Congress:

The last 60 years of research investments over few resources intensive crops—the so called ‘Green Revolution’ have led to higher yields and important contributions to reducing hunger in the world. However, this huge achievement has been accompanied by decrease in the diversity of our plant-based diets. Just three crops (rice, maize and wheat) provide 60 percent of the world’s food energy intake and of the 137 most important crops in the world, 20 are cultivated over 80% of the global agricultural area and the remaining 117 on a mere 20%. Commercial advantages of mono cropping and the high yield of many improved hybrid crops, masked the local crop diversity along with the wealth of traditional knowledge about their cultivation and uses. From a perspective of sustainable food security, relying on such a narrow food base makes our food supply extremely vulnerable. Satisfying the increased demands on agriculture with increased production of conventional crops is likely to lead to more intense competition for natural resources, increased greenhouse gas emissions as well as demand for fertilizers. This necessitates development of innovative systems, including the domestication of hitherto wild or semi-domesticated crops, enhancing the cultivation of alternate crops, their value addition and streamlining their marketing, while increasing productivity.

Alternative crops refer to crops that are not traditional in a particular geographic region, but have high potential as phytochemicals/nutraceuticals and also for increasing farm income. It is pertinent to note that all the mainstream crops cultivated currently were considered as new or alternative crops earlier. Having long been neglected by mainstream agriculture, today these crops are receiving increasing recognition because of their potential role in mitigating abiotic and biotic stresses and other associated risks in agricultural production systems. Alternate specialty crops usually serve to diversify the crops grown in a cropping system, rather than completely replacing traditional commodities. International Network of Food Data Systems (INFOODS) of the Food and Agriculture Organization (FAO) has drawn up a list of alternate crop species with potential to bridge the food-nutrient gap amongst different societies (<http://www.fao.org/infoods/infoods/food-biodiversity/en/>). These include eight species of pseudo-cereals/millets, six species of roots and tubers, nine species of pulses, nine species of fruits and vegetables and five species of nuts, seeds and spices. Such crops have a history with indigenous civilizations and are generally accepted amongst local communities for their nutritional benefits as well as adaptation to prevailing agro-ecosystems. In comparison to cereals, crops such as finger millet, foxtail millet, proso millet, buckwheat, and *Chenopodium quinoa* have high potential for development as Smart foods since they are rich in dietary fibre, antioxidants, high biological value protein and essential amino acids as well as the source of gluten-free flour. Hence, there is a need of intensive efforts to develop appropriate national strategies and policies to promote diversification of cropping systems based on the R&D outputs. This would also include development of innovative approaches for transforming alternate crops into smart foods which are not only nutrient dense but are also resilient to adverse climate conditions. By incorporating smart foods into our diets, we can contribute to a healthier planet and support resource-poor farmer

About The Assam Global University

The Assam Royal Global University is one of the premium universities in India. Ever since its establishment, it has acted as a leadership platform that aligns the interest of industries, entrepreneurs and the youth. Royal Global University aims at creating and sustaining an environment whereby employment and entrepreneurship can flourish. With the help of collaborative efforts

from its extensive network of influential corporates, individual members, and academic institutes, Royal Global University has been able to provide the necessary resources, knowledge, and support to create effective employment and entrepreneurship opportunities.

Located on National Highway 37, Royal Global University stands high with its virtues of excellence and a humble contribution to the society at large. The Campus is more than 30 acres of land and about 15+ lakh square feet with centrally air-conditioned areas available for running various courses of Royal Global University (RGU). With experienced faculty and world class infrastructure & facilities, Royal Global University is one of the finest universities in the country. RGU offers a unique educational experience that prepares the next generation of global citizens to lead and make a difference in the world. With its talented and motivated student body and accomplished faculty, RGU is a leading educational hub in the North Eastern region that maintains a particular commitment to exceptional undergraduate and postgraduate programs. Undergraduates, graduates and post graduates will have a variety of options available to them. The faculty members work very closely with students to solve major scientific, technological and societal challenges. RGU ensures that its students are transformed into well-rounded, industry- ready individuals, who are equipped to take on leadership responsibilities. RGU stands to be recognized for its world-class infrastructure, cultural events, campus recruitment programmes, expert faculties, updated facilities and other such activities.

Speakers

- Prof. Ashwani Pareekh, Director, NABI, Mohali, India
- Prof. Manoj Prasad, South Campus, University of Delhi, New Delhi, India
- Dr. J. C. Rana, National Coordinator (India), Bioversity International, New Delhi, India
- Dr. Arunava Pattanayak, Ex-Director, ICAR-Indian Institute of Agricultural Biotechnology, Ranchi, India
- Prof. Bidyut Sharma, Director, DBT Centre for Agricultural Biotechnology, AAU, Jorhat, India
- Dr. J.L. Karihaloo, Former Coordinator, Asia Pacific Consortium on Agricultural Biotechnology (APCoAB), APAARI, New Delhi, India
- Prof. Manoj Dhar, Director, CSIR- AcCSIR, New Delhi
- Prof. Kadambot Sidiq, Hackett Professor of Agriculture Chair and Director, The UWA Institute of Agriculture, University of Western Australia, Perth, Australia
- Dr. T. Satyavathi, Director, Millets Research Institute, Hyderabad, India
- Prof. Meiliang Zho, Institute of Crop Sciences, Chinese Academy of Sciences, Beijing
- Prof. S. K. Barik, North Eastern Hill University, Shillong, India

For more detail, please visit
Website: <https://apcac2024.org/>

THE INTERNATIONAL SCIENTIFIC ADVISORY COMMITTEE

CHAIRMAN

Prof. (Dr.) S. P. Singh, Vice-Chancellor, Assam Royal Global University, Guwahati, India.

MEMBERS

Prof. Sudhir Sopory, Former Vice-Chancellor, Jawaharlal Nehru University, New Delhi, India.

Prof. A. K. Buragohain, Former Vice-Chancellor, Dibrugarh University, Dibrugarh, Assam, India.

Dr. Arun Sharma, Director General, DST-North-East Centre for Technology Application and Research, Govt. Of India, New Delhi, India.

Dr. C. Tara Satyavathi, Director, ICAR-IIMR, Rajinder Nagar, Hyderabad, India

Shri. K. N. Kumar, IAS, Chairman, Meghalaya Farmers' (Empowerment) Commission, Government of Meghalaya, Shillong, Meghalaya, India.

Sh. Shri B.K. Sohliya, Executive Adviser, Meghalaya Farmers' (Empowerment) Commission, Government of Meghalaya, India.

Prof. Kadambot Siddique, Hackett Professor of Agriculture Chair and Director, The UWA Institute of Agriculture, Perth, Australia.

Dr. Autar Mattoo, The USDA Sustainable Agricultural Systems Laboratory, ARS, BARC-W, Beltsville, Maryland, USA.

Prof. H. Hayashi, Professor Emeritus, University of Tsukuba, Japan.

Prof. S.H. Woo, Chungbuk National University, Cheongju, South Korea.

Prof. Cheol Ho Park, Director, Korea Buckwheat Research Institute, Chuncheon, Republic of Korea.

Prof. Meiliang Zhou, Institute of Crop Sciences, Chinese Academy of Sciences, Beijing, P R China.

Prof. Manoj Dhar, Director, AcSIR, Council of Scientific and Industrial Research, New Delhi, India.

Prof. Manoj Prasad, University of Delhi (south campus), New Delhi, India.

Prof. Ashwani Pareekh, Executive Director, DBT-NABI, Mohali, Punjab, India.

Prof. Bidyut Kumar Sarmah, Director, DBT-North-East Centre for Agri-Biotechnology, Assam Agricultural University, Jorhat, Assam, India.

Prof. S. K. Barik, North-Eastern Hill University, Shillong, Meghalaya, India.

Prof. N. K. Chrungoo, Dean, Royal School of Life Sciences, The Assam Royal Global University, Guwahati, India.

MEMBERS

Prof. A. K. Buragohain, Chairperson (Academics), RGU, Guwahati & Former Vice Chancellor, Dibrugarh University, Dibrugarh, Assam, India.

Prof. Ankur Ganguly, Dean (Academics), RGU, Guwahati, India.

Dr. Dip Narain Singh, Registrar, The Assam Royal Global University, Guwahati, India.

Prof. A. Chatterjee, Dean, Royal School of Biosciences, RGU, Guwahati, India.

Prof. Pranati Das, Head, Department of Food technology, RGU, Guwahati, India.

Prof. B. S. Mipun, Professor, Department of Geography, RGU, Guwahati, India.

Dr. N Seema Devi, Assistant. Professor, Department of Botany, RGU, Guwahati, India.

Dr. Manalee Paul, Assistant. Professor, Department of Botany, RGU, Guwahati, India.

Dr. Upasna Chetry, Assistant. Professor, Department of Botany, RGU, Guwahati, India.

Dr. Upasna Chetry, Assistant. Professor, Department of Botany, RGU, Guwahati, India.

Dr. Pratikshya Borah, Assistant. Professor, Department of Botany, RGU, Guwahati, India.

Dr. Raghuvir Tiwari, Assistant. Professor, Department of Botany, RGU, Guwahati, India.

Dr. Ranjan Dutta Kalita, Associate. Professor and HOD, Department of Biotechnology, RGU, Guwahati, India

Dr. Rupesh Kumar, Assistant Professor, Department of Biotechnology, RGU, Guwahati, India.

Dr. Siddhartha Narayan Borah, Assistant Professor, Department of Biotechnology, RGU, Guwahati, India.

Dr. Bhaskarjyoti Gogoi, Assistant Professor, Department of Biotechnology, RGU, Guwahati, India.

Dr. Debajit Borah, Associate Professor, Department of Biotechnology, RGU, Guwahati, India.

Dr. Anjan Das, Associate Professor, Department of Biochemistry, RGU, Guwahati, India.

Dr. Indrajit Dutta, Associate Professor, Department of Hotel Management, RGU, Guwahati, India

Dr. Shitii Prona Dutta, Assistant Professor, Department of Biochemistry, RGU, Guwahati, India.

Dr. Taranga Jyoti Baruah, Assistant professor and HOD, Department of Biochemistry, RGU, Guwahati, India.

Dr. Chongtham Sovachandra Singh, Assistant professor, Department of Biochemistry, RGU, Guwahati, India.

Dr. Anuj Kumar Borah, Assistant professor, Department of Biochemistry, RGU, Guwahati, India.

Dr. Dharmeswar Barhoi, Assistant Professor and HOD, Department of Zoology, RGU, Guwahati, India.

Dr. Parimal Chandra Ray, Assistant Professor, Department of Zoology, RGU, Guwahati, India.

Ms. Banani Das Hazarika, Assistant Professor, Department of English, RGU, Guwahati, India.

Dr Pundarikashya Das, Assistant Professor, Dept of Botany

Ms. Sangeeta Biswas, Assistant Professor, Department of Zoology, RGU, Guwahati, India.

Mr. Anunudha Chakraborty, Teaching Assistant cum Lab Instructor, Department of Zoology, RGU, Guwahati, India.

NATIONAL ORGANIZING COMMITTEE

CHIEF PATRON

Dr. A. K. Pansari, Chancellor, The Assam Royal Global University, Guwahati, India.

PATRONS

Sh. A. K. Modi, Pro Chancellor, The Assam Royal Global University, Guwahati, India.

Prof. (Dr.) S. P. Singh, Vice Chancellor, The Assam Royal Global University, Guwahati, India.

Prof. M. K. Chaudhari, Chief Advisor, The Assam Royal Global University, Guwahati & Former Vice Chancellor, Central University, Tezpur, Assam

Sh. Ankur Pansari, Executive Vice President, Gyansagar Foundation, Guwahati.

CONTACT DETAILS

Prof. Nikhil Kumar Chrungoo
Contact detail: +919436101651
Email ID : nkchrungoo@rgu.ac

2. Dr. Anushree Baruah
Contact detail: +919864072177
Email ID : abaruah@rgu.ac

Website: <https://apcac2024.org/>
Email ID: alternatecropssymposium2024@gmail.com