

1st Indian Rice Congress-2020

February 27-29, 2020

Cuttack, Odisha, India

Organized By:



Association of Rice Research Workers
Cuttack, India

In Collaboration with



ICAR, New Delhi



NRRI, Cuttack



IIRR, Hyderabad

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Venue: ICAR - National Rice Research Institute, Cuttack, Odisha 753006, India

1st Indian Rice Congress-2020

Rice (*Oryza sativa* L.) may be originated at least 130 million years ago and dispersed as a wild grass, the super continent that eventually broke up and drifted apart to become Asia, Africa, Australia, and Antarctica. Rice has always been one of the most important food crops in the world. It is estimated that 40% of the world's population take rice as their major source of food; 1.6 billion people in Asia take rice as their mainstay food. Rice is produced in a wide range of locations and under a variety of climatic conditions, from the wettest areas in the world to the driest deserts which is produced in 111 countries in the world and grown on 144 million farms worldwide -more than for any other crop. The developing countries, especially the Asian countries - the regions with high population density and the most rapid population growth produce and consume the most rice. Rice production is an important source of livelihood for around 140 million rice-farming households and for millions of poor people working on rice farms as hired labour.

According to the projections made by the Population Foundation of India, the country's population will be 1546 million by the end of 2030, 1695 million by the end of 2040 and 1824 million by the end of 2050. It is estimated that the demand for rice will be 121.2 million tonnes by the year 2030, 129.6 million tonnes by the year 2040 and 137.3 million tonnes by the year 2050 for internal consumption. In addition to this, India is currently exporting about 3.5 million tonnes of basmati and 6.9 million tonnes non-basmati rice per year, earning valuable foreign exchange for the country. In order to achieve this target, the productivity of rice has to be brought to the level of 3.3 tonnes per ha, which is 2.4 tonnes presently. The present rate of rice production growth (0.36%) is far below the population growth rate of 1.63 per cent. Moreover, the profit margin in rice cultivation has eroded making rice cultivation unattractive. Therefore, the two pronged strategy of developing new technologies through more research investments to bring efficiency in production and implementing favourable government policies will help in increasing rice production and productivity in the country to meet the future demand.

Further, water scarcity and increasing competition for arable land put added pressure on agricultural production. In addition, climate change may affect the food production system and reduce reliance through altered weather patterns and increased pressure from pests and diseases particularly in rice. Therefore, the challenge of providing the farmers with tools and resources to enhance rice production with saving of natural resources in shrinking arable lands is an uphill task. Furthermore, this has to be achieved in a climate of increasing variability through climate resilient agricultural technology in which rice cultivation has to reduce its impact and participate to its mitigation. However the problem can be solved through development of improved, environment-friendly and precise agricultural practices and high potential resilient varieties for different agro-ecosystems.

Recent breakthroughs in structural, functional and evolutionary rice genome biology have narrowed the gap between genetic variation and the phenotype performance and allowed the deciphering of the function of important genes underlying agronomically relevant traits pushing current scientific knowledge to address the need of sustainably increasing crop yields and global food security. Biotechnological tools have been deployed wherever necessary to enhance breeding efficiency and to save time. Transgenic rice and hybrid rice technology has been evolved as an essential tool for engineering new plant type, abiotic and biotic stress tolerance varieties. Modern scientific approaches and new technologies are making it possible to increase rice productivity in a sustainable manner, add nutritive value to rice, reduce losses from drought and flood, reduce the environmental footprint of rice production and make the rice production system “climate-smart.” Similarly, new opportunities are now available for enhancing rice value chains, reducing post-harvest losses, adding value through secondary processing and ensuring higher quality and safety of rice and rice products. Regional networks for the sharing of rice technology and market information are being established to raise productivity and stabilize the market supply through improved trading arrangements to achieve the national objective of doubling farmers’ income.

Scientific Themes

I. Genetic advancement for yield, quality and stress tolerance

- ◆ Plant genetic resource and its utilization
- ◆ Climate resilient and stress tolerant rice
- ◆ Breeding for resource use efficiency
- ◆ New plant type and hybrids
- ◆ Speciality rice and biofortification
- ◆ System biology

II. Molecular interventions for trait improvement

- ◆ Functional genomics for trait improvement
- ◆ Bioprospecting of genes and allele mining
- ◆ Transgenic rice
- ◆ Bioinformatics
- ◆ Genome editing

III. Efficient resources utilization and system analysis

- ◆ Resource conservation technologies and Conservation agriculture
- ◆ Climate smart production technology
- ◆ Nutrient and water use efficiency
- ◆ Innovative farming and cropping systems and its management
- ◆ Utilization of microbial resources
- ◆ Crop simulation and modelling
- ◆ System analysis

IV. Biotic and abiotic stress physiology and management

- ◆ Pest dynamics under changing climatic scenario
- ◆ Host-Plant Resistance
- ◆ Next Generation Pesticides
- ◆ Integrated pest, weed and disease management
- ◆ Physiology and biochemistry under stresses
- ◆ Problem soil management
- ◆ Climate change adaptation and mitigation

V. Farm mechanization and agro-processing

- ◆ Farm machinery development and refinement
- ◆ Drudgery reduction and energy efficiency
- ◆ Storage, processing and by-product utilization

VI. Socioeconomics and agro-technology transfer

- ◆ Socio-economic assessment and gender issues
- ◆ Yield gap analysis and technology transfer
- ◆ IT based knowledge transfer

- ◆ Rice value chain models and marketing issues
- ◆ Agribusiness and entrepreneurship development
- ◆ Farm profitability and income enhancement

Presentations during Congress

Lead Paper Presentations

These would offer an insight into the various themes of the congress. A Technical Committee will identify 2 - 3 speakers in each theme. Each lecture will be of 15-20 minutes followed by discussion. Lead speakers of the congress will be requested to provide 3-4 pages extended summaries of their presentation for inclusion in the congress proceedings.

Contributory Paper Presentations

This would provide an opportunity for oral presentation of research papers received/submitted for poster presentation. Limited number of papers will be selected by the committee for presentation based on importance of subject matter and its relevance to the subthemes of the congress and speakers will be informed well in advance for making the presentation. The presentation will be of 7-8 minutes.

Poster Presentations

There will be separate 'Poster Sessions' covering all the themes to encourage wider interaction and information sharing. The extended summary contributed for presentation will be screened as per the theme. Each poster session will have Chairman and Co-Chairman. They will prepare and present summary of the concerned Poster Session for formulation of meaningful recommendations.

Exhibition and Advertisement

An exhibition will be organized at the venue. The details of the space available and charges etc. will be made available in the second circular and on the Society Website. Advertisement can be included in the conference publications.

Registration Fee

Member	: Rs 6,000 (after due date Rs 7,000)
Non-Member	: Rs 7,000 (after due date Rs 8,000)
Students	: Rs 5,000 (after due date Rs 6000)
Industry & Private organization	: Rs 15,000 (after due date Rs 20,000)
Accompanying member	: Rs 5,000

Rupee is the national currency of India. All major currencies can be exchanged at the International Airports, 5-star hotels and Banks. Major currencies are accepted at the hotels and important shopping centers. International credit cards are widely accepted. The registration fee in the form of demand draft in favour of 'ASSOCIATION OF RICE RESEARCH WORKERS' payable at Cuttack may be sent to "The Secretary, Association of Rice Research Workers, Cuttack - 753 006, Odisha, India". Alternatively, fees can be deposited in the account of the Association (Account No. 10329387060, Bank Name: State Bank of India, Branch Name: Nayabazar, Cuttack, Code-2094, IFS Code- SBIN0002094, MICR No.- 753002016) and receipt may be emailed to the organizing secretary.

Key Dates to Remember

Submission of Participation Form	: December 31, 2019
Submission of Extended Summary	: January 15, 2020
Acceptance of Extended Summary	: January 20, 2020
Registration fee (without late fee)	: January 20, 2020
Accommodation Request	: January 20, 2020
Congress	: February 27-29, 2020

Overview of the Congress

The congress will be of three days duration. The venue is ICAR - National Rice Research Institute, Cuttack. English will be the official language. The interested participants may fill up the 'Participation Form' and send back by January 15, 2020 exercising their options, wherever applicable. Registration fee covers all ancillary expenses including lunch, dinner and refreshment during the session. The delegates will, however, bear the expenses of their boarding, lodging and travel. A wide range of hotel accommodation is available varying from 5-star hotels to medium range hotels. The likely tariffs will be given in second circular. Hotel arrangements will be made for participants on request.

Participants will submit extended summary of their research paper before the last date. These extended summaries will be scrutinized for poster presentations and authors will be communicated for preparation of manuscripts accordingly. All modern facilities of public address system and

projection system are available. Guidelines for preparation of extended summary are given separately in the circular. All updates are available at the website 'www.arrworyza.com'.

About Cuttack City

The silver city 'Cuttack; is the former capital and one of the oldest and second largest city in the Eastern Indian state of Odisha. The name of the city is an anglicized form of Kataka that literally means *The Fort*. It is located about 28 km to the north east of Bhubaneswar, the capital city of Odisha. Cuttack is famous for its unique silver filigree work woven textiles. The city is well connected with all other important cities of India by the network of 'Indian Railway' as well as by air via 'Biju Patnaik Airport' Bhubaneswar.

The architecture wonders and heritage sites in Odisha offer breathtaking views and a wholesome experience to the tourists visiting the State. The 'Jagannath Temple', located in the coastal town of Puri, 90 km away from Cuttack, is a famous 'Hindu



Jagannath Temple, Puri



Konark Sun Temple, Puri



Lingaraj Temple, Bhubaneswar



Khandagiri and Udayagiri, Bhubaneswar



Chilika Lake, Puri



Dhault Hill Shanti Stupa, Bhubaneswar

Temple' dedicated to Lord Jagannath. Sun Temple, Konark, located at a distance of nearly 80 km from Cuttack, is famous all over the world is the world heritage monument declared by the UNESCO.

The open air zoo 'Nandankanan National Park' is located at a distance of 20 km from Cuttack. It is famous for the rare white tigers, reptiles and snakes. 'Lingaraj Temple', dedicated to Lord Shiva is located in the Temple city Bhubaneswar.

Dhault Hill Shanti Stupa', one of the most visited Bhddhist pilgrim destinations in India, is located at a distance of 8 km from Bhubaneswar. The edicts at Dhault are a living testimony to Emperor Ashoka's adoption of the doctrine of non-violence. 'Khandagiri and Udayagiri' caves of Bhubaneswar are famous shrines of Jains.

The Chilika lake, the largest coastal lagoon in India and the second largest lagoon in the world is a brackish water lagoon, spread over the Puri, Khurda and Ganjam districts of Odisha state on the east coast of India, at the mouth of the Daya River, flowing into the Bay of Bengal, covering an area of over 1,100 km².

Guidelines for Preparation of Extended Summary

- ◆ Extended Summary should not exceed 1000 words excluding illustration (one) and references. The title should be short, specific and phrased to identify the content of the article. Heading should be in capital letter.

- ◆ Extended Summary should be typed in MS-Word, Times New Roman with normal fonts. Font's size for different parts of extended summary are Title - 14 points bold, Authors – 12 point, Institute name – 11 points italic, Content – 11 points. It should include the author(s) name(s), email id and place of work including the name of the university / organization, State, PIN code and the country. In case, the present address of any of the author is different, it should be given with complete address as footnote.
- ◆ The extended summary should begin with brief introduction and objectives, followed by methodology, results, conclusion and references (maximum two) and illustration (one). Heading of Methodology, Results, Conclusion and References should be given in capital letters. No heading for introduction is required. The guidelines are also available at Society Website: www.arrworyza.com
- ◆ The extended summaries of all the contributory papers will be published and provided to the delegates as soft copy during the congress. These must reach the Organizing Secretary in the prescribed format latest by January 15, 2020. Extended summary prepared without following the style and format and guidelines will not be accepted for publication. A soft copy of the extended summary prepared in Microsoft word doc may be emailed to Organizing Secretary Email: secretaryarrw@gmail.com

Patron

Dr. T. Mohapatra, Secretary (DARE) & Director General (ICAR), New Delhi, India

National Advisory Committee

Dr. T. Mohapatra, Secretary (DARE) & Director General (ICAR), New Delhi, India

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Dr. A K Singh, DDG, ICAR (Agricultural Extension), New Delhi, India

Dr. SK Datta, Ex-DDG, ICAR (CS), New Delhi, India

Dr. RB Singh, Ex-President, NAAS, New Delhi, India

Dr. DP Ray, Ex-Vice Chancellor, OUAT, BBSR, India

Dr. MP Pandey, Ex-Vice Chancellor, BAU, Ranchi, India

Dr. P K Agarwal, Vice Chancellor, OUAT, BBSR, India

Dr. T. R. Sharma, Executive Director, National Agri-Food Biotechnology Institute, Mohali

Dr. N. K. Singh, Project Director, National Institute For Plant Biotechnology, New Delhi

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Dr. LM Gadnayak, Dean, CA, OUAT, Bhubaneswar

Dr. M Variar, IRRI-India, Philippines

Dr. Juhar Ali, IRRI, Philippines

Local Organizing Committee

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Dr. A K Nayak, Editor-in-Chief, ARRW and Head, CPD, ICAR-NRRI, Cuttack

Dr. M J Baig, Secretary, ARRW and Principal Scientist, CPB, ICAR-NRRI, Cuttack

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REGISTRATION FORM

1st Indian Rice Congress-2020

February 27 – 29, 2020, Cuttack (Odisha), India

(Please mail or fax this form so as to reach by January 15, 2020)

Name : Prof. /Dr. / Mr. /Ms.

Country :

Address :
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Tel. No. :

Fax No. :

E-mailId :

ARRW Member Yes ☐ No ☐

Title of the paper:
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Sub-theme of Interest :

I am interested in : (Tick mark the appropriate option)

Attending the Congress :

Presenting a paper : Oral ☐ Poster ☐

Post-Congress tour :

Signature

