

International Conference on

Development and Promotion of Millets and Seed Spices for Livelihood Security

24-26 February, 2023

Venue: Agriculture University, Jodhpur, Rajasthan



Organized by

**Agriculture University, Jodhpur
&
ICAR-AICRP on Pearl millet, Jodhpur**



Welcome Message

Greetings and best wishes from Agriculture University, Jodhpur and ICAR-AICRP on Pearl millet, Jodhpur in the **International Conference on “Development and Promotion of Millets and Seed Spices for Livelihood Security”** scheduled to be organized during **24-26 February, 2023**.

Introduction

Millets, next to cereal grains, contribute 75 per cent of total calorie consumption in resource-poor Asian and African nations, with annual average production of 14.2 and 12.4 million tonnes respectively. India is the world's largest millet producer, accounting for over 80% of worldwide millet production. Millets (Great millet-sorghum, pearl millet-bajra, finger millet-ragi, foxtail millet, little millet, proso millet, barnyard millet and kodo millet) are hardy and grow well in dry zones as rainfed crops, under marginal conditions of soil fertility and moisture and are stable yielders. Millets have higher protein content than rice and wheat, as well as dietary fibers, iron, zinc, calcium, phosphorus, potassium, vitamin B and important amino acids. Pearl millet is the 4th most important cereal crop in the India after rice, wheat and maize. With 9.35 million tonnes of pearl millet grains produced from an occupied area of 7.41 million ha and an average productivity of 1391 kg/ha, India is the world's largest producer of pearl millet. The major pearl millet growing states are Rajasthan, Maharashtra, Gujarat, Uttar Pradesh and Haryana which account for more than 90% of pearl millet acreage in the country. Pearl millet is highly cross pollinated, climate resilient C₄ plant with high photosynthetic efficiency and biomass productivity. It is a hardy crop adapted to extreme environments and thrives in hot and dry climates with an annual rainfall even as low as 250 mm, where other major cereal fails to grow. Being a climate-resilient crop, pearl millet is very important in mitigating the adverse effects of climate change facilitating income and food security to the farming communities of arid regions. It is a good source of carbohydrate, energy, dry matter (92.5%), fat (5-7%), ash (2.1%), dietary fibre (1.2g/100g), crude protein (13.6%), quality protein (8-19%), starch (63.2%), α -amylase activity, minerals (2.3mg/100g), vitamin A and B, antioxidants, essential amino acids. It is rich in unsaturated fatty acids (75%) that are useful in lowering cholesterol and reducing cancer risk. Being gluten-free, it is extremely useful for people suffering from celiac diseases. Pearl millet is exceptionally useful for people suffering from diseases like diabetes, obesity, heart problem, atherosclerosis and metabolic diseases due to its health beneficial properties. Due to the excellent nutritional properties, pearl millet is designated as a nutri-cereal by Govt. of India (Gazette of India, No. 133 dated on 13th April, 2018) for production, consumption and trade. The Government of India has declared year, 2018 as the "Year of Millets," and the United Nations General Assembly (UNGA) has declared the year, 2023 as the "International Year of Millets" to bring millets into the mainstream for exploiting their nutritional properties and promoting their cultivation and use.

Spices have been essential crops since the dawn of time and their demand drew the ancient world's global trade route. Spices are primarily grown in the Mediterranean, Southern European and South Asian regions. India is the world's largest producer of seed spices, which are grown over 22.1 million hectares and produce 22.06 million tonnes. Indian spices have always been regarded as high-quality products. India produces 63 spices out of the 109 spices specified by the International Organization for Standardization (ISO) because of its diverse agro-climatic requirements. Coriander, cumin, fennel, fenugreek, dill seed, ajwain, celery, nigella and caraway are the most common seed spices grown in India. Seed spices account for around 45 percent of the country's overall spice production and 18 percent of its entire land.

The total value of seed spices exported in India is ₹ 5365 crores. These crops are primarily grown in the country's arid and semi-arid regions. Due to their large area and production of seed spices, the western Indian states of Gujarat and Rajasthan have been designated as the "bowl of seed spices." These two largest states account for roughly 72 per cent of total area and 86 per cent of total production. Seed spices have been in use for centuries both for culinary and medicinal purposes. Seed spices not only enhance the flavour, aroma, colour of food and beverages, they can protect from acute and chronic diseases. Seed spices have a diverse array of natural phytochemicals that have complementary and overlapping actions, including antioxidant effects, anti-inflammatory, antimutagenic/anticancer, hypoglycaemic potential/antidiabetic, antimicrobial activity, hypolipidemic effect, insecticidal, useful in menstrual disorders, helping in digestion, hypertension, modulation of detoxification as well as properties that affect cognition and mood.

About the Conference

In the current scenario, it is highly desirable to analyse the latest developments taking place in millets and seed spices both at national and international level, identify the gaps and chalk out a road map for development and promotion of livelihood security of farmers. This international conference shall provide a forum to discuss the entire gamut of issues relating to latest development and future challenges in millets and seed spices. The outcome of the conference would provide the practical solutions for students, researchers, policy makers, industries and farmers. This conference shall provide an interdisciplinary forum for pearl millet and seed spice researchers across the globe to exchange their experiences and vision on developments/improvisations in these crops with respect to genetic resources, genomics, crop improvement, production system, crop management, nutrition, processing, value addition, Govt. policies and support system. The conference shall feature technical sessions with lead/invited lectures and contributory oral/poster presentations. The conference also provides an opportunity to exhibit innovations in processing, value addition and marketing of millets, millets-based products and seed spices. Separate exhibition stalls are allocated in the conference area for exhibitors.

About the Agriculture University, Jodhpur

Agriculture University, Jodhpur was established on 14th September, 2013, with the goal of developing highly qualified educated human resources in agriculture and allied sciences, as well as the upliftment of economy of the farming community of Western Rajasthan. The University's territorial authority spans six districts (Jodhpur, Barmer, Nagaur, Pali, Jalore and Sirohi), accounting for 28 per cent of the state's total geographical area supporting 20.8 per cent human and 28.4 per cent animal populations with annual precipitation of 100 to 600 mm. Through its various units, including six constituent colleges, two Agricultural Research Stations (ARS), three Agricultural Research Sub-Stations (ARSS) and eight *Krishi Vigyan Kendras* (KVKs), the Agriculture University, Jodhpur, has a strong teaching, research and extension set up to envision agricultural development in the western parts of Rajasthan.

About ICAR-AICRP on Pearl millet, Jodhpur

Research on pearl millet improvement in India is carried through the ICAR-All India Coordinated Research Project on Pearl Millet (ICAR-AICRP-PM) which is a continuing central plan project established in 1965 by Indian Council of Agricultural Research. The AICRP on pearl millet headquarter is located at Jodhpur. It has a network of 12 AICRP centers in Rajasthan, Gujarat, Maharashtra, Karnataka, Andhra Pradesh, Madhya Pradesh, Punjab, Haryana and Tamil Nadu. AICRP on pearl millet has 35 cooperating/ voluntary centres across

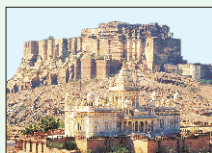
India which are actively involved in coordinated evaluation programme. The famous pearl millet hybrids MPMH 17, MPMH 21 and MPMH 35 are bred from PC unit of ICAR-AICRP on pearl millet while seed production and popularization is done through Agriculture University, Jodhpur.

About the Jodhpur City

Jodhpur is the second largest city in the Indian state of Rajasthan and officially the second metropolitan city of the state. It was formerly the seat of the princely state of Jodhpur State. Jodhpur was historically the capital of the Kingdom of Marwar, which is now part of Rajasthan. The city is a popular tourist destination, featuring many palaces, forts and temples, set in the stark landscape of the Thar Desert. It is popularly known as the "Blue City" among people of Rajasthan and all over India. The old city circles the Mehrangarh Fort and is bounded by a wall with several gates. The city has expanded greatly outside the wall, though, over the past several decades. Jodhpur lies near the geographic centre of the Rajasthan state, which makes it a convenient base for travel in a region much frequented by tourists. The city featured in The New York Times's "52 Places to Go in 2020". The city is also home to several educational institutions, the most prominent being All India Institute of Medical Sciences (AIIMS), Indian Institute of Technology (IIT), Dr. Sampurnanand Medical College, Dr. Sarvapalli Radhakrishnan Rajasthan Ayurveda University (DSRRAU) and National Law University (NLU) and many research institutes, such as Indian Space Research Organisation (ISRO), Defence Research and Development Organisation (DRDO), Central Arid Zone Research Institute (CAZRI), Arid Forest Research Institute (AFRI), National Institute for Implementation Research in Non Communicable Diseases (NIIRNCD) and Footwear Design & Development Institute (FDDI).

Places to Visit

Jodhpur's most notable attractions are Mehrangarh Fort which overlooks upon the city, the blue by lanes of the old city are also an attraction, Umaid Bhawan Palace, Jaswant Thada and the *Ghanta Ghar* (Clock Tower). Tourists are also within proximity to Mandor Garden, Kaylana Lake and Garden, Balsamand Lake, Machia Biological Park, Rao Jodha Desert Rock Park, Ratanada Ganesh Temple, *Toorji Ka Jhalra* within Jodhpur city.



Mehrangarh Fort



Umaid Bhawan Palace

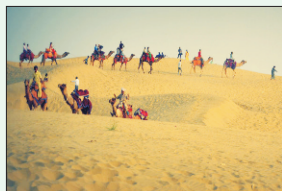


Clock Tower



Mandor Garden

Apart from these, nearby famous tourist destinations from Jodhpur in Rajasthan include the golden city Jaisalmer (275 km), the lake city Udaipur (250 km) and the camel city Bikaner (250 km).



Golden City, Jaisalmer



Lake City, Udaipur



Camel City, Bikaner

Who can Attend

All professionals, researchers, academia, policymakers, extension functionaries, industrialists, students, field officers, food processors and those involved in millets and seed spices processing, value addition and marketing are welcome to participate. Delegates are encouraged to register early to facilitate the best arrangements possible.

Weather

In February, the average temperature is of 23 °C, with a minimum of 18 °C and a maximum of 28 °C.

How to Reach

Jodhpur city is well connected by rail, road and air. Headquarter of Agriculture University, Jodhpur at Mandor situated on NH 65 towards Nagaur and Bikaner, which is 10 km from the main railway station and 13 km from the airport.

Date & Venue

The Conference will be held at Agriculture University, Jodhpur during 24-26 February, 2023.

Accommodation

The registered delegates who pay their registration fee online can book accommodation directly in any of the following's hotels:- Indana Palace (Contact no. 02917184888), Chandra Inn (Contact no. 02912670583), RTDC hotel Ghoomar (Contact no. 02912544010), The Ummed Jodhpur Palace Resort & Spa (Contact no. 0291 6621111) and The Kothi Heritage (Contact no. 02912641700).

Theme Areas

I. Genetic resources, genomics and crop improvement

- Germplasm conservation and utilization
- Trait discovery and pre-breeding
- Conventional improvement
- Genomics, molecular breeding and innovative tools and techniques in crop improvement

II. Production systems and crop management

- Good agricultural practices for sustainability
- Diversification of cropping systems
- Biotic and abiotic stress management
- Seed systems, quality seed production and management

III. Nutrition, processing, value addition and markets

- Nutritional and health benefits
- Processing, value addition and post-harvest management
- Millets and seed spices based traditional and functional foods
- Market linkages and entrepreneurship development
- International market and export

IV. Government policies, support systems and future of millets and seed spices

- Building sustainable Farmer-Producer Organization (FPOs)
- Central and State Government initiatives for mainstreaming millets and millets based products
- Public Distribution Systems and Social welfare schemes
- Role of NGOs in millets and seed spices promotion

Preparation of Abstracts

All the oral presentation will be delivered by identified speakers. Authors of selected abstracts will be requested to submit full length papers. Full length papers must be submitted before 31st December, 2022. Accepted full length papers for publication will be published in the souvenir of ***International Conference on Development and Promotion of Millets and Seed Spices for Livelihood Security***. Abstracts be sent in MS word (Font size-10, font arial, single line spacing with 3 cm margins all around and should indicate main conclusion and free from references) having upto 300 words excluding title, authors and affiliations to the **Organizing Secretary, International Conference on Development and Promotion of Millets and Seed Spices for Livelihood Security** through e-mail (as attached file) at **organizingsecretary2023@gmail.com** alongwith duly filled in registration form upto 15th January, 2023 (For early bird registration).

Poster Presentation

The poster presentation for each thematic area will be conducted separately. The participants should prepare the poster (4'x3') including short title, authors name and address, brief introduction, material methods, results and discussion including tables and graphs followed by conclusion and relevant reference. The full-length papers on original research should contain title, abstract, key-words, introduction, material and methods, results and discussion, acknowledgement and references. Paper should not exceed 3,500 words (Approx. 10 typed pages, font arial), Paragraphs headings (Font:10, type: Bold *i.e.* introduction, materials methods, results discussion etc.) with 3 cm margins all around. The contributions should be concise and latest. Full length paper should be sent through email at **organizingsecretary2023@gmail.com**.

Award

The posters will be evaluated by a panel of eminent judges and selected for award, which will be given at the end of the conference.

Conference fee registration details (Registration shall be open from 10th December, 2022 and continues till 15th January, 2023 for early bird and later for late registration)

Category	Early bird registration (Upto 15 th January, 2023)	Late registration (From 16 th January, 2023)
Foreign delegates	US \$ 200	US \$ 250
Foreign students	US \$ 120	US \$ 150
Accompanying person (Foreign)	US \$ 120	US \$ 120
Indian Delegates/Scientists/ Scientist Associate	₹ 6,000	₹ 7,000
Students/Research fellows	₹ 3,000	₹ 4,000
Accompanying person (Indian)	₹ 3,000	₹ 3,500
Corporate/ Private organization/industries etc.	₹ 8,000	₹ 10,000

Exhibition and Sponsorship Opportunities

Name of scheme	Amount	Benefits
Bronze	₹ 1 lakh	1 stall, ½ page colour advertisement in the souvenir, free registration for 1 delegate
Silver	₹ 2 lakh	1 stall, ½ page colour advertisement in the souvenir, free registration for 2 delegates
Gold	₹ 3 lakh	1 stall, 1 page colour advertisement in front and back inner page of the souvenir, free registration for 2 delegates
Platinum	₹ 4 lakh	2 stalls, 1 page colour advertisement in back outer page of the souvenir, free registration for 4 delegates

Registration fee includes: Registration and conference kit; Refreshments during session breaks; Conference lunches on all three days. Fees for accompanying person include – Refreshments during session; Conference lunches on all three days; Paid tour to Jodhpur city.

Bank Details:

Account name : ZDR & Chairman, Organising Committee ARS, Mandore, Jodhpur
Bank name : UCO Bank
Branch : Mandor, Jodhpur, Rajasthan
Account number : 05630110032114
IFSC : UCBA0000563
MICR : 342028003

Dates to Remember

End of Abstract submission **31st December, 2022**
Deadline for early registration **15th January, 2023**
Intimation of Acceptance of Abstracts **20th January, 2023**

University Level Conference Coordination Committee

Vice Chancellor

Prof. (Dr.) B.R. Choudhary, Hon'ble Vice Chancellor

University Directors & Deans

- Dr. Ishwar Singh, Director Extension Education
- Dr. S.D. Ratnoo, Director Research
- Dr. V.S. Jaitawat, DSW
- Dr. M.M. Sundaria, Director PME
- Dr. J.R. Verma, Director HRD
- Dr. S.R. Kumhar, Dean, CoA, Jodhpur
- Dr. Ummad Singh, Dean, CoA, Baytu
- Dr. R.L. Bhardwaj, Dean CoA, Sumerpur
- Dr. Ramdev Sutaliya, Dean CoA, Nagaur

Organizing Secretary

- Dr. C. Tara Satyavathi, PC (Pearl millet)
- Dr. Moti Lal Mehriya, ZDR, ARS Mandor

Co-Organizing Secretary

- Dr. Vikas Khandelwal, Sr. Sci., AICRP on PM
- Dr. Mithlesh Kumar, Associate Professor
- Dr. Ashok Kumar Meena, Associate Professor
- Dr. Pradeep Pagaria, Asso. Dir. DEE
- Dr. Chandan Roy, Associate Professor
- Dr. Naleeni Ramawat, Associate Professor

PARTICIPATION FORM

Development and Promotion of Millets and Seed Spices for Livelihood Security

February 24-26, 2023 at Jodhpur, Rajasthan

(Please mail this form so as to reach the Organizing Secretary latest by 15th January, 2023)

Name: Prof./Dr./Mr./Mrs./Ms. _____
(Please fill in capital letter)

Designation: _____

Male/ Female: _____

Organization: _____

Country: _____

Mailing address: _____

Mobile no.: _____

Email address: _____

Theme areas of interest: _____

Registration fee details: _____

Amount (₹): _____ Date: _____ Name of bank: _____

I am interest in [Tick your option(s)]

Attending the conference []

Presenting an oral paper []

Presenting a poster []

Date:

Signature

Mailing Address:

Organizing Secretary

**International Conference on Development and Promotion
of Millets and Seed Spices for Livelihood Security**

Agriculture University, Jodhpur Rajasthan - 342304

Email (Organizing): organizingsecretary2023@gmail.com

For submission of abstracts, full length papers and registration details
please visit our website at : <https://www.aujodhpur.ac.in/>