

Scientists find high-yielding, nutritious ragi in Koraput

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Bhubaneswar: A group of researchers from the Central University of Odisha (CUO), Koraput and the MS Swaminathan Research Foundation's (MSSRF) regional centre at Jeypore identified some nutritious and high-yielding varieties of finger millet (ragi) cultivated in tribal areas of Koraput district.

This study was published on December 21 in the Cereal Research Communications, a peer-reviewed international journal. The team comprising six researchers from the two institutions identified Bhalu, Ladu, Telugu and Bada as high-yielding. These are better than the improved hybrid varieties, said MSSRF's scientist Kartik Charan Lenka.

Lenka said these valuable varieties will address food and nutritional security of tribal inhabitants. High-yielding characters of these ragi varieties can be used for development of new varieties, he added.

Debabrata Panda, an assistant professor in the department of biodiversity and conservation of natural resources, CUO, said three varieties, including Telugu, Bada and Dushera, showed better nutritional compositions (higher protein, carbohydrate, fibre, ash and energy content) and are exceptionally rich in flavonoids and antioxidants. These superior millets might be reliable food and nutritional security crops for the tribal people, he added.

DEMAND FOR RAGI

➤ More than 33 indigenous finger millet (ragi) varieties were collected from tribal pockets of Koraput for the study

➤ They identified high-yielding finger millet varieties like Bhalu, Ladu, Telugu and Bada, which are better than the improved hybrid varieties

➤ Varieties like Telugu, Bada and Dussehra showed better nutritional compositions (higher protein, carbohydrate, fibre, ash, energy content) and were exceptionally rich in flavonoid and antioxidants



Researcher Debabrata Panda at his ragi farm

➤ The UN declared the year 2023 as the International Year of Millets

➤ The Odisha government started the Millet Mission for promotion of millets

➤ First Thursday of the Odia month of Margasira is celebrated as Mandia Dibasa to popularise millets, including ragi or "mandia". First Mandia Dibasa was celebrated on November 10, 2021

More than 33 indigenous finger millet genotypes (ragi varieties) were collected from tribal pockets of Koraput for a study on their climate-resilient traits, nutritional traits and DNA profiling. Panda did the experiment with the help of scientists from MSSRF and reported the results based on the synthesis of experiments carried out in the laboratory of the CUO and MSSRF.

Based on the genetic analysis, these varieties can be considered as the potential genetic resources for a breeding programme for the development of superior millets. The better nutritional and climate-resilience characters of these varieties can be used for the development of new varieties, he added.

Panda said these superior

traditional finger millet varieties should be popularised for mass cultivation and consumption in the locality by the Millet Mission of the state government.

The researchers said valuable genetic assets are being continuously eroded due to modern farming practices. "If steps are not taken to protect the valuable genetic resources, these traditional varieties grown by the farmers are likely to be lost shortly. It is high time that we take necessary steps to conserve these valuable genetic resources of millet in their natural habitat," said Panda. Lenka said a strategy to promote commercial production of these indigenous millet is required to boost the local economy and create a market so as to reach more consumers.