# Space tech-based spectral library for Uma rice launched

**Our Bureau**
Kochi

The Kerala University of Fisheries and Ocean Studies and the Centre for Water Resources Development and Management (CWRDM) has successfully developed a spectral library for Uma rice, a popular indigenous rice variety in Kerala, using space technology.

The team, headed by Girish Gopinath of Kufos, utilised remote sensing to study the variations in the spectral signature of Uma at different growth stages and identified spectra indicative of water stress conditions.

The space technology-based spectrum has the potential to revolutionise the monitoring of Uma rice cultivation, reducing the need for extensive fieldwork, labour and



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costs, Girish Gopinath said.

U Surendran led the counterpart team of scientists from CWRDM. The study, titled "Development of Spectral Library for Hyper-spectral Data with Special Emphasis on Paddy," was funded by the Kerala State Council for Science, Technology, and Environment with a grant of ₹83.5 lakh.

**STRESS-TOLERANT**
Uma rice, also known as 'unda rice', characterised by its round shape and sticky texture, is a popular rice variety released from Mancompu research sta-

tion of Kerala Agricultural University in 1998. Uma variety has been preferred in Kuttanad since it's launching due to its high yield and stress tolerance.

Eventually, it became the most commonly grown variety in Kerala. It holds a special place in Kerala's culinary landscape, contributing to the State's diverse food culture.

Despite the challenges posed by climate change and associated extreme events in paddy cultivation in Kerala, Uma rice remains a staple.

This library facilitates precise assessments of the spatial distribution of the Uma variety in specific locations, understanding its current growth stage, and assessing influences of water or nutrient stress.

Additionally, it enables yield estimations through the utilisation of remote-sensing image.