

Science Setu Webinars by NIPGR
“Making India Malnutrition Free: By Improving
Nutritional Qualities of Rice Grain”

Press- Note

Date: 24-09-2021, Friday

Resource person: Dr. Hasthi Ram, Scientist II, NIPGR

The Department of Biotechnology, Government of India, has planned “Science Setu” as a virtual platform to connect research Institutes with undergraduate students. Under this, our college has been assigned to National Institute of Plant Genome Research (NIPGR), New Delhi. NIPGR is an autonomous institution aided by the Department of Biotechnology. Research at NIPGR focuses on functional, structural, evolutionary and applied genomics of plants, including crop plants. Through the Science Setu program, our students and faculty virtually connect with NIPGR, New Delhi and got to know about the multifarious kinds of plant-based research. It is a unique opportunity for science students at undergraduate level to get an exposure to high-level research.

Dr. Pinky Agarwal, Scientist, NIPGR gave welcome note on this event. **Resource person: Dr. Hasthi Ram, Scientist II, NIPGR** started his lecture with brief overview of white rice being the staple food for almost half of the country and its connection to malnutrition in India. He discussed the post-harvest processing (polishing/milling) of brown rice which lead to removal of bran layer consisting of aleurone layer, pericarp and embryo to produce white rice. He then elaborated the nutritional importance of bran layer which has rich reserves of various minerals, vitamins, essential mineral oils and other bioactive compounds as compared to white rice portion which is nutritionally inferior as it mainly contains starchy endosperm. He further discussed the inherent problems with both the products of the rice post-harvest process i.e. the white rice as well as the bran. Towards the end, he elaborated various processes to increase nutritional value of the white rice with increased the stability of bran through high-resolution tissue-type specific transcriptomics and highly-resolved gene expression dataset.

He inspired all the participants for research by explaining his ongoing research on certain genes which might be potentially involved in micronutrient accumulation, particularly iron and vitamin A, in the grain. In total, 32 participants attended the webinar. Dr. Pinky Agarwal, Scientist IV, NIPGR attended the questions of the participants and gave vote of thanks. It was a knowledgeable and exciting experience for the participants.