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To
The Editor,
Sir,

Date: 29.11.2022

I request that the following message may kindly be published in your esteemed daily:

**TNAU conducts Workshop on Genome Editing in Agriculture:
Opportunities and Enabling Policies**

The Centre for Plant Molecular Biology & Biotechnology, Tamil Nadu Agricultural University, Coimbatore and Biotechnology Consortium India Limited, New Delhi jointly organized a one day workshop on “Genome Editing in Agriculture: Opportunities and Enabling Policies” on 29.11.2022 at TNAU. The scientists and students from various institutes and Industries participated in this workshop.

Dr. N. Senthil, Director, CPMB&B, TNAU, Coimbatore welcomed the gathering and explained about the domestication of wild species for developing cultivable varieties by natural mutation. Then novel alleles are created by mutagenesis employing various mutagens. After completing the sequence of rice genome, targeted mutation was attempted using ZFN, TALENs and CRISPR-Cas9. CRISPR-Cas9 method is demonstrated for improvement of specific characters in animal, human and plant system. To harness the fullest benefits of genome editing technology, it is the hightime to educate the public, administrators and students community, he added.

Dr. Vibha Ahuja, Chief General Manager, Biotech Consortium India Limited (BCIL), New Delhi in her introduction speech, emphasized application of genome editing in pharamaceutical and plant industry. She thanked for support received from Federation of Industries in commercialization of genome editing products and explained about technical sessions to be conducted in the workshop.

Dr. M. Ramasami, Chairman, Rasi Seeds (Pvt.) Ltd., Attur highlighted the potential gaps in production and productivity of important food and cash crops in India when compared to global scenario. He also emphasized increase in cost of inputs leads to insufficient and unsustainable use of resources. Genome editing is upcoming promising tool for improving agricultural productivity. Since the productivity of the crops is affected by biotic and abiotic stresses, genome editing tool is used to overcome these challenges in short period. The support from government for centralized blanket license to access proven CRISPR/Cas9 or other relavant technology would boost product development and commercialization. Also the technical support can be provided by designated ICAR / state

universities and academics in basic research areas will be helpful for smaller enterprises. He mentioned that the clarity on Intellectual property policy to protect genome edited event / products for commercialization is very important. In the recent past, few genome edited products are commercially released for the benefit of farmers and consumers. And for the industrial people this is the right time to channelize their efforts to overcome the constraints and challenge in product development, he added.

Dr. R. Thamizh Vendan, Registrar, TNAU in his inaugural address gave an introduction about development of new plant varieties by the revolutionizing CRISPR/Cas9 technology. He explained about huge applications of CRISPR technology including development of crop plants with improved yield, disease resistance, climate resilience, herbicide resistance, non browning mushrooms, high nutrition rice, wheat, mustard and millets. He emphasized about the pioneering work of TNAU on genome editing. Rice genome editing work carried out in TNAU resulted in the development of aromatic rice, tungro disease resistant rice and bacterial leaf blight rice. TNAU is actively working in the area of tomato genome editing to develop jointless pedicel tomato with enhanced fruit shelf life, tomato with tomato leaf curl virus resistance, salt tolerant and yellow stem borer resistance in rice, he added.

Dr. C. Viswanathan, Joint Director (Research), ICAR-IARI, New Delhi in his special address, indicated about two mutations in rice and wheat resulted in green revolution in India. He explained about the barriers in development of new varieties by intergeneric / interspecific crosses and the barriers were overcome by adopting genome editing technology. BT cotton was widely commercialized in India using GM technology and adopted by farmers. Due to regulatory issues in GM technology the public funded institutes could not able to contribute much in developing the products. Since the government released new regulatory guidelines for gene edited crops all the public funded institutes can utilize this opportunity for developing the new product using gene editing technology, he added.

Finally, Dr. E. Kokiladevi, Professor & Head, Department of Plant Biotechnology proposed a vote of thanks. It is followed by the technical session in which the scientists discussed basics of gene editing, technical advancement, policies and regulations for gene editing in crops.

Public Relations Officer