6-1-2021

Plant Genetics and Genomics for Building a Sustainable Agriculture System

Dhirendra Kumar
East Tennessee State University, kumard@etsu.edu

Jaindra N. Tripathi
International Institute of Tropical Agriculture (IITA)

Sushma Naithani
Oregon State University

Citation Information

Kumar, Dhirendra; Tripathi, Jaindra N.; and Naithani, Sushma. 2021. Plant Genetics and Genomics for Building a Sustainable Agriculture System. *Current Plant Biology*. Vol.26 https://doi.org/10.1016/j.cpb.2021.100208

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Current Plant Biology 26 (2021) 100208

Contents lists available at ScienceDirect

Current Plant Biology

journal homepage: www.elsevier.com/locate/cpb

Editorial

Plant genetics and genomics for building a sustainable agriculture system

As the Covid-19 pandemic continues for another year, we mourn for the lives lost and send our condolences to the bereaved families and communities around the world. We find courage and inspiration from the plant research community (including the authors of the Current Plant Biology) to continue our scholarly work. We thank our reviewers, who invested their precious time selflessly and made possible the publication of the second issue of Current Plant Biology on schedule. This year, we have changed our publication policy and indexing of the articles submitted to a special issue (SI). To improve overall publication speeds, we publish an article as soon as it becomes available in regular volume and simultaneously file it under a virtual SI (if applicable). Virtual special issues are easily accessible and navigable on ScienceDirect and will foster additional visibility and easy navigation of articles. We currently have three special issues open for 2021 and encourage our authors to submit manuscripts under special issues.

This volume includes the following four articles from virtual SI: Understanding plant's response to global climate change using Omics.

Kumar et al. [1] reviewed the role of reactive oxygen and nitrogen species in cell signaling during seed development.

Rathi et al. [2] provided a review of genomic resources available for breeding of an underutilized legume crop Grass Pea (*Lathyrus sativus*), a hardy and climate-resilient crop.

Sami et al. [3] provided a detailed analysis of helicases and translocases and their role in mitigating adverse effects of various abiotic stresses. The authors also compared the helicases and translocases gene families of the dicot model plant Arabidopsis with monocot model rice.

Kumar et al. [4] reviewed the role of serotonin and melatonin during heat stress-mediated changes in cell cycle regulation and metabolism of ethylene and isoflavones in soybean (*Glycine max*).

In addition, we have included the following six regular articles in this volume:

Raquid et al. [5] described a likely association of a few rice genes with seed longevity traits in rice (*O. sativa*) based on *in silico* analysis.

Santos and Olivares [6] reviewed the structures of various plant microbiomes and their benefits to sustainable agriculture. The authors also discussed different strategies used in the study of plant microbiomes.

Raji and Siril [7] analyzed morphological characteristics and genetic diversity (using ISSR markers) of Ceylon olive (*Elaeocarpus serratus* L.) varieties that are commonly grown in the Indian state, Kerala, and identified high yielding germplasm for Ceylon olive breeding program.

Sharma et al. [8] suggested that future breeding may benefit from combining a smooth (hairless) trait, pod length, and pods per plant based on the analysis of the traits controlling the yield, flower color, and hairiness in the cluster bean (*Cyamopsis tetragonoloba* (L.) Taub).

Swapnil et al. [9] reviewed the role of plant pigment carotenoids in mitigating stress in plants and humans. The authors discussed the various attempts made to metabolically engineer carotenoids for bio-fortification of common food crops.

Finally, we have included a tribute article by Naithani [10] on late J. Manjrekar (M. S. University of Baroda, India).

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Dhirendra Kumar
Department of Biological Sciences, East Tennessee State University, Johnson City, TN, 37614-1700, USA
E-mail address: kumard@etsu.edu.

Jaindra Nath Tripathi
International Institute of Tropical Agriculture (IITA), PO Box 30709-00100, Old Naivasha Road, Nairobi, Kenya
E-mail address: j.tripathi@cgiar.org.

https://doi.org/10.1016/j.cpb.2021.100208

Available online 27 April 2021

Sushma Naithani*
Department of Botany and Plant Pathology, Oregon State University, Corvallis, OR, USA

* Corresponding author.
E-mail address: sushma.naithani@oregonstate.edu (S. Naithani).