A Ghosh, Madridge J Food Technol. 2017
http://dx.doi.org/10.18689/2577-4182.a1.012

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International Conference on
Food Science and Bioprocess Technology
November 20-22, 2017 Dubai, UAE

ORGANIC RICE: Organic Rice: Future Conviction for Food, Environmental and Nutritional Security in Global Perspective

A Ghosh
ICAR-Indian Agricultural Research Institute, India

Global agriculture, as of today, advances from traditional wisdom to the future conviction of food, nutritional and environmental security. However, alarming proximity of pesticides in particular and agro-chemicals in general emerges as a great concern posing severe threats to the agriculture today. Since recent past, the prospect of organic rice farming has got momentum in cognizance with its considerable demand globally, that constitutes organic food market more than worth $37 billion. The United States emerges as the largest importer of organic foods, followed by the European Union. Hence, a paradigm shift in rice cultivation from conventional farming to organic farming needs to be ascertained for the great cause of humanity and environment too.

Research & Results: The organic rice production technology can primarily constitute efficient crop, bio resource and biocide / botanical management in a cropping system mode. Improved HYV namely Ketakijoha, CR Sugandhadhan 907, etc., while grown under organic nutrient management using green manure, FYM, biofertilizer, and botanical pesticides for plant protection produce comparable grain yield of 3.5 – 4.5 t ha^{-1}. In addition, grain quality parameters would be improved showing higher antioxidant capacity (40.2-98.9%) and higher essential phytochemical namely Falvonoids (4.53 CEt/g) and γ - Oryzanol (0.81 mg/g) compared those of 33.7-98.5%, 3.00 CEt/g and 0.71 mg/g respectively in normally grown rice. The crop productivity could be sustainable while grown in sequence with ground nut in a cropping system mode ensuring environmental and soil health resilience.

Conclusion: There are some inherent constraints inhibiting desirable expansion of organic rice cultivation globally. It includes researches in right perspective and formulation as well as proper execution of government discrete policy. Development of varieties responsive to low input management, organic nutrient management with naturally available bio-resources, formulation of high efficacy low volume botanicals / bio-cides, etc. are some important researchable issues. Locally procurement of organic rice with premium prices, ease of certification of the organic rice, value added organic rice products, organized disposal / sale counter / market are some of the policy issues.

Therefore, in cognizance with the growing demand for organic rice in global market, scientist, policy makers and stakeholders need to congregate for working hand in hand to resolve those problems.

Biography:

Amal Ghosh has the expertise on organic agriculture with special emphasis on organically grown rice by virtue of his intensive research on rice agronomy under natural resource management since last more than 20 years. In his study, he developed the agro- technology for organic rice production system that could serve the burgeoning need of organic rice globally. However, juxtaposition of researcher and policy maker is essential to promote farmers for adequate production and procurement as per demand.