

# Journal of Agricultural Science and Botany | Volume 1, Issue 1.

Mohamed Youssef\*

Department of Food Science and Technology, Faculty of Agriculture, University of Alexandria, El-Shatby, 21545, Alexandria, Egypt

Accepted on September 20, 2017

## Editor Note

Agriculture, dealing with food production practices under diverse agro-ecological conditions confers socio-economic stability and development in a country particularly among rural populations while plant science (Botany) dealing with structural and physiological aspects of plants and post-harvest technology are relevant for maximizing utility and value of the agricultural produce. Since more than 70% of water is used for agricultural produce, irrigation is the major dimension of agriculture. The current issue of Journal of Agricultural Science and Botany brings forth the latest original research outcomes pertaining to plant seedling tolerance, crop food/nutritional value, food processing and water resource management. Cold tolerance of plant seedlings and early spring cold planting leads to higher production and productivity in crops. In this context, Wang et al. [1] tested 212 sweet sorghum accessions for early spring and cold tolerance trait based on germination frequency, dry weights as well as field planting evaluation and found a significant variability among accessions which could help in genetic mapping and identification of the relevant genes. Liu et al. [2] studied the amount of flavonoids and pectin which have nutritional and health relevance, in 6 different tissues belonging to 7 accessions of Okra and found substantial variability among different accessions as well as different tissues. Rich genetic and tissues sources of flavonoids and pectins from Okra were identified which could help in further breeding-based improvement of the crop in terms of medicinal/food value. Kizito et al. [3] evaluated the organoleptic and oil absorption attributes of potato french fries with different coating material, at different frying and freeze storage conditions and found that potato strips fried at 170°C for 11 min after coating with 1% carboxymethyl coating (CMC), gave best results and have also simultaneously noted that free fatty acids and secondary oxidation products in fact increase with freeze storage time except p-anisidine. Ourang [4] studied various water resource management options for profit maximization by linear programming with the ultimate aim of sustainable agriculture involving cereals, cucurbits, alfalfa, corn and cotton. They ascertained that maximum financial efficiency in terms of profit-to-water consumption ratio was 0.33 while the least was 0.22 and have emphasized that though ground water usage leads to incremental profit; it causes higher consumption of water resources and diminishes

water productivity. The findings that are highlighted in this issue advances our knowledge of (a) abiotic tolerance levels in different sorghum accessions and the relation between in vitro and ex vitro conditions in terms of stress adaptability (b) The distribution of important nutritional components among different Okra accessions with immense relevance in selection and breeding new cultivars with enhanced agricultural and food value for food and nutrition sufficiency (c) The optimal processing factors that yield consumer preferred quality attributes of potato French fries and (d) The irrigation water management options for enhanced profitability and environmental sustainability. However, the validity of the research outcomes depends on the yield levels of sweet sorghum and Okra accessions, the testing of nutritional role of CMC in potato french fries and finding ideal water resource management approach under drought conditions.

## References

1. Wang ML, Xin Z, Burow G, et al. Evaluation of sweet sorghum accessions for seedling cold tolerance using both lab and field cold germination test. *J Agric Sci Bot* 2017;1(1):4-11.
2. Liu S, Huang J, Li M, et al. Study on the flavonoids and pectin contents in different okra (*Abelmoschus esculentus* L.) accessions. *J Agric Sci Bot* 2017;1(1):12-6.
3. Kizito KF, Abdel-Aal MH, Ragab MH, et al. Quality attributes of French fries as affected by different coatings, frozen storage and frying conditions. *J Agric Sci Bot* 2017;1(1):18-24.
4. Ourang S. Water resources management optimization and development of sustainable agriculture, case study: Pakdasht plain. *J Agric Sci Bot* 2017;1(1):25-9.

### \*Correspondence to:

Mohamed Youssef  
Department of Food Science and Technology  
Faculty of Agriculture,  
University of Alexandria,  
El-Shatby, 21545, Alexandria, Egypt  
Tel: +201005559609  
E-mail: m\_m\_youssef@yahoo.com