

3RD GLOBAL FOOD SECURITY, FOOD SAFETY & SUSTAINABILITY CONFERENCE

May 21-22, 2018 | New York, USA

Phenotypic responses of maize (*Zea mays L.*) for grain development under drought stress

Javed Hussain Umrani
Sindh Agriculture University, Pakistan

Climate change and drought stress are a major challenge for sustainable food production as they may decrease the potential yields in crop plants. Drought is a major environmental factor that harshly lowers plant production worldwide. Globally, maize (*Zea mays L.*) is a major crop seriously affected by drought. Success in genetic engineering and plant physiology for better adapted varieties to abiotic stresses depends upon intensive efforts using physiological approaches. Many abiotic stress-induced genes have been identified and some have been approached. The use of current tools physiologically reveals the control mechanisms of drought-stress tolerance in maize. Previously composition and expressions of stress and light harvesting-responsive genes were investigated in ABP9 [ABA-responsive-element (ABRE) binding protein 9] transgenic Arabidopsis. Hence, phenotypic such as chlorophyll florescence, NDVI and ASI approaches allow the development of drought stress-tolerant to transgenic maize. Transgenic plants carrying ABP9 gene relating to drought stress tolerance have been developed in crop plants like maize. This phenotypic result focuses on recent progress in transgenic technology of for the improvement of drought stress tolerance in plants. Metabolically it includes biosynthesis and accumulation of phenomes (i.e. chlorophyll florescence, NDVI and ASI) to scavenging in plant cells under drought stress situation.

Biography

Javed Hussain Umrani is an Assistant Professor at Department of Crop Physiology, Sindh Agriculture University, Tandojam, Pakistan. He did his PhD on performance of transgenic maize for kernel development under drought stress from Beijing, China. Teaching and Research on abiotic stress provides the techniques on molecular and physiological studies. He has published plenty of research papers in reputed journals and participated in various conferences internationally.

javed.umrani@gmail.com

Notes: