

## Seed Biology of *Acacia gerrardii*

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Kuwait ecosystem suffers from large-scale land degradation due to natural and anthropogenic related process, main components being extreme temperatures, scarce and irregular rainfall, frequent dust storm, desertification, uncontrolled grazing, off-road vehicles, poor management of natural resources. These have contributed to extensive vegetation and biodiversity loss. In spite of the harsh climatic conditions and limited water sources, Kuwait has a unique desert ecosystem comprising of eight vegetation communities and *Acacia gerrardii*, known as the Lonely tree of Kuwait is the only native tree species. Kuwait's native vegetation is of enormous scientific value as it represents a transition between semi-desert and desert vegetation and its adaptation and tolerance to harsh environmental conditions. However, much native vegetation of Kuwait and Arabian Peninsula are threatened, endangered or difficult to propagate. The Kuwait Institute for Scientific Research (KISR) is committed to combating desertification by promoting sustainable use of natural resources, developing sustainable re-vegetation techniques and promoting public awareness regarding the conservation of natural resources in an effort to protect existing biodiversity from further degradation processes and enhance the restoration activities. The success of re-vegetation or restoration of an endangered species lies in the identification of the root cause of its incapability to withstand changing environmental conditions. In recent years various studies providing detailed investigation and guidelines into various measures by which the conservation, regeneration and restoration of *Acacia gerrardii* could be accomplished. Current presentation details the finding and recommends way to overcome the barriers in the restoration and mass propagation of the Lonely Tree, a part of Kuwait's national heritage.

### Biography:

Dr. Suleiman is a Research Scientist and Program Manager of Desert Agriculture and Ecosystems Program at the Kuwait Institute for Scientific Research. She acquired a Ph.D. in Biological Sciences (Thesis- Restoration Ecology of *Acacia pachyceras* in the State of Kuwait) from the University of Western Australia. She earned B.Sc. Botany from Kuwait University and is a certified Desert Landscaper. She has led many research projects and authored several research papers in her main areas of research: conservation, restoration, rehabilitation, and standardization of propagation techniques for native plants of Kuwait for their utilization in landscape projects.