The Role of Cornulaca aucheri in Stabilization of Degraded Sandy Soil in Kuwait

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Abstract : Cornulaca aucheri is an annual herb consider as disturbance indicator currently visible and widely distributed in disturbed lands in Liyah area. Such area is suffered from severe land degradation due to multiple interacting factors such as, overgrazing, gravel and sand quarrying, military activities and natural process. The restoration program is applied after refilled quarries sites and levelled the surface irregularities in order to rehabilitate the natural vegetation and wildlife to its original shape. During the past 10 years of rehabilitation, noticeable greenery healthy cover of Cornulaca sp. are shown specially around artificial lake and playas. The existence of such species in high density it means that restoration program has succeeded and transit from bare ground state to Cornulaca and annual forb state. This state is lower state of Range State Transition Succession model, but it is better than bare soil. Cornulaca spp is native desert plant grows in arid conditions on sandy, stony ground, near oasis, on sand dunes and in sandy depressions. The sheep and goats are repulsive of it. Despite its spiny leaves, it provides good grazing for camels and is said to increase the milk supply produced by lactating females. It is about 80 cm tall and has stems that branched from the base with new faster greenery growth in the summer. It shows good environmental potential to be managed as natural types used for the restoration of degraded lands in desert areas.

Keywords : land degradation, range state transition succession model, rehabilitation, restoration program
Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development
Conference Location : Chicago, United States
Conference Dates : December 12-13, 2020