The Biology of Balochistan weeds: *Prosopis juliflora* (Swartz) DC

A. Hameed-Baloch , Haneef-ur-Rehman , Saeed Ahmed, M. Aslam-Buzdar, Gul Hasan

Abstract:

Prosopis juliflora (Swartz) DC, belongs to leguminous family of Mimosaceae, is one of the most controversial exotic plant species that infests field crops, small grains, grasslands, and a variety of other habitats in central and southern Pakistan. P. juliflora is amongst the most invasive species in hot semiarid and arid regions of Pakistan, which showed negative impacts on local flora of Pakistan. At the same time it is also regarded as an economically and ecologically important tree species of arid zone, where it is used as fuel wood, timber, fodder (especially legume) for livestock including goats, sheep, and cattle. Similarly it can be used as shade in hot climates, as well as for stabilisation of sand dunes in the coastal areas. P. juliflora is a perennial thorny shrub which under favorable conditions also reached a height of 5m tall but occasionally up to 12m. It is mostly grow through seeds which exhibited a high level of seed dormancy due to a hard seed coat that usually requires damage to germinate. High seed production, a persistent seed bank, an endozoochory seed-dispersing mechanism, and the ability to tolerate different mechanical, chemical and biological control methods contribute to the success of P. juliflora in these habitats. Similarly P. juliflora also exhibited allelochemical activities which negatively affect the growth and germination of competing native flora.