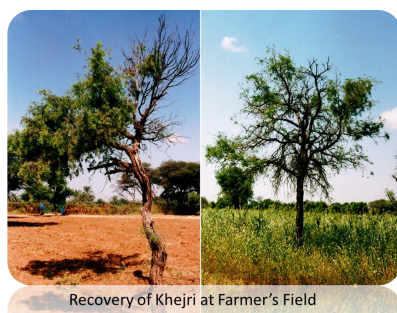


Rejuvenation of Khejri Trees through Bio-control Agents

'Khejri' (*Prosopis cineraria*) is the state tree of Rajasthan, linked with the socio economic development of Indian Thar Desert. This tree is termed as 'kalptaru' or the 'king of desert' owing to its food, feed, medicinal values. *Khejri* is worshipped by a large number of people in the state specifically Bishnoi community. The tree is small to medium size, can withstand extremes of temperature (up to 48°C and <100mm rainfall). Hence it became an integral part of the traditional agriculture and the lifeline of the desert inhabitants.

Recently, heavy mortality of this tree in the Nagaur, Jhunjhunu, Jodhpur, Churu, Sikar and Jaipur districts have raised an alarm in the all walks of the society (starting from political to the farmers).

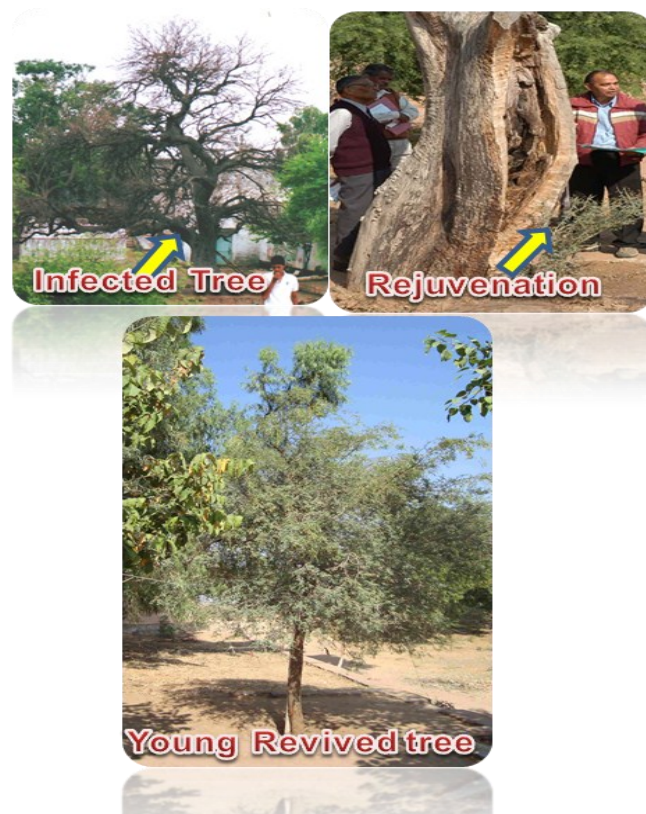
The Central Arid Zone Research Institute has initiated its research in this direction. Closed observations revealed that the mortality was more in the old trees > 50 years or so and the casual organisms were the beetle (*Acanthophorus serraticornis*) and white rot fungus (*Ganoderma lucidum*). The insect damages the older roots and the fungus grows on these roots which impaired nutrient and water transport system of the trees.



An integrated management technique based on consortium of local strains of bio-control agents and their management for effective utilization in the treatment of affected trees was developed. Accomplishments were achieved in recovery of partial to severely affected trees in farmer fields and forest lands.

The extraordinary triumph and gratitude was achieved when 256 years old Gigantic "Ram Khejda" sacred tree was rejuvenated at Ramdham Temple in Kherapa village (Jodhpur-Nagaur-NH 65) of Jodhpur district.

This blessed "Ram Khejda" tree was healthy until the month of May, 2003, which dried off suddenly and became leafless. On the basis of encouraging results obtained earlier with the treatment package of bio-control agents isolated from native soil and diverse habitats, the affected tree was treated with potential strains of bio-control agents. In this case, the treatment was started in the month of July 2003 and the tree started to give new sprouts by the end of December 2003. Rejuvenated shoots were protected with wire-net so that it can attain a proper growth and to avoid abiotic and biotic damages. Tree was further given follow up treatments of bio-control agents with micronutrients in FYM around the root zone. The tree has attained a height 16.5 ft. with 14.55cm² collar diameter and 10.51cm² at dbh on 11th December 2011.



Source: Division of Plant Improvement, Propagation and Pest Management, CAZRI, Jodhpur-342003.