

## Integrated Farming System a Source of Sustainable Farm Income in Arid Region

A farmer Shri *Nand Kishore Jaisalmeria* in Manaklao village of Jodhpur (25 km north) owns 3.1 ha agricultural land under rainfed conditions (average rainfall 365 mm), which was earlier a degraded land. His income from crops was very low with zero or negative income in the years of drought. In the early 1980s, he came in contact of CAZRI scientists and planted 750 plants of improved varieties of ber (Gola, Seb, Umran) provided by CAZRI, along with recommended package of practices. The piece of



land was developed as an integrated farming system. Along with Ber orchard, annual crops as intercropping, honey bee keeping and 10 + 1 goat unit was maintained by him. Fencing of the farm was created by developing shelterbelts of multipurpose tree species like *Accacia tortillis*, *Prosopis juliflora*, Neem and other drought hardy tree species of economic value. The shelterbelt developed as

fencing of the farm not only provided sustainable output in terms of fuel wood and fodder but also provided protection and conserved the soil and improved its fertility levels. For the first 20 years the land was totally rainfed, and then a bore well was established whose water is saline. Ber is tolerant to saline water irrigation to some extent.



The supplemental irrigation with saline water especially during fruit setting stage helped produce good yield. Even after 35 years, at present the farm and the orchard are well maintained and is a source of sustainable income.

The major revenue for the farm comes from sale of Ber fruit, rental charges for keeping Honey bee Boxes, leaves of Ber and other trees, fuel wood from pruning and goats. Each plant of Ber produces about 30 kg fruits per annum. The farmer earns a total annual net income of about Rs 1,25,000 from 3 ha arid land giving a net income of about Rs.41,000/- per ha per annum, which is much higher as compared to traditional annual crops in the region. This perennials based farming system not only gave higher income but provided stability of production and income in the years of drought which is very common in this region. In addition to his own farm, Mr. Jaisalmeria also started a nursery of budded ber and sold lakhs of plants to the farmers, NGOs, Government departments from different states and contributed in spread of improved germplasm and package of practices of Ber cultivation.



Source: CAZRI, Jodhpur