

# INDIAN JUJUBE

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*Ziziphus mauritiana*

Rhamnaceae

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## ECHO® PLANT INFORMATION SHEET

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### Description

Indian Jujube's origin is south to central Asia with records of its existence in India from 1000 B.C. It has become naturalized in tropical Africa, India, China and the Mediterranean where it is commercially important. Indian jujube is a spiny, evergreen shrub which can grow into a tree of 15 m (44 ft) The fruit is round, shiny yellow to red/black, 6 cm x 4 cm (2.4 x 1.6 in) with white, sweet, juicy flesh eaten fresh or dried. Fruit quality is best under hot, sunny and dry conditions, but there should be a rainy season to support extension growth and flowering. This is a fast-growing tree, very hardy under hot, dry conditions with extreme shifts in temperature from season to season. *Z. mauritiana* is a hardy tree that copes with extreme temperatures and thrives under rather dry conditions, as well as salinity, drought and waterlogged soil.

### Uses

In arid, desolate areas it is good for erosion control, shade, shelter, windbreak, and reclamation of nutrient-depleted soil. The thorny branches of *Z. mauritiana* make it an effective living fence. The leaves make good fodder for sheep, goats and a type of silkworm. Analysis of the chemicals constituents on a dry weight basis indicates the leaves contain 15.4% crude protein, 15.8% crude fiber, 6.7% total minerals, and 16.8% starch. Its habit of branching horizontally makes it easy to harvest the wood for firewood and charcoal, production of a hard, strong wood for tool handles, building construction (termite resistant) or tannins from the bark. Indigestion can be treated by drinking water soaked in the tree's roots.

### Cultivation

- Rainfall: 120-2200 mm per year (20-85 in)
- Temperature: 7-48° C (45-120° F)
- Soil : can tolerate adverse conditions, such as salinity, drought and waterlogging.
- Altitude: 0-1500 m (5000 ft) To germinate seeds of Indian Jujube, the seed covering needs to be cracked and exposed to full sun. Sprouts will grow after the stump is cut or a frost kills the leaves. Fruit can be expected after 3 - 5 years; sooner with irrigation, fertilizer, and weeding.

### Harvesting and Seed Production

Indian Jujube produces abundant pollen and nectar, attracting bees for pollination. Seeds are spread by birds and mammals that consume the fruit. Keeping the seed for 4 months, to allow it to after-ripen improves germination. Storage of seeds for five years in sealed containers at 5° C (41° F) is possible but viability drops after the first year. Pretreatment is beneficial.

### Pests and Diseases

Indian Jujube, is a host for a scale insect that feeds on the tree sap and produces a substance from which shellac and varnish is made. Pests such as fruit flies, caterpillars, weevils, leafhoppers and mealybugs do not seem to affect the 50-75 year fruiting lifespan of this tree.

### Cooking and Nutrition

The fruit is eaten fresh, to flavor drinks or dried and made into flour/meal, a cheese-like paste or in candy making. It is a good source of carotene, vitamins A and C (higher than citrus or apples). Indonesians eat the young leaves cooked as a vegetable. Also used for candy making and pickling.

### References

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