

## Plant Profile: *Manilkara hexandra*L.

### Khirni(Rayan tree)

**Scientific name** *Manilkara hexandra* L..

**Family** Sapotaceae

**Common names:** Ayurvedic Name: Ksirini, Ksheerini, Rajadan, Rajnya, Rajadanah HINDI: Khirni, Khhini, Rayan BENGALI: Ksheerni, Rajni GUJRATI: Rayan MALAYALAM: Krini and Palamunpala KANNADA: Hale, Hannu TAMIL: Kanupala, Kaattuppala, Ulakkaippalai, Palai TELUGU:;Patla, Pola, Kirni ENGLISH: Obtuse leaved Mimusp

**Habitat** This tree is found in central India and Deccan Peninsula, and cultivated throughout India.

#### Plant Description

Small to medium sized glabrous evergreen tree, 50–60 ft. in height with smooth blackish grey bark;leaves 7–10 cm long, elliptic, obovate or oblong, simple, alternate, rounded or emarginate at the apex, glabrous on both sides, main nerves 12-20 pairs;flowers bisexual, white or pale yellow, calyx 6–lobed, corolla 16 or 24–lobed, stamens 6, axillary, solitary or in fascicles;fruits hairy, one seeded reddish yellow berries, ovoid or ellipsoid, seeds ovoid, reddish brown with shining testa.

#### Chemical Composition:

Phytoconstituents	Part of tree
Triterpenoidsaponin, $\beta$ -sitosterol	Bark
Sterols, Volatile oil and Tannis	Leaves
Cinnamic acid, Hentriacontane Taraxerol and Quercitol	Leaves
Saponin 1, 2 and 3, Gallic acid, Myrecetin, and Quercetin	Seeds
Unsaponifiable lipids, Alcohols, Hydrocarbons, Triterpene and Sterols	Seeds
Proteins, Lipids and Carbohydrates	Fruits
Triterpene alcohols	Fruits
$\alpha$ - and $\beta$ - Amyrins, Taraxerol $\alpha$ -spinasterol	Roots

## Medicinal Uses

**The Bark:** Bark of the tree is astringent, sweet, cooling, aphrodisiac, alexipharmic, stomachic/stimulates digestion and anthelmintic. Bark is useful in ulorrhagia (sudden or free discharge of blood from the gums), gingivitis (gum inflammation), odontopathy (any disease of the teeth), fever, flatulence, colic (abdominal pain), dyspepsia (painful, difficult, or disturbed digestion, which may be accompanied by symptoms such as nausea and vomiting, heartburn, bloating, and stomach discomfort.), helminthiasis (infestation with parasitic worms), hyperdipsia (intense thirst of relatively brief duration), burning sensation and vitiated conditions of pitta. Decoction of bark is used for the treatment of dysentery and diarrhea.

Stem bark extract is also used as a tonic.

**The Fruits:** The fruits are milky, sweet, sour, cooling, aphrodisiac, appetizer, emollient and tonic. Fruits are used to relieve digestive disorder. Mashed fruits are taken to cure diseases like arthritis, jaundice, heat burning, deworming, and to blood purification.

**Latex and seed:** The latex of the tree is applied on teeth and gums for toothaches. The seeds are useful in ulcers and the opacity of the cornea.

