Botanic name : ***Thuja orientalis* L.** -- Sp. Pl. 2: 1002. 1753 [1 May 1753] (IK)

Common name : Oriental arbor-vitae, Chinese arborvitae, Morpankhi, white cedar, false white cedar, northern white-cedar, yellow cedar

Family : Cupressaceae

Habitat : Terrestrial

Distribution : Native to Indo-Chinese Himalayas; distributed throughout temperate and sub-tropical parts

Description : An evergreen perennial tree with a variable habit ranging from round to oval to conical, to columnar, can grow up to 20 m, crown conical,; foliage flat scale-like; multi branched; flowers monoecious; male flowers inconspicuous, terminal and solitary, female flowers as elongated cones with overlapping scales, male cones rounded and reddish or yellowish, the female very small and green or tinged with purple; bark is red-brown, furrowed and peels in vertical strips; fruits fleshy, globose-ovoid

Phytochemicals: Saponins, glycosides and alkaloids, sesquiterpenes, rhodoxanthin, amentoflavone, flavonoids-quercetin, myricetin, carotene, xanthophyll and ascorbic acid (leaves); essential oils (65% thujone, 8% isothujone, 8% fenchone, 5% sabines and 2% -pinene as the mainmonoterpenes-fruits and roots), rhodoxanthin, aroma- dendrin, taxifolin, widdrene, cedrol, thujopsadiene, dehydro -α-curcumene, β-isobiotol and curcumenether (Heartwood), fatty oil (seeds), tannin (twigs, leaves). The oil, colorless or bright-yellow having a crisp, camphor-like scent, contains high levels of thujone which is very toxic.

Medicinal/Economic uses : Young branches (up to one-year-old), twigs, bark, and leaves are used as herbal medicine. Antibacterial, astringent, antipyretic, anti-catarrhal, **Hair growth promoter,** antitussive, diuretic, emmenagogue, expectorant, emollient, febrifuge, haemostatic, refrigerant, molluscicidal and stomachic (leaves). Used internally in the treatment of arthritic pain, asthma, bronchitis, coughs, haemorrhages, excessive menstruation, mumps, bacterial dysentery, skin infections, palpitations, insomnia, nervous disorders, constipation, and premature baldness. Leaves also yield an essential oil used as a tonic, diuretic, and antipyretic. The stems are used in the treatment of coughs, colds, dysentery, rheumatism and parasitic skin diseases. The root bark is used in the treatment of burns and scalds. Essential Oil has been used as an anti-rheumatic, astringent, insect repellent, rubefacient, diuretic, emmenagogue, expectorant, stimulant, tonic, and vermifuge substance. also used for painful conditions including osteoarthritis and a nerve disorder that affects the face called trigeminal neuralgia. *Thuja* strengthens the immune system by stimulating T lymphocytes and increase interleukin-2 productio. A yellow dye is obtained from the young branches. Wood used for construction, cabinet making, cooperage, furniture, house- building, fence- posts, barrels and casks. Native Americans burn the tree to produce thick smoke on the belief that the smoke could keep evil spirits at large. Also used as ornamental, landscape decorative plants, flavoring agent in foods and beverages.

More read: Jain and Sharma (2017) Int. J. Pure App. Biosci. 5 (3): 73-83.