

Shorea robusta

Botanical Name: Shorea robusta

Common Name: Sal, sakhua or shala tree

Morphological Characters:

Shorea robusta, widely distributed in moist and dry forests in the tropics, has been paradoxically described as deciduous, semi-deciduous or evergreen species. To assess this contradiction, quantitative documentation of leaf dynamics, flowering and fruiting (by monthly counts on tagged twigs) was made in marked individuals of Shorea



in a tropical dry deciduous forest. Annual leaf exchange seems to be a survival strategy in Shorea during the period of seasonal drought; it replaces all old leaves of differing longevity with new leaves to reduce water loss due to transpiration, and simultaneously supports asynchronous flowering. During March (the transitional month for the leafing phenophase) four phenological variants, reflecting considerable functional diversity in conspecific trees, were recorded. These were: variant a, leaf fall completed and leaf flush begins; variant b, leaf fall and leaf flush overlapping; variant c, leaf fall completed but leaf flush delayed, short leaflessness; variant d, leaf fall incomplete (old leaves persist) and leaf flush delayed. Individuals of Shorea responded variously (leaf exchange or evergreenness to leaflessness or deciduousness, but ≤ 1 year leaf lifespan) to microsite conditions, making it essentially a semi-evergreen species.

Source:https://upload.wikimedia.org/wikipedia/commons/0/0e/Shorea_robusta_in_Chhattisgarh.jpg

Source:https://www.researchgate.net/publication/279710484_Paradox_of_leaf_phenology_Shorea_robusta_is_a_semievergreen_species_in_tropical_dry_deciduous_forests_in_India

Growing season and Type:

1. Sal is moderate to slow growing, and can attain heights of 30 to 35 m and a trunk diameter of up to 2-2.5 m.
2. The leaves are 10–25 cm long and 5–15 cm broad.
3. In wetter areas, Sal is evergreen; in drier areas, it is dry-season deciduous, shedding most of the leaves in between February to April, leafing out again in April and May.

Source: https://en.wikipedia.org/wiki/Shorea_robusta



Figure 1:

https://upload.wikimedia.org/wikipedia/commons/a/a2/Sal_%28Shorea_robusta%29-new_leaves_with_flower_buds_at_Jayan

1) Flower of Shorea robusta



Figure 2:

[https://commons.wikimedia.org/wiki/File:Sal_\(Shorea_robusta\)-old_leaf_at_Jayanti,_Duars_W_Picture_122.jpg](https://commons.wikimedia.org/wiki/File:Sal_(Shorea_robusta)-old_leaf_at_Jayanti,_Duars_W_Picture_122.jpg)

2) Leaf of Shorea robusta



Figure 3:

<https://www.naturesafariindia.com/images/destinations/dudhwa-forest.jpg>

3) Shorea robusta tree