

### Host trees

**Pongam or Honge (*Millettia pinnata*)** is a native of India and grows in profusion, generally planted as avenue trees by the forest department. It's renowned for its shade and is well known in traditional uses for its **medicinal properties**. It is also grown as a host plant for lac insects.



*Kerria lacca* can be cultivated on either cultivated or wild host trees.

In India the most common host trees are

Dhak (*Butea monosperma*), Ber (*Ziziphus mauritiana*), Kusum (*Schleichera oleosa*), (Reported to give the best quality and yield).

In Thailand the most common host trees are

Rain tree (*Samanea saman*), Pigeon pea (*Cajanus cajan*)

In China the common host trees include

Pigeon pea (*Cajanus cajan*), Hibiscus species

In Mexico-Barbados nut (*Jatropha curcas*)

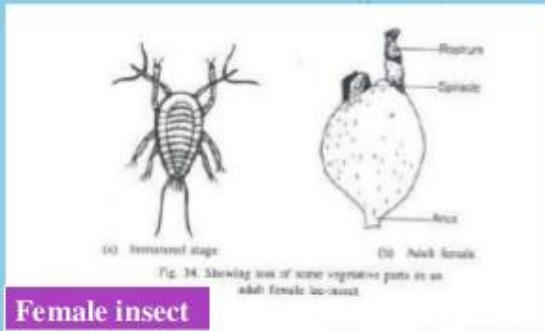
Estimated yields per tree in India are 6–10 kg for Kusum, 1.5–6 kg for Ber, and 1–4 kg for Dhak. The bugs' life cycles can produce two sticklac yields per year, though it may be better to rest for six months to let the host tree recover.



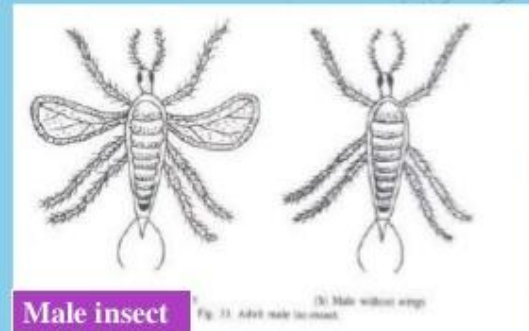
## Biology

- *Laccifer lacca*, Female insect is **viviparous**, producing about **1000 nymphs, deep red in colour with black eyes, soft bodied, 0.6mm long, 3 pairs of leg and a pair of antennae**.
- The larvae settle down on a suitable place of the host plant. A day or two after settlement, the larvae start secreting lac all around the body except on **the rostrum, spiracles and on the tip of abdomen**.
- Thus it gets **encased in a cell of lac** which **gradually increases in size along with the increase in size of the insect**.

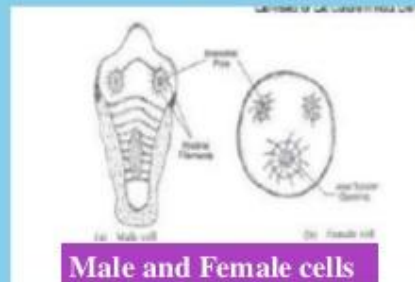
- The female nymph **never regain appendages** and **continue to remain under the lac cell**, become adults and reproduce.
- As the **lac insects remain close together**, lac secretion from **adjacent cells coalesces with each other and forms a continuous encrustation on the tree branch**.
- Males walk over the lac encrustation, fertilize the females present inside cell through anal tubercular opening
- Female after maturity grow very fast, secrete lack abundantly. Size of the female cell is several times larger than male cell.



Female insect



Male insect



Male and Female cells

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## HOST PLANTS

1. Palas - *Butea monosperma*
2. Ber - *Zizyphus jujuba*
3. Kusum - *Schleichera oleosa*
4. Khair - *Acacia catechu*
5. Ghont - *Zizyphus xylopyra*
6. Jallari - *Shorea talura*
7. Arhar - *Cajanus cajan*
8. Grewia - *Grewia spp.*
9. Babul - *Acacia Arabica etc.,*