

Bloedel Plant Profile – The Pencil Tree - *Euphorbia tirucalli*

The thin rubbery green plant sold in stores as part of a succulent display has a secret – given space and time, it becomes a big tree! In good conditions, it can reach 30 feet. In Bloedel Conservatory, it reaches the dome!



Why is it not a Cactus?

If you look carefully at a Pencil tree, you can see tiny leaves. If a plant has leaves, it is not a cactus!

The Pencil Tree comes from Africa. There is only one cactus, *Rhipsalis baccifera*, that naturally occurs outside the Americas and that may be due to birds spreading the seeds across the Atlantic.¹

Pencil Tree or Rubber Hedge?

Across Botswana and other southern African countries, the main use of the ‘Pencil tree’ is as a hedge. In Botswana, the common name is ‘Rubber hedge’, which is probably a better description than ‘Pencil tree’.²

It makes a good hedge because:

- It is not edible, even to goats
- It grows quickly
- It forms dense thickets
- It requires virtually no maintenance
- It does not need watering once rooted

Dangers

If cut, the plant oozes a toxic white sticky latex³ that injures eyes. The plant is safe to grow if you do not eat it or trim it carelessly. It is possible to injure yourself with most plants if you try.

¹ <http://www.iucnredlist.org/details/62378/0>

² Incense Cedars, *Calocedrus decurrens* are the trees used to make pencils – these really are pencil trees! VanDusen Botanical Garden has several of them.

³ This is typical of Euphorbias.

Uses

Beware Wikipedia! The entry for *Euphorbia tirucalli*⁴ states clearly: “**It grows in dry areas, and is often used to feed cattle or as hedging.**” An ‘edible hedge’ is as useful as a chocolate kettle! It is a good hedge because it is **not** edible.

Beware seemingly respectable internet sources! In an otherwise informative article⁵, it is possible to find statements such as “**Africans regard the tree as a mosquito repellent**” – the “Africans” who believe this are easy to identify – they are the ones covered in mosquito bites and probably suffering from malaria.

The latex from the plant can be used to catch fish by poisoning them.

The plant may be a realistic biofuel, as it grows very well in poor soil and is relatively easy to process into a petrol substitute. Once cut, it grows back quickly.

Poisons are substances that have biological effects; medicines are substances that have biological effects. The trick is to get the poison to the ‘bad’ cells – such as tumour cells – without killing the ‘good’ cells. It is possible that *Euphorbia tirucalli* may be a useful source of medicines.



Pencil Tree *Euphorbia tirucalli* in Bloedel Conservatory

⁴ https://en.wikipedia.org/wiki/Euphorbia_tirucalli

⁵ https://hort.purdue.edu/newcrop/duke_energy/Euphorbia_tirucalli.html