



# Pithraj tree

*Aphanamixis polystachya*

## About me:

I am a flowering tree growing up to 20m tall once fully mature. I have long green leaves made up of 9-21 leaflets (smaller leaves) which remain on all year round. I grow best in sub-canopy forests where there is enough shade. Like many other plants, the seeds I produce have an oil content of 40-44% ideal for bio-fuel, with an even higher level of unsaturated fatty acids (63%) and free fatty acids (FFA).

## Where do I come from?

I am native to Indonesia; Malaysia; Singapore; Taiwan, Province of China. I also grow well in Western India.

## How is the bio-fuel produced?

The seeds are harvested from the trees, crushed to extract the oil content. The oil is then undergoes a chemical process (transesterification) at 60 degrees. Transesterification is the reaction of a fat or oil with an alcohol to form esters and glycerol. This will then be refined, forming bio-diesel.

## How is my energy used?

I can be used as a transport fuel: Bio-diesel can be used in regular cars without special adaptation. In order to be used in colder countries the bio-diesel would have to be mixed with anti-freeze agents.



Image taken by Reuben C.J. Lim (2014)



Image taken by Loupak (2014)



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