



Indian beech tree

Millettia pinnata

About me:

I am large canopy tree growing up to 10 meters. I am a member of the pea family (*Fabaceae*) and have the ability to fix nitrogen in my roots, which helps impoverished soils. My broad branches are pale in colour and my leaves are small. I have small clusters of white, purple or pink flowers throughout most months of the year. I like hot and humid environments, and my extensive root systems allows me to cope well in periods of drought.

Where do I come from?

I am native to Tropical and Temperate Asia.

How is the bio-fuel produced?

The seeds are located within pods which typically get harvested during the spring months. The average number of seeds per kilogram is between 1,500 and 1,700. The oil from the seeds is extracted either by expeller pressing or cold pressing. The oil 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?

The bio-diesel has not yet been approved by European Energy standards due to the rapid oxidation of the fuel (<6hrs). Therefore, further work is being carried out to find another bio-fuel it can be mixed with to make it more stable.



Image taken by Dinesh Valke (2008) Karamji, India.



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