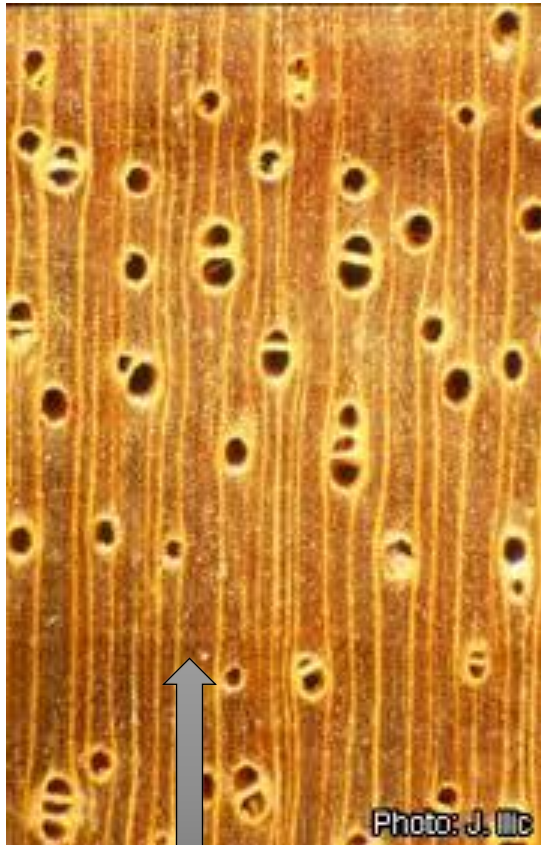


Acacia melanoxylon – Wood properties

End grain x 10

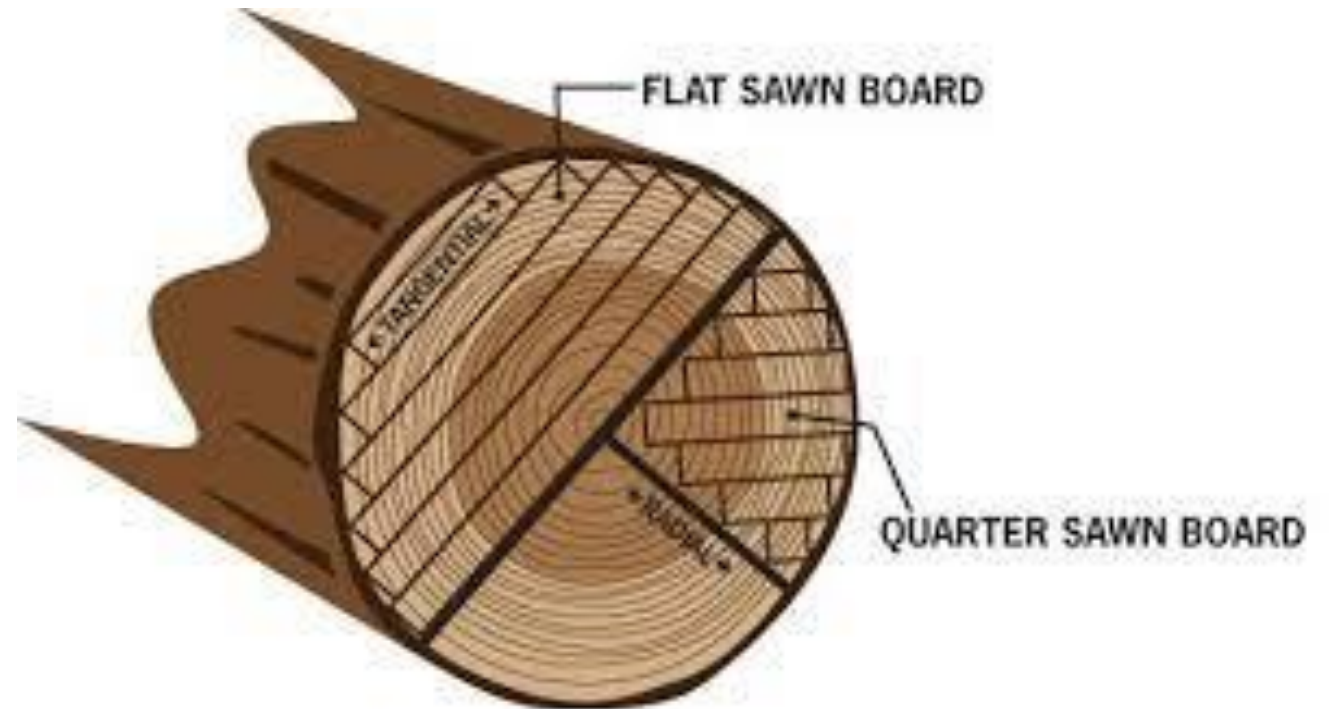


Growth ring

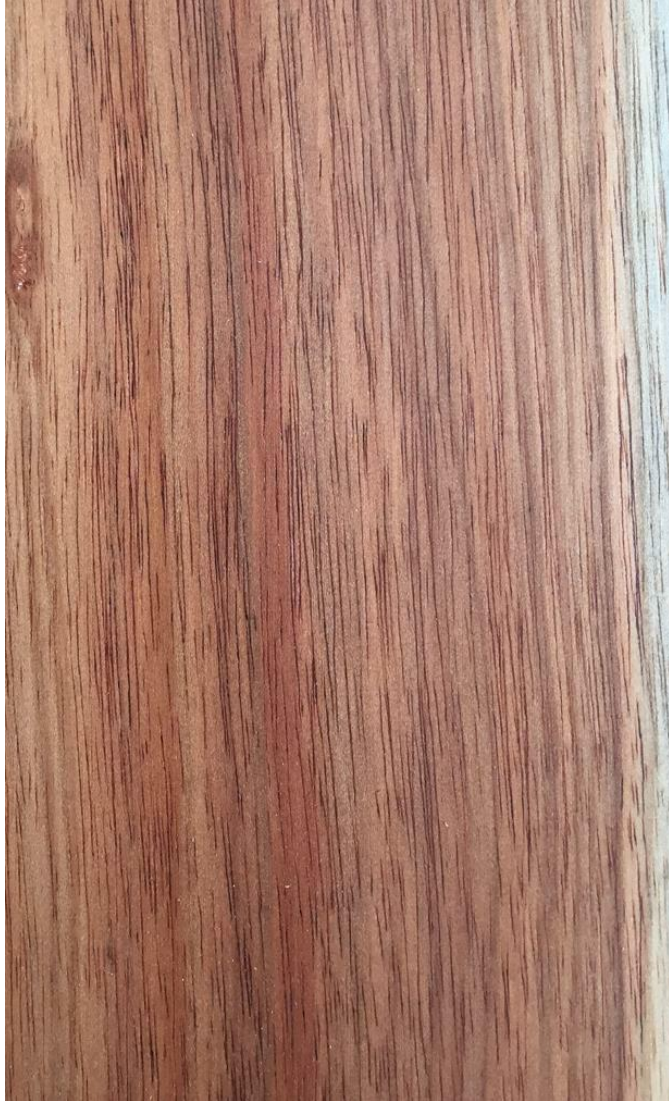
Growth rings distinct. Not ring porous so distinct rings due to darker colour & higher density (see left).

Density 640 kg m⁻³, Janka hardness 5,180 N.

Shrinkage: Radial 3.9% tangential 7.9%.



Acacia melanoxylon - utilization



Availability of sound, large logs is limited so commands a high price.

Used for quality bespoke furniture.

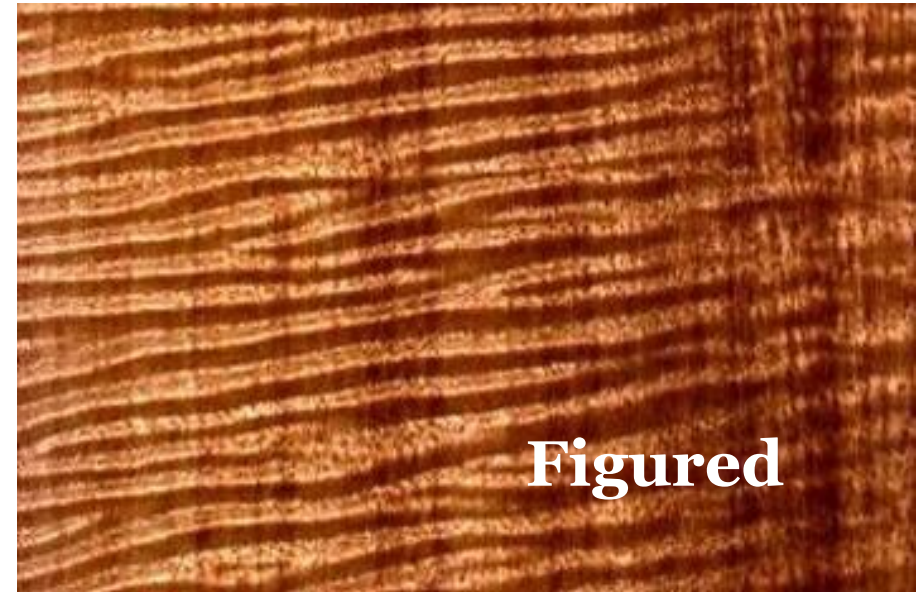
Sliced veneer is an economical use.

Some spectacular veneers are available.



Tangential

Radial



Figured

Working with Acacia melanoxylon

Generally works well with both machine and hand tools, but can be 'cranky'. Low density boards plus figured & interlocked grain can cause tear-out (hand & machine).

Ripped 'face' boards can spring even if fully dry. Relatively soft so can damage easily. Dings can be steamed out! Take care to work with the grain. Good for steam bending (see below).

Glues, stains & finishes well but Cross-linked PVA and water can stain timber green.

High in silica so care is needed.

Always use sharp tools - even a slightly blunt table saw blade or router bit will cause burning, as will worn electric sand belts.

See: Evan Dunstone (Aust. Wood Review 8-12-2015)



Blackwood - a versatile wood

**Excellent turning timber, makes lovely boxes
and great furniture.**



Blackwood - tonewood



Now recognised as an excellent tonewood.

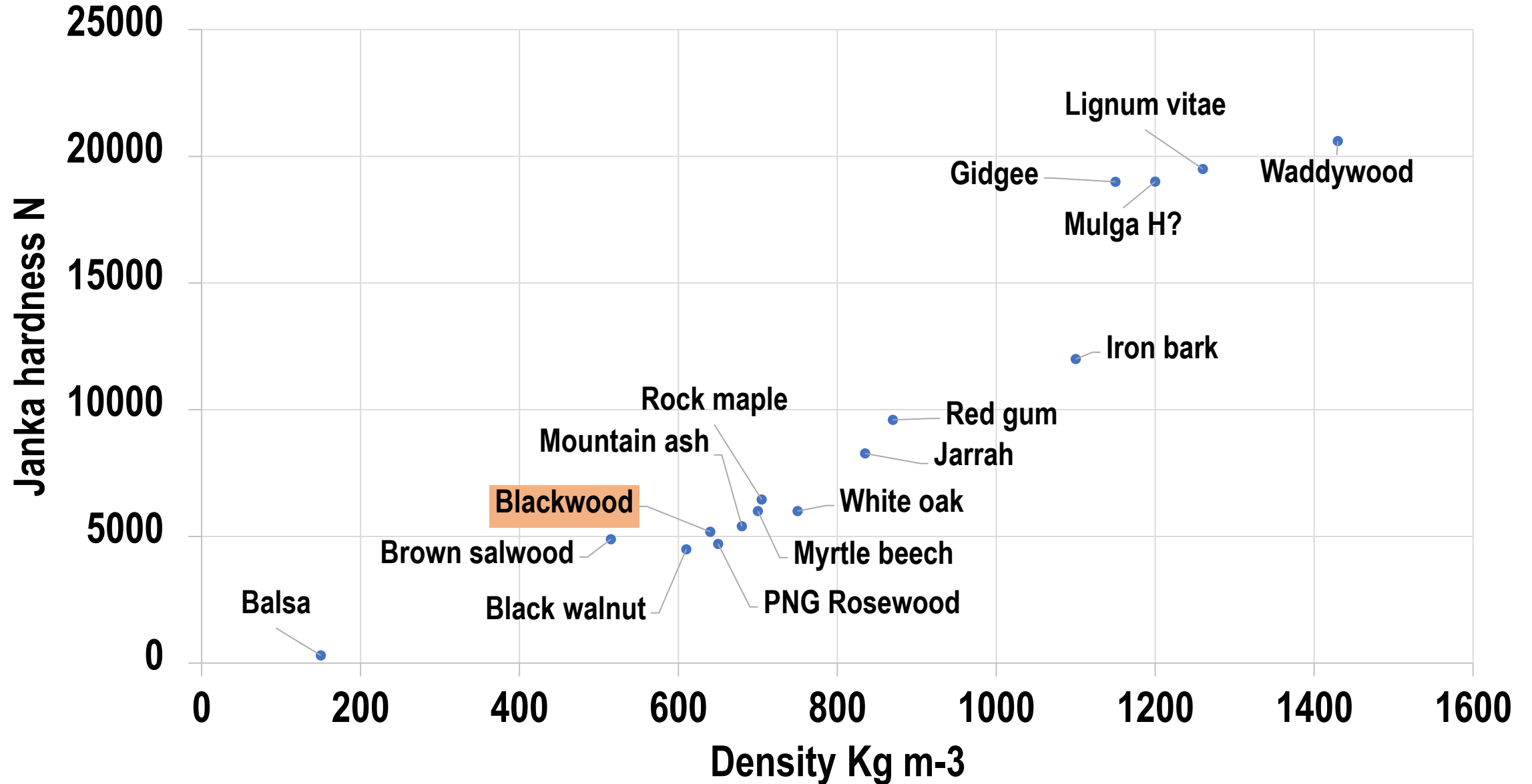
Instrument can be matched to a blackwood music stand.



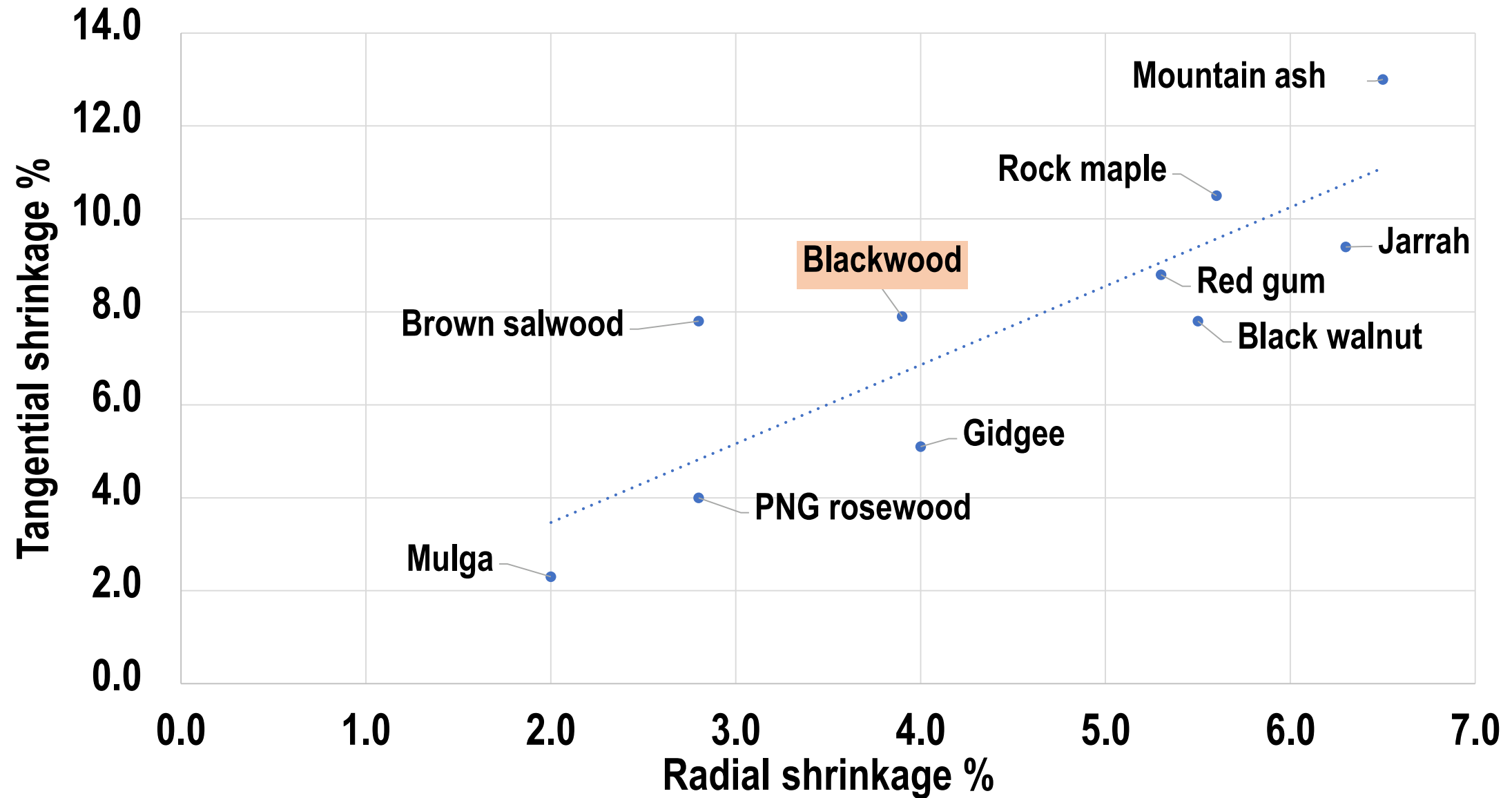
Alternative species (cf Blackwood)

- **PNG Rosewood:** Has similar properties to Blackwood. Rich colour but coarser grain (large pores).
- **Queensland maple:** Pale pink-brown but can have fiddleback. Coarser grain & lower density.
- **Tasmanian Myrtle:** Light pink to browns – can have amazing fiddleback. Fine grained, higher density.
- **Tasmanian 'oak':** Group of 'ash' species – pale straw to soft brown. Usually works well as normally quarter sawn.
- **American Cherry:** Medium pink-brown – works well.
- **American Black walnut:** Purple-brown timber - works well.

Air Dry Density (12% MC) versus Janka Hardness (Newton)



Shrinkage (green to 12% MC) Radial versus tangential (%)



The future for Blackwood

Many tree crops are now planted by farmers in 'Agroforestry' stands for amenity and profit. Jill & I established a plantation in 1978 in Gippsland, Victoria. An area of 30 acres was planted to *Pinus radiata*. Smaller areas were planted in 1979 to *Eucalyptus regnans*, *E. nitens* and *Acacia melanoxylon*. Right: A young blackwood about a year old among eucalypts.



Tree growth

Pines did well (below left age 9 years).
Eucalypts did very well and suppressed
growth of the blackwood (right, age 14
years).



*Eucalyptus
nitens*

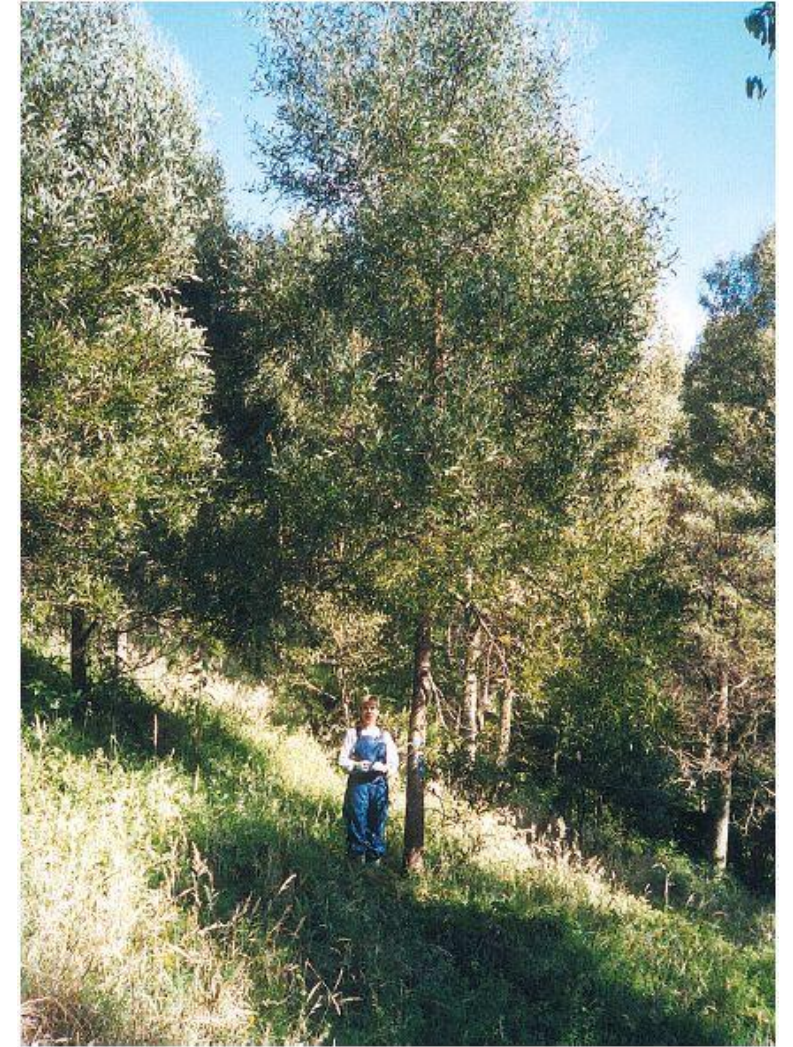
*Acacia
melanoxylon*

Agroforestry – Australia & NZ



Left:
Trial of *Acacia melanoxylon* in northern Tasmania with a nurse crop of *E. nitens* - 50% removed at 5 years, rest at 7 years by stem injection. Photo of stand at 15 years.

Right:
Experimental planting of *Acacia melanoxylon* seedlots in New Zealand. Stand at age 5 year. Pure stands thinned over time.



Australian blackwood?

Blackwood has been cultivated in Africa, Asia

(China, India, Pakistan), Europe, South America, USA (California, Hawaii) and New Zealand. It has become invasive in a number of these countries.

In Africa (East Africa, South Africa, Zimbabwe) it is used for lumber, fuelwood and amenity. It has become invasive, particularly in the Fynbos shrub-grassland community which it converts to forest.

In NZ, it is actively encouraged, where a sub-group has been formed in the Farm Forestry Association called AMIGO: *Acacia melanoxylon* Interest Group Organization. They have a national field day each year and issue a newsletter twice each year!

Rowan Reid measures a blackwood planted in NZ age 20 years (50 cm diameter).

