Cypresses?

- A little about cypresses.
- More about recognising and fitting in with environment.
- Collectively we know a lot about matching species and sites.
- But information often not readily available and not well used.



- Some very good soils but mostly low fertility and summer dry.
- Highly anoxic (anaerobic), high iron ground water.
- Avge rainfall 900 950 mm. Erratic.
- Natural state was probably swamp forest in wet areas, grasses and bracken on dunes and uncertain on drier flats.
- Tree planting from late 19th century mainly for erosion control
- But timber valuable by mid-50s

- So planted up the dunes and some of dry flats and now about 45% forestry, 70-80% of that radiata pine.
- Radiata handles all but wetter sites. And avoid fertile sites.
- Works well. For last decade:

Gross revenue from forestry 49%

Gross revenue from sheep and beef 48%

But costs much higher for sheep and beef

Diversication

- Primary reason for diversifying often boredom
- Rationalise about seeking woods with different/additional properties – appearance, durability, hardness, strength, etc.. Valid issues.
- But need species that suit the environment.
- 40 years ago guidance on siting was inadequate and even outright wrong.
- Not sure that really much better today.

 Warning!! – price at timber retailer doesn't necessarily equate with value of log.

My Policy

- Find good sources of lots of species
- Plant them in lots of places because soon apparent local experts weren't reliable.
- Key factors seemed to be: fertility, moisture, salinity of the wind, aspect, frosting and rate of establishment.
- On dry sand I regard fast establishment as key asset.

Cypresses

- Soon obvious that cypresses didn't thrive on dunes so followed my father's habit and planted on flats. The "better" land. Competing with livestock.
- Canker limiting factor but <u>not</u> terminal in my opinion. I would avoid warm, exposed sites.
- There is canker resistant *C. macrocarpa. Ovensii* still looks impressive.







Ovensii versus Leyland



Eucalypts

- My experiences didn't match official wisdom.
- Certain species performed well on warm, dry, northern dune slopes, notably stringybarks, *E. cladocalyx, E. microcorys*,
- Ash group varied somewhat, good on southern slopes.
- These mostly *Monocalyptus* subgenus.
- Generally Symphyomyrtus subgenus needed the more fertile flats to thrive.
- Nothing about this in NZ literature but Australian literature (esp. Florence's book) made sense of it.

Other points

- Avoiding frosts move couple of metres up northern faces and plant in spring.
- I want fast establishment, plant with fertiliser.

E. Microcorys & E. muelleriana



Other Issues

- However the *Monocalyptus* species are considerably more drought sensitive.
- They are also more prone to root disease and especially *Phytophthora*.
- But they have far fewer serious insect pests.
- And they generally have higher heartwood:sapwood ratio.

Conclusions

- Sand country will grow plenty of high quality timbers, beyond radiata pine.
- The key is matching species to environment.
- I suggest same applies all around the country.
- That knowledge resides mostly in farm foresters' heads.
- How do we make it available?