

Great Expectations

Ken Matthews (Executive Officer, Private Forestry Southern Queensland)

Recently (mid September) in the Sunshine Coast daily and the Noosa News there was an article written by Mr. Frank Wilkie, 'Inspired farmer's vision of timber and tourism'. The article quotes from a Mr Steel (Plantation establishment consultant), in relation to his forecast of returns which he believes to be achievable from plantations. In this article the regime being promoted was mixed rainforest species. Mr Steel said "Plantation returns conservatively average out to be \$43,000.00, per hectare per annum over 40 years, commencing after year 8". The total forecast returns per hectare based on these figures would be \$1,376,000.00 or \$1,720,000.00 (Depending upon how the statement is interpreted).

I would like to point out a number of questions that should be asked when anyone is making predictions of future plantation returns.

- Is the return net or gross?
- Is this return to be expected upon any site regardless of soil quality, drainage, rainfall?
- What are the costs/hectare over the entire 40 years?
- What are the markets?
- Are the figures based on stumpage or sawn dried and treated timber?
- What qualifications does the person have to make such predictions

On a reasonable quality protected site, with good soil depth, 1000 mm + rainfall, choosing appropriate species, which are compatible to the site and to each other, using silviculture that is at a timing and intensively appropriate to the species and regime, the following may be possible.

At a mean annual merchantable increment (m.a.m.i) of 10m³/ha over 40 years a gross wood volume of 400 m³/ha would be optimistic for rainforest species. The maximum stocking at final crop that is able to achieve an average dbhob (Diameter at breast height) of 50cm would be 150 stems per hectare (29 – 30 m²/ha basal area). Even if the average stem volume was 1.5m³/tree, the final crop volume would be around 225 m³. The remainder of the rotation gross wood volume would be harvested at commercial thinning events.

If we were to assume a very optimistic sawn recover rate of 50%, we would have 200 m³ of sawn timber. (50% used simply for convenience) Most sawmills achieve an average of 35 – 40% recovery, but we will assume some increase due improved sawing practices and wood quality.

Now we will assess costs which are likely to be incurred if taking the timber through to final sale as a dried, graded, treated, saleable product. No cost has been accounted against land rates or opportunity costs.

- Growing costs (\$25/m³) x 400 (Establishment/maintenance of plantation over 40 years).
- Cut, snig and haul (\$40/m³) x 400 (based on \$8 cut, \$10 snig and \$22 -100k haul)
- Processing, docking and grading (\$140/m³) x 400 (Grading to Australian standards)
- Loading, transport and treatment (\$120/m³) x 200 (Treatment as per the requirements of the Timber Utilisation and Marketing Act)
- Stripping and stacking (\$20/M³) x 200 (Labour and 25mm square strips)
- Kiln drying (\$120/m³) x 200 (Requirement of the Timber Utilisation & Marketing Act)
- Sales and marketing (\$5/m³) x 200 (Promoting product, ensuring quality and specifications are met, administration, etc)
- Loading and delivery (\$20/m³) x 200 (Ensuring timber protection, strapping, volumes, etc)

If 50% of the volume was appearance grade rough sawn dried timber and it sold for \$1400/m³ and the other 50% was standard grade, selling for \$800/m³, an optimistic net return would be \$81,000.00 The difficulty for many landholders will be the high risk, finances and skill level necessary to enable the realisation of this possible return.

Task	Rate	Volume	Cost
Growing	25	400	\$ 10,000.00
Cut, snig and haul	40	400	\$ 16,000.00
Processing	140	400	\$ 56,000.00
Treatment	120	200	\$ 24,000.00
Stripping	20	200	\$ 4,000.00
Kiln Drying	120	200	\$ 24,000.00
Marketing and sales	5	200	\$ 1,000.00
Delivery	20	200	\$ 4,000.00
Total Costs			\$ 139,000.00
Select grade	\$ 1,400.00	100	\$ 140,000.00
Standard or better	\$ 800.00	100	\$ 80,000.00
			\$ 220,000.00
Possible net return			\$ 81,000.00

Plantation forestry is an environmentally sound and viable land use option for landholders, but it certainly is not a gold mine. Landholders should be seeking professional advice based on a realistic range of expectations. Plantation returns cannot be definitive simply due to an incredible range of variables. Whist the scenario provided above is just another “**possible**” outcome; the main point is that the variability in outcomes is enormous, as are the implications.

There is a stark difference between an optimistic \$81,000 and \$1,376,000 - \$1,720,000.

Ken Matthews (Executive Officer, Private Forestry Southern Queensland)