

# Ancient wisdom – or historical nonsense?

As a vocal proponent of the idea that there may be something odd in all this radiata pine rotation age thinking, it beholds me to respond to Hugh Bigsby's editorial (August '97).

Let us start where I think we are all agreed. Firstly, this is not and cannot be a problem to be solved by compulsion or legislation. No marketing board laager for us to shiver in. People must remain free to buy and sell wood where and how they can. This means different rotation lengths for different people and for a whole variety of reasons.

Next, lower wood density is claimed to be a consequence of shorter rotations, but we begin to understand that there are regional differences in wood quality, including density. In the past, departure from a Rotorua or FRI norm was considered a sad disadvantage. Now we realise that with the losses there are also gains — Southland wood is less dense (no export framing), but its colour, good working properties and long internodes open up other markets. We are differently abled and perhaps about to become rich because of it.

So it is not this density which is the problem, but the low density and a host of other problems associated with juvenile wood, the core 10 years of the log.

We also know that the annual sustained yield volume production of radiata pine peaks between 35 and 40 years of age, and so we may increase our annual productivity by around 10% simply by moving from a 25-year rotation to one of 35 years. Furthermore, the cut will be for most purposes of higher quality if only because of the lesser proportion of juvenile wood therein.

Our inputs and degree of biological disturbance will also be less — three lots of establishment, silviculture, logging in a century instead of four.

We may therefore expect forest-growing companies to look to longer rather than shorter rotations, and many do — Juken Nissho work on 30 to 36 years dependent on locality, adding value "not only by manufacturing but also in the production of our logs" (NZ Pine issue 19), and at a recent symposium in Dunedin organised by the Otago/Southland branch of the Institute, three of the four forest companies present (City Forests, Wenita, Ernslaw Onè, Rayonier — with City Forests the abstainer, but for sound reasons) indicated a move towards longer rotations. At our 1996 AGM in

Invercargill Blakely Pacific also claimed a preference for age.

On the other side of the fence we have Fletcher Challenge advertising (NZ Pine issue 15) "strong, straight and ready for milling in less than 25 years".

Hugh Bigsby and Piers Maclaren (November 1997) claim that we are not farming trees but capital. The rules of that game are set by formulae such as the internal rate of return (IRR), which are, for their result, entirely dependent on various arbitrary assumptions — discount rate, market prices and stand-by-stand analysis (birth, life, death) rather than whole forest analysis (everlasting life).

## Swarm of Unknowns

The process is further complicated if we build in factors for natural risk and social values. Where before we only had to think of one or two numbers critical to the calculation, now we have a whole swarm of unknowns demanding our pin. Inevitably we are forced down to "fibre" and the dream of a seller's market disappears along with any thought of species diversity.

I am told that the discount rate used in forest valuation in New Zealand is very high by world standards, and a high rate favours early cutting and a low valuation of the forest — but who sets it and how, or are we just doing financial gymnastics? The praise singers in front of the CEO always make that hard to see.

The preference for stand-by-stand analysis is much harder to understand, except in terms of inertia in the accounting and economic professions. An actual sustained-yield forest estate with daily harvest and cash flow would seem to offer far greater management and market flexibility and diffusion of risk than a series of compartments viewed in theoretical isolation, but it may be difficult to fit such a concept into holy writ.

In the end the interesting thing is that while most forestry practitioners offer obeisance to such formulae, remarkably few actually seem to use them other than to forecast the actions of those wedded to holy writ. Indeed the variety of company rotation lengths now followed in New Zealand hints at some gratifying diversity in the search for truth. Small growers lacking bulk market clout must go for quality, which usually will mean older trees. Farmers often see trees as an insurance policy for times when other prices

are low and bank managers on the prowl. So rotation length to them may well be unimportant.

What we seem to be left with is a method of evaluation devised many years ago to cope with non-sustainable resources and indifferent to social values which has now become fossilised in our economic textbooks. This is not surprising as sustained resource use itself has only just begun to have a value, and the prime attraction of a golden rule is that it saves the risk of thinking.

## The Danger

The danger for the plantation forest industry is that such stone-age thinking pushes us towards shorter and shorter rotations and concepts such as whole-tree logging. As the resource is debased further and further towards "fibre", so the price paid to the grower decreases and the money saved goes into increasingly intensive technology, either in the mill or into ever more agricultural growing techniques. Sustainability goes out the window, as do species whose patterns of growth do not fit the fundamental equation.

So far, environmental groups have either ignored systems of analysis such as IRR or have actively supported them on the grounds that any proposal may be discredited simply by questioning the assumptions in the equation. I recall such a case being put by a Treasury official at "Eco 85" at New Plymouth in 1985.

But it is unlikely that such an unsophisticated and simplistic approach will survive for long. Sustainability is now the buzz and an analytical system which is directly opposed to that will surely come under increasing questioning.

We can expect opposition, lofty disdain, rolling of eyeballs and snorts of contempt from economists — "Doesn't the fellow know that ...". What is surprising is to find their view shared in the think-tanks of our own profession, while industry, pretending belief, often seems to do things rather differently.

But then I suppose we bump up against yet another uncomfortable reef that the number cruncher founders on. Can there be life after the equation? Thankfully there is, and intuition is its name.

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