

## TALKING TIMBER



## JUVENILE DELINQUENCY IN TREES

*What happens to a tree's branches as it gets older determines not just the prevalence of knots but also the nature of the resultant wood fibre. John Park reports*



**It's no longer about just** chopping them down and cutting them up; or should that be cutting them down and chopping them up? Trees, that is. But whichever it is, for the future of commercial forestry there is a considerable amount of effort and energy expended before that stage is reached, not least of which is waiting for the tree to grow.

All the while they remain standing there's a lot going

on, and quite astonishing it is, too, inside a tree – which, not surprisingly, to a large extent determines the eventual quality and performance of the wood. Just what that going on is – given such a big mouth to feed (ie the consumer society) and the dynamics of commercial sustainable forestry in an ever-changing climate (not to mention major pathogenic outbreaks) to ensure appropriate wood quality and availability in perpetuity – is an increasingly important aspect in the understanding of those primary manufacturers of wood. Trees, that is, not sawmills.

When the global forest resource comprised only trees which were naturally just there, many were the giants we can still see today in forest reserves and in images of illegal logging (sorry, but it hasn't gone away and is still a fundamental blight about which we must never become complacent!). And all because of the many and varied uses for which wood will forever remain essential or highly desirable.

Putting aside those uses where curvature is prerequisite, in an ideal world all wood would be dead straight, straight-grained and knot free (unless your preference is for a 'rustic' appearance, of course) and produced from rapidly growing trees. Selection of species, which will not necessarily be indigenous, will be those which provide optimum growth in a given environment at minimum spacing and with the shortest practicable harvest rotation. If they could be left in situ for a few hundred years they might even attain the stature of forest giant, with all that lovely clear wood.

With all trees, knots are, of course, unavoidable because one thing trees of all ages have in common is branches. It is what happens to those branches as the tree gets older that determines not just the prevalence of knots but also the nature of the resultant wood fibre – which is distinctly different before and after the branches have fallen off – and its behaviour after being converted from tree to timber.

Shedding branches early in life does not come naturally to all species and even where there is manual intervention to de-limb trees at a relatively young age to increase eventual clear wood recovery and therefore value of the wood, it still leaves a knotty core.

**John Park is a board member and immediate past chairman of the WTS and manager of Canada Wood UK**

Referred to variously as 'juvenile wood', 'pith-associated wood' and 'crown wood', being that part of the stem of the tree which was formed under the influence of the live crown, it extends for the full height, or length once it's been cut down, of the tree. So, whether a tree is young or old there is no getting away from the wayward nature of that wood.

These days, when you see offers including 12in x 12in FOHC (free of heart centre) do you think, "my word, that was a big tree, I wonder how old it was"? But at least now you know why it is sawn to exclude the heart.

More on the nature of mature and juvenile wood fibres in a future *Talking Timber*. ■

*Below. Even where there is manual intervention to de-limb a tree, a knotty core will remain*

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**The Wood Technology Society**

A Division of the Institute of Materials, Minerals and Mining