

Juvenile wood – for the sake of science get the terminology and concepts straight!

Rowland D. Burdon

I have read with interest two articles in the February issue (Vol. 59, No. 4) of this journal by John Moore and Dave Cown (Wood quality variability – what is it, what are the consequences and what can we do about it?) and Dave Cown and Leslie Dowling (Juvenile wood and its implications).

I note with concern an inconsistency between the terminology used in the respective articles, the first using the term 'corewood' (for the inner growth rings versus 'outerwood' for the outer rings), whereas the second refers to 'juvenile wood' (versus 'mature wood'). This latter usage has been traditional, but it is scientifically at odds with what is now understood about the botanical phenomenon of maturation, and it is inconsistent with the terminology used in the first article.

A conceptual framework for describing within-tree variation in wood properties has been developed to square with the current understanding of maturation (Burdon et al., 2004a, 2004b), with the corewood-to-outerwood progression radially and the juvenile-to-mature progression in the vertical axis. The corewood-outerwood terminology is not only technically more correct, but is also easily comprehensible.

The science of within-tree wood variation has advanced, but with advances great care is needed to

avoid confusion. A clear picture of the underlying science is surely the appropriate base for both research progress and its efficient application. How to describe within-tree variation in wood properties in terms that are both botanically correct and understandable by a wide audience has been presented in Figure 3 of Burdon et al. (2004a) and Figure 1 of Burdon et al. (2004b).

Aside from my concern over terminology and the underlying concepts, I heartily applauded the messages of these two articles on an extremely important topic.

References

- Burdon, R.D., Kibblewhite, R.P., Walker, J.C.F., Megraw, R.A., Evans, R. and Cown, D.J. 2004a. Juvenile Versus Mature Wood: A New Concept, Orthogonal to Corewood Versus Outerwood, with Special Reference to *Pinus radiata* and *P. taeda*. *Forest Science*, 50(4): 399–415.
- Burdon, R., Walker, J., Megraw, R., Evans, R. and Cown, D. 2004b. Juvenile Wood (*Sensu novo*) in Pine: Conflicts and Possible Opportunities for Growing, Processing and Utilisation. *New Zealand Journal of Forestry*, 49(3): 24–31.

Rowland Burdon is Emeritus Scientist, Scion. Input from Heidi Dungey and Bob Shula is appreciated.



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