

Branch Wood. Mechanical Strength and Microscopy as Relate to Stem Wood

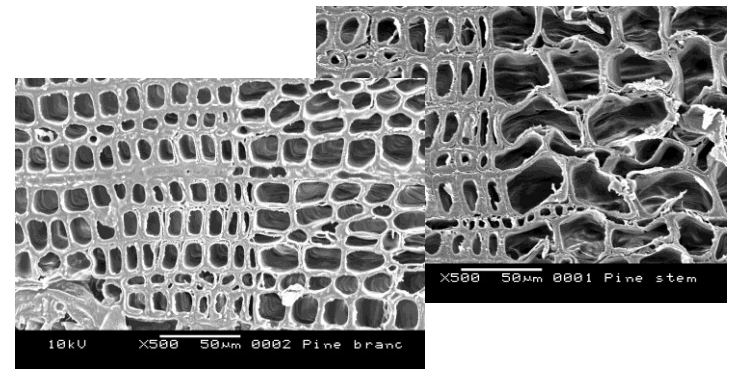
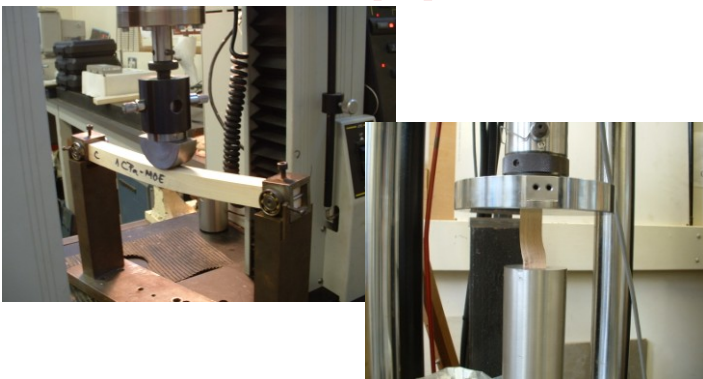
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Perspective: Adding value to branch wood



Paper objective:

Comparison of mechanical properties and microscopy of branch wood with stem wood



Results and conclusion

- Cell diameter, cell wall thickness, lumen diameter – smaller for branch wood
- Vessels and medullary rays more numerous in branch wood
- The MOE and compression strength of maple branch wood - slightly lower, MOR- slightly higher
- Beech compression strength-similar for branch and stem
- The MOR and compression strength of Scots pine branch wood were approximately half those of stem wood, while the MOE was around a third
- Since maple and beech branch wood have similar strengths to stem wood of the same species, they could be alternative raw materials to stem wood for manufacturing solid wood panels