

Research Notes

What is variable retention, and why are we doing it?



Aggregated Retention

Variable retention is an approach to harvesting and silviculture which emphasises long-term retention of biological legacies (e.g. large live trees, stags, coarse woody debris) across the harvested area to meet various ecological objectives.

In a variable retention coupe, part of the original forest is retained after harvesting and through the next rotation. Retention can be dispersed, where single trees or small clumps of trees are retained evenly throughout the coupe, or aggregated, where patches of trees are retained.

These retained trees influence ecological processes within the felled area, maintaining litter inputs and seedfall, moderating temperatures and affecting water budgets and nutrient cycling. This forest influence extends about one tree height from a retained edge or aggregate. Variable retention coupes are planned with enough retention to maintain forest influence over the majority of the harvested area, making them ecologically different from clearfells.



Under the Tasmanian Community Forest Agreement, Tasmania is committed to achieving non-clearfell silviculture in a minimum of 80% of the annual harvest area of the couped oldgrowth forest on State forests by 2010. Based on experiences at the Warra Silvicultural Systems Trial, aggregated retention (ARN) has been chosen as the most feasible alternative to clearfelling in tall wet eucalypt forests.

As currently planned, ARN harvesting will keep the majority of the felled area within one tree length of standing forest and will retain aggregates of at least one hectare for at least the next rotation. Eleven operational ARN coupes have been established as of March 2007, with another 12 coupes planned for harvesting in 2007/08.

