

Decision-support tools for browsing management

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Browsing management is a significant contributor to successful forest establishment. The threat to young forests of browsing mammals is real, and, without control, many crops will be destined to fail. Forestry Tasmania has faced a considerable increase in the cost of browsing control since our decision to discontinue use of 1080 poison.

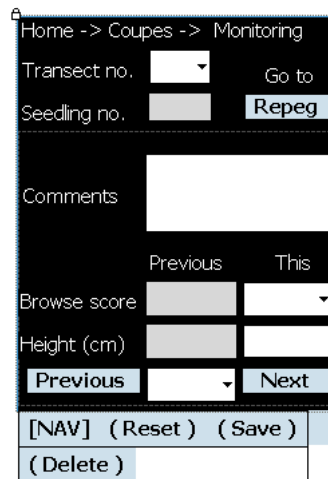
To reduce the costs associated with browsing management, the forester needs to assess the necessity for and level of browsing control on a coupe-by-coupe basis. Two tools have been developed to assist the forester in making informed browsing management decisions.

1. A browsing management database is used to track the history of management activities on each coupe. The database displays the dates of monitoring and control visits, as well as the level of browsing pressure and seedling height growth over time. The number of animals taken off the coupe on each control visit is also shown. Presented visually, this information provides the forester with a decision-support tool that allows determination of whether or not to implement browsing control. The database also provides coupe case histories that can assist the forester to identify problem areas before browsing becomes apparent.

The browsing management database is now the repository of all browsing management information.

During 2006/07 there were 15,162 individual coupe visits to 660 individual coupes. This large amount of information is now summarised into various management reports such as monthly State or District monitoring reports, cost reports and control reports as well as individual coupe reports.

2. The browsing monitoring tool is also nearing the field roll-out phase. The browsing monitoring tool is PDA-based software which will enable in-field data entry of indicator plot and browsing transect assessments.



Browsing management PDA screen display

The tool provides automatic coupe summary information, comparison with previous measurements, and automated upload of information into the Field Operations Database (FOD) and the browsing management database. In addition, it ensures uniformity in browsing monitoring assessment procedures throughout Forestry Tasmania.

During 2006/07, Forestry Tasmania conducted 4,228 browsing monitoring assessments, collecting browsing scores and tree heights from 211,440 individual seedlings. Presently, this information is collected on paper, with summary results calculated by hand and entered manually into the browsing management database. The browsing monitoring tool will provide significant time-saving in the collection of browsing monitoring data.



Eucalypt cotyledons arising from artificial sowing of an indicator plot.