

# BROADFORM

## Silviculture of new broadleaved species: shaping and thinning

### PROJECT TEAM

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### BACKGROUND

Whilst final crop volume of timber is important for broadleaves, quality is also important due to the different end uses for the timber. Concern has been expressed about the quality and ongoing management of broadleaf afforestation sites as some broadleaf crops have been planted on marginal sites and many areas are neglected after year four. Current broadleaf silvicultural knowledge in Ireland is in its infancy. This project aimed to augment the current silvicultural knowledge of the management of young broadleaf plantations with the aim of producing high quality, valuable timber. Pruning of ash, beech and oak, and tending of ash, has been investigated.

### OBJECTIVES

Develop treatment protocols for the early management of broadleaved species to include:

- Shaping methods to control early stem form in the 1 to 3 m range;
- Development of tending practice to favour the best quality stems.

### PROGRESS

Two demonstration days were held during 2008 at privately-owned sites in Co Westmeath and Co Limerick to demonstrate the tending of ash. Tom Kent (WIT, ForestEnergy programme) demonstrated extraction by quad bike and timber arch and also small-scale firewood processing at one of the demonstration days. An important aspect of the demonstration involves the identification by participants of Potential Crop Trees (PCTs) and trees to be removed during a tending operation. The demonstration days illustrated that, after minimal practical training, the majority of participants can successfully select the correct trees as PCTs and also those to be removed. In addition, Dr Ian Short

and Toddy Radford presented the tending of ash at an ITGA/SIF field day held at Johnstown Castle, Co Wexford.

Dr Ian Short participated in the T10Q workshop, held at Oxford University, which had the objective of identifying the top 10 priority questions for forest research. The results of the workshop, however, may not be fully applicable to Ireland as, of the 51 people that participated, only four were from Ireland and therefore there may be priority questions in an Irish context that have not been captured by the voting process.

Dr Ian Short and Toddy Radford attended the *Growing Valuable Broadleaves* conference at the University of Freiburg. Dr Ian Short also attended the final meeting of COST E42.

The final measurements of the COFORD-funded poplar trials located at Teagasc Kinsealy, Ballyhaise and Kildalton centres were completed during the year.

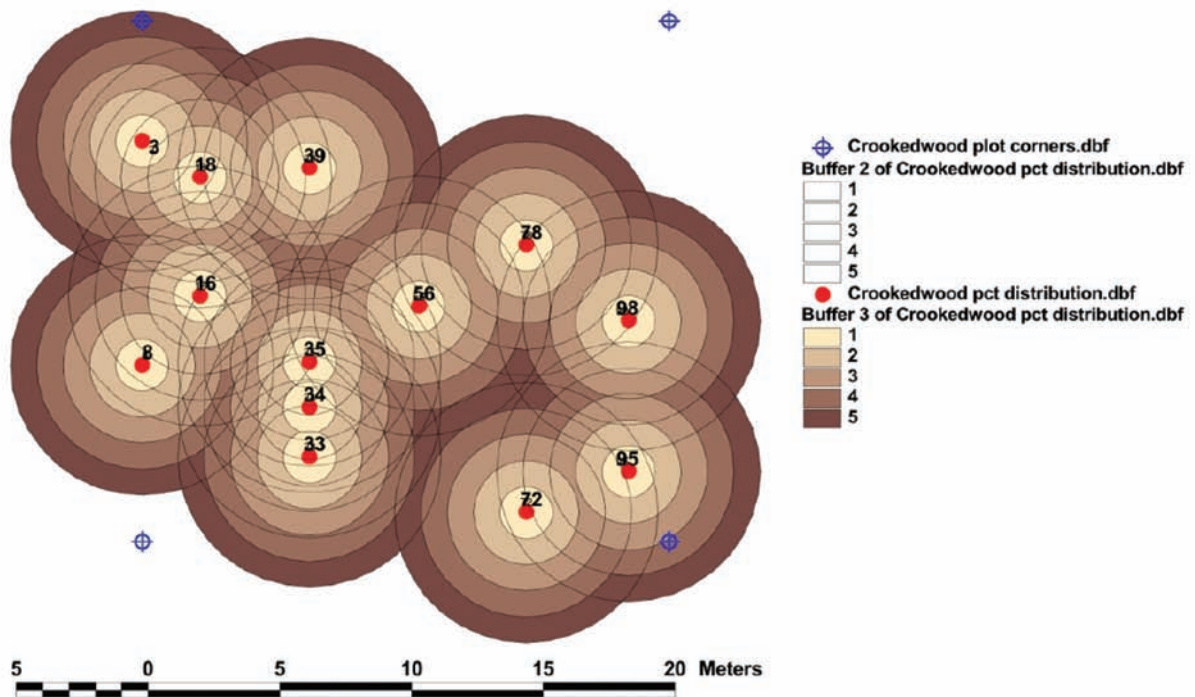
An alder tending trial is in the process of being established. The trial site has been laid out and potential crop trees and their competitors have been selected. Baseline measurements have been recorded and the site now requires tending and monitoring.

### ACTIVITIES PLANNED

Dr Ian Short and Toddy Radford will continue to provide input to the COFORD broadleaf silviculture programme and the review of *Growing Broadleaves*. A number of broadleaf tending demonstration days are planned for 2009.



Participants selecting Potential Crop Trees (PCTs) at the Crookedwood ash tending demonstration day.



Distribution of Potential Crop Trees (PCTs) within a 20 x 20 m plot, Crookedwood demonstration day.

## OUTPUTS

Ash tending demonstration days: 9 April, Crookedwood, Co Westmeath; 17 September, Moroe, Co Limerick; 18 April, Johnstown Castle, Co Wexford. ITGA/SIF field day.

The BROADFORM project was presented on 20 June at FarmFest 2008.

Following consultation with Teagasc Forestry Development Officers and industry, Dr Ian Short and Toddy Radford have written guidelines for the tending and thinning of broadleaves. The BROADFORM project has also had input to the review of the *Growing Broadleaves* book to be published by COFORD.

Short, I., Bulfin, M. and Radford, T. 2008. COST E42 *Growing valuable broadleaves silviculture matrix: An Irish example*. Poster presented at the Growing Valuable Broadleaves conference, University of Freiburg, Germany. 5-9 October 2008.

Short, I. and Radford, T. In Press. *Silvicultural guidelines for the tending and thinning of broadleaves. Recommendations for the tending and thinning of ash, sycamore, Norway maple, alder, oak (pure), oak with conifer nurse, beech (pure) and beech with conifer nurse*. Teagasc.