

If Vegetative Propagation and/or Clonal Forestry is so great... why are we not using more of it in Europe?

David Thompson

Coillte Teoranta- The Irish Forestry Board
Research and Environment Division
Kilmacurra Park
Kilbride
County Wicklow
Ireland

david.thompson@coillte.ie

Abstract

Surveys have shown that the use of vegetative propagation and clonal forestry of forest tree species in Europe is quite low compared to other parts of the world. This presentation will address the questions of 1) why we should be interested in these techniques, 2) where it has been tried, 3) where it has been used successfully, and 4) what will it take to encourage their greater use in Europe?

Vegetative propagation is either used for mass propagation (where the identity of the material is not maintained during propagation or deployment) and clonal forestry (where identity of tested clones is maintained during both propagation and deployment). Both of these options have advantages and disadvantages. The main advantage of vegetative propagation is getting improved material into commercial use faster than by conventional means while their main disadvantage is the increased cost. The main advantage of clonal forestry is that it provides a greater level of genetic gain while its main disadvantages are the perceived narrowing of genetic diversity and the increased time required for clonal testing.

Clonal forestry has been used widely in poplar, eucalyptus and willow and has provided a model to coniferous species to aspire to, but it also presents different problems. Biological/technical, economic/marketing and environmental/ecological concerns have limited the use of clonal forestry in the past, but recently most of them, except for some environmental/ecological concerns have been overcome. Nevertheless, currently many large-scale mass propagation and clonal forestry programmes are in operation with a range of species around the world. Thus, there are no overwhelming reasons why these processes could not be used more widely in Europe. The question is now not IF mass propagation and/or clonal forestry will be put into use in Europe, but rather WHEN and HOW.