

Forest Reproductive Material (FRM)

Genetic diversity is the ultimate source of biological diversity, and genetic resources represent the useful diversity of forest trees and other living organisms. Forest genetic resources constitute the genetic resources of both native and exotic forest tree species found naturally in the country or introduced at some time in the past.

After centuries of over-exploitation of indigenous forests the original objective of the afforestation programme was to create a resource that would yield a sustainable supply of timber to satisfy the country's needs and reduce dependence on imports. Initially this led to the establishment of plantations of fast growing exotic conifers, mainly from western North America.

Recent years have seen a rapid rise in the use of native species, particularly broadleaved species, in both commercial afforestation and in the Native Woodland Scheme. It is important that the planting stock used should be genetically suited to the site. Attempts to rectify the planting of unsuitable or poorly adapted material is expensive and the returns on such crops will be below expectations. Costs associated with utilising the most appropriate forest reproductive material are small compared to forest establishment and management. Having forest reproductive material that is well adapted to Irish climate and edaphic conditions is fundamental to maintaining the sustainability of the forest resource. COFORD is playing its role in monitoring, testing and evaluating Irish forest reproductive material through a number of national and international projects.

National FRM projects:

- **ASHGEN** – Identifying the scale of suspected introduced hybrid ash (*F. excelsior* x *F. angustifolia*) in Ireland and its potential for genetic pollution of indigenous ash germplasm.
- **ASHQUAL** – Comparison of untested Irish ash seed sources with European controls.
- **BEECHQUAL** – Testing of stands of Irish beech with European controls.
- **BIRCH** – Selection and improvement of Irish birch (in association with alder improvement project).
- **OAKPROV** – Establishment of Irish oak seed stands and progeny trials with European controls.
- **QUALIBROAD** – Improving the uniformity and quality of broadleaf planting stock.
- **XMASFIR** – Field trials of improved Danish noble fir Christmas tree sources.
- **SEEDSTANDS** – Managing the national catalogue of seed stands.

International FRM projects:

- **BIHIP** - Co-ordination and participation in the British and Irish Hardwoods Improvement Programme.
- **EUFORGEN** – National co-ordination, with the Forest Service, of the European Forest Genetic Resources Programme.