

# Seed Collection and Sustainable Plant Production Discussion document for the first meeting of an expert committee of the Technical Advisory Panel of Woodlands of Ireland Introduction to Seed Collection Issues\*

In September 2017, Woodlands of Ireland co-hosted a **Native Woodland Seed Collection Training day**. A very good cross section of participants totalling 35 attended, from woodland owners, farmers, ENGOs, seed savers and State organisation personnel. The event comprised an indoor session (in the Church of Ireland hall, Killeshandra, Co. Cavan, facilitated by Heather Bothwell) with presentations on:

- Native tree and shrub requirements (Declan Little)
- Forest policy and legislation (Brian Clifford, Forest Service RoI)
- Best practise re seed collection (Derek Felton, Woodstock Seeds Ltd.)
- Marketing of Forest Reproductive Material (FRM) and Seed stands and seed collector registration (Cathal Ryan, Forest Service RoI)
- Forest reproductive materials regulatory framework, Northern Irl (Ralph Barron, Forest Service NI)
- Seed requirements and storage (Larry Behan, None-So-Hardy Nurseries Ltd.)
- Risk assessment and insurance (Joe Gowran, Muintir na Coille).

Plus an excursion to an old Oak woodland in Kilygar estate, Co. Leitrim where Heather Bothwell and Derek Felton (seed collectors) demonstrated best practise and opened a discussion on seed issues generally.

**Seed Issues:** The seed training course threw up many issues which are still current for 2021 including:

(1) There is an urgent need by Forest Service to provide the nursery sector with an annual global demand volume figure for broadleaves including native stock.

(2) Coillte can store acorns safely over one year (but not longer) at the National Seed Centre at Ballintemple), but tight budget controls prevent buying ahead of immediate need irrespective of the distinct possibility that there will be no crop next year and all acorns will have to be imported. In short, seed collectors could collect more acorns in a mast year, but who will grow them? Coillte should be encouraged to facilitate the storage of seed such as Oak for other nurseries including None-so-Hardy to improve continuity of supplies over longer time periods.

(3) In a year when there is a good mast of Oak (both species) industry will not capitalise on it unless there is good co-ordination. A memo from Forest Service to seed collectors and nurseries at the time of a good mast could help stimulate collections especially if projected demand for Oak under Forest Service schemes under the Forestry Programme is highlighted.

(4) the Forest Service should consider a grant scheme for nursery start-ups as the forest sector is over-reliant on one commercial nursery (i.e. None-So-Hardy Nurseries), now that Coillte are essentially only supplying their own needs with respect to native stock - their requirement for acorns has reduced from 20 tonnes in the early noughties to 10 tonnes in the early teens to c.5 tonnes in 2017.

(5) Looking at genetic integrity, Non-So-Hardy collect acorns primarily in the South East region and, as they are the biggest supplier nationally, this is undesirable. Collections should be aiming to supply from seed sources nationally, especially where plants are going into or adjacent to designated sites (SACs, etc).

(6) There is a good case for a module on seed collection at 3<sup>rd</sup> level in forestry and/or Environmental courses to ensure that there is sufficient knowledge of all the issues involved and to promote good practise seed collection.

(7) Liability insurance could potentially be an obstacle for private landowners re allowing registered seed collectors onto their land. This is the case where landowners do not have liability and injury insurance.

\*a reformatted version of a memo to seed training course participants by Dr. Declan Little, WoI 2017.

**The meeting of the Plenary session of the Technical Advisory Panel of Woodlands of Ireland on 15<sup>th</sup> of October 2020 advised the reforming of an expert committee on seed collection and sustainable plant production because:**

While NWS Afforestation looks set to meet the annual target of 450 hectares for the first time in 2020 in the RoI, concerns continue about the availability of indigenous genetic stock of Oak, Hazel and minor species.

Lar Behan reported from the perspective of None So Hardy Forestry, on obstacles they face:

- Lack of a constant supply of plants across all species
- Nurseries are dependent on mast years for Oak, like 2020, to provide a good collection. The problem is that it could be 3-4 years before another mast year occurs, which would produce seed at the same levels as 2020.
- Other species can also have hit and miss results for seed production, e.g. in 2020 there was no Rowan seed to collect and even Hazel and Whitethorn were scarce.
- There is a lack of facilities for seed treatment and storage. The National Seed Centre at Ballintemple Nursery could be more proactive in collecting and distributing native seed.
- There is a very stop/start nature to the demand for plants. Low level of planting leads to surpluses in plants. There seems to be no consequences to DAFM in not reaching targets in the Forestry Programme 2014-2020, while None So Hardy carry all the risk in getting plants ready for market which may or may not be needed.
- None So Hardy aim to get 5-6 tonne of Oak seed which would see a yield of approx. 5-600,000 Oak plants for sale later as two year olds. They are collecting this seed in good faith as they can only hope there is a market for these trees in two years' time.

It was agreed that a subgroup/ expert committee be formed to examine these issues, with due regard to Northern Ireland and to the activity of the (Forest Service RoI) Forest Genetic Working Group.

Recommended reading on Forest Reproductive Material (FRM) and FGR includes:

COFORD, 2020. Sustainable Development and Conservation of Forest Genetic Resources 2020-2030. COFORD, Kildare St. Dublin 2.

<http://www.coford.ie/media/coford/content/publications/2020/35769COFORDbodyreportweb211220.pdf>

COFORD National Consultative Committee on Forest Genetic Resources 2012. Forest Genetic Resources in Ireland. COFORD, Dublin.

[http://www.coford.ie/media/coford/content/publications/projectreports/forestgeneticresourcesinireland/Forest%20Genetic%20Resources\\_lowres%20for%20web.pdf](http://www.coford.ie/media/coford/content/publications/projectreports/forestgeneticresourcesinireland/Forest%20Genetic%20Resources_lowres%20for%20web.pdf)

Cahalane, G., Doody, P., Douglas, G., Fennessy, J., O'Reilly, C. and Pfeifer, A. 2007. Sustaining and developing Ireland's forest genetic resources. An outline strategy. COFORD, Dublin.

[http://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Countries/Ireland/Irelands%20FGR\\_Report.pdf](http://www.euforgen.org/fileadmin/templates/euforgen.org/upload/Countries/Ireland/Irelands%20FGR_Report.pdf)

Kelleher, C. (2020). A National Forest Tree Gene Conservation Strategy and Action Plan for Ireland. *Irish Forestry*, 77(1&2), 7-32. Retrieved from

<https://journal.societyofirishforesters.ie/index.php/forestry/article/view/10983>

## Some initial questions to consider for the meeting discussion:

1. Woodlands of Ireland are suggesting the development of an EFQ certified module on Seed Collection, for example <https://vimeo.com/277477263> and <https://fgca.net/what-you-can-do/seed-collection/#certifiedseedcollection> : Do you agree or do you have an alternative approach?
2. Should we certify the seed collectors, seed processors and the grower?
3. Can an all island standardised Seed Manual be produced which combines all the strands of relevant information together? For example: <https://www.forestresearch.gov.uk/research/archive-seed-manual-for-forest-trees/>
4. Can another pilot training course be set up for September/October 2021?
5. State regulatory bodies such as DAFM and DAERA can have significant impact on markets for nursery stock, in terms of supply of FRM and control of licenses and the flow of incentives offered for forest operations. Are there mechanisms that can be applied which support nursery producers when they produce stock vital to the achievement of agreed Forestry Programme targets and then these targets are not achieved due to Departmental backlogs in the processing of forest operation incentives and licenses?
6. Could these mechanisms be set in place prior to the commencing of the next round of CAP?
7. Cahalane et al 2007 raises the issue of succession planning when it comes to having ongoing adequate staff to maintain continuity of expertise and knowledge in the state regulatory sector: How can the fragmented approach of government regarding Forest Genetic Resources and Reproductive Material be resolved?
8. Is there a role for container grown stock on acid sensitive sites/ protective forest zones, minor species production and for extended season planting?
9. What support can Teagasc/ OPW/TCV give in the development of an EFQ training module?
10. Could 'Coillte Nature' play a role in coordinating the functions of the National Tree Seed Centre?

**Initial list of individuals invited to participate:** Please suggest others that you would like to see involved.

Lorcan Scott: Chair first meeting

Woodlands of Ireland staff: Isabella Donnelly, Joe Gowran

Colin Kelleher, Gerard Cahalane, Eugene Hendrick, Lar Behan, Nicolette Van der Wel, John McKeown, Luke Sweetman, Monica Murphy, Saul Mosbacher, Bernard Carey, Heather Bothwell, Jennifer Fulton, Robert Shearman, John Griffin, Philip Blackstock, Aileen O'Sullivan, Stephen Meyen, Brian Clifford, Ciaran O'Keefe.

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