TEAGASC MASTERS WALSH FELLOWSHIP OPPORTUNITY

“Exploration of the working properties and utilisation of small-diameter Irish-grown alder (Alnus glutinosa)”

LEVEL OF AWARD: 24 MONTHS (MSc)

Walsh Fellowship Ref Number: 2018051

Background

In Ireland approximately 95% of hardwoods used in the furniture and woodworking industries is imported. There is however a significant amount of broadleaf plantations from which small-diameter thinnings can be harvested. Much of that material is currently directed to the firewood market, negating any added-value potential which could be realised through markets for better quality material.

There is potential to reduce reliance on imported hardwoods through the use of advances made in the processing of small diameter hardwood logs and in the development of innovative uses for small-sized sawn hardwoods.

Proposal:

The research project will investigate the properties and potential uses of small-diameter (20 - 30 cm) Irish-grown alder. Knaggs and Xenopoulou (2004) provide properties for larger diameter timber and this project will facilitate a more in-depth investigation of the species and support the development of novel uses of the small-diameter timber.

This project will establish the characteristics, properties and utilisation potential of small-diameter Irish-grown alder in order to establish what other markets exist for this material. It will explore opportunities to add-value and establish new utilisation potential of alder by establishing the working and finishing properties and exploring innovative uses.

The research project will establish the working properties of alder in relation to:

- Conversion
- Seasoning / kiln drying
- Processing (planing, sanding etc.)
- Nailing / Screwing
- Bonding
- Finishing

Outcomes will include developing product prototypes and resources designed on the basis of maximising the utilisation potential of the species.

Applicant Requirements

The successful candidate will hold an Honours Degree (minimum 2:2, but 2:1 or higher is desirable) in a cognate discipline e.g. Furniture Design, Furniture Technology or a related discipline. A demonstrated ability to communicate scientific research findings will be viewed favourably.
Award
The fellowship funding is €22,000 per annum and includes registration fees of up to a maximum of €6,000 per annum and is tenable for 2 years. The full bursary is for:

- €16,000 student stipend per annum.
- Postgraduate fees for EU students.
- Any necessary travel and material costs incurred during the project will also be covered

Please Note:
- Candidates from outside the EU are eligible to apply but will be expected to provide evidence of sources of additional funds to cover excesses associated with Non-EU fees.
- If either English or Irish is not the applicant's first language, a certificate of language ability in either language is required. IELTS level 6.0 or equivalent is mandatory for those presenting with English as a foreign language.

Project Start Date: October 2018

Duration: 24 months

Application Procedure
Applicants should submit their Curriculum Vitae (to include name of 2 referees) and a Personal Statement to: ResearchOffice@gmit.ie

Applications must be submitted to this email address only.

The Personal Statement should not exceed 1 page and include:

- How you meet the requirements of the position
- Why you would like to pursue a Masters Research Programme

Closing Date: Friday June 22, 2018 at 12.00pm IST (GMT + 1)

For further information on the project please contact:

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