

## TEAGASC PHD WALSH SCHOLARSHIP OPPORTUNITY

### “Ground-Up: Process development for diversifying the portfolio of indigenous feedstock materials utilised in manufacturing peat-alternative growing media”

Walsh Scholarships Ref Number 2024049

#### Background

The current commercial manufacture of peat-reduced and peat-free growing media across Europe, depends in large part on a ready supply of indigenous wood-based products and/or the importation of coconut-coir products from abroad. These by-product resources may be considered conventional for inclusion in growing media, in-so-far-as their processing and distribution pathways are well established, however they may not always be available, affordable or sustainable long-term.

The diversification of utilised resources within Ireland for use as growing media components requires research support. This project intends to design a pathway for growing media manufacturers to diversify their portfolio of primary resource selection. It will highlight indigenous resources which are available in adequate quantities, demonstrate mechanisms by which materials may be centrally collected and/or harvested and suggests suitable processing procedures and pathways for the development of suitable growing media components.

Using near-commercial scale hammer-mill machinery, several grades of milled media will be manufactured from a variety of novel feedstock materials. Their suitability for direct inclusion in growing media or as pre-cursor material for onward processing (i.e. composting) will be assessed by way physiochemical characterisation and by plant-response testing, as well as agronomic trials in conjunction with the ongoing projects at Teagasc.

For growing media manufacturers, there is inherent financial risk associated with adopting non-conventional resources as pre-cursor materials. The development novel growing media components investigated within the project, will therefore be subject to a techno-economic analysis. Adoption is more likely where significant cost-benefits to growing media manufactures can be identified.

#### Requirements

Applicants must hold a first or upper-second-class honours degree or a Master’s degree in Agricultural Science, Natural-Science, Engineering, or otherwise appropriate discipline. The successful candidate should be highly motivated with enthusiasm to develop technical skills across a range of disciplines. Applicants should ideally demonstrate experience in some of the following areas;

- Agronomic trial work
- Operating machinery and equipment
- Interest in inventory and economic assessment
- Strong analytical skills and the ability to work independently and collaboratively

Non-native speakers of English are required to demonstrate evidence of English language proficiency in line with [UCD minimum English language requirements](#) for entry into the postgraduate programme.

#### Further information

This PhD Walsh Scholarship is a joint research project between Teagasc and University College Dublin (UCD). The student will be registered at UCD and hosted at the Horticultural Development Department in Teagasc, Ashtown, Dublin 15. The PhD is a full-time structured



programme of 4 years. It will incorporate a structured research and professional development plan, supporting original and self-directed research, laboratory and practical skills development.

Please contact Dr. Eoghan Corbett ([eoghan.corbett@teagasc.ie](mailto:eoghan.corbett@teagasc.ie)) for further information if required

### **Benefits**

The PhD student will be based in Dublin, hosted primarily at the Teagasc Food Research Centre, Ashtown, Dublin 15, under the joint supervision of Dr. Eoghan Corbett (Teagasc) and Dr. Nick Holden (UCD). The scholarship funding is €25,000 per annum and includes university fees of up to a maximum of €6,000 per annum and is tenable for 4 years. Any fees in excess of this amount will be addressed by the HEI.

### **Application Procedure**

Please submit an electronic copy of the following Dr. Eoghan Corbett ([eoghan.corbett@teagasc.ie](mailto:eoghan.corbett@teagasc.ie)) cc'ing Dr. Nick Holden ([nick.holden@ucd.ie](mailto:nick.holden@ucd.ie)), using the subject line "Ground-Up Ref 2364" followed by your name;

- Letter of Interest
- Curriculum Vitae
- Contact details for at least two referees
- A copy of the official transcript of university results for undergraduate and/or postgraduate degrees

### **Closing date**

Wednesday 2<sup>nd</sup> October 2024 at 11:59pm (Irish Time)

Shortlisted candidates will be called to interview in October/November.

### **Project Start Date**

December/January 2024

### **Data Protection Statement**

Teagasc takes very seriously its legal obligations as set out in the General Data Protection Regulation 2016/679 (GDPR) and the Irish Data Protection Act 2018 to safeguard and protect your personal information in our possession. The personal information, which you disclose to us in this process, will only be used to assess your suitability; administer and register you for this scholarship. We will not keep your personal information for any longer than is necessary for those stated purposes.