Call Code: ASS-RIC/45_24

Departmental Faculty	Faculty of Science and Technology for Sustainable Development and One Health
Research theme	Analysis of growth and productivity of oilseed crops under sub-optimal environmental conditions typical of marginal lands
Brief description of the research	The research aims to promote the environmental sustainability of biofuel production systems from oilseed crops through precision agriculture employing AI. To achieve this goal, a multi-parametric monitoring system for the agro-ecosystem and predictive models will be developed and validated. These tools will assess crop stress conditions. Species/genotypes will be selected to establish the experimental system, along with the climatic conditions typical of cultivation areas. Plants will be grown under controlled conditions to refine protocols for physiological parameters indicative of plant health. These parameters will be measurable through non-invasive techniques. Seeds from the selected species will be germinated under various adverse conditions to evaluate their germination potential and subsequent plant development. Finally, the predictive algorithms will be experimentally validated in a controlled environment. The algorithm outputs will be compared with results obtained using destructive and non-destructive standard methods for assessing plant health and stress levels.
Scientific Supervisor	Prof.ssa Laura De Gara
Scientific Disciplinary Sector	BIOS-02/A – Plant Physiology
Duration of contract	12 months
Annual gross amount	19.367,00
Economic coverage	Finanziamento garantito fondi UCBM
Admission qualifications	University degree (as per the Old Italian System) in Biotechnology (all subjects), Biological Sciences or Specialist/Master's Degree in Biotechnology (all addresses), Biology, Human Nutrition Sciences or equivalent degrees as per Ministerial Decrees No. 509/1999 and No. 270/2004.
Language knowledge and skills	Excellent knowledge of written and spoken English
Date of the interview	**21st February 2025, at 9:15 a.m** Remote candidates on Microsoft Teams platform

Digitally signed document