

Thursday 5 November EU-India PARTNERING EVENT

Theme: Sustainable production and management of biological resources from land, forest and aquatic environment

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Scottish Crop Research Institute (SCRI)





This event is co-funded by the Seventh Framework Programme, European Commission



A joint event organized by



RESEARCH CENTRE

Sustainable production, Sustainable production, Sustainable production, Sustainable production

SCRI is Scotland's leading institute for research on plants and their interactions with the environment, particularly in managed ecosystems.

> Lead centre in the UK research on potatoes, barley and soft fruits.

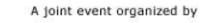
- Research Focus:
 - Processes that regulate the growth of plants
 - Responses to pests, pathogens and the environment
 - Breed crops with improved quality and nutritional value.

INDIGO EUINEC

> SCRI also preserves internationally important ex situ biodiversity in the form of crop germplasm, an essential resource for crop improvement or cultivar production for sustainable agriculture.

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PROFILE A MAR



PROJECT IDEA



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Constraint: Shortage of water and poor understanding of stress physiology, phenology and their genetic control for plants that form specialized storage structures such as tubers, bulbs and fleshy fruit.

> Aim: Breed for high water use efficiency while sustaining yield.

> Approach: Exploit existing natural variation to adapt these crops to water stress conditions.

- Phenotype germplasm or populations extensively at several locations under different water and nutrient management systems (Stomatal conductance, photosynthetic capacity.
- Genotype these populations and identification of QTLs/associations.
- Investigate candidate genes responsible for trait variation.







PARTNER SOUGHT



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The focus on the WUE project is based on the development of breeding and producing varieties (eg. Potato) in more dry and warm/hot regions to serve as (staple) food for populations in these regions.

Institutes/Universities: Research work involves:

- Genetic variation of this trait.
- Methods to determine the trait
- Genetic and/or molecular basis of tolerance to water stress/water use efficiency.
- Preservation of ex situ variation or germplasm.
- **SME/Companies:**
 - Carry out phenotypic trials at different locations.
 - Field trials all over the world to test new and existing varieties in a wide range of climate conditions.



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CONTACT DETAILS



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