# Building Robustness in Crops (BRiC)

John Innes Centre

BRiC is a research programme that delivers genetic diversity and knowledge, innovative technologies and training to allow sustainable production of robust high-yielding crops.

Climate change challenges crop production and humanity's ability to produce sufficient high-quality nutritious food alongside reliable farm incomes.

We must use less land for food production to meet biodiversity and carbon sequestration targets, and we can exploit new technology to reduce reliance on vegetable imports.

At the John Innes Centre, we are investigating how we can improve crops and technology to withstand climate change whilst reducing our reliance on costly and energy-demanding inputs.

In the UK,

**63%**

of the land is used for agriculture.

Working alongside partners in industry, the Building Robustness in Crops research programme uses interdisciplinary approaches to discover how to develop more robust, resilient and high-yielding crops, including oil crops such as oilseed rape, and high-protein crops like pea, as well as cereals and Brassica vegetables like broccoli.

In oilseed rape there's an **18%** increase in seed set when plants are pollinated in the field by insects.

This equals a **20%** increase in market value.

We aim to discover how to develop:

- Crops adapted to warmer winters
- Drought resistant wheat
- Peas with a more reliable yield
- New broccoli varieties which can be produced profitably in the UK using indoor farming systems
- Our understanding of how pollinators are attracted to crops to increase seed set

**SCAN FOR MORE INFO**

The Building Robustness in Crops Research Programme will deliver genetic diversity and knowledge, innovative technologies and training to allow sustainable production of robust high-yielding crops.

UKRI Biotechnology and Biological Sciences Research Council

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