

## **Bayer Grants4Ag: Improving Resilience of Local Varieties Through Genome Editing**

### **Sponsor**

Bayer Crop Science

### **Description**

First introduced in 2015, the Bayer Grants4Ag initiative has evolved to offer researchers financial and scientific support to develop ideas for novel solutions across all research and development areas in the Division of Crop Science. Awarded projects will be paired with an internal Bayer Scientist for project guidance.

Climate change, biodiversity and food security are interlinked topics that require holistic approaches and toolboxes. Recent advancements in plant breeding innovation, including genome editing, have emerged as tools for improving the adaptation of crops to biotic and abiotic stresses. To expand their resilience to climate threats and mitigate their effects.

Local varieties and niche/orphan crops in Europe and Africa are valuable for a socioeconomic reasons, being normally cultivated by small and/or specialized farmers, but also represent a source of diversity for sustainable food systems. Innovative tools like genome editing unlocked opportunities for amendment of characteristics or challenges that may jeopardize their perdurance (e.g. yield instability, susceptibility to new plant health treats after new fungus, bacteria or pest outbreaks, etc) and offer opportunities for conservation of this diversity.

As a science-based company, Bayer aims to contribute to the use of innovation in complementary mainstreams that could contribute to the sustainable development goals of United Nations and the European Green Deal.

### **What we're looking for**

We are looking for ideas or proof of concepts that use genome editing in benefit of local varieties, particularly those regarded as “orphan” or “research-neglected, in Europe and Africa. We are aimed to generate a wealth of proposals that turns targeting modification of plants as a tool for maintain/increase diversity (environment) and/or producers benefits (socio-economic). Considerations related to the societal acceptance will be noted.

### **Solutions of interest include:**

Use of genome editing to overcome limiting factors in the cultivation of varieties that local

varieties and niche/orphan crops that may contribute to the sustainable food systems (environmental or socio-economic aspects).

## Our must-have requirements are:

The final genome edited plant should not contain foreign DNA. Recipient of the grant must comply with all local and national regulations.

## What's out of scope:

Final product developed by transgenesis or intragenesis

## Eligibility

Although Bayer allows non-faculty to apply, U of G requires an eligible faculty member to hold and administer funding.

## Funding Availability

Funding is proposal-dependent and typically ranges from \$5,000 to \$15,000.

## Indirect Costs

0%

## Project Duration

Bayer expects the projects are completed in about one year. However, they can extend and renew on a case-by-case basis.

## Special Notes

Additional details can be found on [Halo's RFP website](#) [1].

## Deadlines

**If College-level review is required, your College will communicate its earlier internal deadlines.**

Type	Date
<b>External Deadline</b>	Wednesday, November 30, 2022 - 12:00am

Alert Classifications**Category:**

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### **Source**

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### **Links**

[1] <https://www.halo.science/company/bayer-crop-science>