

# Breakthrough technologies to accelerate breeding and strain improvement in biological production for a sustainable society

## Pioneering new food resources from wild crop progenitors

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### Summary :

Drastic climate changes due to global warming are affecting crop production. Conventional breeding, which depends on the genetic diversity of existing cultivars, may not keep up with this change. In this project, we aim to introduce domestication related traits to wild crop progenitors to explore and establish new food resources. We will develop new genetic transformation method using shoot apical meristem and apply genome editing to wild *Oryza* maintained in National Institute of Genetics. We introduce several domestication traits by genome editing technology thus achieving domestication of wild plants in a very short periods. This research will provide a possibility of overcoming food shortage by using diversified food resource.

