

Biosafety News

C4 Rice Project Enters Third Phase towards Better Photosynthesis in Rice

Scientists at Oxford University and partners are entering the third phase of their project with an objective to improve photosynthesis in rice by introducing more efficient traits from other crops. One of the major goals of the project is to switch rice from C3 photosynthetic pathway to C4, which is more efficient and is projected to increase productivity by 50 percent, as well as improve nitrogen use efficiency, double water use efficiency, and drought tolerance.



The first and second phases of the C4 Rice Project were focused on identifying biochemical and morphological components of the C4 pathway and verifying the functionality of known C4 enzymes in rice. For the third phase of the project, the assembled genetic toolkit will be polished and the regulatory mechanisms involved in establishing the C4 pathway will be investigated to lead the way for engineering of the C4 pathway in rice.

Read more from [Donald Danforth Plant Science Center](#).

Gujarat State Biotechnology Mission

Department Science & Technology, Government of Gujarat

11th Block, 9th Floor Udyog Bhavan, Gandhinagar – 382017

Ph. No.: - 079-23240896, 23252197 Fax: - 079-23252195