

Biosafety News

Photosynthesis Gene Could Help Plants Stay Healthy In Stressful Conditions

Researchers at Oxford University have identified a gene that helps plants remain healthy during stressful periods. The gene, *SP1*, controls the development of chloroplasts and governs the passage of proteins in photosynthesis through the chloroplast's outer membrane. Oxford University Professor Paul Jarvis believes that the gene might use this ability to help plants survive in stressful conditions.



The research team led by Professor Jarvis worked with three versions of *Arabidopsis thaliana*: a naturally occurring wild type, a mutant plant lacking *SP1*, and an engineered plant that over-expressed *SP1*. In separate experiments, the plants were exposed to different stressful conditions such as high salt, drought, and herbicide paraquat. The *SP1* overexpressors were more tolerant of the conditions than the normal plants, indicating that *SP1* was responsible for the resilience. The team is now working with wheat, rice, tomatoes, and brassicas to establish if their findings can be used in a wider variety of plants.

For more information, read the news release at the [Oxford University website](#).

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