

PHOTOSYNTHESIS 'SWITCH' INCREASES RICE YIELDS BY 30%

Scientists from the University of Arkansas have found out that they can harness photosynthesis to increase [rice](#) yields by up to 30 percent. Led by Andy Pereira, the research group examined a protein that acts as a "switch" to activate [genes](#) that can enhance the photosynthesis activity of rice plants.



The researchers discovered that the protein, known as higher yield rice (HYR), could enable the plants to survive stress, thrive and increase productivity. Pereira said "The regulator HYR does regulate photosynthesis, a complex process. I saw in the greenhouse that the plants using the HYR regulator were much greener than any others. It was because of more chlorophyll, hence, higher photosynthesis."

Plants under stress shut down photosynthesis to stop producing reactive oxygen, which is damaging to them. This is where the HYR regulator protein comes in by keeping the whole photosynthesis machinery active and maintaining productivity, Pereira explained. The research showed that HYR increases photosynthesis, which increases sugars, increases biomass and finally leads to more grain yield among normal [rice](#) cultivars.

For more information, read the news release available at :

<http://newswire.uark.edu/articles/25952/rice-yield-increase-of-30-percent-enabled-by-use-of-a-photosynthesis-switch-researchers-learn>.