Fine tuning photosynthesis: Predictive model helps scientists breed higher yielding crops

In the next two decades, crop yields need to increase dramatically to feed the growing global population. Wouldn't it be incredibly useful if we had a crystal ball to show us what are the best strategies available to increase crop yields?

A team of scientists have just <u>developed exactly that</u>: a dynamic model that predicts which photosynthetic manipulations to plants will boost the yields of wheat and sorghum crops.

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"We have developed a reliable, biologically rigorous prediction tool that can quantify the yield gains associated with manipulating photosynthesis in realistic crop environments," said Dr Alex Wu, from the ARC Centre of Excellence for Translational Photosynthesis (CoETP) and The University of Queensland (UQ).

Plants convert sunlight, carbon dioxide and water into food through photosynthesis and several studies have shown that this vital process can be engineered to be more efficient.

"Until now, it has been difficult to assess the impacts of these manipulations on crop yield. This prediction tool will help us to find new ways to improve the yields of food crops around the world," [Wu said.]

Read full, original article: Just how much does enhancing photosynthesis improve crop yield?