Cactus scientists offer insights to solve future global agricultural challenges

July 6 2015

Researchers have provided a new roadmap for tackling future agricultural production issues by using solutions that involve crassulacean acid metabolism (CAM), a specialized type of photosynthesis that enhances the efficiency by which plants use water.

Plants that use CAM, which include cacti and agave, are typically found in dry environments. Increasing agricultural production to accommodate society's growing population might be achieved by developing CAM crops as new sources for food, feed, fiber, and bioenergy or by engineering non-CAM crops to use CAM strategies to improve their water use efficiency and yield.

"CAM research is an emerging scientific discipline with tremendous potential for applications, and it attracts growing interest from both academia and industry. This roadmap is a result of collective work by CAM researchers around the world," said Dr. Xiaohan Yang, lead author of the *New Phytologist* article. "It could serve as a blueprint for future collaborative research to realize the potential of CAM crops and will likely lead to increased funding opportunities for CAM research."

More information: DOI: 10.1111/nph.13393

Provided by Wiley