Researchers hunt for heat-tolerant rice, wheat varieties as global temperatures rise

A group of Arkansas State University educators and students are studying effects of heat on rice crops in a three-university project aimed at discovering plants that can withstand global warming.

Scientists at the University of Nebraska at Lincoln and Kansas State University are also looking at creating a heat-resilient variety of wheat….

Argelia Lorence, director of ASU's phenomics facility and a Vaughn Endowed Professorship of metabolic engineering, is heading the ASU study with Wency Larazo, a rice agronomist.

She said climate data has shown that during the past 40 years, the average night time temperature in areas that produce rice have increased by 5 degrees. That's indicative, she said, of continued rising temperatures that are putting stress on important crops.

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Lorence and seven ASU students will construct six greenhouse tents [and] plant 400 various breeds of rice in each of the tents and raise temperatures in three of the tents to see how resilient they are….

The plants will also be….tested for size, color, the amount of chlorophyll they contain and their leaf temperatures….When Lorence and her team find the most resilient [varieties of] rice, they will present their findings to….breeders who can then attempt to crossbreed [them] for a more heat-resilient form of rice seed.

Read full, original article: Arkansas Sate turns up the heat on rice crops