

High-yield, protein-enriched rice could help combat nutrient deficiency in developing world

More than 750 million people don't get enough nutrients from their food. More than two-thirds of those people live in places that consume a lot of rice. Can rice bred for extra protein be the answer?

"There are hundreds of millions of people around the world who depend on rice....but their access to protein is very limited by availability and cost," explains Herry Utomo, a professor at Louisiana State University. "High-protein rice can be used to help solve the worldwide problem...."

Utomo and his team developed a high-protein line of rice cultivar, 'Frontière,' which was released in 2017. The rice was developed through a traditional breeding process....On average, it has a protein content of 10.6%, a 53% increase from its original protein content....This high-protein cultivar is currently marketed as "Cahokia" rice. It is grown commercially in Illinois.

However, breeding a crop for more nutrients like protein can cause yield to go down. The researchers.... [tested a total of 20 new lines](#) of high-protein rice to see if any would have a higher yield. Their data showed the new high-protein lines improved yield by 11-17% compared to the yield of the first high-protein line....

Utomo says this new advanced line, with higher yield, is ready for final field testing prior to release.

Read full, original article: [High-protein rice brings value, nutrition: Crop breeders build yield, market for high-protein rice](#)