

## Second Green Revolution: Stress-tolerant rice varieties increase crop yields, food security

According to [International Rice Research Institute (IRRI)], the global rice demand is estimated to increase from 439 million tons in 2010 to 555 million tons in 2035. In Africa, where the population growth rate is high, there is an exponentially [increasing](#) demand for rice.

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“We are now integrating tolerances of abiotic factors into modern varieties and bringing them to the areas that missed the first green revolution.” [IRRI’s Dr. Abdelgagi Ismail] says, “This is what we are referring to as the second green revolution.”...

Unlike the first Green Revolution, which used a single miracle variety to produce an exorbitant amount of rice, the second Green Revolution involves tailoring seeds to thrive in particular environments (drought, submergence, salinity, iron toxicity, heat and cold). IRRI’s research has made it clear that it is possible to double the productivity in these areas, and they hope to increase its nutritional value too.

“I am optimistic that with sufficient investment in research, science will help us solve all hurdles and sustain our food supply, and agriculture is the only source of food.” Ismail says, “The concept of the second Green Revolution is a good example, besides investing more into areas and resources that are not yet sufficiently exploited.”

**The GLP aggregated and excerpted this article to reflect the diversity of news, opinion and analysis. Read full, original post: [Of Rice and Men: Cultivating the Next Green Revolution](#)**