

Golden Rice raises stakes in war over GM foods

One of the world's great humanitarian crises has a simple cause and, some researchers argue, a simple solution. But that's where the story gets complicated.

Around the world, 250 million children are vitamin A-deficient, including about a third of the world's preschool-age population. This simple deficiency kills or blinds millions of women and children each year. In 1992, a team of researchers from Johns Hopkins calculated that increasing consumption of vitamin A, without any other interventions or nutritional improvements, could prevent 1.3 to 2.5 million deaths among infants and preschoolers every year. That's more than the number of children killed each year by measles, whooping cough, and tetanus combined.

From the beginning, Golden Rice was conceived as a project that could significantly improve global health, even though it seemed terribly futuristic when it was first proposed.

"Identified in the infancy of genetic engineering as having the potential for the biggest impact for the world's poor, beta-carotene-producing rice was initially funded by the Rockefeller Foundation and the European Union," writes Amy Harmon of The New York Times. Beta-carotene, the pigment that makes carrots and squash orange, turns into vitamin A in the human body.

"When children are weaned, they're often weaned on a rice gruel," Gary Toenniessen, a Rockefeller Foundation microbiologist, explained to NPR. "And if they don't get any beta-carotene or vitamin A during that period, they can be harmed for the rest of their lives."

While supplemental nutrition programs are both helpful and necessary, they are not enough, and funding irregularities and logistical challenges can make them an inconsistent source of vitamin A. Golden Rice, once it is widely released, will be much more cost-effective, as agricultural economist Alexander Stein has shown. Despite common misconceptions, no one stands to get rich when poor farmers start growing Golden Rice.

"It can be planted by the farmers using seeds from their own harvest and that would provide sustained supply of betacarotene," Antonio A. Alfonso, Ph.D., the Golden Rice project leader at the Philippine Rice Research Institute told Business Insider.

Read the full, original article: [A Miracle Rice Which Could Save Millions Of Lives Is Raising The Stakes In The War Over GM Foods](#)