

Let Them Eat (GM) Bananas!



By Ruth Kava — September 8, 2017



A couple of years ago we [applauded](#) ^[1]Uganda for adopting the National Biotechnology and Biosafety Bill which will allow farmers to grow genetically engineered crops (GMOs), as a means of improving the quality of foods. In particular use of this modern technology could prevent a deadly fungus from wiping out the most widely sold type of banana, the Cavendish, as we explained [here](#) ^[2]. And, genetically-engineered bananas could also help wipe out vitamin A deficiency in Uganda, as described in a recent post from [The Independent](#). ^[3]

Apparently bananas provide much of the average Ugandan's daily calorie intake, with a [yearly consumption](#) ^[4] of up to 800 pounds per year. Bananas, while rich in potassium, fiber and other nutrients, are not particularly good sources of vitamin A or its precursor, beta-carotene. And of course a long-standing severe deficiency of vitamin A leads to blindness and death. Indeed, it causes hundreds of thousands of cases of childhood blindness globally every year. Vitamin A deficiency is not unusual in Uganda, with as many as 15 to 30 percent of children under 5 and women of childbearing age not getting enough from their usual diets. Those two facts in and of themselves make the banana ripe for genetic engineering.

The genetically engineered banana, labeled the "Super Banana" can change that for Ugandans. Thanks to funding by the Bill and Melinda Gates Foundation, the type of banana most widely consumed in Uganda has been enhanced with beta-carotene, and is being sent to the US for testing.

Need we say that the usual scare-mongering will occur with respect to these bananas as we've seen occurring with beta-carotene-enhanced rice (Golden Rice). For example, a Dr. Helen Wallace was [quoted](#) ^[3]

"There is evidence that too much beta-carotene can be cancerous so what happens when people who are not vitamin A deficient eat this crop?"

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Well, the only evidence we can think of that beta-carotene is "cancerous" (whatever that means) is a study from 1995 indicating that smokers taking beta-carotene supplements had an 18 percent higher risk of developing lung cancer than smokers taking a placebo supplement. However, a banana enhanced with beta-carotene is not the same thing as a high - dose supplement. And safety testing surely will be done to determine appropriate levels of beta-carotene so that people who are not deficient will not get excess amounts of the pro-vitamin.

As we have said many, many times, genetic engineering of food crops has the potential to save lives across the developing world. Yes, vitamin supplements could do the same IF they could expeditiously reach the people who need them. But that hasn't happened enough, and we should be using all appropriate means to do so.

No, Marie Antoinette never said "Let them eat bananas" — but we do.

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[1] <https://www.acsh.org/news/2015/05/13/uganda-takes-big-step-toward-approving-gmos-an-african-breakthrough>

[2] <https://www.acsh.org/news/2015/07/17/how-genetic-modification-could-save-bananas-from-extinction>

[3] <http://www.independent.co.uk/news/science/gm-banana-designed-to-slash-african-infant-mortality-enters-human-trials-9541380.html?source=acsh.org>

[4] <https://www.scientificamerican.com/article/super-bananas-enter-u-s-market-trials/>