

Popular sweet grapefruit 'Rio Red' a product of unregulated, process of mutagenesis

Texas's famous Rio Red [grapefruit](#), known for being sweeter than the average grapefruit, does not come by its sweetness naturally, writes scientist and food blogger who identifies himself as 'Dr. Ricky.' To develop a superior grapefruit, scientists in the 1970s were able to identify two compounds that determined bitterness based on their ratios in the fruit. By tweaking the two genes that give rise to the compounds, scientists were able to increase the sweetness of the fruit. They were not using the technique of genetic modification, Dr. Ricky writes. They were using an older, less precise technique known as mutagenesis. "What could be more rife with unplanned results than random mutagenesis—yet these practices don't bear the scrutiny and political hand-wringing as [GM] plants do."

The popularity of mutagenesis, which uses irradiation to prompt random shuffling of genes in a plant's genome, has increased among large agriculture companies because not only is it cheaper and unregulated, it can be used in places where GM foods are rejected. The National Academy of Sciences has [warned](#) that mutagenesis is more likely than genetic modification to have unintended consequences, and yet the practice is still widely accepted.

Read the full, original story here: [Bitter fruit. Or not.](#)