'GMO' petunias: Ridiculousness exposed and explained

A few months ago, a Finnish plant biologist from Helsinki University was wandering around the town, when he noticed some orange petunias in flowerpots in a public square. He was curious, because there is no natural variety of petunia with that color. A 20-year-old story of a gene recombination experiment came to his mind. He bought the same plants in a shop, analyzed them and discovered that they were "descendants" from the outcome of an old experiment: one way or another, those seed had become available on the market, probably for years.

Once the story went public, a rush to locate and destroy the "GMO" seeds and flowers was sparked off by regulation agencies from Finland to the UK, from Australia to the USA and other countries.

Here's the transcript of a dialogue between a Rational Alien, who is visiting the Earth, and a State Officer of a country where "GMOs" are legally persecuted.

Rational Alien – Beautiful flowers you have in that box, officer. Are you taking them to the market? **State Officer** – No. I have just seized them from that shop. They are going to be destroyed.

- **R.A**. Oh, I see. They must be poisonous or something?
- S.O. Well, not at all. But they are "GMO".
- R.A. Pardon me?
- **S.O.** It's an acronym for "Genetically Modified Organisms".
- **R.A.** Mmm... Forgive me, I am perplexed: your scientists have known for decades that any living thing any organism is genetically modified by definition!
- **S.O.** That's the scientific point of view. But, according to the law, these blossoms are different illegal, that is. They must not exist.
- **R.A.** Allow me a question: what's the rationale for such rule?
- **S.O.** They are transgenic, because a gene from maize was added to them, to create the orange color.
- **R.A.** Er... and so what? It is well known that genes may "jump" from an organism to another, when different species happen to mix along lineages: if the outcome has no negative effect on safety or the environment (www.evira.fi/en/plants/current-issues/2017/evira-removes-genetically-modified-orange-petunias-from-sale/, www.aphis.usda.gov/aphis/ourfocus/biotechnology/brs-news-and-information/unauthorized_petunia), but it creates a new lovely plant...
- **S.O.** That may be true: but in this case the foreign DNA has been tracked, ascertaining that it was inserted intentionally; this operation makes the result the flowers illegal.
- **R.A.** I am afraid that the same pseudo-concept of "foreign" DNA is quite dubious. But: what if the source of the gene that dictates the orange color came from another variety of petunias? Would the resulting product be damned?
- **S.O.** It depends: if the gene had been infused via hybridization, or polyploidy induction, or tissue culture, or a number of accepted breeding techniques; or if the DNA had been tweaked via chemical or radiation "bombing", many officers in many countries of the world would not be chasing these flowers and seeds in thousands of shops and breeders' stores. Instead, since the very same phenotypic effect has been obtained via a "GMO" technique I have here a list of prohibited methods then stores can't sell them

and people shouldn't plant them!

- **R.A.** ...
- **S.O.** Sir, please, don't look at me like I'm an idiot: I am just doing my job! You come from a rational planet, I know that earthly customs may appear weird…
- **R.A.** Excuse me, just to understand: I learnt that mankind lives in a world of limited resources, and even more so as far as society's struggle against crime is concerned. Wouldn't be more... er... rational to divert the taxpayers' money that is now wasted running after the "GMO" blunder to the accomplishment of important tasks e.g. food safety and environment protection?
- S.O. Between us: personally, I agree. But law is law, and I am obliged to enforce it.
- R.A.-I read an ancient Roman motto: Summum ius, summa iniuria. In plain English: a slavish application of the law is damaging. Fortunately, in this case, the only injured subjects are these innocent buds...
- **S.O.** No comment.
- **R.A.** I have also to say that your media neglect to inform the public correctly: for example, it seems inappropriate to ask an anti-biotech guy for a comment, not a biologist or a geneticist in the "Science" section of a newspaper! (www.telegraph.co.uk/science/2017/05/09/gm-petunias-could-harm-wildlife-britains-gardens-warn-campaigners)
- **S.O.** You know, too often journalists don't look for knowledgeable sources... have you ever heard of "post-truth" or "alternative facts"?
- **R.A.** IMHO, balanced reports should tell the story of this "petuniastic" storm in a tea-spoon, pointing out that such a prejudicial commotion doesn't make sense!
- **S.O.** Too often, it does not work like that on this planet: any occasion to babble about "GMO invasion" and bullshit like that is promptly exploited (www.dailymail.co.uk/sciencetech/article-4528436/Advice-gardenders-facing-GM-invasion.html): sensationalism and fearmongering sell!
- **R.A.** Many times in your history so I read some dissenters chose to defy unjust laws through acts of civil disobedience: wouldn't it be nice if a few people declare publicly that they are going to save seeds of these flowers, or even sow them in public demonstrations?
- **S.O.** Let me whisper it to you: that's just what I imagined to do: save some seeds... just to experience the thrill of being an outlaw! But then I came back to reason... well, so to speak... I will fulfil my duty!
- R.A. Thank for your time, officer: now I'll let you proceed with the eradication of these Flowers of Evil...
- **S.O.** I did not know that Aliens could be ironic: I thought you were cold, rational entities.
- **R.A.** We normally are, yes. But sometimes Homo sapiens forces us to use irony as the only possible reaction to their lunacy...

If anybody owns forbidden petunias, please see an educational video on how to destroy them:

This satirical article has been endorsed by the following scientists:

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