

Outreach proposal by Vladimir Sivtsov, 29/03/2023:

· Target and comments: general public in Austria (no specific knowledge required). It might be especially interesting for those who are suspicious about GMOs.

· Text:

Good morning and welcome! I would like to talk to you today about genetically modified organisms. In short, GMO.

When I go to supermarkets I often see labels on the products like “Not GMO”, “GMO free”. I suppose that many people have seen this sort of marks on the products which are actually sort of advertisement. These ads try to convince people about something like “look, this product is not GMO, it means that it is more natural, so it is better so buy it even if it is overpriced”. And many people, especially those who are afraid of GMO, buy this overpriced food, but not GMO. Are GMO really so scary? Let’s find out!

Imagine a banana or watermelon. They’re natural, they’re great, they’re tasty, right? And they’re certified organic food. But what if I tell you that they have been undergoing the centuries of selective gene addition. What if these are not what they originally were? Some time ago both fruits had so many seeds and inedible stuff inside so nobody ate them. It doesn’t mean that a foreign gene was inserted into them. But this path that bananas and watermelons went to become what they are right now is the primitive type of genetic modification. So by definition this means that they are GMO. But they are not considered GMO because this process of standard selective gene editing took so much time. Today we can also edit genes and the only difference of how we did it and how we do it now is the place where it’s done and the time it takes. Instead of 100 year waiting process of selecting suitable organisms in farms, now the science allows us to create a desirable product in a matter of days in a lab.

But bananas grow in Africa and warm countries. What about Austria? There are many dairy farms in Austria, Switzerland, France and alpine milk is quite famous. So if you have been to a dairy farm and have seen cows you’ve probably noticed that they don’t have horns. Why is that? Because they might hurt each other so the horns were removed from them. But it’s also easy to edit the gene that results in horns. Wouldn’t you agree that it’s better to change this gene one time so that horns don’t even grow anymore instead of hacking off horns each time and thus hurting the animal?

In a nutshell, instead of waiting a hundred years and doing selections of appropriate plants we can just achieve the same result in the lab in a matter of days. Instead of removing horns from cows and thus hurting these animals we can remove the corresponding gene so that these horns will not even grow.

But is it a reason for us to not buy GMO products? Should we really be scared of GMO? I warmly recommend to think about it and decide.

Thank you for your attention!