

# The Difference Between Hybrid & GMO Seeds

---

 planetnatural.com/hybrid-gmo

E. Vinje

May 17, 2013



Not an online discussion about the dangers of genetically modified foods goes by without someone claiming, “What’s the big deal? They’re no different than any other hybrid. Hybrids and cross-breeding are genetic manipulations, just like GMOs. The only difference is that they’re done in the laboratory.”

Okay, maybe that last bit is true. And there are similarities. It’s true that both hybrids and GMOs are genetic manipulations. Hybrids can occur naturally or they might be facilitated by humans. GMOs are always created in laboratories. GMOs and many F1 hybrids may both be realized in controlled conditions, but one is simply doing nature’s work: pollinating. GMOs involve gene splicing. Both are patented by the business/corporate owners (full disclosure: not all F1 hybrids are patented). What does the GMO patent mean? That you better be careful.

But there are differences. The negative effects of GMOs on diversity and organic crops are markedly more serious than corporate- controlled hybrids. You can grow the “Heritage Hybrid Tomato” or the “Brandy Boy Hybrid” organically (marketing alert: notice how these relatively recent hybrids carry names that suggest heirlooms). A genetically-modified plant can’t claim to be organic. Saving seed from F1 hybrids, say tomatoes, doesn’t mean you’ll get the same hybrid when planting the next year. They don’t reproduce “true.” Saving seed from GMO plants and putting them in the ground the following year may yield the same plant, but will unleash a plague of lawsuits, exorbitant fines, and worse.

## Garden Seeds

---

All heirloom seeds offered by Planet Natural are non-treated and non-GMO.

[View all](#)

***Planet Natural offers heirloom garden seeds that are non-treated, non-GMO and NOT purchased from Monsanto-owned Seminis. Need advice? Visit our vegetable guides for tips and information on growing specific types.***

The big — and deciding — difference is in the way and number their genes are manipulated. Let's turn again to Joseph Tychonievich's wonderful book *Plant Breeding for the Home Gardener*. Here's how he describes the important distinction: "Traditional breeding introduces genetic diversity by bringing together all genes of two individuals, most of which have nothing to do with specific breeding aims. Genetic engineering instead inserts only one gene, one specific section of new DNA, into a single individual's genome..." That one gene can come from anywhere, be it a fungus or a bacteria or even a fish.

When you practice cross-breeding in your garden, when a botanist controls pollination in his laboratory, the entire genome — all the genetic information — is combined. That's why you won't have any luck trying to cross breed corn with tomatoes (cormatoes!) or your dog with your cat. But you could take one gene from a disease-resistant corn and force it into a tomato's DNA. Or you could take one gene from bacteria that's harmful to some insect predator and see what results. In doing so, you change more than that single gene. You could decrease the plant's nutritional value or, in fairness, maybe increase it. You might make something that's toxic to humans as well as insects. You might make something that's totally inedible. Who knows what you might end up with? The variables are endless. Some might be good, others might be bad, all in the same genetic modification.

Tychonievich tries not to take sides in the GMO argument. But it's clear that he thinks genetic modification is a "powerful" technology. He grants that it could yield results which aren't necessarily harmful. But he also suggests that it has the power to seriously disrupt ecosystems and do harm to humans. Never mind that it gives few corporations the power to control most of the world's important food supplies. And that it could do major damage to the diversity of the world's food crops. The irony here is that lawmakers and business men don't seem to care about even the possibility of these consequences. Testing? Why bother? Labeling? Forget it.

Inserting a single gene from a completely different source, say a bacteria, could have catastrophic results if the result turns out bad and escapes from the laboratory (some genetic engineering involves *removing* a single gene from the chain). But we've already had GMOs created that produce their own poisons and/or are resistant to herbicide, allowing more poison to be sprayed on it. Those GMOs have not only been knowingly released from the laboratory, they're showing up on our dinner plates.

On the other hand, there's nothing wrong with small farmers and home gardeners experimenting by cross-breeding plants to encourage desirable traits, whether it's a better tasting tomato or a more fragrant carnation. It's a natural process. Tychonievich explains, in detail, how it can be done. The process can take years or maybe just one growing season. And

the results, as mother nature always is, can be unpredictable. But they won't be evil. In fact, this kind of home breeding can be amazingly productive. More about that later. But for now... don't tell us that GMOs aren't any different than man-made hybrids. They most certainly are.

## 14 Responses to "Hybrids, GMOs: Not the Same"

---

1.  James Root on May 18th, 2013 at 10:56 am <#>

Hybrids have always been and shall always be. My dog is a hybrid. Most of the plants in my garden are hybrids. I'm a hybrid myself.

The thing with hybrids, if someone or something crosses two things that were never meant to be, the product isn't viable. It withers and dies, or never 'takes' at all. Nice little feature that- an abomination won't survive.

Now we clever humans are flipping gene bits and splicing in genetic code any old way we see fit. Aside from creating things that are literally unnatural, there is a plethora of unintended effects and consequences. Greater yield and resistance to pests or drought are great benefits for the supply side, (and obviously good for the companies that patented the crops and supply the seed) but biomass does not equate to nutritional value or purity of the compounds that are crucial to health of the consumer- human or otherwise. In fact, secondary consumers, the next level up the food chain, will be imbibing a concentrated source of harmful byproducts not metabolized by the primary consumer. In other words, if you pump a cow or pig full of something unhealthy and then eat that animal, you get the net effect of the Franken-food.

I'll be happy to eat from my garden, support the local farm stands, and eye the grass fed Black Angus cattle across the road from my house...

[Reply](#)

2.  Walter on May 23rd, 2013 at 11:10 pm <#>

In evolution by natural selection the phenotype is the vehicle that gets selected against or selected for. GMO's shortcircuit this process by introducing a new genotype into the environment without natural selection acting on the phenotype. That is why it is dangerous.

[Reply](#)

3.  Kem Minnick on January 9th, 2014 at 12:20 pm <#>

Thank you for the great article. The only way to know for sure is by choosing organic. Increased demand equals increased supply and soon we will be back to all organic farming.

[Reply](#)

4.  celexa on April 3rd, 2015 at 7:48 pm #

if GMOs are the same as hybrids and cross-breeding then why don't we just do hybrids and cross-breeding and forget about the GMOs since we are scared of it let's face it. i find it hard to believe that someone really has our best interests at heart, at the end of the day it is all about the mighty dollar and conveniently enough, GMO gives few corporations the power to control most of the world's important food supplies.i think that that makes a whole lot more sense. it could very well be the main reason why they seem so eager to just slam this new food on our plates before any real testing is done.money first, consequences later kind of thing.

Reply

5.  Michael Dionne on July 21st, 2015 at 8:44 pm #

You essentially redefined Genetically Modified Organism to suite your needs. It matter not how the genetic sequence is modified (artificial or natural), the organism with the modified genome is a GMO. All hybrids are GMOs. Hybridization can occur between species (donkey with horse, yields a mule, for example). Tangelos (hybrid between tangerines and grapefruits) are another example. The most significant difference between Hybrid derived GMOs and GMOs created by genetic manipulation in the laboratory is the precision of the sequence change. In lab, gene splicing is very precise and the target gene is ALWAYS known and well understood. Hybrids and natural selection results in many unknown gene sequences being introduced to the target organism, with varying results. The anti-GMO movement is misguided, misinformed, and in my view, dangerous. Please stop.

[Reply](#)

- o  venus on August 11th, 2015 at 11:14 am #

Please save India from GMO or Hybrids or Farm Varieties. I live in Bangalore, when I tried to grow my own tomatoes, chillis in pots, I just threw some seeds of these from my kitchen before 4 years, and nothing came up except plants for tomatoes, chillis. Then, for coriander not even the plant came up. I remember tomatoes, tulasi, and mustard growing in the dump yard, debris, in our village 20 years back.

So, As a Christian, I was shocked to see that. Because, I know in Genesis 1:11-31 God Created everything Reproducible (even the grass) that means one tomato, has many seeds, so many plants with one fruit itself. That is God's formula, "Multiplication". So, these GMO or Hybrids or Farm Varieties are not able to reproduce and also needs lot of pesticides and herbicides, which are Against the Principle of God and His Creation.

Now, the Government itself in India (Modi ji's Govt.,) is allowing GMO or Farm varieties only to be available in the market also these will not spoil soon because of the chemicals that they use, so sellers need not incur any lose. How about consumer's health? Who is bothered? What Farmers, Sellers wanted is Money, Money... Everything is happening very fast. Those, who watch TV and TV advertisements and Programs like "Jai Kisan" are being deceived (How? These bio- companies falsely promise "Lot of Yield, less maintenance, more income" to farmers. So, many farmers have lost their traditional Seeds with Life. In the name of development they are deceiving people and farmers. I guess, that's an Anti-Christ Spirit (from USA) which can catch anybody.

If you are true follower of Jesus Christ, your intuition will tell you what is good and what is not

Please "PLANT ONLY SEEDS FROM ANCIENT TREES IN YOUR AREA LIKE Mangoes, jack fruit, fig, palm, coconut, dates, goose berries, black berries, guavas, sapota, custard apple, orange, lemon, neem, peepal, banyan, papaya, banana, pomegranate, tamarind, Ram Seeta, korigolika, drumstick, sweet lime, gift the traditional seeds to your loved ones and throw the seeds in right place" All these are beautiful, fruitful, oxygen full trees Isn't It??? Also, do not buy Farm or Hybrid animals, birds, fishes from market and also from pet shops; If you like your family then why do you think Animals should not have family? Father, Mother, Children, grand children).

At any cost, "DO NOT BUY PLANTS from NURSERY or anywhere, all those are Devil's Hybrid or GMO or Farm Varieties" If you are in South India eat South Indian fruits, veg, and grains, meet, fish, etc., for Good Health. If you are working and earning for your children, then also work against GMO/Hybrid/Farm Varieties, to make your toil yield good fruits in future, at least think of your

children. Remember, after all Health Is Wealth. Finally, your word of mouth has more power than Media, Do not forget to spread or share the message. Lastly I pray that God (creator) should open your Eyes, to see and understand.

Reply

-  Blessed on September 13th, 2015 at 4:19 pm #  
Amen, Venus in India! God bless you!

Reply

-  Moi Meme on May 26th, 2016 at 10:19 pm #  
God bless you Venus for your Biblical insight. I think the long term goal of the GMO manufacturers is to acquire a lot of wealth at the expense of the health and well being of the masses- that is surely an Antichrist spirit. We must be very careful about what we eat. We either eat to life or to death! We must also be very careful about the happenings of this age because we are in the last days.

Reply

-  Pamela on October 12th, 2016 at 2:58 am #  
Go ahead stupid; you eat the GMOs. Hope you survive.

Reply

-  Thomas on March 2nd, 2019 at 9:20 am #  
You are what's so very wrong with the world. What a sh!t attitude you have. Good luck as you're going to need it.

Reply

- 6.  MissyPeanut on February 7th, 2017 at 3:27 pm #  
What do you call a mule? Which is it?

Reply

7.  Erassy on August 15th, 2017 at 3:45 am #

Correction to you disciple of GMOs-michael Dione, there is no such a thing as the Anti-GMO Movement, as you labelled those of us who reject this evil activities by that group of a few decadent individuals trying to play God, know this that long before there was Hybridization and GMOs, there were human beings living all over this fallen world, trying to ecke out a living from this cursed earth, rearing domesticated animals and medically consuming the different species and varieties of plant bio-mass, as much in obedience of their creator God as they could, and this is the God who had at their creation said in Genesis :1:24-25, “..let the earth bring forth the living creature after his kind (SPECIE), the cattle, and the creeping thing, the beast of the earth, after his kind (SPECIE) and it was so, and God made the beast of the earth after his kind (SPECIE) and cattle after their kind (SPECIE), and everything that creepeth upon the earth after their kind (SPECIE)...” and what did God saw and or say? “..that it was GOOD..”, Now what is it that was “Good” in the eyes of the living God?, obviously the fact that these creatures were perfect in their appearances and in the way he made (pre-programmed) them to be able to reproduced for propagation, reproducing each “after it’s own kind (specie) ONLY” and not after other kinds (Species)... Hybridization is what gave rise to GMOs, and from GMOs then degenerated clones, chimeras and many other hideous DNA monstrosities, what gory mutants both in plants, animals – and even human beings (so-called designer babies, etc, etc) do we await to see coming out of the genetic concoctions of the runaway science and technology of this world before the end of the 21st century? The proponents of Hybridization and Genetic Modification of organisms’ genotypes, together with their followers (those they ve succeeded in brainwashing and misleading, such as Michael Dione, above comment) have from the very beginning of the process of trying to peddle this corruption to the rest of humanity, made nice sounding but simply cunning claims such as ;” ..this new scientific break through will eliminate all deseases”, “.. will introduce healthy/good genes to replace the bad/deseased mgenes”, “...cross and gene mixing will ensure the production of more food, etc...that’s how they managed to wow the rest of the world, however, the fact of the matter remains that, man should not never have tampered with God’s creation in the first place, it is a sin, a crime against the living God, period and the world is being judged in many different ways, for agreeing with and embracing this rebellion against him...Let’s Contemptously and Categorically reject that corruption by the children of satan, now and forever...

Reply

8.  Jim on July 31st, 2019 at 7:16 am #

Give me one instance where it has caused issues. Not it could. Yes I can see some weird thing happening. Maybe! But on the other hand if you could put a piece of DNA in a human that would prevent something such as autism wouldn't you do it? Give me something to change my mind? Anything!

Reply



Isaac Muhofa on November 6th, 2019 at 9:26 am #

Hybrids & GMOs will always need a supporting sister and thus pesticides because it's hard to have them grow in the natural system and freely associate in the ecosystem.

To make them superior which shouldn't be always the case in a natural setting. They have to be backed.

In addition to not knowing what may happen to the genetic make up of humans, a lot if these chemicals have already been detrimental to human life. The effects are everywhere and even you know it well. All the round up pesticides & seeds that are literally pesticides themselves. These chemicals are the leading causes of cancers,tumours, defects, asthma. The list continues.

When we want to control the ecosystems, the results are catastrophic. They will always backfire nature also winds itself in defence and the results have been detrimental already.

Capitalism is all about controlling food,seeds,water and anything related. We don't need to stand this madness anymore. We can reverse the clock.

Reply

**Leave Your Response**

---