

A-06 F1 vs GMO Seeds

Distinction – F1 seeds are created through cross-pollination of different plant varieties. This is a natural process that's been used for centuries. GMO seeds, on the other hand, have been specifically altered in laboratory settings to create a new strain of the same plant. Both of these processes result in new plants with new characteristics. For vegetables and fruit, the intent of both is to establish plant varieties that would thrive in a variety of situations and environments.

The following is verbatim from *The China Solution* by Thomas Campbell, MD.

Why do we have genetically modified foods, anyway? The lovely, idyllic explanation trotted out by industry and biotech advocates is that with genetic manipulation, we can create food products that are resistant to disease and drought, plants that grow better in less favorable environments, and plants that have improved nutrient profiles. With these qualities, the advocates say that these plant crops will relieve worldwide hunger and malnutrition.

Hogwash. These genetically modified plants are engineered to either resist herbicides, so herbicides can be more liberally used, or they are engineered to directly incorporate insecticides. Soybeans, for example, are engineered so that they are immune to the herbicide glyphosate, known as Roundup. Glyphosate kills weeds that compete with crop plants. Now with genetic engineering, soybean plants can grow and thrive even while heavy Roundup applications are being used to kill the weeds. Other plants, like Bt corn, have been engineered to contain an insecticide within the plant itself that kills pest insects if they ingest the plant.

The convenient aspect of herbicide-resistant crops is that when farmers buy the Roundup-ready soybeans, they can more liberally use Roundup. Indeed, the use of glyphosate herbicide has increased dramatically with the adoption of GMOs. Monsanto makes the Roundup-ready soybean, and guess who makes the Roundup herbicide? Monsanto does, of course. Rather than altruistic motivations, GMO manipulations in practice are devised to create profits, whether by selling patented seeds or the required herbicides that go along with the seeds.

For Homestead Growers

It might seem that GMO seeds puts us into a bit of a conundrum, however, there is a way out if we're faced with GMO seeds. We can use them, but then simply refuse to play along with the Monsanto-type game. You'll still grow your plants and still harvest a good yield but without polluting your soil. The real question is how to at least minimize your exposure to com-ag with its various herbicides and pesticides.

More from Thomas Campbell, verbatim from *The China Solution*.

Some of the big, bad environmental pollutants and toxins you have probably heard of, like DDT, PCBs, and dioxins, also end up in our food. These are not broken down easily in nature and are stored in fat cells. Thus, they end up accumulating in greater and greater amounts the further up the food chain you go. So meat, including fish and dairy foods, have far higher levels of these types of toxin than plant foods. The effects of these toxins at low levels are also somewhat uncertain, but the best way to avoid them is simply to eat lower on the food chain by sticking to plants.

Homestead Growing

Knowing your soil is absolutely key to the success of growing vegetables and fruits. The better your soil, the better your production. An important aspect to this, however, is that once we start to mess around, the soil will change. If the soil was undisturbed for many years, human intervention would be a radical change. The most important consideration is to take it slow and learn from what happens before taking on the next step. After all, you'll be messing with what has already been working.

About Your Soil

This gets down to the history of what has been growing and how it was growing. Not just in the recent past, but over a period of many years. If it was com-ag growing, expect to inherit accumulated residue that will take a significant amount of time to rebuild the soil for healthy and pollutant-free growing.

This can be done. Wendell Berry recounted in one of his writings about how an Amish farmer acquired land that was considered farmed out—meaning that com-ag fertilizers, herbicides, and subsequent erosion had rendered the land as unproductive, unprofitable, and unusable for agriculture. This Amish farmer was happy to acquire the land at a significant discount and in about five years returned it to even better productivity than with com-ag methods. It was all about what he grew and how he returned the nutrients back into the soil.

Acquiring Com-Ag Soil

If this is your best option, it's best to get growing the right way as soon as possible with nitrogen-fixing groundcover returned to the soil as green manure. Boost your soil with free-to-have manure and keep working this over and over, crop after crop, into the soil. Never use a blade plow, bust soil with a rotating tiller, and keep it aerated with a chisel plow. When your good buddies—earthworms, microbes, bacteria, and fungus—have something to use, they will enjoy the feast and multiply. Much of this is initiated with the manure. It's a combination of efforts that yields results, but it takes patience and care. Eventually topsoil will be the result.

Acquiring Non Com-Ag Soil

Some of the best clean land in which to establish growing would be woodlots. Trees and undergrowth are remarkably adept and cleansing groundwater through which com-ag residues can be cleaned from the soil. If you have an area with trees at various ages, this may be a good indicator of clean topsoil built up through humus created in the woodlot. Key is that when doing any clearing is to be very careful with possible erosion to keep the topsoil in place. It also goes without saying to minimize heavy equipment.

Bottom Line on Quality

The cleaner your soil, the better your vegetables and fruit. Likewise with animals and chickens. The quality of what they eat becomes the quality of what is stored in their bodies and what they produce: meat, milk, and eggs. What we do with what we grow for them then becomes the quality of what we consume. The cleaner your soil results in the cleaner your food.

Do not shy away from F1 hybrid seeds. Cross-pollination is a natural process that occurs every day in your gardens. Seed suppliers who develop F1 seeds do so to establish different varieties with various results: everything from size to color to taste and more. In general, F1 plants produce better. For personal preferences, such as taste, the best seed suppliers will provide all of the details. If they don't, move on.