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Genetically Modified Crops

 Could you imagine a day when no matter the amount of rain you get your dry land corn with still yield 300 bushels per acre? This day may come in the near future, or is it already here? The crops are invented to yield so much but media is holding it back. Many have heard about genetically modified crops but don’t understand. What is a genetically modified crop? Why do we need to genetically modify our crops? Are genetically modified crops safe? Although, many want to avoid them according to Peter Gwin, “Approximately 60 to 70 percent of food on the grocery selves may contain genetically modified ingredients, reports the Grocery manufacturers of America” (23). If you can’t avoid them you might as well understand what you are eating.

What is a genetically modified crop? A genetically modified crop is when the genes of a plant are mechanically transferred into another crop to create the ideal gene code for wanted breed. The idea of controlling the genes began almost 150 years ago in Gregor Mendel’s garden. There he cross bread pea plants. He gave inspiration to create higher yielding plants. We have been genetically modifying plants for years by cross breeding. To create the breeds we wanted it took multiple growing seasons but in 1970 scientists discovered that they could remove genes and put them into another plant, this is when the name Genetically Modified Organisms or GMO’s came about. With this discovery what took us ten years before now takes us two growing seasons. Gene swapping doesn’t have to just occur in plants. Animals, and bacteria have also been genetically modified. The first genetically modified crop to be sold in supermarkets was a FlavrSavor tomato in 1994. “In 2003, U.S. producers planted tow-thirds of the global harvest of genetically modified crops” (p. 16). The crops are out there but why are they not labeled? Adding stickers to the tomatoes would not be a problem, but Kintisch stated “Genetically engineered components—oil from GM soybeans, sugar from GM beets, flour from GM corn—also show up in lots of processed food”. This means that practically all processed food would need labeled, everything that contains high fructose corn syrup would have to be labeled. Crops are getting smarter but why would you want a genetically modified crop?

 “In 1994, a small biotech company introduced the first genetically engineered food into U.S. supermarkets- the FlavrSaver tomato.” (p.14). Once the FlavrSaver tomato was picked it would continue to ripen off the vine while it stays bright red and sweet tasting. People became concerned about the safety of the product, so the tomato disappeared from the market, but the idea lived on. Herbicide tolerance and insect resistance was a new topic for seed producers. Why would you want you crop to be resistant to herbicide and insects? Herbicide kills off weeds, but also the plant so farmers wanted herbicide resistant crops so they can spray herbicide. Monsanto has created an herbicide, called Roundup Ready, that kills off weeds and also the crop , because it kills the crop they created Roundup Ready Soybeans, corn, sugar beats and cotton. The crops withstand the herbicide and allow famers to kill off the weeds. Insects are not wanted in crops too, insecticide can be very dangerous to the farmers because if inhaled the farmer could die. Farmers want insect resistant crops so they do not have to worry about insecticide. European corn borer is one of the worst bugs to get in your corn. “Corn farmers have been attracted to seeds outfitted with Bt gene, which causes the plants to give off a natural insecticide that kills the European corn borer” (Gwin 23). What do daffodils and rice have in common? Scientists can put genes from the daffodil into rice to increase vitamin A and prevent blindness. Adding vitamins to your food is beneficial but you can also create more food with genetically modified crops. With our growing population we need to grow more food, but the more people the more safety concerns.

People are concerned about how this will affect them and the some media sources believe farmers are not concerned. Farmers are very concerned about these crops; the American Corn Growers Association has a database of factual information about the positives and negatives of genetically modified corn. The National Academy of Sciences (NAS) has and continues to study the safety of genetically modified foods. With new breeds and genes the NAS continues to study the safety in case something changes. Many countries do not approve of genetically modified foods, but many do not trust their government to provide accurate information about their food. For example the U.K. had a break out of Mad Cow disease many years ago. So what about the United states? “In 1998, the Food and Drug Administration (FDA) approved genetically modified Starlink corn for the use in animal feed, but it withheld approval for human consumption because of concerns that humans might be allergic to a new protein that it contained.” (Lesher 19). Although it was banned it didn’t stay that way, in October 2000 they discovered Starlink corn in taco shells and later rolls. Genetically Modified crops are in our food and no longer can be avoided.

Gregory Mendel was the first one to genetically modify a crop and he won’t be the last. Genetically modified crops have been and continue to be studied to ensure public health. Insecticides can be harmful to the farmer so they have put genes into the crop to so they are safer for the consumer and farmer. They are in our food everywhere and cannot be avoided. Now when you hear about genetically modified crops you understand that they are for the better. With the worlds population growing we need to provide more food for more people. Someday in the near future we will be able to grow our food no matter the rain or shine.

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