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Subject: USDA policy comments

Transgenic crops are defined as plants containing a gene or genes that have been artificially inserted into the DNA. Otherwise known as genetically modified organisms, or GMOs, these plants are prevalent throughout the American agricultural system. As more genetically modified plants are grown, the number of processed food products containing genetically modified organisms continues to escalate. Current policy does not require manufacturers to label food items containing GMOs. By not compelling the corporations to differentiate between genetically modified and non-genetically modified foods, the United States government is placing potentially dangerous products into the unknowing hands of the American public.

Proponents of GM crops cite their higher yields and superior survival rates due to gene selection as a way to stave off global hunger. Small animal studies, however, have shown that genetically modified foods pose several major health risks. A recent publication by Jeffery M. Smith, Genetic Roulette, chronicles sixty-five different health risks from allergies and stomach ulcers to reproductive problems, all associated with genetically modified food. The severity of the health hazards varies among crops and is seen in almost every vital organ of the body. Governmental studies from around the world have shown that not only are genetically modified foods posing health risks, but Roundup, the herbicide most often used for GM crops, is also responsible for many birth defects. The question we must ask is, how a generation of plants that creates debilitating health outcomes, can possibly prevent global hunger. Does the increase in productivity make up for the associated health problems? These scientifically proven threats to our society's health have already prompted many European countries to ban genetically modified foods; the United States should follow suit and ban GM foods from our market place.

Even if a full ban could not be enacted, food manufacturers should be required to label their foods as genetically modified. Consumers have a right to know where their food has come from and they should be secure in the knowledge that they are eating what the label claims the food to be. The current push for organic and sustainable agriculture demonstrates a collective consciousness among consumers. These consumers should not only be aware of the health risks imposed on the public without our knowledge, but also the other negative side effects of growing genetically modified crops around the world. While genetically modified food falls under the purview of the FDA, the genetically modified crops that form the basis of the foods fall under the authority of the USDA. As such, USDA policies must be changed to reflect the growing awareness of the dangers of GM crops. Genetically modified crops pose a potential risk to global biodiversity. Biodiversity is defined as a variety of life forms. In regards to agriculture, this means a variety among populations of a species of plant. Paul Roberts, in his work, The End of Food, discusses the possibility of gene flow from genetically modified plants to the other varieties of non-genetically modified crops of the same species. Since not all crops are

grown for human consumption, and the regulation of such crops is less stringent than those destined to end up on the dinner table, this form of gene flow poses a serious risk to consumers. When pollen from a genetically modified plant is carried by insects or wind to a non-GM plant, the cross mating can lead to unanticipated chemicals in the food supply. Not only does this create the potential for unforeseen health risks, but this could also lead to a decline in the biodiversity. As modified genes are selected for protective traits, these plants may survive in preference over the non-modified varieties. As the natural varieties die out, the aggregate biodiversity is reduced. This leaves the remaining population more vulnerable to pests and other crop disasters. The rising fear of food shortages and prevalence of food insecurity, even in our country, indicates the damages a national crop failure would have on both the American and international population.

Genetically modified crops have been heralded as the future of agriculture, indicating that they offer a change from the current, unsustainable, agricultural system in the United States. In reality, GM crops are a continuation of the status quo. Current industrialized agriculture is founded on a mono-crop system that thrives on efficiency and overproduction. Only four crops, soy, maize, cotton and canola make up almost one hundred percent of the genetically modified crops grown worldwide. This persistence on intensive, mono-crop agriculture does not address the various problems associated with such a system. Soil degeneration and environmental contamination are well documented side effects of our modern industrialized agricultural system and only through a change in the system and policies can these effects be reduced.

GM seeds are also only available from a small number of producers. This enables the seed companies to charge high prices for their seeds; a process which favors the large scale agricultural companies. Even if small farmers choose not to buy genetically modified seeds due to the costs, they are at risk of the gene flow discussed earlier in which pollen and seeds may be carried from the large industrial farms to the small family farms, contaminating the crops. This is especially worrisome given the standard practice of genetically engineering a yield cap on genetically modified seeds. This causes the seeds to produce at maximum yield for one year and rapidly decline in subsequent years. For the large scale industrial farms, this merely means that they must purchase new seeds every year. For the small farmer whose crop has been contaminated by gene flow, this means he can no longer save seed from a previous harvest because his yields will be dramatically reduced if he attempts to do so.

In our capitalist society, profit is everything; the profit margins for small family farms are already very slim, a failed harvest due to genetic contamination could ruin a family farmer and place ever more people on the government's already overburdened welfare systems. Likewise, should transgenic crops be shown to cause even half as many health risks in humans as have arisen in laboratory animal studies, the massive recall on agricultural products will devastate the already tenuous American economy. The USDA must enact policies today that will limit these genetically modified crops and plan for the potential disasters of tomorrow.