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Abstract

The relationship between anticompetitive practices by large biotechnology corporations and their victimizing effects on organic farmers, with reference to genetically engineered and altered seeds in the United State's market, is examined. The sample was derived from individuals associated with the organic farming industry. The total sample populace was taken from two cumulative lists of organic farmers, organic certification agencies, and organic food producers. One hundred individuals were mailed questionnaires. Of the fifty-four percent that returned the surveys, one hundred percent feel there are not sufficient regulations on genetic engineering nor have sufficient precautions been taken. Issues of labeling safety, and environmental damage are discussed.

ORGANIC FARMERS AS VICTIMS OF INJURIOUS PRACTICES

Organic farming and farming using genetically engineered seeds are two methods of crop production that are used in numerous countries around the world. Both crop production methods arrive at the same outcome on face value, but are derived from completely different modes of technology. Despite these production differences, federal regulations are the same for both forms of agricultural farming. The Environmental Protection Agency (EPA) has the responsibility of reviewing plant products containing pesticidal properties, which have been derived through genetic engineering. The U.S. Department of Agriculture (USDA) federally regulates new plant varieties; whether plants are derived from organic materials or genetically engineered strands of DNA. The EPA and USDA can have overlapping jurisdiction on new plant varieties. The Federal Food and Drug Administration oversees general food safety for consumers.

Genetically engineered crops are touted as being capable of successfully addressing major agriculture problems facing the United States as well as other countries. Through genetic engineering, the biotechnology industry is hoping to produce crops that can enhance nutrition content, resist disease and insects, attain high average yields, have longer shelf-lives (Benson and Broydo, 1997), and grow in a variety of ecological environments (Lambrecht, 1998). Overall, these projected outcomes and benefits of genetic engineering will serve to aid the world in its fight towards sustainability.

Federal regulatory agencies have consistently come under fire over genetically engineered agriculture products due to the potential devastating effects the products could have on consumers, the environment (Fitz, 1998), and the farming industry (Lambrecht,

1998). Opponents of genetic engineering proclaim there is a lack of safety standards in relation to the new technology. The long-term effects of genetically engineered products are unknown because the innovative technology is so new. Risk evaluations it is argued, need to be conducted for longer time periods to assure consumers that they are not being exposed to potentially harmful products (Benson, Arax, & Burstein, 1997).

In the U.S., organic farmers have expressed the greatest opposition to products derived from genetically engineered means. However, regulatory agencies have not responded to the potentially harmful impact genetically engineered products may have on organic farmers, such as decreasing resistance to natural pesticides (Benson, Arax, & Burstein, 1997), and the depletion of natural varieties (Lambrecht, 1998). The favorable stance that government regulatory agencies have held toward biotechnology corporations has been challenged in court (Council For Responsible Genetics, 1999).

Genetically Engineered Products

Genetic engineering refers to the unnatural arrangement, alteration, and reunification of DNA or other nucleic acid particles, in order to convert it into another organism or organisms. Through genetic engineering, laboratory technicians replicate preferred genetic traits and then place the gene replica into an organic structure such as a food crop. This process allows plants to have unique traits, which were not possible through conventional crossbreeding. Traditionally, plant crossbreeding was done in order to develop new plant characteristics; two plants possessing different desirable traits were intentionally crossbred to produce one plant possessing both traits (Earp, 1994).

Benefits of Genetic Engineering

One goal of genetic engineering is to produce crops with a higher yield. To date, however, genetic engineering has not produced successful high-yield crops because "high-yield varieties are in general less resistant to diseases and other stress factors" (Winter, 1992, p. 180). Reduced pesticide use is another claimed beneficial outcome of genetic engineering. Biotechnology, corporate spokespersons argue, will in the future allow "chemical fertilizers and pesticides [to] be replaced by crops genetically tuned both to unfavorable soil and climate conditions and to pest resistance" (Winter, 1992, p. 180). However, the effects of genetic engineering have yet to demonstrate a decrease in chemical usage as predicted. "With the seed industry rapidly coming under the ownership of companies with substantial agrochemical interests, seeds and chemicals have come to be linked in proprietary packages" (Winter, 1992, p. 180). The monopolization of seed companies by chemical companies such as Monsanto has led to "high-yield crops [which] need even more fertilizers, and pesticide[s]" (Winter, 1992, p. 180).

Responsible Regulatory Agencies

In 1986, the Coordinated Framework for the Regulation of Biotechnology was created by the Office of Science and Technology Policy (OSTP) (Earp, 1994). The Coordinated Framework revealed no need for a new statutory authority in relation to biotechnology (Earp, 1994). It is believed that current government agencies and regulation can adequately assess the safety of biotechnology products. According to the OSTP, new methods of review for biotechnology products would not be needed because there is no need for "review based on the biotechnology process through which [the

products are derived]" (Earp, 1994, p. 1641). Three agencies, the EPA, the USDA, and the FDA are primarily responsible for reviewing transgenic plants.

Under the guidelines of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Environmental Protection Agency (EPA) reviews genetically engineered plants that contain pesticidal properties (Earp, 1994). The EPA ensures that these pesticidal properties are not harmful to humans or the environment.

The USDA conducts the majority of the reviews of genetically engineered plants. (Benson, Arax, and Burstein, 1997). It has the dual role of regulating biotechnology and being "its ardent booster" (Ivins, 1999, p. 1). This creates a conflict in roles for the USDA, which has resulted in "complete bureaucratic impotence" (Ivins, 1999, p. 1). As of 1993, the USDA has developed new guidelines to regulate the introduction of transgenic plants into the environment. The new set of guidelines are more relaxed in relation to some genetically engineered plants (Earp, 1994). An applicant is now able to petition for review exemption (Earp, 1994). If filed petitions are successful, genetically engineered plants are exempt from USDA review entirely (Earp, 1994).

The U.S. Food and Drug Administration (FDA) is responsible for overseeing the safety and nourishment of most foods, including those derived from biotechnology. The FDA also carries the responsibility of protecting consumer interests and safeguarding the consumer against misbranding, dishonesty, and falsely labeled products (Plano and Greenberg, 1993). The specific intent behind the creation of the 1939 Federal Food, Drug, and Cosmetic Act (21 U.S.C.A. 9 [1939]) was to set out standards that would act to protect consumers, who may be unable to protect themselves in today's sophisticated market. Two sections of the Act are predominately relied upon by the FDA to guarantee

food safety: section 402(a)(1) and section 409 (CFSAN handout, 1995). The FDA weighs safety issues against a product's nutrient and toxicant composition. Section 402(a)(1) and its adulteration provisions state that developers of new products have the burden and are legally obligated to provide consumers with safe foods that meet all legal requirements (CFSAN handout, 1995). If a product presents a risk to consumers, the FDA has the right to take that product out of the marketplace. These regulatory standards apply as well to new varieties developed from genetic engineering. Section 409 of the Food, Drug, and Cosmetic Act contains provisions on food additives. Before additives may be used in food, the FDA maintains authority to review and approve additives.

Multitudes of plant varieties are deemed safe simply based on the FDA's experience with similar plants. "Rigorous scientific analysis using analytical chemical methods or toxicological studies in animals are rarely conducted" (CFSAN handout, 4). An original plant variety's safety history is used to determine the safety of genetically engineered new varieties. "Based upon the extensive history of safety of plant varieties developed through agricultural research, FDA has not found it necessary to review the safety of foods derived from new plant varieties" (CFSAN handout, 4).

A FDA policy created in 1992 outlines its approach to safety assessment for genetically modified foods. According to the policy, this safety is determined by the intentions underlying the genetic modification and the overall content of toxicants and nutrients (CFSAN handout, 1995). Premarket approval is required for products when the protein in food additives is substantially different from the proteins in our food (CFSAN handout, 1995). Genetic engineering of a food changes the composition of plants to achieve desirable traits for farming which in turn effects the additive composition of the

plant. Anything different from the plant's original existing structure can be considered to be an additive. However, according to FDA policy, genetically engineered additives must contain substantial differences apart from the original plant's composition before pre-market approval can be required.

The Government's Stance on Labeling

Food and Drug Administration: In May of 1992, the FDA addressed the issue of labeling foods that have been produced from genetically engineered plants. According to the FDA, the Federal Food, Drug, and Cosmetic Act does not give consumers the right to have a label on food products simply for identification purposes. "The Act does not require disclosure in labeling of information solely on the basis of consumer's desire to know" (CFSAN handout, 8). The FDA only demands that genetically engineered products are labeled if they possess allergens or have been substantially changed (CFSAN handout, 1995).

Two non-profit organizations, the Alliance for Bio-Integrity and the International Center for Technology Assessment (CTA) collaborated on a lawsuit against the U.S. FDA (Alliance for Bio-Integrity, 1998). The organizations are composed of scientists, health professionals, and health protection agencies. The plaintiffs for the lawsuit allege that the current FDA policy allows genetically engineered foods to be marketed without being tested or labeled. Accordingly, such food safety omissions in relation to genetically engineered products are in direct conflict with FDA's mandate to protect human health and provide information to consumers about the products they purchase and consume (Alliance for Bio-Integrity, 1998).

These organizations and professionals believe that genetically engineered products are not sufficiently regulated or screened for risks. Genetically engineered products need to undergo long-term rigorous testing to be able to substantially measure risk effects. "The FDA does not require testing of genetically engineered foods because it regards them to be as safe as their natural counterparts" (Alliance for Bio-Integrity, 1998, p.1).

Present FDA policy rests on the assumption that gene insertion from distant or non-similar counterparts into an organism's DNA is no different then crossbreeding, between similar organisms. Therefore, unpredictable disruptions in gene sequences that can be caused by the introduction of these foreign genes into the pre-existing DNA are ignored. "Through these disruptions, familiar foods can become toxic or carcinogenic" (Alliance for Bio-Integrity, 2). Genetically engineered foods can also become allergenic because genetically engineered foods may contain materials, which have yet to be introduced into the food supply available to consumers.

More specifically, the suit filed against the FDA on behalf of the Alliance for Bio-Integrity and the International Center for Technology Assessment, alleges that the FDA's policy is in violation of three primary components of the Federal Food, Drug, and Cosmetic Act that requires "(a) substance[s] added to food be labeled, (b) prohibit[ion] [of] 'false or misleading' labeling, and (c) mandate[d] disclosure of material facts" (Alliance for Bio-Integrity, 1998, p. 2). Without sufficient labeling, consumers are not able to make informed decisions as to the products they purchase and/or consume.

It is assumed by the FDA that genetically engineered foods, unless derived from already known allergens, are not harmful to the consumer in any way. The Food and

Drug Administration does not see the need to test or subject all genetically engineered products to premarket approval because it does not "anticipate that most foods developed by recombinant DNA methods will contain substances that require premarket approval as new food additives" (CFSAN handout, 1995, p. 11).

European Policies: Views on requiring labels for genetically engineered products vary greatly between countries. According to Ian Elliott (1997), the British government has endorsed a labeling policy for genetically modified commodities. The consumer's right to know that they are purchasing genetically engineered products, the British believe, takes precedence over free trade policies. While there is not evidence so far that genetically engineered products are harmful to humans, the European Commission has authorized the use of informational statements on commodities.

Intellectual Property and Monopolization

The biotechnology industry has argued for patent rights over precious public products such as plant life and DNA structures used in recombination techniques. To justify their claims, the industry cites numerous benefits, which result from genetically engineered products. Considering natural law and the mentality of humans, it is easy for a few to "exploit the whole rest of the created order for their own ends" (Reiss and Straughan, 1996, p. 709). Patents on genes and DNA provide an individual with control over an invention that can be applied to all relevant organisms. Such patenting of plant life can and will "intensify the inequality between the developing and industrialized nations" (Reiss and Straughan, 1996, p. 711). "Biocolonialism" can allow for a few national and biotechnology corporations to profit immensely with almost complete

acquisition and ownership of an industry. The end result will be a few wealthy, powerful elite at the expense of larger numbers of indigenous farmers (Reiss and Straughan, 1996).

Professor Gerd Winter (1992), in his writing on issues surrounding the debates about genetic engineering, argues that the primary purpose of intellectual property rights have not been to aid efforts in world sustainability. "[P]atenting gene technology had in its background a much clearer-cut and more straightforward interest, namely that of the chemical industry" (Winter, 1992, p. 176). According to Winter, the motivation behind the chemical industry is to dominate the world market, which is why there is such a high demand by the chemical industry to obtain patent protection. The drive to lead the world market provides an explanation for why the "industry has invaded the research and development of genetic engineering, including the plant breeding sector where it swallowed one small co-operative after the other and taught them the new technology" (Winter, 1992, p. 176). Such world market cornering and intellectual property protection has been achieved through governmental support of the chemical industry and its biotechnology innovations.

Susan Gustad (1995), in her review of patents on plant genetic resources, notes the effect which intellectual property rights have had on the farming industry. Presently, a relatively minute number of multinational corporations maintain the vast amount of intellectual property rights. As a result, farmers in the United States have experienced cost increases, a reduction in the variety of crops they have available to them, and little voice in decisions made regarding technology and new plant developments (Gustad, 1995). With a few, large corporations maintaining control over most plant patents, little room has been available for competition and lower price offers. Inevitably

farmers will be forced to purchase new seeds and will not be able to sell or reuse their seed from the previous season (Gustad, 1995).

In 1999, some 130 nations supported the idea of creating a global treaty but the United States, along with five other countries (Canada, Australia, Chile, Argentina, and Uruguay), chose not to back the introduced Biosafety Protocol (Pollack, 1999). The countries in opposition to the safety protocol are among the largest agricultural exporters. The Biosafety Protocol treaty was to require countries, involved in exportation of genetically engineered products, to receive prior permission from the nation receiving the imports (Pollack, 1999). These regulations were proposed to provide countries the opportunity to decide which, if any, genetically engineered products they wished to import (Pollack, 1999).

European nations, also advocates of the Biosafety Protocol, have rejected genetically engineered products because of inadequate testing regarding potential environmental and health risks (Pollack, 1999). Delegates from nation's supporting the treaty have become frustrated with the United States and have come to question the United States' lack of regulatory action. Some nation representatives have gone as far as accusing the United States of "putting the interests of its world-leading farming and biotechnology industries above the environment" (Pollack, 1999, p. 1). However, the United States claims that its reasons for opposing the Biosafety Protocol is to avoid "entangl[ing] the world's food trade in red tape" (Pollack, 1999, p. 1).

In May of 2000, discussion regarding the Biosafety Protocol is to resume. Until countries reach an agreement on the treaty issues, they may impose restrictions on the importation of genetically engineered products. Countries can individually create and

implement laws that decrease acceptance of genetically engineered goods. However, laws restricting genetically engineered products are being challenged under the rules governing world trade (Pollack, 1999). Countries that are less developed agriculturally and economically will substantially benefit from the Biosafety Protocol. The treaty assists developing countries by providing expertise for effective regulatory provisions on biotechnology (Pollack, 1999).

Trade protection is an important asset for the sustainability of global equilibrium, especially in the realm of agriculture. "It can be used to protect a new industry, to protect national security, or to protect national health" (Rusek, 1996, p. 497). Trade protection lays out regulations that are needed for a country's security, stability, and health, and can be used as a shield from other countries that act in a malicious manner. Not only can trade protection be used to safeguard a nation against another country's trade policies, it can also be used by a nation as a guard against trade inequality. Trade protection can be "a weapon against other countries...[and be used] to buffer a nation from a balance-of-payment problems and economic adjustment issues" (Rusek, 1996, p. 497).

Accordingly, it is no wonder that the United States is so supportive of liberalizing trade policies. The United States in one of the leading, if not the leading country, involved in agricultural biotechnology. Twenty-five percent to forty-five percent of all the major crops produced within the United States are genetically engineered (Pollack, 1999). Therefore, a good share of the products, in particular food and seed, that we trade and export to other countries, has been produced through genetic engineering. "The United States is the most important supporter of free trade in the world and this support includes pushing for agricultural trade liberalization" (Rusek, 1996, p. 493).

Environmental Harm

Environmental threats are one of the biggest concerns voiced by opponents of genetic engineering. The prominent environmental concerns are environmental pollution created by crop gene transferring and a decrease of naturally occurring pesticides.

According to a Greenpeace report on biotechnology corporations and their self-risk evaluations, safety assessments should scrutinize the effects that genetically engineered products will have on the environment. Greenpeace found evidence of many shortcomings in the assessments conducted by large biotechnology corporations. Environmental risk assessments, for instance, are lacking because large biotechnology corporations have relied upon scientific assessment information developed from only a few countries (Canada, the United States, Costa Rica, and Puerto Rico) (Greenpeace Report, 1996). The most harmful environments, where ecological dangers can be the greatest, have not been adequately tested. The Report suggests that Roundup Ready Soybeans (RRS) should be tested for harmful ecological effects in places such as the Far East. Herbicide resistant properties found in some genetically engineered products (RRS), pose a real risk to weeds or wild plants. The typical reproductive method of cultivated soybeans is self-pollinization. However, bees are capable of transferring pollen from one soybean to another, as well as carrying pollen to weed plants or other wild plants that are related (Greenpeace Report, 1996). While Europe has no species related to soybeans, other countries do. The transfer of genes to related species and associated risks should be evaluated in Australasian countries and in other countries where RRS might be imported rather than only assessing it where it has been grown (Greenpeace Report, 1996). "Soybean[s] can cross with other member[s] of the genus

Glycine which are found in Australasia including Japan. Natural hybridi[z]ation is known to occur between cultivated soybean and G. soya, a common weed in Japan" (Greenpeace Report, 1996).

Biotechnology critics worry that "seeding farmland with transgenic crops could spread genetic pollution, upset the balance of nature and release uncontrollable food allergens" (Ivins, 1999). Although these are presently just fears, they are based on evidence of past harmful records of large chemical and biotechnology corporations. Opponents believe that large biotechnology corporation have a tendency to "put [their] faith in technology without bothering to properly research the consequences" (Ivins, 1999, p. 1).

Many scientists and government representatives have argued that genetic engineering is merely an enhancement of our traditional use of biotechnology (Reiss and Straughan 1996). However, the effects of traditional means of breeding, along with other frequently used methods of biotechnology, have been observed over a long period of time, usually years. This is compared to the effects of genetic engineering, where most often, observation takes place for only several weeks (Reiss and Straughan, 1996).

Scientists and other opponents of genetic engineering have voiced concern over the long-term possibility of new genes being released into the food supply (Benson, Arax, and Burstein, 1997). However, a more immediate possibility of genetically engineered crops is the formation of superbugs from B.t. crops that will cause B.t., which is mainly used by organic farmers, to be a useless pesticide (Benson, Arax, & Burstein, 1997). This problem is discussed in more detail in the next section.

Organic Farming

Gene transfer may have a devastating effect on the organic farming industry. Organic farming is an assemblage of crop agronomy, which employs biological techniques of fertilization and pest maintenance as surrogates for chemical fertilizers and pesticides. In order for foods to be approved as organic and labeled as such, rigorous certification standards must be met. As of yet, there are no uniform certification requirements in the United States.

In 1999, Greenpeace, along with the International Federation of Organic Agricultural Movements (IFOAM), the Center for Food Safety (CFS), and over seventy other petitioners (primarily organic farmers and environmental organizations), filed suit against the Environmental Protection Agency (EPA) (*Greenpeace, et al. v. Browner*, filed February 18, 1999 D.O.C.). The plaintiffs in the case allege that the EPA has directly violated laws allowing companies to market plants, which have been genetically altered to produce Bacillus thuringiensis (B.t.). B.t. is a bacterium that produces natural toxins, which kill certain crop pests (*Greenpeace*). B.t. has been approved for usage under every organic certification program within the United States and comes in a spray form. It targets only certain insects and is relatively harmless to mammals, birds, and beneficial insects. The spray is easily decomposed after a few days. B.t. is one of the few pesticides available to organic farmers, and is consequently vital to their survival. Specifically, the *Greenpeace, et al. v. Browner* lawsuit charges the EPA with violating the Federal Fungicide, Insecticide, and Rodenticide Act (FIFRA), 7 U.S.C. statute 136a;

the National Environmental Policy Act (NEPA), 42 U.S.C. statute 4332; and the Public Trust Doctrine (Common Law Doctrine).

Under the Public Trust Doctrine, the EPA has the obligation to safeguard some environmental resources from trespass and unlawful appropriation. With genetically engineering B.t. plants, there has been a "transferred commercial interest in publicly-owned genetic resources to private companies" which directly violates the EPA's duty of protecting public fiduciary trust (*Greenpeace,* p.1). More importantly, insects exposed to continuous doses of B.t. may develop biopesticide resistance. Since 1981 the EPA has had documented evidence illustrating the formation of B.t. resistance in some pests.

Because of the lack of protection from genetically engineered products, organic farmers have been made to feel that the federal government does not hold conventional farming methods in high esteem. According to a victimization study by Neal Shover (1994), it is extremely important to consider perceptions of procedural equality. The perceptions and views that organic farmers hold regarding biotechnology corporations and federal regulations can become a possible source for delegitimation (Shover, 1994).

The harm which organic farmers experience from genetic engineering may serve to decrease organic farmer's trust and confidence in public institutions (federal regulatory agencies and the government sector) and private businesses (large biotechnology corporations). Trust is a vital component of capitalism. White-collar crime, such as anticompetitive practices, inadequate labeling, insufficient safety and environmental testing, is capable of producing in the organic farming industry such a diminution of faith in America's fundamental institutions. White-collar crime is "a crime committed by a person of respectability and high social status in the course of his occupation"

(Sutherland, 1949, p. 9). All behavioral classes that constitute white-collar crime have socially injurious outcomes.

According to Edwin Sutherland, consumers are extremely affected by the socially injurious violations in which a small number of individuals and corporations engage (1945). Antitrust law violation, false advertising, and unsafe products constitute socially injurious actions, yet these violations are rarely considered to be criminal (Sutherland, 1945).

False advertising, for example, is considered to be illegal but is not criminally stigmatized. Laws against false advertising "protect consumers against fraud" and protect competitors from unfair competition (Sutherland, 1945, p. 134). False advertising can include deceitful information used in advertisement as well as omission from truthful, informative advertisements.

White-collar laws have yet to be firmly accepted and imbedded in the public's minds as criminal. These crimes are not as obvious as other harmful crimes and may remain undiscovered for years (Sutherland, 1945). When these crimes are reported, white-collar criminal effects on the public are displaced over millions of people and over long time periods. This allows for the effects of white-collar criminal acts to be seen as relatively small, "with no person's suffering much at a particular time" (Sutherland, 1945, p. 137). In this study, the victimization of organic farmers is examined.

This study involves a mail survey that examines the regulatory provisions related to genetically engineered products, and the effects of this biotechnology on the organic farming industry. One hundred organic farm-related individuals and agencies were

surveyed. The next section discusses the methodology used for the survey and this is followed by the results and discussion sections.

Method

Sample

A sample was selected of one hundred individuals from a variety of states associated with the organic farming industry: organic farmers, organic farming certification agencies, and organic food producers. Two different lists were obtained from the internet: (1) 1998 U.S. Organic Certification Organizations and Local Chapters at http://freenet.macatawa.org/org/ogm/orgoert.html and, (2) the complainants from a lawsuit filed against the United States Environmental Protection Agency by Greenpeace, organic farmers, and related organizations at http://www.greenpeace.org/~geneng/. After removing duplicate names, collectively, the lists consist of 150 organizations, organic farmers, certification agencies, and organic producers after removing duplicate names. The legal complaint had 73 names, while the 1998 Organic Certification list contained 77 names. All 150 agencies and individuals were placed alphabetically into a list and a computer generated random sampling technique selected 100 individuals to be the recipients of the research questionnaire.

Procedure

Each participant received a packet in the mail which included a cover letter stating that I am a student affiliated with Southern Illinois University at Carbondale conducting research for my thesis (see Appendix A). The letter described how individuals were obtained for the sample, stated that any participation was voluntary, provided the estimated length of time for the survey, and provided contact information for those participants who had questions or comments. Also included in the packet was the anonymous questionnaire, a self-addressed stamped envelope with no identifying

markers in which to return the questionnaire, and a postcard which included the participant's name and address (see Appendix B). After the questionnaire had been completed, respondents were asked to mail the survey separate from the postcard (the postcard was used to assure anonymity in that no names could be matched with the returned questionnaire). When the postcard was received, the participant's name was removed from the master sample list to indicate that a survey had been completed and returned, and a follow-up reminder letter did not need to be sent.

Design and Procedure

Surveys were mailed out on April 10th. One follow-up letter was sent to subjects who did not return their postcards (see Appendix C). The follow-up letter was mailed approximately two weeks after the original mail date. Another copy of the survey, a return self-addressed stamped envelope, and a postcard was included with the follow-up letter.

Survey

The Organic and Genetic Engineering questionnaire is composed of 40 questions assessing perceptions and potential victimization related to genetically engineered products (see Appendix D). The forty questions are grouped into six headings: (1) perceptions related to organic crops, including items such as labeling, (2) responsibilities designated to regulatory agencies and whether they should have jurisdiction over the farming industry, product approval, and labeling of organic and genetically engineered products, (3) perceptions of positive and negative outcomes of genetic engineering, (4) information relating to bio-genetic corporations, (5) perceptions about farmers in general, including both organic and non-organic farmers, and (6) global perspectives in relation to the farming industry as a whole.

Respondents were asked to indicate their opinions using closed-ended response categories, primarily composed of "yes" or "no" responses and also Likert-type responses ranging from strongly agree to strongly disagree. A few open-ended questions appeared at the end of the survey to allow respondents to state other opinions they may have regarding issues addressed in the questionnaire.

Pretest

Before the 100 questionnaires were mailed to the appropriate participants, a pretest was conducted to test the structure and format of the questionnaire and to clarify any confusion that might exist. Changes were made in response to issues raised during the pretest. Five individuals associated with the farming industry in some aspect composed the pretest group. The five pretest participants came from associates I have in the organic farming industry in Rockford, Illinois and Chicago, Illinois.

Each participant was contacted by phone and asked to participate in the pretest. A time was arranged with each of the five participants to discuss the survey over the phone once the participant completed the pretest. Surveys were faxed to each individual. Participants were asked to time themselves and to write comments down in preparation for my phone call. Similar questions were addressed by each of the five pretest participants. A total of eleven changes were made to the survey from suggestions received during the pretest.

The first change made to the survey was on question number 18, which related to the benefits of genetic engineering. Originally, there were five existing categories from which respondents could choose. However, two important possibilities of genetic engineering were missing: decreased chemical usage in the future, and an increase in the

shelf life of produce. These two possibilities were added to the five originals making for seven categories, while keeping the "other" selection so any more possibilities could be added by respondents. In order to have the same number of costs and benefits listed, two more items were also added to question 20. The two categories added were "increased chemical usage in the future" and "increased resistance in weeds to current herbicides".

The wording in a few questions was changed for purposes of clarity, grammar, and specificity. In the Likert-type questions, a neutral response category was added at the suggestion of one pretest respondent.

Finally, question 37, which addressed the issue of environmental pollution in association with genetically engineered crops, was removed from the mailed out survey. More than one respondent commented on the need to either address the issue of "environmental pollution" more within the survey, or to disregard the question entirely. Although the pretest respondents felt that environmental pollution was an important issue that needed to be addressed, they felt that the question and topic was misplaced and not incorporated enough into the survey to keep the question unless I added other questions to support it.

All pretest participants timed themselves while reading over the survey to determine how long it would take participants to complete the mailed questionnaire. The longest time spent on completing the survey was twenty-five minutes. The shortest amount of time spent on the survey was ten minutes with an overall average amount of time being seventeen minutes. The times all included writing in answers for the three open-ended questions. Based on the pretest time results, the cover letter states that the survey should take fifteen to thirty minutes to complete.

Data Analysis

Descriptive statistics were conducted, primarily a calculation of frequencies. The open-ended responses were content analyzed to produce several themes.

Limitations

Because the study is not a random sample of organic farmers, it does not descriptively measure perceptions of the entire population. Because many of the participants selected were involved in litigation related to genetic engineering, the responses will be biased. Nonetheless, the respondents are connected with the farming industry in some aspect, and are therefore familiar with important and controversial issues that presently exist. Their responses should tap into major farming issues and concerns, regardless of any civil matters in which they may be involved.

Results

Ninety percent of all respondents are organic farmers, nine percent are non-organic farmers, and one percent of the respondents is associated with bioengineered products (see Graph 1). The respondents who replied that they were associated in some way with the biotechnology industry were activists against biotechnology, compiled environmental research on biotechnology in relation to organic farming, or were involved in organic farming regulation and genetic engineering abstinence or with committee members of government regulatory oversight. There is a total response rate of fifty-four percent. Thirteen surveys were returned due to incorrect addresses.

The survey asked for opinions on regulation and the effectiveness of regulatory agencies as a whole. All respondents feel that governmental regulatory agencies have not been effective in regulating genetically engineered products. The majority of participants (89%) believe it is very important for genetically engineered agricultural products to be labeled and all felt that the FDA should be responsible for the regulation of this. Almost all respondents (93%) feel there should be standardized labeling for all genetically engineered products. All but one respondent was aware that you could buy genetically engineered crops in any supermarket. Most respondents (98%) stated that all products produced through genetic engineering should be approved before being released on the market.

The benefits of genetic engineering, respondents (94%) felt do not outweigh any costs that may be associated with it. Respondents were asked if they thought that genetic engineering could benefit farming and society. The most frequent response (69%) was that there were no benefits (69%) (see Table 1).

Graph 1

Occupational Relationship

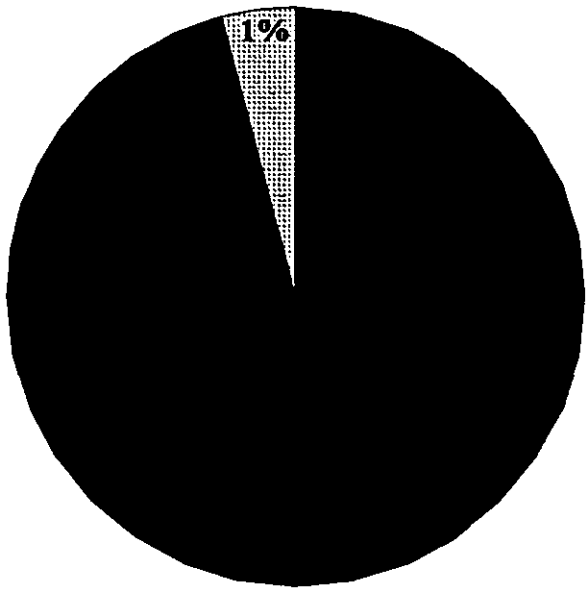

Table 1: How Genetic Engineering Can Benefit Farming and Society

Categories	Percentage
No benefits of genetic engineering	69%
Allow farmers to obtain higher yields	20%
Produce disease resistant crops	17%
Improve shelf life of produce	9%
Decrease chemical usage in the future	9%
Improving nutrition content in crops	7%
Aiding efforts in reaching world sustainability	7%
Decreasing hunger in Third World countries	7%
Other: utility in medical practices, time saver, and prevent human diseases	5%

Note: Percentages add up to more than 100% because respondents were allowed to select multiple categories.

Respondents were asked to mark why they think companies are interested in genetic engineering (see Table 2). The most frequent response (98%) was for profit purposes. Respondents supplied various different reasons for why they thought companies are interested in biotechnology, in the "other" category. A content analysis was done on these answers, and three common reasons were found. "Other" reasons given were for companies to improve their market share, increase their seed sales, and to

make other countries more agriculturally dependent on the United States. Only 7% of respondents felt it was for humanitarian purposes.

Table 2: Why Companies are Interested in Biotechnology

Categories	Percentage
Profit purposes	98%
Crop and yield improvement	24%
Other: improve market share, increase seed sale, and make other countries dependent on U.S.	20%
Humanitarian reasons	7%
World sustainability efforts	6%

Note: Percentages add up to more than 100% because respondents were allowed to select multiple categories.

When asked about costs associated with genetic engineering (see Table 3), most respondents (96%) felt there are potential health threats. Most respondents (93%) also felt genetic engineering could have the undesirable effect of creating less seed diversity. Economic and market costs, in particular increased seed prices, were another cost when dealing with genetic engineering (92%). Decreased pest resistance (91%) along with increased resistance in weeds to current herbicides (83%) was also marked costs. The majority of respondents (80%) felt genetic engineering will lead to increased chemical use in the future, and overall increased consumer costs (78%). Additional costs were added under the other category and respondents' answers were content analyzed. A significant number of respondents (43%) added that genetic engineering could result in

Table 4: Likert-type Question Category

Statements	Percentage SD= strongly disagree D= disagree SA= strongly agree A= agree
Seed and biotechnology corporations manifest feelings of powerlessness in farmers	47% SA, 40% A
I worry that some biotechnology companies are acquiring too much of the seed industry	85% SA, 4% A
If clearly labeled, genetically engineered products are a good idea	83% SD, 2% D
Biotechnology corporations have been sufficiently regulated	81% SD, 4% D
I worry about chemical pesticides used in farming	78% SA, 7%A
Overall, biotechnology efforts will be beneficial to the farming industry	76% SD, 2% D
Non-organic farmers have been burdened by the introduction of genetically engineered crops	46% SA, 30% A
I have confidence in American business leaders	42% SD, 30% D
Organic farmers have been victimized by large biotechnology corporations	33% SA, 36% A
Members of the farming industry should not be disappointed in the government's response to biotechnology issues	67% SA, 12%A
Organic farmers have been burdened by the introduction of genetically engineered crops	65% SA, 8%A
Non-organic farmers have not experienced a loss of authority over their farmland due to genetically engineered seeds	44% SD, 21% D
Genetic engineering has decreased the effectiveness of natural pest resistance used by organic farmers	61% SA, 12% A

Delegitimation and Victimization

The Likert-type questions (see Table 4) tapped into a variety issues including feelings of delegitimation, victimization, and regulatory effectiveness. Most respondents (72%) disagreed/strongly disagreed with the statement, "I have confidence in American business leaders" and strongly disagreed (67%) with the statement, "members of the farming industry should not be disappointed in the government's response to biotechnology issues". Respondents (87%) agreed/strongly agreed that "the seed and biotechnology corporations manifest feelings of powerlessness in farmers". Overall, respondents strongly agreed that organic farmers (65%) and agree/strongly agreed that non-organic farmers (76%) have been burdened by the introduction of genetically engineered crops. The majority of respondents (65%) disagreed/strongly disagreed with the statement "non-organic farmers have not experienced a loss of authority over their farmland due to genetically engineered seeds". Similarly, respondents (61%) strongly agreed that "genetic engineering has decreased the effectiveness of natural pest resistance used by organic farmers. Sixty-nine percent of respondent's agree/strongly agree that "organic farmers have been victimized by large biotechnology corporations".

Regulation

Seventy-six percent of respondents strongly disagreed that "overall, biotechnology efforts will be beneficial to the farming industry". Even if clearly labeled, eighty-three percent of respondent's strongly disagreed that "genetically engineered products are a good idea". Most respondents (81%) strongly disagree that "biotechnology corporations have been sufficiently regulated", and eighty-five percent

strongly agreed that they "worry about some biotechnology corporations acquiring too much of the seed industry".

The survey contained three open-ended questions and a content analysis was performed on the responses. Respondents were asked to answer "what possible outcomes could organic farmers experience from genetic engineering?". Almost all respondents (96%) wrote that they believed no good will come from genetic engineering. Food and soil contamination will most likely occur and, because of the actions of large biotechnology corporations, organic farmers will be forced out of the market. Pollution from genetically engineered crops will ruin organic farmland and eliminate any chance of farmers being able to attain organic certification. On the other end of the spectrum, respondents believe that organically produced products will eventually be in higher demand farther down the road when the potential health risks involved with consuming genetically engineered crops are exposed.

Respondents were asked, "in your opinion, how do you think large biotechnology corporations have financially affected organic farmers?". Ninety-seven percent of all respondents wrote in some sort of answer. The majority of respondents (92%) feel that large biotechnology corporations have created genetic and environmental pollution, which has effected farmers and consumers. Their actions are threatening the entire organic farming community as well as the society at large. Respondents also believe there will be a decrease in availability of seeds and naturally occurring pesticides, such as B.t.

Respondents were asked to state any "important issues regarding organic farming that you feel were not addressed in this survey". Respondent's felt that the effect

genetically engineered products have on the environment, in particular the soil, was not addressed. Likewise, more questions could have been included on the nutritional content of genetically engineered foods. Other topics, such as the morality of genetic engineering, the effectiveness of organic farming, and insufficient government attention to organic farming were also raised.

Discussion

Delegitimation and Victimization

The majority of respondents do not have confidence in American business leaders, feel the farming industry should be disappointed in the government's response to biotechnology issues, and feel that biotechnology corporations have not been sufficiently regulated. The overall majority also feels that large biotechnology corporations have victimized organic farmers, as well as non-organic farmers, with non-organic farmers having experienced a loss of authority over their farmland due to genetically engineered seeds. More importantly, 87% of the respondents feel seed and biotechnology corporations have produced feelings of powerlessness in farmers.

The survey results are consistent with Shover et al.'s (1994) research on victimization and delegitimation in the savings and loan debacle. In this study, perceptions of regulatory inequality have resulted in feelings of delegitimation. Respondents strongly expressed their views on the lack of regulatory standards, inadequate safety standards, insufficient labeling, and lack of faith in American business leaders. Rather than the biotechnology industry being a friend to farmers, the respondents overwhelmingly saw many costs and few benefits from genetically engineered products. Organic farmers expressed disappointment in government officials and, as stated earlier in the paper, have turned to the courts to seek redress and regulation.

Regulation

Respondents' perceptions of genetic engineering are that the benefits do not outweigh any costs that may be associated with it. Respondents saw few, if any, benefits of genetic engineering. Members of the farming industry feel that genetic engineering

has not undergone stringent enough risk evaluations and that products produced through genetic engineering need to be approved before being released on the market. The perceptions of organic farmers are consistent with critics and research findings that the alleged benefits of genetically engineered crops have yet to be demonstrated. In the meantime, with the introduction of genetically engineered crops, there is the potential for negative effects on the farming industry. As illustrated in *Greenpeace v. Browner*, organic farmers are concerned that pests may form a resistance to B.t., and they may lose one of the best natural means they have available to fight pests. Participants also feel that genetically engineered products are insufficiently labeled. Labeling of products allows the consumer the autonomy to choose what type of foods and products they wish to purchase and consume.

Corporate Interest in Biotechnology

Respondents overwhelmingly feel (98%) that biotechnology corporations have such an overwhelming interest in genetic engineering due to profit potential. Only a fifth of respondents felt corporations were interested in crop and yield improvement. Very few respondents feel that corporations are interested in biotechnology for humanitarian reason and world sustainability efforts. However, large biotechnology corporations state that they are involved in the biotechnology field for humanitarian reasons and to aid efforts in achieving world sustainability. Crop and yield improvement is also part of corporation's interest but it is because through better crops, they are better able to reach sustainability. This divergence of perceptions between organic farmers and biotechnology corporations illustrates the cynicism felt by organic farmers.

Consumers need to make fully informed choices about the products they purchase and consume, farmers need to have the power to choose the seeds they will plant, and organic farmers need to have naturally available pesticides and non-contaminated soil. All of these are affected by genetic engineering. This paper focuses on the views of organic farmers and the effect of genetic engineering on this valuable alternative source for farm products. Their concerns regarding lack of regulation on genetic engineering, and the harm they experience, deserve acknowledgement. It is necessary to examine the victimization experiences of individuals who do not fall within the traditional definition of street crime victims. Victims of injurious actions by large corporations are often neglected in discussions of harm, and their suffering if often ignored. While white-collar criminologists have started to shed light on these harms, there is still much work that needs to be performed in this area.

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Appendix A

Jennifer L. Kelley
747 East Park Street #E
Carbondale, IL 62901
(618) 549-7237 Email: jennyk@siu.edu

April 5, 1999

[corporation]
[name]
[street address]
[city, state zip]

Dear [name]:

My name is Jennifer Kelley and I am a senior in Administration of Justice at Southern Illinois University at Carbondale. As part of the requirements for completing my senior honors thesis, I am administering a questionnaire that examines feelings and perceptions toward the labeling and regulation of genetically engineered agricultural products. My interest is in the effects of genetic engineering on other industries, primarily organic farming.

The target population for this survey is organic farmers and the organic farming industries within the United States. Names of individuals and organizations were obtained from the 1998 U.S. Organic Certification Organizations and Local Chapters listed on the internet and from a legal complaint filed against the United States Environmental Protection Agency by Greenpeace, organic farmers, and related organizations. From these sources, 100 names were randomly selected to participate in this survey.

Your participation in completing this survey is greatly appreciated however please be advised that you are under no obligation to complete the questionnaire. Participation is voluntary. Enclosed is the survey, a self-addressed stamped envelope with no identifying markers, and a postcard. The postcard will assure anonymity in that your name cannot be matched to your completed survey. When you have completed the questionnaire, please do not mail the survey and the postcard in the same envelope. The postcard will include your name and address and will be used to remove your name from the master sample list to indicate that you have completed and returned the survey and that a follow-up letter does not need to be sent to you. The survey should take approximately 15-30 minutes to complete. Please return the survey by April 30th or as soon as possible thereafter.

If you have any questions or comments about the nature of the study or any items in the questionnaire, please feel free to contact me at the above address. If there are any concerns with this study, please contact my advisor: Professor E. Szockyj, The Center for the Study of Crime, Delinquency, and Corrections, Southern Illinois University, Carbondale, IL 62901-4504. Phone: (618) 453-5701. This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Human Subjects Committee Chairperson, Office of Research Development and Administration, Southern Illinois University, Carbondale, IL 62901-4709. Phone: (618) 453-4533.

Thank you so much for taking time from your busy day to assist me in completing my honors thesis.

Sincerely,

Jennifer Kelley

Appendix B

Dear [name]:
Please return this postcard separately from the completed survey. Postage is already attached to the card. Once I receive the card, I will cross your name off my master list and not send you a follow-up letter. Thank you very much for filling out the survey.

Appendix C

Jennifer L. Kelley
747 East Park Street #E
Carbondale, IL 62901
(618) 549-7237 Email: jenny k@siu.edu

April 30, 1999

[corporation]
[name]
[street address]
[city, state zip]

Dear [name]:

This is a follow-up letter to the questionnaire I previously mailed to you. For your convenience, I am enclosing another copy of the questionnaire. Your participation in this survey is greatly appreciated and will be very helpful for me completing my senior honors thesis. The questionnaire examines feelings and perceptions toward the labeling and regulation of genetically engineered agricultural products. My interest is in the effects of genetic engineering on other industries, primarily organic farming.

The target population for this survey is organic farmers and the organic farming industries within the United States. Names of individuals and organizations were obtained from the 1998 U.S. Organic Certification Organizations and Local Chapters listed on the internet and from a legal complaint filed against the United States Environmental Protection Agency by Greenpeace, organic farmers, and related organizations. From these sources, 100 names were randomly selected to participate in this survey.

Again, your participation in completing this survey is greatly appreciated however please be advised that you are under no obligation to complete the questionnaire. Participation is voluntary. Enclosed is the survey, a self-addressed stamped envelope with no identifying markers, and a postcard. The postcard will assure anonymity in that your name cannot be matched to your completed survey. When you have completed the questionnaire, please do not mail the survey and the postcard in the same envelope. The postcard will include your name and address and will be used to remove your name from the master sample list to indicate that you have completed and returned the survey and that another follow-up letter does not need to be sent to you. The survey should take approximately 15-30 minutes to complete. Please return the survey by May 8th or as soon as possible thereafter.

If you have any questions or comments about the nature of the study or any items in the questionnaire, please feel free to contact me at the above address. If there are any concerns with this study, please contact my advisor: Professor E. Szockyj, The Center for the Study of Crime, Delinquency, and Corrections, Southern Illinois University, Carbondale, IL 62901-4504. Phone: (618) 453-5701. This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Human Subjects Committee Chairperson, Office of Research Development and Administration, Southern Illinois University, Carbondale, IL 62901-4709. Phone: (618) 453-4533.

Thank you so much for taking time from your busy day to assist me in completing my honors thesis. If you have already participated by completing a survey and have mailed a postcard, please disregard this letter and thank you for your participation.

Sincerely,

Jennifer Kelley

Appendix D

SURVEY

***Please clearly mark the appropriate box for your response. Do not mark more than one answer unless specified otherwise in the question. Mark the answer that you feel best suits the question asked.**

Please use the following definitions for this survey:
GENETIC ENGINEERING: the unnatural combination, alteration, and reunification of DNA to convert an organism or group of organisms into something different than its original form.

ORGANIC FARMING: farming that applies non-chemical methods of fertilization and pest control.

1. Are you an organic farmer ☐Yes ☐No
2. Are you a non-organic farmer? ☐Yes ☐No

3. Are you connected in any way with bioengineered products?

☐ Yes ——→ If Yes: How or in what way?_____

☐ No _____

RESPONSIBLE REGULATORY AGENCIES
USDA: United States Department of Agriculture
EPA: Environmental Protection Agency
FDA: Food and Drug Administration
FTC: Federal Trade Commission

	USDA	FDA	EPA	FTC	Private Organizations	Other (specify)
	(please mark all that are appropriate)					
4. Who do you believe **should be** responsible for directing and managing certified organic farmers?	☐	☐	☐	☐	☐	_____
5. Who do you think **should be** responsible for regulating the farming industry, in general?	☐	☐	☐	☐	☐	_____
6. Who do you think **should be** responsible for the labeling of foods that are on the market and offered to consumers?	☐	☐	☐	☐	☐	_____

7. Overall, do you think governmental regulatory agencies have been effective in regulating genetically engineered crops?

Yes ☐ No ☐

ORGANIC FOODS

8. Presently there are no federal standard government regulations for organic farming. In your opinion, do you think there **should be** standardized organic farming regulations which covers all organic farming in the United States? ☐Yes ☐ No

9. Do you think it is important for organic farmers to have standardized state organic certification? ☐Yes ☐No

10. Do you think organic foods and organic products should contain a label specifying that they are organically produced?

☐Yes ——→ If Yes: Why? _____

☐No _____

GENETICALLY ENGINEERED FOODS

11. How important is it for genetically engineered agricultural products offered to the consumer to be labeled?

Very Important	Important	Not Important
☐	☐	☐

12. Do you feel that it is important for all new products to have gone through pre-market approval before being released on the market? ☐ Yes ☐ No

13. Do you feel that all products that are produced through genetic engineering should be approved before being released on the market? ☐ Yes ☐ No

14. Do you think there should be standardized labeling for all genetically engineered products? ☐ Yes ☐ No

15. Do you think that all foods, no matter how they are produced, should contain a label? ☐ Yes ☐ No

16. Are you aware that you can currently purchase genetically engineered crops in any supermarket? ☐ Yes ☐ No

17. Do you feel that the benefits of genetic engineering outweigh any costs that may be associated with it? ☐ Yes ☐ No

BENEFITS AND COSTS OF GENETIC ENGINEERING

18. Do you think genetic engineering can benefit farming and society by:
(Please mark all that apply)

- ☐ improving nutrition content in crops
- ☐ producing disease-resistant crops
- ☐ improving shelf-life of produce
- ☐ aiding efforts in reaching world sustainability
- ☐ decreasing chemical usage in the future
- ☐ decreasing hunger in Third World countries
- ☐ allowing farmers to obtain higher yields
- ☐ Other-please specify_____

19. Why do you think companies are interested in genetic engineering?
(Please mark all that apply)

- ☐ humanitarian reasons
- ☐ profit purposes
- ☐ world sustainability efforts
- ☐ crop and yield improvement
- ☐ Other-please specify_____

20. Do you feel there are costs associated with genetic engineering?
(Please mark all that apply)

- ☐ economic/market costs-more expensive seed
- ☐ increased chemical use in the future
- ☐ increased resistance in weeds to current herbicides
- ☐ decreased natural pest resistance
- ☐ increased consumer costs
- ☐ less diversity in seeds (naturally occurring)
- ☐ potential health threats

☐ Other-please specify_____

21. Do you feel that adequate precautions have been taken with genetically engineered crop varieties?

☐Yes ☐No

EFFECTS ON ORGANIC FARMERS

22. Do you feel that biotechnology corporations are harming the organic farming industry?

☐ Yes ——————▶ If Yes: How or in what way? _____

_____

☐ No

23. Who do you think has the greatest control of the farming industry in the U.S.?
(please select one answer)

☐ Big agriculture corporations

☐ Farmers

☐ Biotechnology corporations

☐ Regulatory agencies

☐ Other-please specify_____

24. What possible outcomes could organic farmers experience from genetic engineering?
(please answer in the space provided below)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
25. I have confidence in American business leaders.	☐	☐	☐	☐	☐
26. Members of the farming industry should not be disappointed in the government's response to biotechnology issues.	☐	☐	☐	☐	☐
27. Seed and biotechnology corporations manifest feelings of powerlessness in farmers.	☐	☐	☐	☐	☐
28. If clearly labeled, genetically engineered products are a good idea.	☐	☐	☐	☐	☐
29. I worry about chemical pesticides used in farming.	☐	☐	☐	☐	☐
30. Biotechnology corporations have been sufficiently regulated.	☐	☐	☐	☐	☐
31. Overall, biotechnology efforts will be beneficial to the farming industry.	☐	☐	☐	☐	☐
32. I worry that some biotechnology companies are acquiring too much of the seed industry.	☐	☐	☐	☐	☐
33. Non-organic farmers have been burdened by the introduction of genetically engineered crops.	☐	☐	☐	☐	☐
34. Organic farmers have been burdened by the introduction of genetically engineered crops.	☐	☐	☐	☐	☐
35. Organic farmers have been victimized by large biotechnology corporations.	☐	☐	☐	☐	☐
36. Genetic engineering has decreased the effectiveness of natural pest resistance used by organic farmers.	☐	☐	☐	☐	☐
37. Genetic engineering will not lead to a decrease in natural (non-genetically altered) seed availability.	☐	☐	☐	☐	☐
38. Non-organic farmers have not experienced a loss of authority over their farmland due to genetically engineered seeds.	☐	☐	☐	☐	☐

39. In your opinion, how do you think large biotechnology corporations have financially affected organic farmers? (please answer in the space provided below)

40. In your opinion, what are important issues regarding organic farming that you feel were not addressed in this survey?
(please list in the space provided below)

THANK YOU!

Thank you again for taking time out of your busy day to fill out my questionnaire. Your assistance with my thesis project is greatly appreciated. Feel free to contact me if you have any questions, comments, or concerns about the research: Jennifer Kelley, 747 East Park Street #E, Carbondale, IL 62901. Phone: (618) 549-7237. E mail: jennyk@siu.edu