

**Voters in Seven California Counties Consider
Banning Genetically Engineered Agriculture**

A White Paper

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Executive Summary

Numerous scientists have raised concerns about the environmental and human health risks posed by genetically engineered crops. Around the globe, consumers and governments have reacted by rejecting genetically engineered crops and strictly regulating this technology. The U.S. government, however, has largely ignored the risks and consumer concern. As a result, states and local governments are stepping in to protect public health and the environment. Voters in Mendocino County, California, for example, have banned genetically engineered agriculture and inspired voters in seven other California counties to file initiatives for the 2004 ballot to do the same. The biotechnology industry is sure to devote significant money to fight these initiatives.

The technology of inserting genes from one organism into the DNA of a foreign organism is unpredictable by nature and creates several unintended environmental and human health risks. Genetically modified foods can cause severe allergic reactions and increase antibiotic resistance; notwithstanding these risks, 60 percent of the food on supermarket shelves already contains genetically modified ingredients. In the field, genetically engineered crops also can contaminate traditional crops and create "superweeds" when crops genetically modified to be herbicide resistant unintentionally cross-pollinate with related wild plants.

All of these risks have spurred significant resistance by consumers around the world. Polls show that 70 percent of European Union consumers reject genetically engineered food, leading the European Union to engage in a de facto moratorium on genetically engineered agriculture in 1998 that it recently ended. In 2001 Japan initiated labeling and testing requirements on genetically engineered foods. Even countries suffering from food shortages, such as Zambia, have refused to distribute genetically engineered foods.

Despite the significant risks and international rejection of genetically engineered foods, the U.S. continues to encourage agricultural biotechnology and maintains a laissez faire approach to regulations. The three agencies charged with ensuring the health and safety of genetically engineered food maintain a regulatory structure that allows the industry to regulate itself. The United States Department of Agriculture (USDA), the Food and Drug Administration (FDA), and the Environmental Protection Administration (EPA) rely on manufacturer-run field tests to determine safety; do not require pre-market testing of genetically engineered foods; and rely on manufacturers' research to determine safe levels of pesticide levels in genetically engineered crops. The general approach of the U.S. government has been to treat products of genetic engineering as if they would naturally occur in the environment, even though the technology requires the extensive transfer of genes across species.

Given the lack of sufficient federal regulation of genetically engineered crops and foods, states and localities have taken the lead in protecting public health and the environment. In the past three years, the states have introduced 288 pieces of legislation related to biotechnology. Voters in the State of Oregon qualified an initiative on the 2002 ballot to require labeling of all foods containing genetically engineered ingredients, losing after the biotechnology industry spent \$5.5 million to defeat the measure. Voters in Vermont were able to convince legislators to require labeling and tracing of genetically engineered seeds. Overall, with industry opposition fierce, voters have an uphill battle to pass any regulation.

Voters in Mendocino County, California, however, were able to do what no other locality or state in the U.S. has been able to do. In March 2004, despite industry spending \$700,000 in opposition, Mendocino County passed Measure H, which makes it unlawful to cultivate or raise any genetically engineered crops or animals. As a result of Mendocino County's success, seven other counties in California are poised to make decisions to also prohibit genetically engineered agriculture this fall. These initiatives are important for several reasons. First, California is the largest agricultural state in the U.S., providing food for consumers across the country. In addition, California accounts for 12.2 percent of U.S. agricultural exports, which is significant in that international markets are becoming wary of genetically engineered food. Finally, California often has taken the lead in passing progressive policies to protect consumers and the environment; if the California initiatives succeed, other states and localities may move to replicate the policies, creating a ripple effect across the nation.

For these reasons, the biotechnology industry, led by multi-national giants such as Monsanto, are likely to vocally oppose each measure on the ballot. Curiously, to date the industry has been rather silent. The biotechnology companies may be waiting to pump large sums of money into a media campaign within each county designed to persuade voters close to the date of the vote. Alternatively, the industry may be planning a broader attack by seeking state or federal preemptive legislation or challenging the constitutionality of the initiatives. Regardless, industry likely realizes that the local initiatives will have effects outside of the boundaries of those seven California counties and even beyond the boundaries of the State of California.

Introduction

Scientists have warned that agricultural genetic engineering presents significant risks to public health and the environment. As consumers around the world become more aware of these risks, countries are implementing ways to protect citizens from the effects of genetically engineered foods. The United States federal government, however, continues to encourage genetic engineering and treats genetically engineered crops and animals as it treats conventional agriculture. Yet U.S. consumers are demanding regulation of an industry that is currently allowed to regulate itself. Therefore, in the absence of adequate federal regulation, citizens in states and localities across the U.S. are pressuring their governments to implement policies that would do what the USDA, FDA, and EPA have failed to do—place the public's interests above those of the biotechnology industry.

This white paper explores the ripple effect that the history-making vote in Mendocino, County, California to ban genetically engineered agriculture has had on voters in seven other counties in the nation's largest agricultural state. This fall, voters in Alameda, Butte, Humboldt, Marin, San Luis Obispo, Santa Barbara, and Sonoma counties will try to follow and add to this movement by banning genetically engineered agriculture in a state that produces \$6.5 billion of the nation's international agriculture export. The decisions this fall affect not only agriculture within the seven counties but reach beyond the boundaries of the U.S.

Environmental and Health Risks Associated with Genetic Engineering

Biotechnology broadly refers to any use of living organisms and can include some traditional technologies such as selectively breeding plants of the same species. One controversial yet widely applied form of biotechnology is agricultural genetic engineering, which involves the scientific altering of a crop or animal by inserting a foreign gene or genes into its DNA, thus creating a completely novel organism. For instance, biotechnology companies often genetically engineer crops to carry specific traits, such as insect and herbicide resistance. In the United States, up to 40 percent of corn, 55 percent of cotton, and 75 percent of soybeans are genetically engineered.¹ Significantly, up to 60 percent of processed foods are made with genetically engineered ingredients.²

Scientists from various disciplines have warned of the many health and environmental risks associated with cultivating genetically engineered crops and ingesting foods made with genetically engineered ingredients. A University of Nebraska study, for example, indicated that soybeans genetically engineered to contain Brazil nut proteins cause reactions in people allergic to Brazil nuts.³ While food allergy sufferers know to avoid foods that contain certain ingredients, genetically engineered foods are not labeled to allow consumers to avoid possible life-threatening allergic reactions. Studies also show that genetically engineered crops may increase antibiotic resistance. Genetic engineering often uses marker genes that express antibiotic resistance to indicate what genes in the receiving organism have been inserted with the intended trait; these

marker genes then move into the food chain.⁴ Unfortunately, scientists are often discouraged from exploring these risks for fear of smear campaigns aimed at discrediting their work. Scientists have reported losing employment and being threatened following groundbreaking discoveries that revealed negative impacts of genetically engineered foods.⁵

Environmentally, the growing of genetically engineered crops creates the risk of contamination due to cross-pollination and other ecological processes. Contamination of conventional and organic crops due to wind or insect dispersal puts biodiversity at risk. For instance, Bt crops are genetically engineered to continuously secrete a toxin derived from the bacteria *Bacillus thuringiensis* (Bt) in order to kill insects. Since the unintended cross-pollination of such Bt crops with non-genetically engineered crops is uncontrollable, it is inevitable that at some point neighboring crops will carry the Bt bacteria trait. Continual exposure to consistent amounts of the Bt toxin will likely hasten insects' resistance to the toxin, resulting in the need for stronger pesticides.⁶ Another environmental risk occurs when crops that are genetically engineered to resist herbicides unintentionally cross-pollinate with wild plants, creating "superweeds" that carry the herbicide-resistant trait. One such example is the discovery in a field in northern Alberta, Canada of canola weeds that are resistant to three different herbicides.⁷ An additional ecological risk is the unintended creation of new or worse viruses when crops are genetically engineered to become virus-tolerant. When components of a virus are engineered into a plant's genes to create virus-resistance, the genes of the plant and incoming viruses can combine to create a more virulent virus or one that may infect a wider range of hosts.⁸

International Reaction to Risks of Genetic Engineering

Given these risks, consumers across the globe have reacted strongly to genetically engineered crops and foods.

In the European Union, a large importer of U.S. agriculture, polls show that up to 70 percent of the population rejects genetically engineered foods.⁹ In response, the EU engaged in a de facto moratorium on new genetically engineered crops and animals in 1998.¹⁰ However, the U.S., Canada, and Argentina, the largest producers of genetically engineered foods have filed a World Trade Organization dispute against the EU, claiming the moratorium violates free trade.¹¹ The EU has acquiesced by creating a legislative framework to allow for the approval of new genetically engineered foods but still require significant pre and post-market testing, labeling, and tracing requirements.¹²

EU consumers and farmers continue to seek stricter controls, and the framework has been the basis for grassroots organizers, regions, and Member States to move toward completely GE-Free Zones. Citizens are spearheading initiatives in 24 European countries to ban genetically engineered crops.¹³ In addition, the Region of Upper Austria has led eleven other regions across the EU to form the "Network of GMO-Free

Regions.¹⁴ Before cultivation, each new genetically engineered crop must undergo a rigorous application process, which permits Member States to object to the granting of permission or to seek that conditions be placed on any consent.¹⁵ One condition could be to exempt a country on the basis that it is needed to protect the country's "ecosystems/ environments or geographical areas"—such exemptions must be done, however, on a crop-by-crop basis.¹⁶ The Network, whose members have banned genetically engineered crops across the board in their regions, has in essence gone against the strict interpretation of the EU regulations that restrict exemptions to a case-by-case basis. Yet the Network continues to grow, two of the regions having joined after Upper Austria filed a legal challenge to the EU Commission's rejection of its blanket ban of genetically engineered crops.^{17,18}

Europeans are not alone. Consumers in Japan, also a large importer of U.S. agriculture, are wary of genetically engineered foods as well. In response, the Japanese government initiated labeling and safety tests for genetically engineered foods in 2001.¹⁹ Despite food shortages, Zambia continues to prohibit the importation of genetically engineered foods because of its concern that they are not suitable for human consumption.²⁰ Zambian President Mwanawasa has said that despite starvation, he cannot justify exposing the Zambian people to "poisonous food."²¹ The widespread reaction of consumers around the world to the risks associated with genetically engineered food continues to grow and creates pressure for international governments to address those concerns.

Inadequate U.S. Federal Oversight of Genetic Engineering

Despite the risks and the reactions of the international community, the United States continues to encourage agricultural biotechnology and maintains the regulatory status quo.²² In the mid 1980s and the early 1990s, the U.S. government decided that existing statutes regulating conventional agriculture were adequate to ensure the safety of genetically engineered agriculture.²³ The responsibility to ensure the safety of genetically engineered foods falls on the United States Department of Agriculture (USDA), the Food and Drug Administration (FDA), and the Environmental Protection Agency (EPA).²⁴ However, the agencies' regulatory structure essentially gives the biotechnology industry control over itself and thus does not adequately protect the public's interest. For instance, the USDA, which is responsible for determining whether genetically engineered crops are considered plant pests, leaves it up to biotechnology companies to field test their own crops. In essence, the USDA is relying on the very industry that the agency is charged to regulate to inform the agency of whether the industry's product is safe.

FDA, the agency largely responsible for ensuring the safety of our food supply, does not require pre-market safety testing of genetically engineered crops intended for human or animal consumption. The FDA relies on voluntary "consulting" sessions with industry to determine the crops' safety. EPA similarly relies on research provided by applicant

companies when assessing whether the pesticide levels in genetically engineered foods meet public health standards.

U.S. States' Response to Federal Inaction

Given the federal government's failure to properly regulate genetically engineered crops, states and localities have taken the lead in protecting public health and the environment from the risks posed by the technology. Between 2001 and 2004, state legislatures introduced 288 bills related to biotechnology.²⁵ Legislators and voters in more than 30 states considered bills and initiatives that ranged from addressing liability issues of cross-pollination, the labeling of genetically engineered foods, and the outright prohibition of genetically engineered agriculture.²⁶

In 2002, Oregon citizens placed Measure 27 on the ballot.²⁷ If passed, the measure would have been the first in the U.S. to require all foods sold or distributed in Oregon containing ingredients produced through genetic engineering to bear a label identifying this fact.²⁸ On October 9, less than a month before the November 2002 election, a poll of Oregon voters showed that 58 percent supported Measure 27, while only 36 percent opposed it.²⁹ After spending a record breaking \$5.5 million on a campaign to kill the measure, the biotechnology industry was able to turn those figures into a 70.5 percent "NO" vote, thus defeating Measure 27.³⁰ In contrast, the supporters of the measure spent a mere \$160,000.³¹ The opposition ran TV and print ads as well as produced mailings designed to convince voters that the measure would be a significant tax burden. CropLife International, an agricultural biotechnology industry trade group that represents some of the largest biotech companies, including Monsanto, led the opposition and contributed \$3.7 million to the cause.³²

In 2004 Vermont became the first state to pass a law requiring genetically engineered seeds to be labeled and registered.³³ In addition, grassroots organizers have encouraged 78 out of the 246 towns and cities in Vermont to pass non-binding resolutions to keep genetically engineered organisms out of their communities.³⁴ In Hawaii, the location of many field trials of genetically engineered crops, organizers are trying to raise awareness and encourage citizens to fight for a GE-free state.³⁵ In fact, out of the 130 pieces of biotechnology legislation introduced in the U.S. in 2003, 19 percent originated in Hawaii and 44 percent of those opposed genetically engineered agriculture.³⁶

Growing Citizen Opposition in California

As on many environmental and consumer safety issues, California's citizens have taken the lead in the movement to regulate or ban genetically engineered crops and animals. This citizen activism is important for several reasons. First, California is the number one agricultural state in the U.S. and represents almost 13 percent of the country's total agricultural sales.³⁷ Second, California's international agriculture exports were 12.2 percent of the U.S. agricultural exports and totaled approximately \$6.5 billion in 2002.³⁸ Besides Canada, the European Union and Japan are the top international destinations of

California's agricultural exports; the three countries combine account for 61 percent of the state's export value.³⁹ As noted above, consumers in the EU and Japan are wary of genetically engineered food. Finally, California often has taken the lead in passing progressive policies to protect the consumers and environment; if the California initiatives succeed, other states and localities may move to replicate the policies, creating a ripple effect across the nation.

Mendocino County, California and Measure H

Despite the growing concern and legislative activity across the U.S., industry opposition has made it difficult for concerned citizens to achieve an outright ban of genetically engineered agriculture. Yet in March 2004, voters in Mendocino County, California made it the first jurisdiction in the United States to do so. Measure H, as the Mendocino initiative is known, makes it unlawful for any person or corporation to grow or raise genetically engineered plants or animals.

Measure H places the power of enforcement in the hands of the county's Agricultural Commissioner, who has the authority to confiscate and destroy any genetically engineered organism he/she finds within the county. The Commissioner is also authorized to levy monetary fines against violators of the measure.

The Mendocino County voters passed Measure H by a significant 56 to 43 percent vote⁴⁰ despite industry spending almost \$700,000 compared with \$105,000 by citizens.⁴¹ Similar to its actions in Oregon, CropLife contributed \$675,000 of the industry spending to oppose the Mendocino County initiative.⁴²

The 2004 Initiatives

The victory in Mendocino County has had a ripple effect across the state, encouraging other citizens to pursue similar initiatives. The California constitution empowers counties to pass ordinances within their limits that do not conflict with state law.⁴³ A county can do so through one of two ways, either by the voters or by the elected Board of Supervisors. In order for citizen-based initiatives to pass, organizers must collect sufficient signatures to have the Board adopt the ordinance or for the Board to present the initiative to the voters.⁴⁴ If organizers do not collect sufficient signatures, the Board can vote to adopt the ordinance but with the ability to repeal it at anytime without the vote of the people.⁴⁵ Yet once voters choose to implement an ordinance to prohibit genetically engineered agriculture, only the voters can repeal the ban.⁴⁶

With the support of California GE-Free Agriculture Coalition, seven other counties in the state have launched various initiatives to ban genetically engineered crops and animals. California GE-Free is a statewide coalition of farmer-based organizations, consumer and environmental groups.⁴⁷ Community coalitions in Alameda, Butte, Humboldt, Marin, San Luis Obispo, Santa Barbara, and Sonoma counties are following in Mendocino County's footsteps and are seeking binding decisions in this fall to address their concerns about genetically engineered agriculture. While some counties' initiatives

attempt to address county-specific issues, one thing is clear--the Mendocino vote has sparked a significant movement that is positioning seven more California counties to become the next localities in the U.S. to make it unlawful to cultivate genetically engineered crops or animals.

Alameda County

Organizers in Alameda County, GMO-Free Alameda County,⁴⁸ are currently educating community members about the harms of genetically engineered agriculture and plan to seek a Board of Supervisors' vote to place an initiative banning genetically engineered organisms on the ballot in fall 2004. Although agriculture in the county is less significant than the other counties discussed below, it does count for \$30 million of the county's economy.⁴⁹

Butte County

Collecting almost 10,000 signatures, GE-Free Butte qualified its initiative for placement on the November 2004 ballot. Butte County is the second largest grower of rice in the U.S., producing 20 percent of the country's rice crop.⁵⁰ With international markets, such as Japan and the EU, becoming wary of genetically engineered foods, the ban is of interest to farmers, consumers, and environmentalist alike.

In the spring of 2004, California came close to approving the field testing of rice engineered to produce human proteins that would allegedly be used to treat childhood anemia and diarrhea.⁵¹ However, despite much lobbying and a Rice Commission vote in favor of the biotechnology company Ventria's proposal, the California Department of Food and Agriculture (CDFA) denied the request for immediate approval, thus blocking any possible planting of the pharmaceutical crop during 2004.⁵² Many rice growers worried that such a pharmaceutical crop could contaminate the conventional table rice, most of which is exported to Japan.⁵³ In fact, the Japanese government indicated that it would issue a statement to the CDFA asserting that the planting of the pharmaceutical rice raised food-safety concerns.⁵⁴ The decision to allow the field-testing of the pharmaceutical rice could have affected the rice industry, valued at \$500 million statewide and \$101.2 million in Butte County rice industries.⁵⁵

Coming off this pharm rice scare and motivated by the possibility of such field tests in the future, Butte County organizers filed an initiative that would make it unlawful for any person to "propagate, cultivate, raise, or grow" genetically engineered organisms in the county, including farmers using genetically engineered feed for livestock.⁵⁶ The initiative would define genetically engineered crops and animals as "nuisance" under an existing statute. The initiative excludes scientific research performed in secured and enclosed laboratory conditions as well as health care providers diagnosing genetically engineered treatments. It would not, however, exempt open field-testing such as the

one Ventria sought. The initiative authorizes the county Agricultural Commissioner to “exercise such powers as may be necessary or convenient” to enforce the law. The initiative provides owners of genetically engineered agriculture a notice and at minimum a 14-day period by which to request a hearing to appeal the Commissioner’s action. Significantly, a violator acting knowingly and willfully is assessed any cost to enforce the ordinance. Assessing cost to the willful violator will decrease the cost to the county for enforcement.

While rice growers are concerned about the impact that genetically engineered agriculture could have on the industry, some also wonder if the possible cost of enforcement is necessary given the industry within the county has agreed amongst itself not to plant genetically engineered rice.⁵⁷ Furthermore, while the Butte County Farm Bureau has remained neutral in its position, the California Farm Bureau Federation, the trade organization that represents 85,000 professional farmers statewide, has publicly come out in support of genetically engineered crops.⁵⁸

Butte County organizers are aware of the uphill battle they face to get the provision passed in a county that relies heavily on agriculture. Indeed, organizers have sub-organized into smaller community based groups to educate voters about the risks associated with genetic engineering and to join alliances with farmers who may also be concerned. The Butte County vote in fall 2004 is sure to be telling as to the future of genetically engineered agriculture in the state.

Humboldt County

The group that calls itself Grow GMO-Free submitted almost 7,000 signatures, 3,000 more than what was needed, to the Registrar of Voters and qualified its initiative for a Board of Supervisors vote or placement on the November ballot.⁵⁹ Humboldt County’s top crop is timber, which makes up 55 percent of the county’s agriculture production.⁶⁰

The Humboldt initiative would make it unlawful for any “person, firm, or corporation” to grow genetically engineered organisms.⁶¹ Unlike the Butte County initiative, the ordinance stands on its own and would not attach to an already existing law. The Commissioner is expected to give any violator notice and allow such violator five days to respond. The violator may then produce evidence refuting the Commissioner’s accusation. However, if the Commissioner still determines the violator is in possession of genetically engineered organisms, the property will be confiscated and destroyed. A significant aspect of the Humboldt initiative is that, in addition to a monetary penalty for violation, the Humboldt proposal does allow for imprisonment depending on the willfulness of the violator and the potential damage caused.

Marin County

Members of GMO-Free Marin⁶² collected more than 13,000 signatures to qualify their initiative for either placement on the November 2004 ballot or Board of Supervisors adoption. In line with the organizer's preference, the Board of Supervisors on July 13, 2004 voiced complete support of the initiative and voted unanimously to indeed place the initiative on the ballot, allowing voters to determine the future of genetically engineered agriculture in the county.⁶³ Marin County is a coastal county known for its dairy and organic farming.⁶⁴ Dairy is the top agricultural commodity in California, which is the largest dairy producer in the U.S.⁶⁵ The dairy industry is thus focused on the Marin County initiative.

The Marin County initiative would, like Butte County, make any act by a person or entity that cultivates genetically engineered organisms a public nuisance and authorizes the Commissioner to "take all action necessary" to ensure the genetically engineered organisms do not contaminate traditional crops or animals. However, the initiative does allow the alleged violator up to 30 days to request a hearing to appeal any enforcement of the ordinance. While the ordinance would not levy a fine simply for violating the provision, it would require the violator to bear the cost of enforcement of the provision if the violator acted knowingly and willfully. Again, having violators bear the cost of enforcement decreases the need to increase taxes to keep the county GE-free. The Marin County initiative would also exempt licensed research facilities conducting contained studies as well as health providers from the provision completely.

San Luis Obispo County

Organizers in San Luis Obispo (SLO) County, known for its winegrapes, have launched the SLO GE-Free campaign.⁶⁶ Organizers collected more than 12,000 signatures and qualified their initiative to for the November 2004 ballot or for Board of Supervisors adoption. Originally the group wanted the county Board of Supervisors to institute an interim moratorium to further study the impact of genetically engineered agriculture, but the Board of Supervisors was not willing to do so.⁶⁷ Therefore, SLO County organizers collected 4,000 more signatures than needed to qualify the initiative.

Much like the other initiatives, SLO County's initiative makes it unlawful for any person or entity to cultivate genetically engineered organisms to "protect the county's agriculture, environment, economy, and private property from genetic pollution." Uniquely, the preamble of the provision states that its purpose will remain "until all the risks associated with [genetically engineered] organisms are fully understood." This could be interpreted as an indefinite moratorium as opposed to a complete ban. Of course either perspective results in one thing—complete prohibition on genetically engineered agriculture in the county of San Luis Obispo.

Santa Barbara County

Citizens in Santa Barbara County, known for its strawberries, are solely looking to the Board of Supervisors for action. Santa Barbara County organizers, who are educating and reaching out to farmers, plan to submit language to the Board sometime in the early fall. While the initiative has gained the endorsement of the 400-member Farmers' Market Association, Santa Barbara is still tensely divided between the farmers who populate the north of the county and the majority of the petition signers who populate the south.⁶⁸ In fact, a North County group called Citizens for County Organization has collected enough signatures to require Governor Schwarzenegger to appoint a five-member Commission that is currently exploring the feasibility of a county split.⁶⁹

Sonoma County

California is the number one producer of winegrapes in the U.S., with Sonoma County producing 35 percent of the state's portion.⁷⁰ More significantly, winegrapes account for 61 percent of Sonoma County's agricultural production.⁷¹ Within this context, organizers in Sonoma County have written the most unique initiative of the seven county initiatives. The initiative, if passed, makes it unlawful for a person or corporation to engage in the "propagation, cultivation, raising, growing, sale, or distribution" of genetically engineered organisms. The initiative provides for only 48 hours to request a hearing and has exempted genetically engineered feed for farm animals in response to farmer concerns. Like others, the Sonoma County ordinance would exempt licensed research facilities conducting contained genetically engineered studies from the provision completely.

The Sonoma County initiative contains some language not found in the other initiatives. For instance, Sonoma County organizers have chosen to propose a 10-year sunset clause to the measure. If the Sonoma measure does pass, it will be in effect for 10 years, and 12 weeks prior to its end the Board of Supervisors will allow the community to determine whether to extend the ban. In addition, the Sonoma County initiative would permit citizens of the county to sue the Commissioner to compel enforcement of the provision.

Sonoma County activists have submitted the proposed initiative's language to the Board of Supervisors and plan to collect signatures during July 2004 in order to place it on the November ballot.

While each initiative is different, collectively they send a resounding message that voters are concerned about the risks that genetically engineered crops and animals present and want the government to protect human health and the environment.

Industry Opposition

CropLife America representative Allen Noe has been quoted as saying that the biotech industry may either seek comprehensive legislation on the state or federal level or bring suit challenging the initiatives.⁷² While the industry may be planning a state or federal legislative attack or a suit challenging the constitutionality of the initiatives, curiously it has yet to make any transparent moves in either direction.

As discussed above, while California's constitution permits counties to pass ordinances, such laws may not conflict with state law.⁷³ If a county ordinance conflicts with state law, then California state law supercedes or preempts the ordinance. Therefore, if the biotech industry is able to convince the California legislature to pass laws preempting local regulation of genetically engineered crops and animals, Measure H and the other initiatives will be wiped away.

The California legislative session ends September 12, 2004, and conversations with advocates working on the issue as well as state legislative offices reveal no activity. Some advocates believe that the current industry delay may be a deliberate strategy to sneak under the radar close to the end of the session in order to head off citizen response. In the alternative, industry may be delaying a push for state legislative action until after the November election when it will be clear which county initiatives did indeed pass. In delaying action until November, the industry may also be avoiding an issue that could become a possible hot button in an election year. At any rate, decision-makers in Sacramento appear to range from being unaware to being indifferent—positions that California advocates are working to eliminate through education and outreach.

In terms of federal preemptive legislation, again there has been no visible industry action. The Supremacy Clause of the U.S. constitution permits the U.S. Congress to enact federal statutes that override or "preempt" state law.⁷⁴ If Congress chooses to side with the biotech industry, federal legislation could preempt the county ordinances and any future state law seeking to regulate genetically engineered crops and animals.

A suit challenging the constitutionality of the measures is also a tool the opposition may use. Specifically, industry is concerned that such initiatives will impede commerce and the "industry would grind to a halt."⁷⁵ The U.S. Constitution prohibits the states from creating laws that interfere with the flow of commerce between the states.⁷⁶ If a state's laws or regulations violate the Commerce Clause, as the provision is called, injured parties can challenge the law in court. Therefore, a possible commerce clause claim may loom.

In addition to a suit for violation of the Commerce Clause, industry could mount a claim challenging the process that will enforce the ordinances. The U.S. Constitution also prohibits a state from depriving any person of property without due process of law.⁷⁷ Given that genetically engineered crops and animals are property, any confiscation or

destruction of them will likely be considered a deprivation of property. Any legal inquiry into the sufficiency of process would examine whether the time to request a hearing is sufficient or whether the procedure of an appeal provides all opportunities for the affected party to be heard.

Conclusion

Consumer opposition to genetically engineered foods is increasing in the United States and around the world. The U.S. federal government continues to maintain the status quo, and states and localities are taking the lead to address citizen desire for legislation. Despite significant industry opposition, voters in California, the largest agricultural state in the U.S., are quickly moving towards banning the cultivation of genetically engineered organisms in their counties. The effects of this progressive approach to regulating genetically engineered agriculture will be far reaching, likely to affect the agricultural exports to the EU and Japan. The outcome of the votes this fall is unpredictable; however, the initiatives are one more sign that citizens want regulation that places the public's health and the environment before the biotechnology industry.

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