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Localizing control: Mendocino County and the ban on GMOs

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Abstract In March, 2004, the rural northern California county of Mendocino voted to ban the propagation of all genetically modified organisms (GMOs). This county was the first, and only, U.S. region to adopt such a ban despite widespread activism against biotechnology. Using a civic agriculture perspective, this article explores how local actors in this small county were able to take on the agri-biotechnology industry. I argue that by localizing the issue, the citizens of Mendocino County were able to ignite a highly effective, decentralized and grassroots social movement against which powerful, and well-funded, pro-biotechnology entities were unable to compete. The social problem of biotechnology was embedded in issues of mass concern to Mendocino County residents, such as democracy, equity, distribution of power, and corporate control over local life. The campaign was an arena for "local problem-solving activities organized around food and agriculture" (Lyson 2004, p. 103). However, though localizing this issue was key for generating a successful ban against the propagation of GMOs at the county level, the local orientation of the No to GMOs movement created a barrier for scaling-up and transferring this success to the wider anti-biotechnology movement.

Keywords Biotechnology · Civic agriculture · Localization · Re-localization · Social movements · GMOs

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Abbreviations

GMO	Genetically modified organism
GM	Genetically modified
DNA	Deoxyribonucleic acid

> From the perspective of civic agriculture, change is generated by social movements and is oriented toward community problem solving. Civically engaged individuals come together in local organizations and associations to solve the problems facing their communities. Shared responsibility for the common good drives the civic community (Lyson 2004, p. 78).

Introduction

On 2 March 2004, the rural northern California county of Mendocino voted to ban the propagation of all genetically modified organisms (GMOs). The campaign was intense; more money was spent on this measure, Measure H, than any single ballot measure in the history of Mendocino County. While the debate raged within the county, over airwaves and telephone wires, in newspaper print, public meetings, restaurants and cafes, many people outside the county watched the events with vested interest as well. Pro-biotechnology groups in Sacramento and Washington, D.C. were active spectators, and anti-biotechnology activists around the state and in others, such as Vermont and Maine, hoped Measure H would be an important victory for the wider movement. From the outset, Measure H was bigger than Mendocino County; this small county ordinance became important at a state, national and even international level, for both sides of the debate. At the same time, the

efforts in support of Measure H were extraordinarily localized; the fact that they were rooted so deeply in local concerns and local relationships was critical for its success.

Measure H proved to be about much more than biotechnology. It served as a lightening rod and a symbol of wider social and political issues, many of which reflect tensions between the conventional agricultural system and what Tom Lyson (2004, 2005) calls *civic agriculture*. Civic agriculture, Lyson defines, is "the embedding of local agricultural and food production in the community" (2005, p. 92; see also Lyson 2004). Civic agriculture not only serves as a source of income to farm families, but also creates a variety of benefits for communities including, as Lyson (2005) argues, strengthening local problem solving capacity. Measure H brought out concerns that pitted local against foreign and large against small, as well decried the power of the big corporations and "big money" in local politics and local agriculture. What happened in Mendocino County in the spring of 2004 exemplifies civic agriculture. There, local food and agricultural systems that were grounded in local communities and networks provided the resources that were critical for the creation of a successful movement. Community members identified and framed the threat from crop biotechnology as a social problem and engaged collectively to keep outside influences from undermining their control and involvement in how agriculture is practiced in the county.

What Lyson identifies as an increasing interest in a re-imbedding of agriculture in local spaces and communities has taken place at the same time as a period of strong resistance to the use of genetic engineering in food production. Despite this, however, there has been little concrete action in the United States, and arguably no legal or regulatory limits on the increasingly widespread use of genetic engineering in food and agriculture. What, then, happened in Mendocino County?

This article explores the events that led up to the March 2004 election, in which 57% of voters in this rural Northern California county voted to ban the propagation of genetically altered crops and animals. It seeks to explain how and why activists in this county were successful in standing up against some very formidable (and deep-pocketed) opponents. This article combines the social movements literature with a civic agriculture perspective. In this case, the local orientation of the civic agriculture perspective helps explain how a successful, albeit limited, social movement was generated. I suggest that Measure H was victorious within Mendocino County because it brought activism and resistance to agricultural biotechnology into a civic agriculture framework. The campaign for Measure H was grassroots, based in communities and strong social networks, and locally oriented. Because the food and agricultural system in Mendocino was embedded in local networks and communities, local activists and experts were able to mobilize widespread grassroots interest in what they framed as the threat that agri-biotechnology had for the county—not just in terms of the environment, but socially, politically and ethically as well. That is, because agriculture is embedded in local society, an agricultural problem was re-framed as a much broader social problem that county citizens were able to come together collectively to solve.

Despite this success as the local level, the strength of the "No to GMOs" campaign in Mendocino County was also a weakness when seen from the perspective of the wider anti-biotechnology movement. Because it was so oriented towards local concerns, and exploited local resources and strengths nearly exclusively, the movement surrounding the campaign in favor of Measure H was unable to travel across county lines to contribute to campaigns in different regions. The local orientation of the movement studied here prevented it from being successfully scaled up by others in similar campaigns.

Methods

This article presents a case study of the movement in Mendocino County to ban the propagation of genetically modified crops. Data are from archival and qualitative research that took place in late 2003 and the spring of 2004. The bulk of the data come from publicly accessible documents, such as ballot statements, data from the census and county clerk's office, press releases, campaign and stakeholder websites, and the "YesOnH" email list serve, as well as an extensive review of media coverage from local, state, and national news outlets. All data were compiled and coded by hand, by the author.

The archival sources are supplemented by observations made in Mendocino County in December 2003 and January 2004, as well as extended interactions with county residents. Research began with informal interactions with 13 county residents when I was initially in Mendocino County in December and January. I continued interacting with five of these initial informants after I left the county, and initiated contact with three additional informants. Informants were identified by a snowball sample. Data were gathered through semi-structured interviews and extended informal interactions conducted over the telephone, as well as through detailed questionnaires completed by one informant over email. Direct quotes in the following text that are not cited are from these informants.

For the most part, I found that data regarding the No-on-H campaign were relatively difficult to gather in comparison to the campaign in favor of the measure. For example, the opposition had little information on their website

(which was itself difficult to track down), and multiple attempts to contact leading opponents and campaign organizers went unanswered. None of my informants in Mendocino County were actively involved in the campaign against Measure H. As such, the data reported here pertain largely to the movement in favor of the ban on GMOs in Mendocino County. The difference in accessibility of information reflects, in part, the nature of the two campaigns. As discussed at length below, the campaign in favor of Measure H was decentralized and grassroots, whereas the campaign against the measure was very centralized and led by individuals outside of the county. In addition, as Scott et al. (1990) point out, this type of bias is relatively common with research on controversial issues, leading researchers to become, as they write, "captives to controversy." Though this limits my analysis, my main consideration is with the social movement in favor of the ban, its successes and limitation, and thus the strategy of the opposition is of relatively little import except as how it was perceived by county residents.

Because I was not present during the height of the campaign, I was also unable to observe first-hand in organizing meetings, rallies, and other events. My primary data, thus, is largely second-hand and relies on the memories of my informants, who were admittedly not oriented towards research but rather, in many cases, action. Furthermore, the primary data were gathered from a relatively limited sample of just 16 informants—hence the heavy reliance on other sources. In general, I have been able to triangulate using publicly available documents, media reports, and primary data.

Mendocino County

Mendocino is a rural county, located around 100 miles north of San Francisco along the Pacific Ocean. It was a retreat for people participating in the "back to the land" movement of the 1960s and '70s, and, more lately, for urbanites wanting to escape the San Francisco-Bay Area and Silicon Valley. Its primary source of income is agriculture. While in the past it has been known as a good apple-producing region, in recent years it has become quite famed for grape and wine production and is characterized by small, family-based vineyards and wineries. Of the population of 87,240 people, around 75% is Caucasian, 16% is Latino, and there is a sizable population of Native-Americans as well.[1] The county is not particularly wealthy; the most recent census reports that Mendocino County's per capita income, at $19,443, is slightly lower than the California average of $22,711, with 1.7% more persons below the poverty line than the rest of the state. However, this finding may be skewed by the persistence of both undocumented activity as well as undocumented migrants.

While grapes are the most important documented source of income, many residents of Mendocino County would agree that marijuana production is likely the biggest overall source of income for the county. As a county, Mendocino is rather unconcerned about the level of marijuana production; on the contrary, in 2000 Mendocino county residents voted to make it legal to grow a limited number of marijuana plants and to reduce the district attorney's enforcement priority of marijuana-related infractions. At the time research for this article took place, both the county's district attorney and the sheriff supported the decriminalization of marijuana.

Called a "famously counterculture region" (Garcia 2004) that is "proud of its eclectic politics [and] quirky independence" (CNN 2004), Mendocino has a history of progressive environmentalism. For example, in the 1970 Mendocino County residents voted to ban aerial spraying of chemical pesticides, a measure later disallowed by the state legislature (Geniella 2004).

Measure H

The official title of Measure H is "Prohibition of the Propagation, Cultivation, Raising, and Growing of Genetically Modified Organisms in Mendocino County," and as implied, this ordinance would make it "unlawful for any person, firm, or corporation to propagate, cultivate, raise, or grow genetically modified organisms in Mendocino County."[2] The measure carefully defines genetically modified organisms to include those whose "native intrinsic DNA has been intentionally altered or amended with non species specific DNA" but excludes organisms modified using conventional or hybrid methods as well as "microorganisms created by moving genes or gene segments between unrelated bacteria." The text of the measure and its explanation cite potential genetic pollution as the motivation for the measure. Measure H did not aim at regulating genetically modified bacteria or byproducts, nor did it aim to regulate the sale of or labeling of GM food and feed.

The authors of the ballot statement in favor of Measure H[3] argue that, with organic production accounting for about one-third of the agriculture in Mendocino County,

[1] See http://www.census.gov. There are undocumented Latinos in Mendocino County and these data, from the official 2000 Census count, likely underestimate this population.

[2] The entire text of the proposed ordinance is available at http://www.gmofreemendo.com.

[3] Cooperrider et al. (2004).

the potential losses associated with the risk of genetic contamination are particularly high. They suggest that by keeping the county free of genetically modified organisms, the county's products will become more attractive in Europe and Japan, as well as other places "where there is demand for food that is organic and pure" (Cooperrider et al. 2004). Furthermore, in the Rebuttal to the Argument Against Measure H, part of the official election information text, Craver et al. (2004) argue that US regulators do not adequately regulate genetically engineered food crops, and that the safety of human health and the environment cannot be assured during the release of these technologies.

In the Arguments Against Ballot Proposition Measure H, Bradford et al. (2004) argue that the measure could "intrude on privacy, cut vital community services, raise taxes and stall life-saving medicinal developments." Bradford, et al. ask voters "Does the government need to know what's growing in your garden?" with the intent—obvious to anyone from Mendocino County—of reminding voters what greater government involvement could mean to marijuana growers. They also, as in the rebuttal by proponents of Measure H, accuse the supporters of Measure H of using "fear tactics instead of science to decide for us that biotechnology is unethical" (Bradford et al. 2004). In other official documentation included in ballots, Miller et al. (2004) reiterate that Measure H could increase bureaucracy and raise taxes. They cite "scientific studies" that "have found that biotech crops are not more invasive or persistent than conventional crops," and assure voters that "Under the National Organic Program regulations, pollen from biotech crops would not cause organic farmers to lose certification." Miller, et al. also argue that the "use of biotech plants can reduce pesticide use," and identify a number of plant and animal diseases that could be remedied using biotechnology. Finally, they echo the major proponents of biotechnology and argue that Measure H would reduce our "ability to grow more food for a hungry world" (Miller et al. 2004).

According to the Mendocino County clerk,[4] 27,933 voters in Mendocino County voted in the election on March 2, 2004, representing 59.34% of registered voters and 32.01% of the population. All but 306 voters voted on Measure H, by far exceeding the number of voters on any other single ballot measure in that election. 56.99% of voters voted for Measure H and 43.01% voted against, passing Measure H into law.

Measure H heaped media attention on Mendocino County from around the state and the country. It was the second major legislative battle for the movement against biotechnology in the food system. The first, a state-wide measure in Oregon that would have required labeling of all genetically modified organisms in food, failed to pass in November of 2002 (Lau 2004). Thus, Measure H was significant for anti-biotechnology activists as well as those who advocate a precautionary approach to technological change. Activists hoped that Measure H would jumpstart a wider social movement, appealing to a larger public, and that this would be just the first victory of many. Biotechnology advocates were fearful of just that. Allan Noe, of the Washington-based trade association CropLife America, said: "We're concerned it could get some traction in other parts of the country… it would be a logistical nightmare…" (Calvan 2004). In the months and years after Measure H was passed, a number of other California counties were considering similar measures, and Vermont, Maine and Hawaii activists closely watched the events in Mendocino County as they prepared for their own versions of the battle.[5]

The making of a social movement

The debate of agricultural biotechnology, genetically engineered foods, and transgenic crops is active throughout the United States, and the issue is disputed on the international front as well. Many books have been written on the subject, including many that target a lay audience (Nestle 2003). Most oppose genetically modified foods, for both scientific concerns about safety as well as wider social issues. These books are kept company by a number of organizations that oppose the use of biotechnology in agriculture and food. Organizations such as Greenpeace, Union of Concerned Scientists, the Sierra Club and others have been very active and successful at creating public awareness campaigns that foster distrust of biotechnology activity. Activists have also managed to get at least 36 states to consider bills aimed at transgenic foods in some shape or form, though only Maryland has actually banned a transgenic food: transgenic fish in waterways that connect to other bodies of water (Nestle 2003).

Despite all this activity by civic organizations, the public in general has not responded strongly in opposition to the use of biotechnology in the food system. Though the attitudes people express about transgenic foods often depend on who is asking the questions, Nestle concludes that, in general, "Most people don't know very much about the scientific basis of food biotechnology but are intrigued by its promises… Although they are uneasy about the safety of the foods… they think the benefits likely outweigh the

[4] Data available at http://www.co.mendocino.ca.us.

[5] None of these other battles were successful. In fact, in the months and years after Measure H became law in Mendocino, a number of states passed laws making it illegal to limit the propagation of genetically engineered crops—making local-level attempts like those in Mendocino County futile.

risks" (2003, p. 169). However, the public does indeed distrust the ability of the government to adequately regulate transgenic foods, and doubt the biotechnology industry's ability to make decisions in the interest of the general public (*ibid*).

As we can see, agricultural biotechnology does raise a number of concerns for the public at large. Despite the efforts of many opposing activists, however, the general public remains relatively apathetic; these concerns are not great enough to spark action on their part. Still, while in the rest of the country the general public remains inactive, in Mendocino County agricultural biotechnology and concerns about the widespread diffusion of transgenic varieties were elevated to a social movement. How did Mendocino County activists raise the bar? What enabled activists in Mendocino County to make a mass movement out of something that was initially a problem to just a limited group? I argue that an effective social movement in opposition to biotechnology emerged in Mendocino County because it was oriented towards, and emerging from, locally embedded structures and networks. As quoted above, Lyson (2004) has argued that one of the characteristics of civic agriculture is that change happens through social movements. Community members engage collectively at the local level to solve shared problems. These movements are strengthened by locally embedded relationships and networks, which engender greater trust among residents. Adding the civic agriculture perspective to the social movements literature strengthens the interpretation of what occurred in Mendocino Country.

Social constructionism and social problems

Social constructionists suggest that social problems are not defined solely by the existence of a harmful condition, rather "what marks a given condition a problem is the 'collective definition'… of a condition as a problem…" (Goode and Ben-Yehuda 1994, p. 88). "[A] social problem exists primarily in terms of how it is defined and conceived in society" (Hilgartner and Bosk 1988, p. 53). Here I will use the constructionist definition of a social problem; clearly there are growing numbers of people who define agricultural biotechnology as a problem whereas the "experts" often dismiss these concerns as unfounded.

Using this approach, we define a condition as a problem when a group of people recognizes that something is wrong, when they are concerned about it, and when they take steps to correct it (Goode and Ben-Yehuda 1994). At some point, the social problem is elevated to a mass social movement when the concerns are judged well-founded by a larger public. Since resources, such as time and money, are limited, and people have a finite level of "surplus compassion" (Hilgartner and Bosk 1988), few social problems are taken up by a larger public. Those that are, as Hilgartner and Bosk (1988) argue, are often characterized by high levels of drama, in which facts are coupled with vivid, emotional rhetoric. They also tend to be novel, or employ techniques that constantly use new images or ways to present the issue to the public. Social problems that succeed in being elevated to a social movement also tend to be those whose definitions fit closely with broad cultural concerns (*ibid*). Typical themes of protest or controversy regarding science and technology include concerns of equity and distributive justice (i.e., who bears the potential cost of, and who benefits from, the new technology), fears of risk (which may be interpreted markedly different by the public and the "experts"), issues related to potential constraints on freedom of choice, and concerns of the violation of commonly held values (Petersen and Markle 1989). Furthermore, these themes overlap and interact; culture shapes the perception of risk, and risk can serve as a symbol for larger distributional conflicts, especially within the realm of biotechnology (Hoban 1995).

How do social movements arise? How do concerns move beyond "social problems" and become "social movements"? Goode and Ben-Yehuda define social movements as "organized efforts by a substantial number of people to change, or to resist change, in some major aspect of society" (1994, p. 116). It is a step beyond a social problem because of sustained efforts by a significant portion of "the public" to change the problem. It is the mechanism through which the public can effect change to society or policy.

Mazur (1981) proposes a three-step model for the origin and growth of a technological controversy (Petersen and Markle 1989; Hoban 1995). First, a warning is brought to the public attention. Second, the warning is heeded and groups of "operators" form, and the warning becomes a "premise" for a social movement (Goode and Ben-Yehuda 1994). Operator groups come together to form activist communities that center around the problem (Hilgartner and Bosk 1988). Activists make claims about the new technology and try to get these claims covered in the mass media. Finally, a mass movement emerges.

Social movements often do not emerge spontaneously, but require instead a set of operators, often professionals, who carefully craft social protest (Petersen and Markle 1989; Goode and Ben-Yehuda 1994). A single "moral crusader"[6] or group may serve an important role in creating the movement. The social problem is more likely to progress into a social movement if these leaders are considered credible, reliable, and respectable by the public at large (Goode and Ben-Yehuda 1994, p. 92). At the local level, such reputations are transmitted through networks of

[6] This term is from Goode and Ben-Yehuda (1994).

personal relationships. In Mendocino, because personal relationships crisscross across the county in a dense network, the reputations of credibility and reliability of social movement operators was spread widely and quickly, encouraging both trust and engagement.

Successful operators move a social problem away from a private concern and create a public movement. But not all social movements are successful at instigating change. In a study of 53 "challenge groups," Gamson (1990) investigated what characteristics led to greater likelihood of success of a social movement. Gamson found that there is some advantage to setting limited goals and working within a single issue-area. A second conclusion was that a centralized, bureaucratic group is more likely to avoid factional splits and achieve success.

In a study of the regulation of rBST in Canada, Jones (2000) assessed what enabled the anti-biotechnology movement to be successful in keeping rBST from entering the Canadian marketplace at that time. He argues that biotechnology firm Monsanto failed to present a stable image of the new technology, one that the public accepts as common knowledge or taken for granted in everyday life. Part of this failure involved issues regarding distribution of benefits. Farmers did not believe that they would benefit from the new technology and there were no expected advantages to the consumer. This led to the question of who benefits. A second issue related to a group of "renegade scientists" (Jones 2000) who managed to raise enough doubts about the human and animal health effects of rBST and to whom Monsanto failed to adequately respond. In the end, Jones argues, "Scientists and engineers lost the authority and trust which previously allowed themselves to appear autonomous and objective" (2000, p. 335). Trust in the experts was eroded so that not only was the usefulness and safety of the technology questioned, but the role of Monsanto was questioned as well. The social construction of rBST in Canada was no longer defined solely by questions of scientific outcomes, but increasingly social issues of equity and distributive justice became important as well.

The civic agriculture perspective adds to this literature on social movements an emphasis on *place* and *localism*. Lyson (2004) finds that when agriculture is embedded in local communities, "a concern with environmental conditions fosters a problem-solving perspective that is site-specific and not amenable to a 'one size fits all' mentality" (2004, p. 86). When food and agricultural systems are integrated into social, political and economic systems, solutions to agriculture-related social problems that are locally oriented are more likely to be appropriate and accepted widely—and thus more likely to inspire widespread grassroots involvement. Strong, locally embedded relationships and networks can spread trust in the credibility and reliability of activists and operators. When trust in these operators is particularly high, local actors are more likely to rely on information from these sources than from external experts.

However, this emphasis on localism points directly to one of the weaknesses of such social movements—and with civic agriculture more broadly. The strength of localism is exactly its weakness when it tries to link up to broader movements. Because solutions are so site-specific, because the movement relies on locally embedded networks to instill credibility of social movement operators, and because this issue reverberates with distinctly local concerns, the success of Measure H was unable to be extended into movements elsewhere. Further, Measure H was successful in Mendocino because the county has a unique set of institutional structures that supported civic engagement around such an issue; the success of such civic involvement is highly dependent on these institutions.[7] Not all counties have such a set of institutions, making it difficult to extend the momentum of Measure H, or the expertise of its operators, to other sites. The anti-biotechnology momentum stopped at the county line.

The social movement in Mendocino County

The movement to ban the propagation of genetically modified organisms in Mendocino County began when a group of like-minded people gathered to discuss a problem. At a meeting of the Mendocino Organic Network in the winter of 2001–2002, founding member Els Cooperrider discussed with her peers the fact that the local natural food store sold products that included genetically modified ingredients but which were not labeled. People were unable to avoid consuming transgenic foods, even if they wanted to. Since warnings about the health and environmental safety of genetically modified products had been raised both domestically and internationally, this seemed to warrant considerable concern. To the members of the Mendocino Organic Network, GMOs in the food supply and environment at large was a problem.

Once the problem was defined, the group turned their concern to what to do about it. They discussed labeling, but recognized that attempts around the country had failed to get regulators to require labeling of transgenic foods. As part of the discussions about what to do about this problem, one group member noted that "While people are trying to pass GMO labeling laws, the biotech corporations keep planting more and more of them." This helped redefine the problem they were facing, and the group decided that they should try to "ban the growing of GMO crops altogether,

[7] Abel and Stephan (2000) make this point in relation to civic environmentalism.

and worry about labeling later." They called the project GMO Free Mendocino. With that, the group incorporated the problem of transgenic foods into their collective agenda and agreed on their first action to address the problem.

GMO Free Mendocino project members began establishing a network of people and organizations willing to support and work within the project. Here their cause benefited greatly by the previous campaign experience of project leader Cooperrider. Not only did she personally know many influential people around the county—the popular sheriff, for example—who she got to endorse the measure, but she herself is well known throughout the county as both an activist and radio show host. More importantly, she was trusted; informants indicated they thought the involvement of Cooperrider was key to the success of the campaign, and expressed confidence in Cooperrider, her track record, and her judgment. In this sense, Cooperrider served as Goode and Ben-Yehuda's (1994) "moral crusader," and, as they suggest, she was instrumental to the success of the campaign.

In the beginning, the GMO Free Mendocino project included the Mendocino Organic Network and other organizations and groups of activists, some of which fall within Petersen and Markle's (1989) professional movement operators. Some of the people who joined the project early were locally known scientists or residents with extensive science background.[8] These included Allen Cooperrider (PhD, Zoology) and Marc Lappé (PhD, Experimental Pathology), who, although they are not necessarily directly involved with research on biotechnology or transgenic food, instilled trust in the scientific basis for the claims made in the proposition and by its proponents. In fact, Dr. Lappé can be characterized as one of Jones' (2000) "renegade scientists," such as those that were instrumental in eroding Canadian trust in biotechnology "experts." Lappé is not only known locally, but has written articles questioning the safety and innocuousness of agricultural biotechnology as well as a pioneering book critiquing the use of genetically engineered seed crops, co-authored with another county resident (Bailey and Lappé 1998).[9] With this network in place, project leaders set to the task of writing the proposition, seeing to its legal strength, and gathering signatures in its support.

By December, 2003, the proposition had received the 4,000 required signatures and was submitted to the county supervisors. At this point Measure H supporters faced the first attempts by opposition to quash the proposition. On December 19, the California Plant Health Association, a trade association representing biotechnology and agricultural chemical companies, filed a lawsuit attempting to change the language of the proposition or prevent it from being printed. Their attorneys argued that since transgenic grapes were not yet available on the market, the supporting statements on the ballot could not claim that genetically modified plants could cause Mendocino County wineries to lose markets in Europe. However, it was revealed that over thirty proposals for laboratory trials of transgenic grapes in California had already been received by regulators. The Superior Court judge allowed the original language in the ballot statement to stand (PANUPS 2004; Due 2004) and the proposition was placed on the ballot for the upcoming election. As one campaign leader opined, this was the moment when the GMO problem became a social movement, with more widespread involvement by county residents.

The ruling allowing the language of the ballot measure occurred in late December, and January and February brought heated campaigning on both sides. It was soon clear that the activity surrounding this proposition was unlike that of any other in the experience of Mendocino County. The most notable difference was the amount of money spent in the campaign process. Relatively large sums of money (especially considering that this concerned a local measure in a small county) were made available to the No-on-H campaign, most of which came from CropLife America, a consortium of biotechnology companies, including Monsanto, Dow, Du Pont and Syngenta, which is based in Washington, D.C. By the day before the election, the No-on-H campaign had collected over $620,000, of which $600,000 came from CropLife America. Only $5,000 of this amount was raised from sources within Mendocino County. Final reports suggest that in total, opponents ended up raising over $700,000 to defeat Measure H (Lucas 2004). This was over five times greater than the amount available to the Yes-on-H campaign. GMO Free Mendocino project leaders were initially hoping to raise $40,000 but actually ended up raising $135,000 by the end of the campaign. While some of this was from sources outside the county, including the Washington, D.C. based Center for Food Safety, which contributed $23,900, and the Organic Consumers Association, which contributed $11,500, the majority of funds raised by the proponents of Measure H came from local residents and businesses in the form of 1,500 separate donations of $5 to $100 (Jacobs 2004; Organic Consumers Association 2004).

The GMO Free Mendocino project was not completely unprepared for the involvement from the outside. As mentioned above, in November of 2002 an attempt in Oregon to require labels on all food products that had genetically modified ingredients was defeated with high

[8] As the county is quite small, these individuals and their professional and educational backgrounds, or at least their reputations, are quite well known.

[9] See the website for the Center for Ethics and Toxics, where Lappé was Executive Director until his death in 2005, for more information at http://www.cetos.org.

levels of outside involvement. Food and biotechnology industry representatives, such as CropLife International and the Grocery Manufacturers of America spent over $5 million fighting the proposition, Measure 27. In the end, Oregonians voted to refuse the legislation with 73% against, and 27% for despite initial polls suggesting the public favored the labeling law (Barnard 2002). This was a big defeat for anti-biotechnology activists, since Oregon is considered one of the "greenest" and most organic-friendly states (O'Neill 2002). The experience in Oregon made people in Mendocino aware of the willingness of the biotechnology and food industries to pull out all the stops to defeat any attempt to reduce their market.

Recognizing this, the GMO Free Mendocino project took every effort to create a well-organized and efficient Yes-on-H campaign. A Campaign Coordinator position was funded by the Mendocino Organic Network to coordinate the final 3 months of the campaign. This position was filled by local resident Doug Mosel, and required a great commitment on his part. Campaign leaders divided the county into nine areas, and designated an Area Coordinator for each. These coordinators had the freedom to manage the campaign as they saw fit, each setting their own goals for fundraising, advertising, public forums and endorsements. In addition, seven groups were established to handle media, fundraising, legal issues, advertising, and so forth. Each group was lead by a volunteer with experience or expertise in the area. These committees met every week in a local pub owned by the Cooperrider family, which helped to encourage more participation of volunteers. As election-day grew near, some committees began meeting every day. At any given time, there were between 150 and 200 local residents working on the campaign. Overall, project leaders stuck to a simple, positive message: Keeping Mendocino County free of GMOs is good for the environment and the health of local citizens, and will strengthen the county's economy.

The campaign was very decentralized, and was a grassroots effort. Unlike what was found by Gamson (1990) in the early part of the century, Measure H supporters found decentralization to their advantage. As Irvine (2004) reported in February, Measure H activists

> do not insist on the "designated spokesmen" as being primary or sole sources of information… Not only are there more spokesmen, they are autonomous and independent. They don't have to funnel questions to a centralized, designated spokesmen. As a result, they can respond more quickly and more efficiently to media and other inquiries. This has made it easier to spread the anti-biotech message.

Cooperrider explained: "There was freedom for people to do what they thought was best to bring votes in their communities" (Lucas 2004). This not only enabled the proponents to respond quickly in the media, but it also capitalized on local knowledge, resources, and understanding of what people in individual communities might respond to.

In contrast to the campaign run by the GMO Free Mendocino project, Citizens Against Measure H ran their campaign from Washington, D.C., with relatively few local residents as spokespeople and with the campaign strategy being devised by people who did not necessarily understand the workings of the county. Their approach was to emphasize that Measure H was poorly written, would cost the taxpayers money to enforce, and would impinge on the privacy of county residents. They did not particularly emphasize the virtues of biotechnology in their campaign materials (Kupfer 2004a). Part of the $700,000 the Citizens Against Measure H had to work with went towards comprehensive advertising coverage on all commercial radio stations in the county, mass mailings, and newspaper advertisements. But a large chunk of it—at least half—was spent outside the county on market research, consultants, campaign and legal advisors, and out-of-state firms that telephoned households county-wide. Measure H campaigners called these telephone calls "push-poll" calls (Hamburg 2004), since the call is framed as an information-gathering poll, but aims more at molding residents' opinions with the pro-biotechnology message while appearing as if it comes from an objective party.

There were other concerns about "unethical" tactics by the opponents of Measure H. In a letter to the editor that was forwarded to the "YesOnH" list serve, the chair of the Mendocino County Democratic Central Committee decried "a phony mailer that says the Democratic Party wants you to vote no on Measure H." The Democratic Committee had voted to support Measure H, she wrote. She called the mailer "deceptive," saying that such a "political scam is unethical." It was also rumored that early on in the campaign opponents to Measure H organized what were referred to as "focus groups," in which supporters of the measure were paid up to $100 to attend meetings aimed at changing their minds and encouraging them to vote against Measure H.[10]

As the election drew nearer, a number of themes emerged as key arguments against agricultural biotechnology and for Measure H. Similar to what Hoban (1995) saw in the movement against rBST in Canada, the risks associated with cross-pollination—the initial impetus for the measure as well as the main reason given in the ballot statements—became overshadowed by wider social and

[10] This information comes from my interviews with a local resident who claimed to know of two people that were paid to attend such meetings. I was unable to confirm this from them directly.

ethical issues. These include concerns about the distribution of the benefits and risks associated with transgenic crops, anti-corporate sentiment, mistrust of the opposition campaign that was both funded and run by forces outside the county, as well as a bad taste for "big money" trying to bowl over small-time politics. The news media cited many residents likening the debate over Measure H to a "David and Goliath kind of issue" (Pogash 2004). These issues are very important to Mendocino residents, perhaps even more important than concerns over GMOs. For example, while the proprietors of a local winery first opposed the proposed ban because they felt like it was an unwarranted assault on science, they ended up siding with the proponents of Measure H when corporate contributions created what they felt was a lopsided debate (Pogash 2004).

For many residents of Mendocino County, all of this boiled down to one thing: democracy, and in particular, power in the hands of local people. When Measure H was passed, there was a sense among Measure H supporters that democracy had prevailed in uncertain circumstances. As Yes-on-H Campaign Coordinator Doug Mosel said after the election:

> This is a great day for local democracy… It is an example of local government at its best… In our present climate of corporate domination of the food system this is a reclaiming of responsibility for agriculture at a local level. This amazing local campaign demonstrated where transnational corporations are vulnerable. No amount of money can replace the love and commitment of people who care passionately about the place where they live (Kupfer 2004b).

Lessons from the movement

The success of Measure H in Mendocino County was the result of a combination of factors, some of which could be adopted anywhere and some of which are unique to the area. In terms of what other activists might be able to learn from this experience, there are a number of factors that proved key in the campaign. First, the GMO Free Mendocino project reached out to a wide community of activists and allowed each individual to participate to the extent that they were willing and interested to. This decentralization not only encouraged participation and increased the reach of the campaign, but it also gave the campaign a certain agility in responding to inquiries or attacks, as well as knowledge of the appropriate public, something that was lacking in the campaign of their opponents. Second, the campaign used "renegade scientists" wisely and managed to erode the trust in the conventional line regarding the safety of transgenic crops. Finally, Measure H supporters framed the issue of biotechnology in a way that resonated deeply with social and ethical issues of particular import to local residents. The themes that emerged in Mendocino County, such as democracy, anti-corporate sentiment and local control, were important "stations" at which risk-related concerns about biotechnology were amplified (Hoban 1995), but are not necessarily the issues that will be important elsewhere. As suggested by Hilgartner and Bosk (1988) the culture of an area is particularly important in the definition of social problems. Local control over the definition of the problem, and over what steps are taken to seek a solution, is an important part in creating an issue area that local people feel strongly about and are inclined to participate in.

While these lessons may be applicable nearly everywhere, there were a number of factors specific to Mendocino County that played important roles in shaping the debate over Measure H. First, given Mendocino County's reputation as "famously liberal, even radical" (Due 2004), if such a measure could succeed anywhere it would be there. People in Mendocino County are particularly open to alternative lifestyles and ideas, but are critical of anything, as a local GMO Free Mendocino leader quipped, that "smacks of oppression." As long as resistance to biotechnology remains part of the counterculture, activists elsewhere will have to contend with a public that may not be as liberal-minded as that in Mendocino County.

Second, as a particularly progressive and active county, Mendocino is home to a number of institutions that were available to Measure H supporters. These include the local public radio station, KZYX, which was helpful in announcing campaign events, news items and keeping everyone informed. It also aired programs hosted by local residents in which guests (some were renegade scientists) shared information related to agricultural biotechnology and listeners could call in with questions. Since this required local participation rather than money, and since the radio station is generally sympathetic to liberal causes, this was a resource that the Yes-on-H campaign was able to exploit but which was unavailable to their opponents. Other institutions included Ukiah Natural Foods, the cooperative market in the county seat and Mendocino's largest city. Not only did the co-op donate to the Yes-on-H campaign, but it also encouraged shoppers to donate their member discounts, which raised an additional $7,000 as well as increased awareness for the cause. One of the United States' only all-organic restaurants, the Ukiah Brewing Co. and Restaurant, owned and operated by Cooperrider's family, was an important meeting place, which attracted many volunteers by making involvement pleasant and easy. These two spaces, the co-op and the pub-restaurant, proved important facets of what Tolbert et al. (1998); see also

Lyson (2004) have called "local capitalism" which provides spaces for civic engagement and collective problem solving. Finally, at the height of the campaign a local alternative monthly newspaper devoted an entire issue to the politics of food, concentrating on transgenic foods. This served to raise awareness countywide, and to alert people as to what they could do to get involved. While other areas may have similar institutions, the plethora of organizations and institutions willing to actively support Measure H was certainly very important in their success.

Finally, something that was particularly important from the beginning was the extent to which organic food and agriculture is important to both producers and consumers of agricultural products in Mendocino County. The risk of cross-pollination is heightened for organic producers, since it could jeopardize the premium payment that producers receive for being organic. This is particularly important given wine producers' interest in marketing their products in Europe. "Genetic pollution" could not only jeopardize their organic premium, but might jeopardize a key market as well. This served to unite many different sorts of actors in Mendocino; in particular, it brought much of the agricultural sector together with organic consumers and activists.[11] This also added a sense of legitimacy to the cause.

Measure H in Mendocino County set an important precedent and served to inspire and give confidence to anti-biotechnology activists around California and beyond. These social movement operators will likely learn much from the experience of the GMO Free Mendocino project. Activists from over 10 California counties contacted project leaders for support and advice in anticipation of their own measures banning GM crops. Measure H supporters were happy to comply with requests for help; in April, 2004 they hosted delegations from nine counties and briefed them on what worked well and what did not. However, none of these counties managed to get their own version of the measure passed.

Conclusions: civic agriculture in Mendocino County

Measure H in Mendocino County came to be about much more than agricultural biotechnology and genetically modified organisms. In the months before the election, it became clear that Measure H was about much bigger, and more abstract, issues, such as democracy, local control, hierarchies of power, distribution of benefits and risk, and corporate involvement in local spaces. The Yes-on-H campaign was, as Lyson outlines as the defining feature of civic agriculture, an arena for "local problem-solving activities organized around food and agriculture" (2004, p. 103). This effort was part of a larger civic agriculture counter-trend that is critical of the tendency that places control over food and agriculture "primarily with powerful and highly concentrated economic interests, and not with local communities or even government" (Lyson 2004, p. 102). Measure H was part of the efforts around the country to undo the perceived effects of conventional processes and to relocalize parts of the food and agricultural system (104). Not only was Mendocino County Yes-on-H activity oriented toward such a relocalization—keeping local control over local agriculture—but the fact that agriculture and food still remains largely embedded in society in Mendocino County gave activists a common culture to draw upon. Local ownership over different aspects of the food system—such as the co-op and local restaurants where activists met—created spaces for civic engagement. Locally owned and operated farms contributed to creating a network of citizens who were concerned with how agriculture affected social outcomes and the environment, and who recognized the asymmetries in the distribution of power. A region in which local people are locally employed, and locally engaged, created a network of folks who could be mobilized to address collective problems. These factors came together to transform individuals, as Lyson writes, "from passive consumers into active food citizens" (2004, p. 77).

The lesson from the success of Measure H in Mendocino County is that abstract concerns must be made relevant to local people in order to mobilize them. In Mendocino, this required trusted, local people using site-specific knowledge to frame GMOs a way that resonated with county residents. Broadening this movement beyond the boundaries of the county would have to incorporate not only the issues and concerns of that area into which the movement seeks to expand, but also utilize local people, with their site-specific knowledge and networks. But because it was so site-specific, the appeal of the movement surrounding Measure H was limited in other areas. In the end, the movement failed to scale-up. It did not forge a strong enough link to national level actors or institutions that could help keep the momentum of this success alive. Localism and site-specific knowledge, networks, and solutions were not only the cause for the success of Measure H, but were also the key to its inability to move beyond the county line.

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[11] Not all agriculturalists were so inclined; the county Farm Bureau did not support Measure H.

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