



Audits and agrarianism: The moral economy of an alternative food network

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Abstract

With consumers and producers seeking alternatives to corporate, industrial food, systems of provision that promise greater ecological and social sustainability have gained in popularity. As these Alternative Food Networks (AFNs) scale up and go mainstream, both scholars and the general public want to know who is holding them accountable to their purported goals. In response to such questions, previously informal designations – such as organic – have become formalized, standardized, and institutionalized, and new certifications and business models promise improved traceability and transparency. I suggest, however, that successful alternative food networks – those that deliver on their promises of social and ecological sustainability – may be governed primarily by broad-based moral economies and support networks, and only secondarily by specific certification schemes or value chain quality control. Drawing on ethnographic research with a values-based supply chain on the northern Great Plains, I find that what creates incentives for sustainable practices and holds farmers accountable is less the regulatory component of certification or contractual stipulations of the value chain than the peer review aspect of belonging to the self-organized community that participates in these initiatives. While the organic certification process and values-based supply chain provide vehicles through which the moral economy of sustainable agriculture can operate, the moral economy itself precedes the notion of organic standards, dating back three generations to early twentieth century wheat pools. Since community formation and standard formation are achieved in very different ways, these findings have significant implications for policies aimed at encouraging transitions to more sustainable agricultural practices.

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Knowledge Domain

Sustainability Transitions

Article Type

Research Article

Part of an *Elementa* Forum

New Pathways to Sustainability
in Agroecological Systems

Received: May 5, 2015

Accepted: August 15, 2015

Published: September 16, 2015

Alternative food networks: A brief literature review

As Goodman et al. (2011) explain, Alternative Food Networks (AFNs) are “new economic and cultural spaces for the trading, production, and consumption of food” (4). Farmers markets, community supported agriculture (CSA), farm-to-institution, direct marketing, cooperatives, certified products, and fair trade all fall under the ambit of the term. What these diverse AFNs share in common is their “constitution as/of food markets that redistribute value through the network against the logic of bulk commodity production; that reconvene ‘trust’ between food producers and consumers; and that articulate new forms of political association and market governance” (Whatmore et al., 2003). Thus, rather than reforming mainstream agribusiness, AFNs seek to provide a viable alternative marketplace grounded in a broader notion of value that includes non-monetary goods. Jarosz (2008) outlines three ways in which AFNs distinguish themselves from industrial provisioning: 1: shorter distances between producers and consumers; 2: small farm size and scale, often in tandem with organic or holistic farming methods; and 3: commitment to social, economic and environmental dimensions of sustainable food production, distribution, and consumption. As both a descriptive term used by practitioners and activists and a social science concept with a robust literature, “Alternative Food Network” (AFN) draws on many constellations of meaning, particularly with respect to the term network. Two of the more prominent genealogies are those traced by Goodman & DuPuis (2002) and Reynolds (2004). Goodman & DuPuis figure AFNs as knowledge systems, using this framework to bridge the sociology of food with agro-food studies, and pairing farmer network studies with consumer knowledge network analysis. For these authors, AFNs thus move beyond those radical frameworks that see politics only in the sphere of production, foregrounding food as “an arena of contestation rather than a veil of reality” (21). For Reynolds,

similarly, AFN scholarship follows a “commodity network approach,” which builds on the global commodity chain tradition and its focus on governance, while drawing also on consumption studies, network analysis, and convention approaches. As Goodman et al. (2011) point out, AFN scholarship also relies heavily on the feminist concept of relational networks: both DuPuis (2002) and Friedmann (2007) describe the AFNs they study as communities of practice.

Academic AFN literature has been strongly divided between celebratory and critical studies. Celebratory studies describe AFNs as pre-figurative political forms that provide templates and spaces of possibility toward food system transformation (Kloppenborg et al., 2000; Lyson, 2004; Hassanein, 1999). Critical studies, beginning with exposés of organics’ conventionalization (Guthman, 2004), note the mainstreaming of AFNs and see them reproducing, rather than contesting, existing political economic structures (Guthman, 2007; Brown and Getz, 2008). More recently, such scholars have further criticized AFNs as exclusionary (Guthman et al., 2006), raced, and elitist (Pudup, 2008; Alkon and McCullen, 2011; Slocum, 2007). This strong divide between hopeful scholar-activism and social critique has produced a vigorous, at times vitriolic debate, centered largely on the issues of commodity fetishism and political consumerism. While scholars in the celebratory camp see AFNs as a means of re-embedding commodities within social relations, critics tend to see them as an extension of commoditization and property rights. What are AFN premiums, Guthman relentlessly asks, but another form of property? Similarly, activist scholars see ethical consumption as a potential vehicle for social change, while critics see the move to consumer politics as cynically neoliberal. The second debate has played out most forcefully between DuPuis (2000) and Buttel (2000), who differ on whether the organic consumer is a true political actor, and between Allen and Guthman (2006) and Kloppenborg and Hassanein (2006), who debate whether the farm-to-school movement reproduces consumer-subjects or represents a powerful lever for democratic food system change.

These battles, however, have left several scholars (including many of the parties to such debates) seeking middle ground. Goodman et al. (2011) attempt to create such middle ground by drawing on scholarship that conceives social change not in utopian terms, but in terms of continual conversation and struggle, foregrounding reflexivity (DuPuis, 2002), knowledge practices and horizontal networks (Hassanein, 1999; Kloppenborg, 1991; Bell, 2004; Rosset et al., 2011), and countermovement, dialogic, or dialectic alterity-from-within (Polanyi, 1944; Bell, 2004; Mooney, 2004). Distancing themselves from ideal-typical models of liberatory politics, Goodman and DuPuis (2002) simply ask whether actors affect the future form of society. This approach encourages a move away from ideal-typical forms of good food that too often result from celebratory accounts. Instead, Goodman, DuPuis and like-minded scholars call for more process-based, relational understandings that recognize AFNs as unfinalizable (Bell, 2004), contested (Mooney, 2004), imperfect (DuPuis, 2002) – and yet powerful. Good food itself may not change the world; but the embedding and socializing processes it initiates at small scales create openings to both hopeful political geographies and materially effective economic geographies. These many small acts, Goodman et al. (2011) find, expose the limits to capitalism, transforming people and relationships in ways that can jump scales and create room for maneuver within markets. Joining this relational turn, Jarosz (2008) emphasizes that “AFNs are not a ‘thing’ to be described, but rather emerge from political, cultural and historical processes,” to which scholars must attend” (1). Furthermore, as Qazi and Selfa (2005) note, their form is geographically specific in important ways.

Following this call for a more ethnographic and contextual understanding of how alternative food networks function, as well as a middle road between boosterism and cynicism about their possibilities, this article analyzes the deeply social governance of a values-based supply chain on the northern Great Plains. This study is deliberately geographically specific, and should not be extrapolated to comment on the specific dynamics of AFN governance writ large. Rather, when considered alongside the work of the scholars cited above, the geographically situated findings described below suggest that the deep political history of a place is critical to understanding the possibilities for AFNs everywhere.

Moral economy: A key conceptual basis for understanding alternative food network governance

To describe the social root structure of successful “aboveground” alternative food initiatives, I draw on a concept originally developed within the field of peasant studies: moral economy. This term was introduced in 1971 by British political economist E.P. Thompson, in a study of eighteenth-century English food “riots.” Countering popular perceptions of hungry mobs, Thompson found that “rioters” were driven less by acute hunger than by an underappreciated form of political mobilization. He defined this underlying moral economy as “a popular consensus as to what are legitimate and what are illegitimate practices, grounded upon a consistent traditional view of social norms and obligations, of the proper economic functions of several parties within the community” (79). When English law abolished regulation of grain markets and prices in favor of free trade, Thompson found, popular memory of the old order remained so strong that “rioting” crowds insisted they must enforce the law because authorities would not. These vigilante actors did not need a high level of organization, Thompson explained, because their disciplined, coordinated demonstrations resulted from

a consensus of support in the community and an inherited pattern of action with its own objectives and restraints. The tactics and targets of the English crowd demonstrated a sophisticated analysis and unified objective, Thompson argued, as well as a clear belief that unscrupulous profiteers put themselves outside society.

Thompson's term has subsequently been taken up by many food system analysts as a way of conceptualizing not just practices of resistance but also the organization of production in particular places. Based on research in Indonesia, Thompson's contemporary James Scott (1977) found that moral economies arise in smallholder agriculture because producers are faced with subsistence risks that help to create social systems of mutual assistance and "tolerable exploitation." Dutch scholar Jan Douwe Van der Ploeg (2009) would later translate the concept as "local cultural repertoires," provocatively suggesting that this key element of the peasant mode of production prevails even in several surprisingly "modern" contexts. At its core, then, the theory of moral economy emphasizes that resource governance is a matter of social negotiation, and that even state-backed laws and powerful elites must draw on popularly-held notions of legitimate practices.

The case study: A values-based supply chain on the northern Great Plains

This article is based on a case study: a values-based supply chain (VBSC)^[1] on the northern Great Plains. Since the homesteading era, the agricultural economy of this region has been based on wheat and barley, which came to be farmed more intensively and industrially over the course of the twentieth century. Problems with the grain monoculture system were evident early on: encouraged to plant wheat by railroad magnate James Hill (who was in the business of shipping it), early Montana settlers were distraught when a 1917 drought devastated their crop, taking 2 million acres out of production. The Dust Bowl and the Depression resulted in the exodus of 11,000 Montana farmers and folded half of the state's banks. Still, farmers continued to self-provision with foods other than grain and supply local dairies and groceries: In 1950, seventy percent of the food Montanans ate was grown in the state. This changed over the course of the next three decades, with the advent of synthetic nitrogen fertilizers and the herbicide 2,4-D. Encouraged by Nixon-era Secretary of Agriculture Earl Butz to plant cash grain from "fencerow to fencerow," Montana farmers largely obliged, eliminating milk cows, chickens, kitchens gardens, and people themselves from the landscape, in favor of more intensive wheat and barley. By the 1980s, the environmental and economic consequences of this chemically-supported grain monoculture had become impossible to ignore: By 1983, US farm foreclosures would reach their highest levels since the Depression, and again, two million acres of Montana farmland ceased production. One major reason was loss of topsoil: in 1981, Montana posted the worst soil erosion numbers in the US, which was, by one estimate, losing three billion tons of topsoil a year (Carlisle, 2015).

In 1986, concerned about the future of their farms and communities, four Montana farmers formed a values-based supply chain (VBSC) to create a market for ecologically appropriate rotation crops (mostly nitrogen-fixing legumes) to support the survival of family farms and the development of sustainable organic systems in the region. This small processor/marketer contracts with a loose network of 15–20 producers, whose farms range in size from a few acres to nearly 10,000, but typically include about 1,000–2,000 acres of cropland.^[2] By design, no producer grows exclusively for the VBSC. Rather, growers market high value rotation crops through this supply chain in order to support diverse operations that include other enterprises, such as animal agriculture and direct market produce. On a small but economically and environmentally significant scale, members of this VBSC have replaced unsustainable industrial grain monoculture with low-input, biologically diverse farming systems based on legume fertility, complex crop rotations, cover cropping, and ecologically appropriate crop selection (Figure S1, Figure S2, Figure S3) (Carlisle, 2014, 2015). Both the VBSC and its farmers have survived economic and climatic shocks that bankrupted their neighbors, and as a result, some of their neighbors have come to change their practices. A particularly good indicator of this shift is the increase in acreage of a key nitrogen-fixing rotation crop promoted and marketed by the VBSC, lentils. In 1987, when the VBSC was formed, just 1,979 acres of lentils were harvested in the state of Montana, on a total of 30 farms. These figures increased to 2,496 acres on 33 farms (1992), 12,758 acres on 67 farms (1997), 21,822 acres on 79 farms (2002), and 87,797 acres on 206 farms (2007). By 2012, harvested acreage had grown to 198,741, on a total of 438 farms (USDA, 1987, 1992, 1997, 2002, 2007, 2012).

Methods: Investigating a supply chain and its ecosystem

To find out how this VBSC works, I undertook research typical of a supply chain study: I conducted interviews, surveys, and field visits with each producer, as well as the full staff at the processing plant and several downstream buyers. However, I also supplemented these methods with a more systems-oriented approach, aiming to understand the VBSC as the product of its connections and relationships, including those not formalized by market transactions or contractual ties. I used snowball sampling to identify the diverse network of non-governmental organizations, university-based researchers, socially responsible investors, current and former agency personnel, and non-affiliated producers key to VBSC governance. In all, I completed in-depth interviews with 25 growers, 15 other members of the VBSC,^[3] and 12 technical assistance personnel.^[4]

I also attended several organic inspections, farm tours, VBSC field visits,^[5] workshops, and work parties as a participant-observer. I conducted most of this research during the 2011 and 2012 growing seasons, but follow up has continued through 2015, and I have been in contact with members of the VBSC since 2008, when I was employed as an agriculture and natural resource policy staffer for a United States Senator.

To better understand the social governance of this VBSC, I sought to identify how and whether the community involved in the VBSC constituted or participated in a moral economy. Did they participate in social systems of mutual assistance? Did they share common notions of social norms and obligations, common understandings of legitimate and illegitimate practices? If so, how were such community norms communicated and upheld, and at what scale? To get at these questions, I asked producers these two questions, in both surveys and in-person interviews: “Which of the following best support you in your sustainable farming practices? Which best hold you accountable to your sustainable farming practices?” I offered a laundry list of options, informed by previous fieldwork.^[6]

Fifteen farm households responded to this exact question in a qualitative interview, and seven of these also quantified their answers in a follow up survey completed online.^[7] In addition, nearly all of the other 37 producers, VBSC actors, researchers, and technical assistance personnel I interviewed commented on this point, though not in response to the exact question and list of choices referenced above (largely because many of these interview subjects are not currently commercial producers themselves).

I was not interested in a ranking of most to least important variables, so much as the complex relationship among various sources of support and accountability. To further uncover the dynamics of this moral economy and read between the lines of interview responses, I asked follow-up questions, attended key group activities as a participant-observer, and conducted archival and oral history research on agrarian populism in the region.

Results: Sources of support and accountability for members of an agroecological values-based supply chain

Personal values: “You have to be in the right frame of mind”

Both survey and interview responses highlighted personal values as the most important source of support and accountability for members of the VBSC.^[8] “For me it was a moral thing,” one producer explained. “This is the way it should be done. You shouldn’t be selling chemically aided food to people - that’s just not right in my mind - and you shouldn’t be polluting the environment with chemicals.” Similarly, a farming couple with young children described the afternoon their son came home from an agricultural demonstration day talking about safety practices to avoid getting toxic herbicides on his hands. “He asked me,” his dad recalled, “if you can’t put it on your hands, how come they can put it on your food?” One of the first crops this family had planted on their new organic farm were chemical-free potatoes that they planned to sell cheaply - or even give away - to the school district, for use in their kids’ hot lunch.

In fact, the only respondent who did not cite personal values as a critically important factor in supporting his operation was a relatively recent participant in the VBSC, who was dropping organic certification on all but a few acres of hay. This producer admitted to being more premium driven, rather than philosophically committed to changing agriculture, and had reached a point at which other market opportunities seemed to offer a better net gain, at least for the moment. Other interviewees told me that several such farmers had come and gone from their community over the years. “Green” premiums go up and down, they explained, so economic motives and technical sources of support were not sufficient to sustain a commitment to agroecological practices. You had to believe in it.

Personal values were characterized as important not only in absolute terms, but as a necessary complement to other forms of governance. “It’s a lot just visiting with other farmers,” said one producer, of his sources of support and accountability, citing two fellow producers who have provided him with information, an example to follow, and mutual aid. “But none of that is worth a damn unless you’re in the right frame of mind to do it.” Another producer explained that decisions characterized as strictly economic rely on a deeply philosophical question: how one understands the basis of their economy. “As I see it, we’re a part of our environment, and I think that is the big difference in philosophy between conventional and organic,” this producer told me. “A lot of the conventional guys will say organic farming doesn’t pencil out. I think there are a lot of ways to push a pencil. In the end, it’s your philosophy, how you understand your relationship to your environment.”

The organic “family”

Interviewees’ focus on personal values as the most important guarantor of responsible action is not surprising in the context of rural, Protestant, Euro-America. However, these farmers complicated received notions of rugged individualism by emphasizing that the support and accountability provided by individual philosophy was not self-sustaining. Personal values were buttressed by like-minded farmers, relatives, or “fictive kin” drawn from sustainable agriculture networks, who shared each other’s perspective on legitimate and illegitimate practices, social norms and obligations, and the proper economic functions of several parties within the

community. In this way, members of the moral economy re-fashioned social bonds around a community of practice rather than natal kin or geography. As one producer explained to me, this moral economic “family” was both famers’ strongest source of support and most powerful lever of accountability:^[9]

“If you have the relationships and the people that believe in you that you see all the time - and they’re depending on you to experiment and find answers to how we can do this organically and you can compare notes - that would be, in my weak moments, if I were to think about fudging, I would think about how ridiculous that would be when people are depending on you and trusting you’re in this with them. So just sort of that community effort, that community support system. You wouldn’t want to be dishonest to that.”

This informal community support system described by farmers had three major components: family members, other farmers, and formal farmer networks.

Relatives: Help or hindrance?

Survey numbers on family support and accountability varied widely.^[10] Qualitative responses made clear that this variation hinged on how a transitioning farmer’s relatives felt about conversion to agroecological methods.

Supportive families provided key moral as well as logistical support, lending equipment, helping with farm labor (especially major tasks like harvest), pitching in with childcare, or instilling important values and production practices early in life. “Financially, philosophically, labor, sounding board,” one farmer listed, enumerating the ways in which she and her partner’s relatives have contributed to their operation. “They’ve been a huge help.” For other producers, the most important family support had come before they even started their own farms. Values and practices learned in childhood were cited by several respondents as a key inspiration for converting to organic. One farmer remembered her dad telling her that industrial “agribusinessmen” weren’t actually farming, but merely “mining the ground.” Her husband’s parents, meanwhile, had refused to use chemical fertilizer.

Families who questioned the wisdom of the agroecological approach, however, often proved more hindrance than help. Conversion to organics had “caused a huge family rift,” for one producer. “I wound up not speaking to a couple of my sisters for a couple of years over all of that,” he told me. “But knowing what we know ... we just thought if this is going to be our ground, we don’t want to continue with the chemical dependency.”

Other farmers and informal networks

More consistently cited as a source of support and accountability than family members were other farmers and informal networks. In quantitative survey results, “informal networks and neighbors” was second only to personal values in the number of “very high” rankings as a source of support, receiving this ranking from four out of seven respondents.^[11] Such informal networks were less frequently cited as an important source of accountability,^[12] where respondents ranked them alongside VBSCs and consumers, in a near three-way tie for third place as a source of accountability. As was the case with family members, the importance of informal networks and neighbors depended on whether people in these roles were likely to belong to the producer’s moral economy - which depended on where survey respondents were located and how isolated they were, in social as well as geographic terms.

Nearly all interviewees mentioned specific examples of assistance offered by other farmers and informal networks, emphasizing the necessity of such support for their labor- and knowledge-intensive operations. Butchering, branding, renewable energy installation, and the ever-present chore of weeding always benefited from an extra pair of hands. Producers’ agroecological peers and senior mentors contributed advice on everything from cover crops to planting schedules, while lending one another equipment and pooling seed orders. Many farmers also maintained non-farmer networks that shared their philosophy if not their occupation. Fellow alumni of the University of Montana Environmental Studies program had proven particularly important supporters for one couple. Another farm family had found a support network via a sustainability fellowship that one farm partner held.

Several respondents commented that informal support was often most critical at the beginning stage of their farm launch or transition, when a willing pair of hands or ears - no matter how inexperienced - was invaluable. Some saw the potential for such networks to scale up and provide even more support,^[13] with improved organization and a greater density of sustainable producers in the region.

Formal farmer networks

Attempting to coordinate informal support and even out variability in producers’ access to it, were a handful of formal farmer networks. In quantitative surveys, most respondents cited such networks, like the nonprofit Alternative Energy Resources Organization (AERO) or Montana Organic Association (MOA) as “moderate” sources of support^[14] and accountability,^[15] with remaining responses scattered across the spectrum from 1 to 5. While such networks were key for several producers, their importance for any given household depended on how long they had been farming, their level of access to like-minded people outside of such groups, and their ability to attend group meetings. Formal groups were most important for producers who were either early on in their transition, insufficiently connected to other members of their moral economy,

or both. For these producers, formal groups provided a means of establishing a community - often to replace the one they had lost when abandoning conventional production.

AERO - a "citizen's renewable energy organization" founded in 1974 as a corollary to environmental activism against coal development - was the most frequently cited of these supportive groups. "AERO's been hugely important," said a young couple that had been farming for four years. "Just when we start to think that maybe what we're doing isn't really worth it, the sustainable ag community does something or says something. Like last year, we got that AERO award, which was just a huge boost to our resolve." AERO had served a similar support role for a previous generation, for whom it had also been a technical assistance provider and even business incubator. Beginning in the 1980s, AERO members - many of them farmers - had begun to focus squarely on sustainable agriculture as a key vehicle for orienting the region's economy away from fossil fuels.

"AERO had that community of like-minded folks," a sixty-three year-old producer recalled. "There was kind of a handful, half a dozen to a dozen [agroecological] farmers in the early eighties We were all AERO members so that was our community and we started visiting with what we wanted to do and what we wanted to accomplish. I mean, all of the founders of [the values-based supply chain at the center of this study], AERO's what brought us together. And then, at that time, AERO was the clearinghouse for sustainable agriculture information as well as the community and the philosophical side of it. AERO was the one who basically took up that challenge of transitioning agriculture to be a renewable resource."

The Montana Organic Association was also mentioned by several growers as a source of support, and one farmer/rancher had been deeply engaged with Holistic Management International. For many, however, attending group meetings required too much time and was of decreasing value as they established their operations and networks. In sum, most producers bolstered their personal resolve with support and accountability provided by a moral economic "family," which they constructed from networks of biological kin, like-minded farmers and allies, and/or formal sustainable agriculture associations.

Values-based supply chains: Linking the market economy to the moral economy

As indicated by the farmer quoted above, values-based supply chains (VBSCs) such as the one at the center of this study provided another means of linking geographically isolated farmers with other members of their moral economy, though this was largely accomplished via articulation with much larger formal and informal networks, rather than contractual agreements or traceability protocol exclusive to the business. Six of seven survey respondents cited at least one VBSC as either a "high" or "very high" source of support; five gave VBSCs "high" or "very high" marks as sources of accountability. Interview responses, however, were more nuanced on this point, partly because most producers dealt with several VBSCs and interfaced with them in multiple ways, some of which were more helpful or mission-aligned than others.

One respondent termed the case study VBSC "indispensable," while another noted that this VBSC had mentored him when he first began planting alternative crops. A third farmer characterized the VBSC as "important," while a fourth described its value to him by noting that he tried to do as much business with it as possible. A fifth producer was relieved not to have to dicker over prices and dockage fees, because he knew this VBSC was "not going to hook me." However, a less enthusiastic farmer admitted that the VBSC had "been really helpful in some ways and frustrating in other ways." Another grower thought the VBSC had more potential than it was realizing, partly because it was too philosophically driven and not business-minded enough.

In general, younger producers tended to take the existence of such VBSCs for granted, while older farmers valued them more explicitly, because they remembered a time when they had nowhere to sell their products. For the generation of farmers who transitioned in the eighties, building supply chains had been a collective process, so the VBSC was a node of community. Later entrants appreciated having such a supportive buyer, but did not consider their fellow VBSC members "family."

Consumers: Solidarity at a distance

Many producers counted consumers among the ranks of their moral economy.^[16] This was particularly the case for farmers who direct marketed a portion of their crop, or who had done so in the past. "Our customer base is hugely helpful," one partially direct-market farmer explained, "because that's how we get feedback on what we do. Just to see them valuing the food in the same way that I do is really important." Like most of her fellow direct marketers, this farmer had a story about how a particularly thrilled consumer had made her day. "I remember our first farmer's market, one of our CSA customers came and picked up her box," the farmer recalled. "She came back with a mouthful of lettuce and said, 'this is what lettuce tastes like. I remember this tasting like this. I had forgotten what lettuce tasted like.'"

"The eaters of the food you grow are the biggest support group," said another producer, who did minimal direct marketing, but had previously done more. "When I was direct marketing, I'd go to the Bozeman Food Coop to fix up some of my sausage. This one gal says, 'we've been eating your pork chops for six years. We've been wanting to meet you.' And I thought, well, you're making me blush. I'm just a country peasant type

.... The eaters of my organic beef are keeping Tordon off, letting this land heal without chemicals. The more people want organic food, the more of that kind of stuff will be created. It's driven by food choices."

But detailed reflections on consumers' support and accountability role were the exception. Most producers didn't interface much with the end users of their product and even those who did weren't necessarily moved. The effort to reform the food system in this region has been animated more by a populist producerist politics than a consumer-driven productivist politics, consistent with DuPuis' (2002) experience with Wisconsin dairy farmers. As I learned, when Montanans chose to "vote with their fork," it was often not their salad fork, but their pitchfork. Although the sustainable agriculture movement here had long since engaged both producers and consumers, it started on the farm, which remained its major point of reference. "People thank me - oh thank you for raising things organic," one producer said. "That's kind of nice, but not really much support. I don't see any monetary value in it."

For producers who liked the idea of direct marketing, but didn't find it feasible for their current operation (given scale or geography), labeling schemes or even trademark protection were seen as means of bridging this gap to forge community with consumers. "I like regulatory pieces like that," one farmer said of trademark protection and licenses, "they educate." For the most part, however, respondents chose "low" or "none" when ranking the level of support^[17] and accountability^[18] provided by trademark and licensing protection. Organic certification, however, was a more complex matter, because it involved individuals - organic inspectors - who were often recognized as members of farmers' moral economic community.

Organic certification: Where the moral economy meets the establishment

Farmers counted among their moral economy several institutional actors: university researchers, state and federal agency personnel, and government or third party regulators. But interviewees emphasized that specific individuals in these roles were often helpful in spite of, rather than because of the character of their sponsoring institutions. This was particularly the case when it came to assessing the level of support provided by the organic premium, the organic label, and organic certifiers.

All surveyed producers cited the organic premium as a "high" (4) or "very high" (3) source of support, although just four rated it so highly as a source of accountability.^[19] Farmers were well aware of a lowest common denominator problem in the organic industry. They had watched large corporations usurp their market share, boldly taking advantage of national organic standards to undersell dedicated agroecological operations with "bare minimum" organic products. And yet, most interviewees felt that many "good people" - that is, members of their moral economy - were still to be found in the industry at large. They also admitted that organic premiums were "influential," "huge," and "important" to the success of their operations. "The premiums available in the organic market are absolutely essential to what we're trying to do," one farmer said. "It's not the entire answer, but it's a necessary part of the puzzle."

While the majority of respondents found organic *premiums* indispensable, their attitude toward organic *certifiers* was best summed up by the succinct phrase one producer used in our interview: "necessary evil."^[20] No one defended the bureaucratic procedure of organic certification as the optimal means of supporting their moral economy. Yet, given the context of the global market - and the isolation and scale of their operations (which made 100% direct marketing all but impossible) - they had strategically adopted what they saw as a necessary, but flawed and insufficient form of translating their notion of value into a viable economic reality, while protecting themselves against the dishonest practices of others. "Without an audit trail, without certification, there's too much greed out there," one producer explained. "It's certainly a corruptible system, but at least there's some checks and balances, an audit trail, and accountability, and I think that's important as long as... I certainly buy organic food mostly at the Real Food Store here in town, but in an ideal world, we would know our farmers, we would know what kind of methods they used to produce it, we would all be producing some of our food ourselves and have knowledge of how it was produced and what the differences are between organic systems and petrochemical-based systems." "For this scale, it's important," said another producer. "I guess you gotta do that dang paperwork," a third grudgingly admitted, "but I wouldn't say that supports you."

As the most immediate interface with the "necessary evil" of certification, organic inspectors were the most common and illustrative example of actors who were often seen as helpful in spite of, rather than because of, the character of their institution. On the one hand, farmers could be devastatingly critical of certifying bodies and the National Organic Program, which they saw as both unnecessarily burdensome and insufficiently equipped to prevent fraud. Farmers complained about time-consuming forms and documentation procedures that were ill fitted to their operations, while simultaneously decrying loopholes that made it "easy to cheat." Some had substantial contempt for the clerical staff of certifying organizations, questioning their level of understanding of the complex systems they were attempting to evaluate. "They might not know buckwheat from oregano," quipped one farmer.

And yet, organic *inspectors* were often highly respected and appreciated, as their social position was typically viewed as closer to that of the farmer than that of the certifying body or the USDA (See Appendix S1). In fact, the inspector who was auditing the farmer quoted above agreed with the producer's assessment of

the people who review inspection reports. “You’re dealing with people 1500 miles away in a building who’ve never seen a field, never seen farming practices,” the inspector told me. He explained that he had grown up on a farm himself and run his own operation for twenty years before becoming a full-time inspector and consultant. “I know wheat from barley, I know a cultivator from a plow,” he said proudly. “I hope I have gained the respect of the people I inspect.”

Most farmers I talked to agreed that former or current producers made the best inspectors, since they were uniquely capable of evaluating both growers and their operations. “It’s pretty hard to pull wool over your neighbor’s eye or somebody else who has a similar operation,” one farmer and former inspector commented. “It would take a pretty good producer to bullshit me, because I’m doing it myself,” said another. However, one inspector/producer self-critically observed that the relationship between farmers and their inspectors was perhaps a bit too close. “As long as certification is paid for by the people that are certified, there’s always an inherent conflict,” he observed. “There’s no incentive to enforce it, because enforcement means they lose certification, which means they stop paying your fees.”

Whatever the benefits and pitfalls of inspectors’ empathy, their de facto role seemed to be acting as a translator or liaison between the world of agencies and certifying bodies and the reality of farmers. As one producer/inspector was told, “You got the job because you could talk farmer and bureaucrat at the same time.”

Upholding values, fudging rules

Interviewees described three key ways in which inspectors transcend the limitations and blind spots of the certifiers for whom they work.^[21] Firstly, producers appreciated that many of their inspectors were willing to offer production advice, although this was officially not allowed under National Organic Program rules. “On the side he gave me suggestions,” one producer said approvingly of his first inspector. “They weren’t supposed to give suggestions, but he knew I was a beginning farmer as far as the organic.” Secondly, growers credited inspectors for developing relationships of trust. Producers insisted that the only person capable of exhaustively monitoring a farm and its compliance - day in and day out - was its farmer. Good inspectors understood that their ability to assess entire farm systems was limited, and so they were equally focused on assessing these operations’ proprietors. “There has to be some trust involved that I’m not gonna combine the border stuff with the organic product,” said one producer, whose inspector admitted to being “more interested in the relationships and friendships than the weeds and fields and spray.” A third way in which inspectors tweaked the bureaucratic, one-size-fits-all process of certification, producers told me, was by accounting for the complexity involved in agroecological farming. “He knows there’s little gray areas you have to do to do it right that might not meet the criteria 100%,” one farmer said of his inspector.

A love/hate relationship?

Producers’ complex relationship with organic certification resulted in statements that, on their face, appeared contradictory. One producer had the following to say about the degree to which organic certification is a source of support and accountability for sustainable farmers like himself:

“I actually like it that they’re that thorough. I have nothing to hide, nothing to worry about, and it might keep other people honest. But even with all the documentation, it would be easy to sell a semi-load of non-organic malting barley as organic feed barley. But this year, the price of [conventional] malting barley is just as high [as organic feed barley]. So there would be no incentive to fraudulently market it as organic.”

“I find it tedious to write down in a book that I cleaned out the combine. I think some of it’s just too much. I can understand why. It would be easy to cheat. I’m honest with it. I just keep my records. They assume everybody cheats, then you have to prove you’re not cheating. But I think [inspector] knows. He doesn’t ask to see my cleanout records.”

Such a position on organic certification, incongruous as it may seem, makes sense when we understand the organic audit as a performance. For this farmer - who had high praise for each of the inspectors with whom he had worked - the *process* of organic certification had been valuable in many ways. Going through the motions, tedious as they were, had connected him to a community of like-minded people who helped him develop his farm system and stick to his values. Like many rituals of rural life on the northern plains, the substance of the activity provided a shared experience and an excuse for getting together. As such, the organic certification ritual provided a vehicle through which the moral economy of sustainable agriculture could operate. This producer found the procedures themselves insufficient to hold himself or others accountable, particularly in the context of economic factors which were clearly more powerful. But the people engaged in these procedures - who understood the complexity of these farms and their social and ecological context - largely ensured that organic certification achieved its aims.^[22] The standards enforced by inspectors, then, were less the allowable and unallowable practices delineated by the National Organic Program than the “legitimate and illegitimate” practices defined within the moral economy they shared with the farmers they inspected. In theory, the certification process was flawed. In practice, it usually worked.

Deep roots: The social and historical context of an alternative food network and values-based supply chain

The pre-history of organics: A century of agrarian institutions

Interviewees had a long-term perspective on organics, as the latest in a series of such performative vehicles for maintaining social traditions. Respondents expressed a belief that institutions would always come and go, but that the multi-generational moral economy that powered them would endure. Many people told me of grandparents who had been part of early wheat pools and cooperatives, parents who had bolted from increasingly stodgy farm organizations mid-century to join the Farmer's Union and National Farmer's Organization, and friends in their own generation who had drifted from these groups to join the Alternative Energy Resources Organization and early certification efforts in the 1980s. Now, they noted, young farmers were starting new groups. Nearly everyone I spoke to felt that the core values animating such efforts had been successfully passed down, irrespective of the fate of specific organizations. For people who had dedicated much of their lives to building these institutions, they were remarkably willing to see them fade and be replaced.

One older producer, for whom the Farmer's Union had been so foundational to his outlook that he "couldn't separate church and my parents and the Farmer's Union in my mind," commented that other groups had in many ways supplanted the function of his beloved organization, whose vest he still wore to nearly every function. "It seemed like AERO replaced the Farmer's Union to me, with the new idealistic people thinking and coming up with new ideas," he said. "The Farmer's Union had that when I was kid, at least I thought so... Now they're in the middle." Rather than try to reform the Farmer's Union or apologize for its evolution, this producer had enthusiastically joined the board of AERO. He had recently been given a Lifetime of Service Award by the Montana Organic Association, which clearly recognized the man's participation in all three groups as part of a single community effort. One of this producer's contemporaries, previously active in the same three organizations, mentioned a number of specific relationships he had developed through each of them, before stating simply, "I run into them in different capacities now."

Producers could enthusiastically participate in such groups and institutions without holding them sacred, because their animating force remained their "values" and the group of people that supported them. If a group provided a vehicle for organizing production and marketing according to these shared values, producers and their allies would devote considerable time and energy to it. But as soon as an institution lost touch, they wasted no time reorganizing themselves into another moral economic vehicle. One producer explained his criteria for deciding whether to participate in a group. "The Farm Bureau and the Stockgrowers, they're run from the top down and you don't have no say as a member," he told me. "Whereas Farmer's Union and the National Farmer's Organization, they care about the members and they listen to you and it's run from the bottom up. That's how an organization should be run." Two respondents suggested outright that the Farmer's Union - now too conservative to be willing to take a strong stance against GMOs or harmful pesticides - was ripe for "takeover" by AERO members and a new generation of sustainable farmers.

Clearly, the theory of social change at work here held that people shape institutions, rather than the other way around. This was true even when it came to the minutia of modest Natural Resources Conservation Service cost-share for a hedgerow or a pollinator planting. "We have bent their programs to fit our philosophy," one producer said, initially referring specifically to conservation initiatives, but broadening his comment to explain how his operation articulated with any institution that offered support. "I don't feel like there's anything that we've signed up for that has changed or even informed how we farm, or what crops we grow, or the rotation or the tillage. We had in mind everything that we're doing and found programs that would support what we already wanted to do."

In the context of such a philosophy, these farmers' love/hate relationship with organic certifiers appeared not as a problem to be fixed, but as a familiar tension, inherent to the valuable but imperfect process of institution building. Although producers griped (mostly good-naturedly) about forms and bureaucracy, they tended not to express nostalgia for a past innocent of such formal definitions of sustainable agriculture. For one thing, most of them had always experienced sustainable agrarianism in the context of institutions: they had gone to Farmer's Union camps as kids and had probably heard their parents complain about organizational politics and nonsensical cooperative policies - while praising all their fellow Farmer's Union members as "good folks."

More importantly, for early adopters of organic practices, the pre-certification era had been very difficult. Geographically isolated from social movements in places like Oregon or California, pioneering agroecological farmers on the northern plains had struggled to find markets for their crops. Without an institutional structure to support them, they lacked legitimacy - which made it all but impossible to get technical assistance, loans, or any other form of assistance from their families and communities. In order to survive - and convince more of their neighbors to join them - these people had in fact constructed the institutions they now regard with skepticism. While such a stance might seem paradoxical, it squared with the way in which interviewees spoke about the dynamic nature of both social and natural life on the arid northern plains, characterizing the cycle of creation and destruction as very immediate, and emphasizing that long-term goals could only be achieved by flexible, ever-evolving means. These dryland farmers utilized institutional arrangements such as organic

just as they used many other tools. They incorporated certification procedures and VBSCs into the practice of their moral economy, but tended the moral economy itself above any specific institution.

The reign of the rubber band firing squad: Certification's beginnings

Following the theory of social change expressed by these farmers, organizations could be expected to best align with their animating moral economies in their initial years. This did, in fact, appear to be the case for organic certification, and farmers' comments about early certifying bodies were informative.

One farmer told me that he had developed his network of grower friends through his work as a certifier for Farm Verified Organic in the 1980s. "It was very different at that time in terms of how organic certification worked," he told me. "We were considered not only to be organic inspectors trained to look for various aspects of what should constitute legitimate organic operations and what maybe was not adding up and to ask questions that try to shed light if there's questionability about an operation; but equally as important or emphasized was that we were encouraged through our training and experience to essentially serve as extension specialists instead of just fact gatherers who would keep mum about, you might want to consider these aspects or contact this grower or this organization that might be helpful in achieving your objective or improving your rotation or whatever it may be." Inspired by his Farm Verified Organic mentor, Fred Kirschenmann, this farmer had joined with several friends to create a certifying body for Montana: a chapter of the Organic Crop Improvement Association.^[23] Back in those days, these farmers explained, organic certification had been more of a peer review process, in which farmers challenged and supported one another in improving their practices. Several reminisced about the "rubber band firing squad" that penalized growers who had "done something stupid," noting that such community policing had in fact been far more effective than the contemporary organic audit.^[24]

One of these pioneering organic farmers continued to champion the peer review paradigm at an inspector's panel organized by the Montana Organic Association in 2012, asking inspectors if they could share the best organic plans they had seen, so that he could learn from others' example. A longtime inspector responded sympathetically. "I always ask when I'm inspecting, do you mind if I share this?" she said. "Farmers usually say, well sure, but handlers usually don't want us sharing what a good record keeping system is, so we have to be really careful. There are lots of inspectors who are also consultants," she added. "You could probably hire [other inspector on the panel] to come in and tell you how to do your system."

"Maybe we could do this at MOA [the Montana Organic Association annual meeting], another producer suggested, "Have somebody bring their records that are really great, every year."

Filling in: Picking up the pieces certification left behind

Indeed the Montana Organic Association is among the institutions that have taken up peer review and extension work – which farmers' moral economy requires but formal organic certification no longer provides. The producer/inspector who had been hired in 2001 to create and direct Montana's first state-government supervised certification program explained to the panel and audience. "The founding of MOA was intertwined with the development of the state organic certification program," he said. "We did a barnstorming tour, and there was a fair level of disappointment in the community that it [the certification program] couldn't be more. The "more" that people wanted it to be turned into MOA."

In addition to MOA, which sponsors field tours and a beginning organic farmer's "university" as well as an annual conference, several other institutions now provide a vehicle for the peer review essential to the functioning of this sustainable agriculture moral economy. As farmers indicated in interviews and surveys, one such vehicle is the values-based supply chain (VBSC) to which they belong. This VBSC – the guiding case study considered in this survey and ethnography – was founded by a group of producers who met through the Alternative Energy Resources Organization and early organic certification efforts in the early 1980s. By the time of this study, one of the original founders had assumed the leadership role in the VBSC, and among his most important objectives was providing his growers with the strong network of peer review previously supported by these incubating organizations. The VBSC sponsored a barbecue and farm tour each summer and tried to connect producers with one other, and its owner conducted field visits three times a year at each of his growers' farms. I shadowed four such visits, which were far more thorough than the organic inspections I attended. Bending over, kneeling, and even lying on his stomach to get his face at plant level, the experienced farmer and VBSC leader used all five of his senses – and his memory of what had been here last month or last year – to evaluate each farm.

When a grower asked what was wrong with one of her heritage grains, the VBSC owner diagnosed the problem as clover weevil. He'd stopped growing clover as a cover crop himself, he explained, because he couldn't successfully manage the weevils with organic methods. Switch to medic, he advised. As the field visit continued, the VBSC owner offered tips on dealing with weeds, asked about the seeding rate that had been used for a particularly good stand (information he intended to share with other farmers), and discussed equipment that his growers might lend or borrow from other VBSC members in their area. In short, the field

visit sought to identify potentially frustrating problems in this household's organic system and offer solutions consistent with shared ecological and social values. The evaluation, moreover, was tailored to the specifics of the operation, as I learned when I accompanied a field visit to another grower, whose needs were very different.

This family operation produced a few crops for market but also maintained a self-supporting homestead, several miles from the nearest town. At the VBSC's suggestion, they had planted peas for the first time this year, but they didn't know how to evaluate whether the crop was going to be a success. After inspecting the peas, the VBSC owner told the family that the stand had good yield potential, timely information that encouraged them to save additional seeds from their initial crop for a larger planting the following year. "How do people cook them?" the family wanted to know, since the crops on this farm needed to fit in the dinner rotation as well as the agronomic one. The VBSC owner - who had planted and prepared this variety himself - was ready with recipes and nutritional information.

As we left this farm, the VBSC owner told me a story about an out-of-state organic buyer who had told him he had been trying for years to get organic growers to plant peas: "I told him give me eighteen hours. I had twice the amount committed that he wanted," the VBSC owner related to me. Far more than any inspector, researcher, or industry expert, this lifelong moral economy member could shape his grower's management decisions. Because they trusted his motives and experience and knew he would support them over the long-term, growers were willing to do what their buyer suggested, even if it meant working harder and taking risks.

On another field visit, I met a grower who'd "had a wreck" with one of the crops he'd planted the previous year at this buyer's suggestion - a crop that had been expensive to seed. Nonetheless, he had been willing to try again, because he trusted the VBSC owner's explanation of what had gone wrong and how he could change his management to achieve a better outcome. As the VBSC owner knew, the plant in question - originally bred as a green manure - is a better source of nitrogen than nearly any other economic crop grown in the region. By convincing his grower to give it another shot, he was boosting the soil fertility of this farm, increasing its chances of surviving as a successful organic operation. If the VBSC owner powerfully influenced his growers, however, they exerted a similar influence over him. On this field visit, the producer mentioned that spelt works well for him as weed control - subtly encouraging his buyer to contract some of the herbicide-replacing crop.

VBSC members also influenced one another. A young producer, who was still in the process of converting his family place to organic, was ashamed of the weeds in his lentil crop when his buyer came to visit, a pair of experienced growers in tow.

"It's not that dirty for an organic lentil crop," the VBSC owner commented. "It's biodiverse," one of the experienced farmers added. "We've gotta stop apologizing."

"Mother Nature doesn't monocrop," the other experienced farmer contributed.

Farm Improvement Clubs: Moral economy operationalized

The most commonly cited example of a well-organized peer review and support system - the model for both the Montana Organic Association's farm tours and the VBSC's field visits - was an initiative the Alternative Energy Resources Organization (AERO) had spearheaded from 1990-2000: the Farm Improvement Club program. More than any other single effort, interviewees told me, this was the institution that had best operationalized their moral economy. The program was identified by several producers as the primary driver of organic transitions in the region, credited with dramatically increasing the prevalence of agroecological practices - even on conventional farms. One producer who had participated in the program and offered tours of his legume rotation trials each year had convinced his neighbors to experiment with biological fertility too. "Some of the farmers that saw the first lentil in their life up on our plots here, they're probably doing three or four or 500 acres of lentils now, which is fabulous," he told me. None of these farmers, he added, were certified organic. This farmer's observations are substantiated by USDA Census of Agriculture figures for Montana lentil acreage, which has increased from 1,979 acres (in 1987) to 2,496 acres (1992), 12,758 acres (1997), 21,822 acres (2002), 87,797 acres (2007), and most recently 198,741 acres (2012).

The Farm Improvement Club model was simple: AERO offered small grants of up to \$800 each to groups of four or more producers. Each group proposed a project to investigate a common interest or problem related to resource conservation and enhancing their operations. The Farm Improvement Clubs had to be farmer directed, but they also had to include a technical advisor from either the university system or a government agency. This stipulation ostensibly provided farmers with access to expertise and resources, but also served to educate the clubs' technical "advisors" about sustainable practices. At the end of the year, all the clubs gathered to share what they'd learned - and participating farmers frequently offered mid-season demonstrations as well (Matheson, 1993).

Beginning in 1990 with 6 clubs and 33 farms and ranches, the program grew to function as a veritable parallel Extension Service for agroecological farming - with the added bonus of slowly bringing along members of the publicly-funded agricultural research establishment at the same time (Rusmore, 1996). Over the next decade, AERO grants would support more than 120 clubs and 500 participating producers, most of whom were enthusiastically educating their neighbors at field days (Schahczenski, 2000). By 1994, the USDA was

funding AERO to teach its extension agents about sustainable agriculture. The agency awarded the organization a \$91,000 grant to develop and implement training programs across five states (Rittmann, 1994).

The Farm Improvement Club program, initially funded by a Kellogg Grant, was conceived by an AERO staffer who had grown up in a family of Farmer's Union members. Although her supervisor at the time was a Saul Alinsky-style community organizer who envisioned structured meetings in churches and civic halls, the young staffer opted to draw on her homegrown agrarian organizing sensibilities instead. "I came from parents who really understood and modeled how you built community," she told me, "so I thought it would be better if farmers organized themselves. That's why we came up with the idea for offering small grants. They were very small - but it was to help mitigate their risk of them trying something new."

The historical precedents for these farmer clubs were the corn and beef improvement clubs sponsored by the Extension Service in the Midwest in the 1940s and 1950s. "It was, in part, those clubs that so effectively spread the technology of post-war, industrial agriculture throughout rural America," the Farm Improvement Club program director said of her model. "Perhaps the same mechanism could help spread sustainable agricultural technology across Montana" (Matheson, 1993). For the Farm Improvement Club program, then, the severe cuts to extension and public agricultural research handed down during the Reagan years provided an opportunity to rebuild such infrastructure from the grassroots, and to alter popular understandings of agricultural improvement. Broadening the scope of the term beyond specific commodities to encompass whole farm communities, the Farm Improvement Club sought to foster a moral economy that defined responsible agrarianism in terms of social and ecological sustainability, rather than maximal efficiency of production.

In her grant-funded position at AERO, the director of this farmer science program attempted to visit each club once a year and organize a tour, which made for several eyes per acre on participating farms. She also felt it was important to provide technical assistance, and since the program quickly expanded beyond AERO's capacity, she instituted the requirement that each club include a local technical assistance provider. This structure - which flipped the typical interaction between producers and "experts" on its head - turned out to be the genius of the program. Change came much more quickly when farmers invited bureaucrats to participate in efforts they initiated themselves, the program director found.

As a thoroughly grassroots but institutionalized initiative, designed to connect local efforts to one another while better utilizing existing technical support infrastructure, the Farm Improvement Club program not only catalyzed farm transitions, but made sure they had staying power. The program director surveyed club members in order to plan the agenda at winter conferences, which featured workshops on topics like inoculation and field monitoring, in addition to project reports from each club. Instead of establishing criteria top-down, the program maintained a simple, open application format, allowing producers to identify the sustainability challenges in their own systems. AERO regularly conducted thorough evaluations to ensure that the program was meeting its goals as well as farmers' needs. Such a decentralized structure was a radical move for an environmental nonprofit, the program director told me. "The Noyes Foundation was the first funder," she said, "and it was the first time they had given out a grant to somebody who didn't know how they were going to spend it. It was like, we can't tell you what the projects are going to be, but we can tell you that it's going to create change."

After a decade at AERO, the director of the Farm Improvement Club program had moved to another nonprofit organization before taking a job at the state Department of Agriculture, where she had been given the title of Special Projects Coordinator. "I've brought forward some of that stuff with me," she told me, "because it tends to come in handy. I'm basically doing a lot of the same work I was doing for AERO." Several other state and provincial departments of agriculture had also adopted AERO's model, she noted. On a small scale, then, the Farm Improvement Club program succeeded in reconstructing public agricultural assistance, while grounding it in a moral economy committed to socially and ecologically sustainable practices.

Conclusions: A few words on policy

So what can we learn from this group of farmers on the northern Great Plains, and from the complex moral economy that makes them "organic" more than any audit ever has? How might we scale up such a mechanism of governance to drive change in our food system?

This case study suggests that a peer review and technical support model may be more appropriate than a regulatory model for governing Alternative Food Networks (AFNs) and Values-Based Supply Chains (VBSCs) that are driven by "movement farmers"^[25] whose reasons for farming organically go beyond market premiums. The Farm Improvement Club program developed and administered by the Montana-based Alternative Energy Resources Organization - and subsequently replicated in several other states and provinces - provides an instructive example for a sensible public role in supporting the goals of AFNs and VBSCs. With the support of land grant universities and/or state and federal agencies, such a program could scale up significantly.

A regulatory model does perhaps make sense for governing industrial organic farms, in which actors are primarily motivated by market premiums (Guthman, 2004). This was the primary reason case study farmers

supported the organic bureaucracy that they otherwise found cumbersome - they felt it might keep others honest and prevent fraudulent businesses from outcompeting them and eroding consumer trust.

However, the current system of organic certification is clearly insufficient to police industrial organic production. As interviewees pointed out, brief, annual inspections offer only a partial glimpse of what goes on over the course of the season on a working farm. Furthermore, since certifying bodies are funded by fees paid by inspected producers, inspectors have little incentive to disqualify farmers from continuing to pay their salaries. Enforcing organic standards via inspector audits may be impractical anyway, given the complexity of agroecological farming systems (which frustrate attempts to create standards as well as evaluate whether they are being met) and the influence that the wealthiest producers are likely to have on both the macropolitics of organic regulation and the micropolitics of inspector relations (Getz et al., 2008; Reynolds, 2004; Guthman, 2004).

Before spilling too much ink attempting to develop a perfect regulatory system for industrial operations that are only in it for the premium, we might ask whether we really want an organic sector governed largely by major food corporations and retailers. Such an alternative addresses only a small subset of issues with the food system, and only for a select subset of farmers, consumers, and landscapes (Alkon and McCullen, 2011; Slocum, 2007; Guthman et al., 2006). As Julie Guthman found in her landmark 2004 study of California organic agriculture, *Agrarian Dreams*, the impact of organic certification at the industrial scale has mainly been to reduce the use of harmful pesticides - a worthy achievement, but certainly not a complete solution to the social and ecological problems that gave rise to the organic movement. One of the producer/inspectors I interviewed noted a similar phenomenon on the northern Great Plains: "There's still a whole lot more difference between organic systems than there are between conventional and [certified] organic," he told me. "It's such a spectrum. If I look at Montana, most of the [certified] organic farms here are not systems that I would say are sustainable. They're mining the soil, they're growing one primary cash crop, and probably using too much tillage. They're still wheat farmers: that's what they know, that's what they do. And yeah, it's better that they're off the chemical dependency thing, but they're not there yet in terms of their knowledge, understanding, or practice of a real ecologically sound farming system." Indeed, as Guthman (2007) points out, the economic success of certified organic agriculture may *depend* on its exclusivity and niche status, so it may be inherently limited in scale. Conversely, moral economies act more broadly - as evidenced by the many non-certified producers who have changed their practices after attending a farm tour or joining a Farm Improvement Club.

Thus, if the goal is to develop a regulatory system that will protect all consumers (as well as farmers, farmworkers, and agricultural communities), it should be geared toward the whole food system, not just certified organic agriculture. Meanwhile, for those who wish to opt in to an alternative food network and/or values-based supply chain - above and beyond what regulations require - public entities such as land grant universities and state and federal agencies should provide more robust extension support to include both technical assistance and peer review.^[26]

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Acknowledgments

The ideas expressed in this paper emerged in conversation with farmers, ranchers, and technical assistance providers, to whom I owe no small intellectual debt. Colleagues at UC Berkeley, particularly members of the Diversified Farming Systems working group and the Berkeley Food Institute, were invaluable interlocutors. Nathan Sayre, Jake Kosek, and Kathryn DeMaster read earlier drafts of this paper and provided incisive feedback. I am grateful to Hannah Wittman, the editors of this Forum, and one anonymous reviewer for comments that helped me improve the manuscript.

Funding information

Fieldwork was funded by a Graduate Research Fellowship from the National Science Foundation and a grant from the Charles Redd Center, and writing was completed with the support of Soroptimist International's Founder Region Dissertation Fellowship, the P.E.O. Scholar Award, and UC Berkeley's Graduate Division.

Competing interests

The author has no competing interests to declare.

Supplemental material

- **Figure S1. Diversified grain and legume farm with pollinator strips.** doi: 10.12952/journal.elementa.000066.s001
- **Figure S2. Rotating 21 crops in 36 foot strips.** doi: 10.12952/journal.elementa.000066.s002
- **Figure S3. Triple intercrop of buckwheat, black kabuli chickpea, petite crimson lentil.** doi: 10.12952/journal.elementa.000066.s003
- **Appendix S1. The organic audit in practice.** doi: 10.12952/journal.elementa.000066.s004

Data accessibility statement

For access to data gathered in the course of this research, please contact the author, at lizcarlisle@berkeley.edu

Notes

1. I follow Lerman's (2012) definition of values-based supply chains as "wholesale marketing channels or supply chains that preserve the identity of the farmers and ranchers who raised or grew the product being sold, as well as any environmental, social or community values incorporated into its production. These supply chains are characterized by trust, transparency and equitable relationship between all participants" and are intended to "ensure a fair price for farmers."
2. Modest by the standards of contemporary grain agriculture
3. Processors, processing plant workers, buyers, investors and board members
4. University researchers, extension agents, experiment station staff, organic inspectors, and nonprofit staff
5. Visits made by the VBSC owner to his growers' farms
6. Price premium, organic certification/organic certifier, GMO free certification/GMO free certifier, [three specific VBSCs], other buyers, trademark protection/license, formal farmer/rancher organizations (like the Farm Bureau), formal farmer/rancher network or nonprofits, informal networks and neighbors, consumers, family members, conservation or other incentive program offered by state, provincial, or national government, environmental regulations or policies enforced by state, provincial, or national government, technical assistance providers associated with the government, universities, or extension, experience with cooperative activities or associations, personal values, and other.
7. One of these respondents chose to fill out the survey in print instead
8. Six of seven respondents to the quantitative survey gave this factor the highest possible ranking (5, or "very high") as a source of support, and five of seven scored it as a "very high" source of accountability, the highest frequency of top scores for any variable in each category. (The remaining three survey rankings for "personal values" were all 4: high). Qualitative responses similarly emphasized personal values, with fourteen of fifteen respondents identifying conviction as key to their resilience as agroecological producers.
9. Indeed, as Galt (2013) observes in his study of community supported agriculture in California's Central Valley, moral economic "families" constituted by alternative food networks can be such strong sources of accountability that they lead members to self-exploit.
10. Three respondents cited family as a "moderate" source of support (a score of 3), two chose "high" (4), and two "very high" (5). Family ranked lower as a source of accountability, and the spread was even wider: one "very high," one "high," two "moderate," one "low" (1), and one "none at all" (0).
11. In addition to two "high" rankings, and one "moderate" ranking).
12. With two 5s, two 4s, two 3s and one 1
13. e.g. collective equipment purchases, seed cleaning
14. Four respondents
15. Three respondents
16. Five survey respondents ranked consumers as a "high" or "very high" source of support, while four thought they were "high" or "very high" sources of accountability.
17. Five respondents rated the level of support provided by trademark protection or licensing either "low" or "none."
18. Five respondents rated the level of accountability provided by trademark protection or licensing as either "low" or "none."
19. Two producers, in fact, gave the organic premium a "low" accountability score.

20. Four survey respondents ranked their certifier as a “very high” source of accountability, and two chose “high,” making “organic certification/certifier” second only to personal values in this category. Yet only two felt their certifier was a “very high” source of support, with three choosing “high” and two choosing “moderate.”

21. For an ethnographic description of the interaction between farmers and organic inspectors, see Appendix S1: The Organic Audit in Practice

22. As Sayre et al. (2013) find for the case of grazing allotments on the Coronado National Forest, “The social relations through which monitoring takes place may be as important to successful adaptive management as the protocols employed or the data obtained” (92).

23. As one of his collaborators remembered it, “I liked OCIA because farmers would get together and certify each other. It was kind of a fun thing. It was neat that you could do that and still make each other be accountable. I mean, you didn’t let someone off. The strongest community was just the certifying committee. We’d travel to someone’s place together and then we’d go over all the paperwork. We learned a lot from what the other farmers were doing.”

24. An older producer who had formerly been an inspector was not impressed with the way the occupation had professionalized. “I tried not to go over thirty inspections a year,” he told me. “I’m against doing two a day. You see this person once a year. I just don’t think it gives justification to the producer. When my inspector came out, I was hungry to find out what other people were doing that might work in my operation. Now you can’t tell people anything. How’s a young organic producer supposed to learn if you can’t tell him? If they had a question, I’d say, why don’t you call that person and ask them. When I was inspecting, I would connect producers to one another. With the NOP, now you can’t even tell them if they’re doing something right. The inspector’s hands are tied.” When I visited this grower, he was working on a SARE-funded biological weed control project - in collaboration with a producer he met years ago while inspecting his ranch.

25. I understand “movement” farmers, following Reynolds (2004), as those organic producers who continue to maintain the norms and founding quality conventions of the organic movement that preceded the rise of formal certification. Like Reynolds, I find such movement farmers alive and well, despite the prevalence of corporate actors in the contemporary organic sector. As DuPuis (2002) notes in her study of milk politics, producer-led efforts have often been more successful in achieving the social and ecological goals of good food activism than consumer-driven approaches.

26. My recommendations here are consistent with those made by several scholars who study similar processes of collective knowledge production and environmental governance among ranchers in the Mountain West. Knapp and Fernandez Gimenez (2008) call for policies that “help strengthen the informal social networks through which much rancher knowledge is shared and on which the social sustainability of ranching communities depends” (500). Yung and Belsky (2007) conclude that “empowering local communities to express community claims to public goods on private lands maybe just as important as codifying the public interest in private property through federal environmental policy” (702). I build on these recommendations by suggesting complementary roles for public regulation and public support of grassroots efforts.

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