

Where's the Farmer? Limiting Liability in Midwestern Industrial Hog Production*

Loka Ashwood

*Department of Community and Environmental Sociology
University of Wisconsin-Madison*

Danielle Diamond

*Department of Anthropology
Northern Illinois University*

Kendall Thu

*Department of Anthropology
Northern Illinois University*

ABSTRACT Scholars largely assume that hog production is following the same industrialization process as the integrated poultry industry. Since the collapse of hog farming in the 1990s, academics have anticipated that producers will eventually become trapped in contracts that leave the integrator with full control over the production process. Embedded in this prediction is an assumption that hog farmers respond to these productive pressures individually. Our analysis of the Carthage Management System suggests a different path for the hog commodity chain. The Carthage Management System is a conglomeration of business management firms that bring finishing hog farmers together to form limited liability corporations (LLCs) in the breed-to-wean stage of hog production. We use a sociology of agrifood framework to suggest that the nuances of hog production encourage the use of what we call folding corporations to limit liability in ways that profoundly transform the family farm. Corporations and individual hog farmers alike employ this creative LLC structure to deflect responsibility for the risks of hog production. We identify how folding corporations externalize the costs of production onto rural communities. Additional research is needed to better understand unfolding farmer identities, legal protections for farmers, how widespread organizational structures like Carthage Management System are, and their consequences for rural communities and the industrialization process.

Introduction

Industrial livestock production typically involves two key players: a processing and purchasing firm, such as Tyson or Seaboard, and a producer, such as a vertically integrated corporation or a family farm (Davis 1980; Heffernan 2000; Mooney 1983; Striffler 2005; Stull and Broadway 2004; Thu and Durrenberger 1998). This model, drawn from poultry

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production, has become the predictive framework for the industrialization of livestock production, regardless of the commodity (Morrison 1998; Watts 1994). Although scholars have argued that the relationship between the producer and the purchasing agent is increasingly “fuzzy” (Wolf, Hueth, and Ligon 2001), they continue to utilize this poultry-production-driven model to understand the corporate firm or family farm producer as part of an integrated chain (Hendrickson, James, and Heffernan 2008). Largely this relationship is understood as an unfortunate one for the family farm. Agribusinesses police the farmer into meeting upstream standards by saddling them with the debt of improving facilities and reducing the fair market value of the end product (Echanove and Steffen 2005; Hendrickson and Heffernan 2002). Regrettable results unfold: The farmer turns into the proletariat (Wolf et al. 2001) and a serf on his or her own land (Constance 2008). In short, the industrialization of agriculture drives the farmer toward extinction. This article challenges the simplicity of this prevailing wisdom. We use examples from the swine industry to highlight largely unexplored nuances of industrial transformation that encourage producers to outsource particularly risky phases of pork production.

We examine the rising use of limited liability corporations (LLCs) by collectives of farmers in the Midwest to coordinate phases of production, deflect responsibility for hog production, and shift risks onto rural communities. We argue that this folding corporate structure marks increasingly fuzzy industrial relationships on the ground, where farmers utilize layers of LLCs to provide liability and risk protection in increasingly high-stakes concentrated animal feeding operations (CAFOs). We examine the Illinois-based Carthage Management System (CMS) and its associated CAFOs, identified by *Successful Farming* magazine as the ninth largest U.S. pork powerhouse (Freese 2012). We document the influx of what we call folding corporations, where LLCs form and collapse to protect assets, spread risk, and preserve investors’ local reputations by shielding their identities behind corporate veils. The data for this article are based on a series of public hearing documents, state and federal regulatory statutes, news archives, and case law. The CMS in the Midwest marks a hog production trend toward coordinated production that blurs the boundaries between firm, farmer, and investor. We suggest that our detailed examination of this particular case highlights the need for additional research on the legal protection and construction of the farmer and new industrial relations in other geographic regions and commodity chains.

We first establish how the key components of land, labor, buildings, hogs, manure, and capital constitute production and profitability in

industrial hog production. We detail how the use of LLCs complements these industrial components of hog production by reducing risk and liability for each factor through coordination. The remainder of the article discusses the implications of this structure for community responses to CAFO encroachment and regulation. Scholars' largely sympathetic understanding of the industrial livestock farmer overlooks the ways that regulatory apparatuses and legal statutes provide innovative survival strategies for farmers and firms at the expense of rural communities. More importantly, agrifood scholarship could benefit from a fresh analysis of what it means to be a farmer and who is positioned advantageously to define *farmer* as rural communities reckon with the very real consequences of the folding corporate structure: diffused financial liability in the event of pollution or bankruptcy; the disorientation of protest over the initial construction of these facilities because ownership is unclear; and perhaps most starkly of all, the displacement of the traditional farmer, and the luxury of local name recognition and ownership, which traditionally bore with it some farmer responsibility.

Background: Industrialized Agriculture and the Emergence of Folding Corporations

Much social science literature on the industrialization of agriculture, particularly in rural sociology and anthropology, examines and tests what is widely referred to as the "Goldschmidt Hypothesis," which suggests that farmer decline reduces the economic and social well-being of rural communities (Durrenberger and Thu 1996; Goldschmidt 1978; Lyson and Welsh 2005). This literature often unquestioningly assumes an almost preordained process of change, in which family farming transitions into an industrial form of production where labor, capital, and management become detached from rural communities with deleterious consequences (Lobao, Schulman, and Swanson 1993). This process then leads to vertical integration, where a single entity controls the production, processing, distribution, and retailing segments of the commodity chain. Through this process, which involves considerable farm policy interference, independent farmers become contract producers mandated to follow a production script from an integrator with little room for innovation (Morrison 1998). The cooperative LLC model, what we call folding corporations, blurs the clarity of the integration model utilized by scholars to understand the industrialization of agriculture.

While poultry consolidation resulted in the 1950s, particular to regional conditions in the South (Boyd and Watts 1997; Constance

2008), hog production resisted consolidation until the farm crisis of the 1980s and the collapse of the hog market in the 1990s. Since that time, scholars have largely lumped the industrialization of hog production with poultry integration, and even predicted it would follow the same path. Morrison (1998), former head of the Contract Poultry Growers Association, argued that the expansive power of corporations in hog production would force swine farmers into contract relationships like those of their poultry predecessors. In the poultry model, producers eventually own only the confinement buildings and the land they rest on, which often is highly leveraged to maintain strict standards demanded by an integrator. The integrator controls every phase of production, and even owns the birds. MacDonald and McBride (2009) point out hog farmers' loss of control in the shift from farrow-to-finish operations in the 1990s—where farmers formerly oversaw hogs from their birth to fattening—to specialization along the segmented three stages of farrowing, nursery, and finishing. Martinez (2002) further characterizes this industrialization process, including contract arrangements, in terms of diffusing risk, a central characteristic of folding corporations and LLCs. This form of integration, where the farmer is a serf on his or her own land, has become the widely accepted explanation for national and transnational concentration of agricultural production into fewer hands (Watts and Goodman 1997).

We find that this is not the case in the CMS system, where farmers cooperatively work with each other and management firms to maintain ownership over their hogs. The National Pork Producers Council and land-grant universities began to promote producer cooperatives or networks as a response to vertical integration beginning in the 1990s. Advocates argued that these networks could allow producers to band together to achieve economies of scale for their inputs and negotiate shackle space at packing plants that increasingly demanded standardized and larger animals from fewer, larger producers (Welsh 1997; Ziegenhorn 1999). These efforts involved the use of LLC arrangements, but at the time, they were short-lived and unsuccessful because of ineffective linkages between producers due to high transaction costs (Ziegenhorn 1999). While some attention was paid to these efforts, scholars primarily continued to focus on vertical integration as the prevailing model of industrialized agriculture. Rich (2008:81), for example, conceptualizes those raising hogs in Illinois as “producers” running “independent operations” bound by individual contracts with firms. Producers, regardless of the type of production, are understood as operating within constrained conditions, including feeding animals owned by another grower or firm and adhering to their rules (Boyd and Watts 1997; Davis 1980;

Heffernan 1984; Heffernan, Hendrickson, and Gronski 1999; Mooney 1983; Morrison 1998; Striffler 2005; Stull and Broadway 2004). This relationship is often contrasted with vertical integration, the off-farm firm ownership of a production site, for example, a processing company that raises its own chickens (Heffernan 2000). Constance and Bonanno (1999) detail such a case in their study of a large conglomeration of CAFOs proposed by the firm Texas Farms in the Panhandle. In either case, the production site is understood as a singular one, where it belongs either to the firm or to a farm family. As a result, the entity operating a confinement is clearly defined: an independent farm family, which sometimes hires wage laborers (Harrison and Lloyd 2012), or a firm operated by a known corporation.

This conceptualization primarily highlights industrial agriculture's encroachment on family farm life and the consequent decline of rural communities as farmers vacate the countryside. The title of Magdoff, Foster, and Buttel's (2000) book aptly captures this approach: *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment*. While the decline of farmers has garnered much attention in the literature, now may be the time to resume study of what defines a farmer and who consequently is afforded protection and support to prevent that decline. We find that the CMS case diverges from predominant understandings of the farm as a productive "family" unit that inscribes labor and property management. Brookfield (2008), in defining a family farm, stresses that there must be family management and labor. In his empirical study of the family farm in Europe, Hill (1993) requires that family members "input" labor in agricultural production. Johnsen (2004) writes that enterprise, household, and property are interdependent elements of the family farm. The CMS strikingly alters the meaning of *farmer*, as producers outsource key components of raising hogs to laborers working on sites sometimes states away from their own operations. Noting the increasingly blurred line between corporation and family, Pritchard, Burch, and Lawrence (2007:75) suggest a new language of "family farm entrepreneurs," where the family remains at "the heart of farm ownership and operation." Although this article does not perform a detailed exploration of the meaning of the family farm and farmer, the case of the folding corporation points to the urgency of exploring the legal protection afforded to actors that diverge from sociologists' definition of a farmer or family farm but maintain legal protections through right-to-farm legislation and livestock siting laws. This article serves as a pressing call to agrifood scholars to revisit how industrialization is transforming what it means to be a farmer in ways that affect laws and rhetorical power in rural communities.

Limiting Risk and Liability: The Case of the Carthage Management System

This article analyzes producers as active players in industrialization that utilize creative business models to externalize negative impacts from their operations onto rural communities. The folding corporate model utilized by the CMS joins farmers to cooperatively fund multiple-layer LLC breed-to-wean units and independently operate their own finishing units. These subsidiary LLCs have substantial repercussions for legal liability, environmental problems, and local protest. Wolf et al. (2001:377) suggest, “To effectively study the social relations of agricultural production, we must update our theory and methods to incorporate the increasingly fuzzy boundaries between farm and nonfarm agribusiness firms, the role of services and outsourcing in production networks, and emergent forms of conflict and cooperation in an economy of quality.” We answer Wolf’s call by analyzing these multilayered LLCs, which are managed by a conglomeration of quality control and service firms, known as the CMS. We establish how LLC coordination in hog production departs from poultry integration by transforming farmers into members of cooperative subsidiaries in the breed-to-wean phase of production. We pull apart the components of the regulatory and legal apparatuses within the producer node, a neglected topic of study in commodity chain scholarship (Bair 2005). Corporate business laws and regulations provide CAFOs the structure they require to dodge liability and manage risk. These business organizational forms deflect responsibility and liability from producers and shift risk to rural communities.

The acronym CAFO originated in the late 1970s as a definition of a regulated “point source” of pollution under the federal Clean Water Act (Federal Clean Water Act 1972). The Environmental Protection Agency (EPA) defines CAFOs as facilities that (1) stable or confine certain numbers of animals, often thousands of them, for more than 45 days in any 12-month period and (2) do not have vegetation on any portion of the lot or facility (Code of Federal Regulations 2003). Consequently, CAFOs amass sizable numbers of livestock, feed, and waste on small parcels of land. Large hog CAFOs, with upward of 2,500 or more hogs on one site, require a series of industrial components to produce the end hog for slaughter (see Figure 1). The CMS utilizes LLCs for six components of CAFO production—labor, land, manure, buildings, hogs, and capital—to reduce liability and financial risk in each production phase. LLCs are the key ingredient in this increasingly popular management recipe that provides CAFO investors with the tools necessary to add layers of liability protection and owner invisibility. The law shields

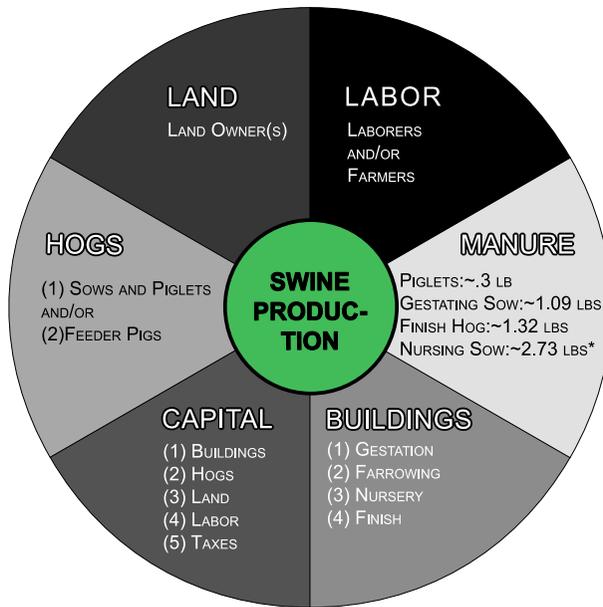


Figure 1. Factors That Shape Six Primary Industrial Hog Production Components
 *Daily average manure produced based on estimates from Lorimor, Powers, and Sutton (2004).

investor names from the public and can allow the corporation to escape accountability or even go bankrupt without affecting the personal financial viability of investors.

LLCs are business entities allowed by state statutes that appeal to many industries because they offer the same liability protections as traditional corporations but require fewer formalities and often provide greater tax advantages. Different states may have slightly varying regulations, but the general purpose behind LLCs is to “limit” the liability of investor owners. For example, Missouri’s Limited Liability Company Act provides that individual investor members or managers of an LLC are “not liable, solely by reason of being a member or manager . . . , for a debt, obligation or liability of the limited liability company” (Missouri Revised Statutes 2011). Similarly, Iowa’s Limited Liability Company Act provides that debts and other liabilities “do not become the debts, obligations, or other liabilities of a member or manager” (Iowa Code 2009). Likewise in Illinois, “the debts, obligations, and liabilities of a limited liability company . . . are solely the debts, obligations, and liabilities of the company” (Illinois Compiled Statutes 1998). Unless the

company's articles of incorporation contain a provision whereby specific members provide consent that LLC debts extend to themselves, members avoid liability (Illinois Compiled Statutes 1998, 2012). State laws authorizing the use of LLCs "spread from two states in 1989 to forty-seven states in less than five years" (Goforth 1995:1199). The proliferation of state statutes authorizing LLCs provided the conditions necessary for the rise of the corporate model used by the CMS, independent and despite anti-corporate farming laws, which have been challenged or struck down as unconstitutional in midwestern states in the past decade (Lobao and Stofferahn 2007).

Owners or investors of an LLC are typically called "members." Depending on state law, members can consist of one or more individuals, corporations, other LLCs, or foreign entities. Unlike traditional corporations, where shareholders and corporations are subject to taxes on their profits, LLC members avoid the double taxation of traditional corporations by being taxed only on their personal state and federal tax returns. LLC members detail in confidential operating agreements their different proportions of capital and percentages of profits and losses. Secretary of state department websites list registered agents or managers of LLCs; however, managers do not have to be members, meaning publicly available documentation about LLCs do not denote ownership. Often the only way to determine an LLC's members is through the process of discovery, which happens only when an LLC is sued. Accordingly, members' identities often are shielded from the public eye, leaving investors anonymous and making LLCs appealing business entities for CAFO investors who wish to keep their identities unknown. By utilizing an LLC business structure, the CMS can legally withhold this critical information from the state and the public, leaving central information about the operation's owner-investors inaccessible.

While LLCs are not subject to taxes like traditional corporations, their investors share personal liability protections similar to those of corporate shareholders. If an LLC incurs a debt or is sued, members are shielded from personal liability and their assets are protected, except in rare cases where extensive proof exists of fraud or wrongdoing. In such cases, a court may "pierce the corporate veil," meaning individual members may be held personally liable, rather than the corporation. Piercing the corporate veil is very difficult to do with a LLC, arguably more difficult than for a corporation because LLCs have fewer business formalities to maintain. Courts will only reluctantly pierce the veil if the moving party meets a heavy burden of proof (*In re Estate of Wallen* 1994; *Ted Harrison Oil Co. v. Dokka* 1993). In Illinois, courts have held that a moving party must provide evidence making "a *substantial* showing that one corporation is really a

dummy or sham for another” (emphasis added) (*Pederson v. Paragon Pool Enterprises* 1991:820). If a CAFO owned by a LLC were to pollute, the LLC would have to be sued, rather than its members, because members are often unknown and are protected from liability. Members consequently avoid personal liability, not to mention confrontation with affected neighbors and community members, and the negative social stigma and pressures sometimes associated with operating a CAFO.

CAFOs can utilize multiple layers of LLCs, which provide yet another avenue to escape responsibility. An investor can buy land to site a CAFO and hold the land in an LLC. This land can then be leased to a CAFO building LLC. The CAFO building LLC holds the capital to construct the building and then leases the building to an operating LLC. The operating LLC runs the CAFO business, but does not necessarily own anything. Thus, in the event the CAFO is sued for damages caused by poor management of the operation, the operating LLC can claim it has no assets because the business is only leasing the building. This type of layering provides multiple protections for the LLC’s members from liability and losses. Arguably, if one layered LLC folds or goes bankrupt, another corporation can form to resume its work. The investors are shielded from personal liability and their interests are protected, while the corporations fold. The sustenance of profits despite bankruptcy marks a central appeal of the LLC structure.

Limiting Risk and Liability: The Case of the Carthage Management System

We use the term *folding corporations* to define the LLC structure utilized by the CMS. This phrase captures how LLCs form and collapse to protect assets, spread risk, and preserve investors’ local reputations by shielding their identities behind corporate veils. The expanding scale of industrial hog production elevates a number of producer-associated risks: hog diseases, civil liabilities for neighboring property devaluation, nuisance litigation, skyrocketing financial investment in multimillion dollar facilities, labor management, and potential environmental damage caused by air, water, and land pollution. We detail how LLCs form around each phase of production to control risk, but in particular we are interested in breed-to-wean CAFO LLCs that mark the transformation of the individual farmer into a member of cooperative subsidiaries. Breed-to-wean CAFOs, or breed-to-finish farms, have become less viable for producers amid expanding risks. CMS, founded in the town of Carthage, Illinois (population 2,272), reduces these liabilities by coordinating the formation of folding, corporate breed-to-wean CAFOs located in Missouri, Iowa, and Illinois.

We do not know how extensive the use of the folding corporate structure is, but its ascent in Missouri, Iowa, and Illinois has been rapid. We analyze in detail the CMS's existing and proposed breed-to-wean facilities in west central Illinois, including the counties of Adams, Fulton, Hancock, McDonough, and Schuyler, to expose the appeal of folding corporations and to understand how these LLCs and complementary ones diffuse risk and liability along the six components of industrial swine production.

Professional Swine Management (PSM) LLC is the forerunner of the CMS. The company is a management firm that oversees approximately 520 workers in 26 breed-to-wean CAFOs for over “300 farm families” in Illinois, Indiana, Iowa, Minnesota, Missouri, and Ohio (IDOA 2011a:2; PSM 2013c). These 26 breed-to-wean CAFO subsidiaries, located in Missouri, Iowa, and Illinois, provide the feeder pigs for the finishing operations of the more than 300 farming operations in the 6 states (IDOA 2011a:129). The formal responsibilities of PSM's 32 full-time employees include facilitating the siting, building, and construction of CAFOs, managing laborers and hogs, and coordinating pig sales for the 300 “farm families” that invest in the breed-to-wean CAFOs (see Figure 2).

PSM is one of the CMS's four LLC branches that limit liability; the others are Innovative Swine Solutions LLC (ISS), Carthage Veterinary Service LLC (CVS), and Prairieland Investment Group LLC (PIG) (IDOA 2011a; Swearingen 2007; Vansickle 2007, 2009). These four LLCs compose the CMS. ISS performs research trials at PSM facilities, and CVS's 38 employees provide health and consultation services for swine facilities. CVS has several documented research relationships with various other major actors in the industrial agrifood chain. For example, CVS cooperatively researches the disease PRRS, a reproductive disease that causes abortions, stillbirth, or weak piglets in the sow herd, with the multibillion dollar agribusiness Cargill and the 18th largest “pork powerhouse” Tri Oak Foods (Augsburger 2009; Freese 2012). CVS also works with Elanco Animal Health, a company that provides swine growth hormones, vaccines for respiratory and bowel diseases, arthritis prevention, and antibiotics. PIG owns a former college campus, called Carthage College (Swearingen 2007; Vansickle 2009). PIG includes the buildings that house PSM and CVS, and PIG rents living space to domestic and immigrant laborers, student interns, and visiting faculty (Swearingen 2008).

PSM, CVS, PIG, and ISS grew out of the Carthage Veterinary Service. Veterinarian Joe Connor became a partner at the clinic in 1977, and purchased CVS in 1980 (Vansickle 2009). In the 1990s, disease risks began to grow with the consolidation of swine farming and the

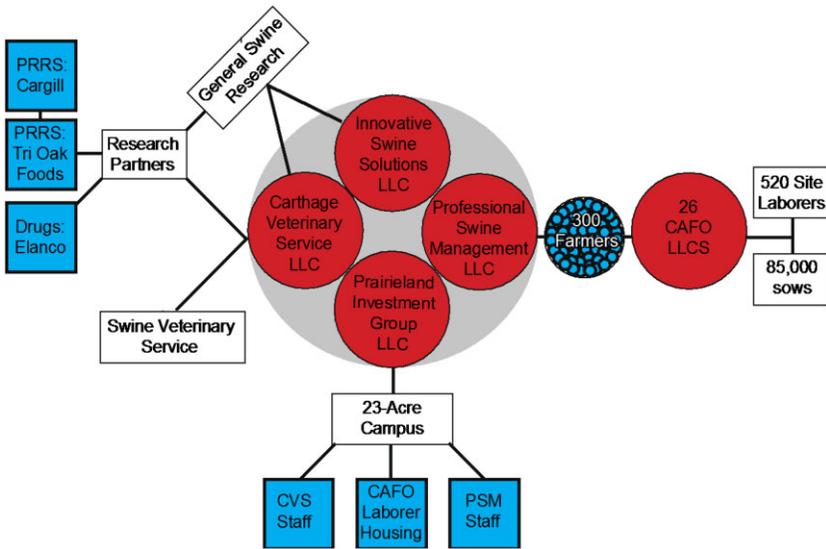


Figure 2. The Carthage Management System. CMS has grown since PSM’s founding in 2000 to have the ninth most sows in the United States. Four LLCs form the core of the system: Innovative Swine Solutions, Carthage Veterinary Service LLC, Prairieland Investment Group, and Professional Swine Management. Professional Swine Management LLC coordinates the siting of CAFOs across the Midwest.

increasing scale of CAFO production. This, coupled with the collapse of the hog market, put many producers out of business. In 1996, Connor took advantage of the restructuring of the hog market prompted by the bankruptcy of many swine farmers by starting the PSM “franchise.” PSM proposed a sow-cooperative model whereby multiple investors put up the capital for the site and then received parities of piglets produced by the sows (Vansickle 2009). By drawing on CVS veterinary staff, PSM was particularly well placed to provide this service because it could “maintain strict biosecurity,” or provide a healthy crop of piglets (Vansickle 2009). Now PSM has expanded and brings together investors from across the Midwest to provide the capital for breed-to-wean CAFOs that provide young piglets, which these investors can then fatten for slaughter at their own finishing facilities. Each investor owns a parity of the litters produced from each sow, which is proportional to their investment in the breed-to-wean CAFO detailed in operating agreements. In some cases, there are 10 investors, others only 3, and sometimes up to 43 in one CAFO (Endres 2012; IDOA 2011a). Investors provide the capital, PSM manages the workers, and the sows pump out the piglets. The over 300

families investing with PSM receive a portion of the piglets produced at the 26 gilt-gestation facilities in Illinois, Iowa, and Missouri. They then transfer those piglets to their finishing operations in the six states across the Midwest. Finally, PSM helps match those finishing operations with contracts for slaughter, because they can assure quality control for a standard sized pig.

Hogs, Buildings, and Biosecurity

In two decades, finishing specialization has taken the hog industry by storm. Finishing operations now account for 70 percent of all hog enterprises in the United States, versus only 22 percent in 1992 (Key and McBride 2007). PSM's model attracts investors seeking a healthy and consistent supply of feeder hogs for their finishing operations. In 2011, the Illinois Department of Agriculture (IDOA) hosted a public information hearing at the request of the McDonough County Board on South Morgan Acres LLC, a proposed CAFO coordinated by PSM in west central Illinois. Nearby residents caused an uproar when they learned that the facility was proposed by out-of-state investors in conjunction with PSM (Davenport 2011; Steelman 2011). Protest in the area over another proposed PSM CAFO, Shamrock Acres LLC, revealed that PSM was charged with a number of pollution violations (IDOA 2011b). One of ten investors in South Morgan Acres LLC, Ron Fowler, described his reason for funding the CAFO, despite it being states away from his own operation: "PSM's past history has proven that they can manage these sized units and do it very well and also put out that number of pigs at an economical price. So that is why I am here" (IDOA 2011a:19). He said he needed a stable supply of pigs to fatten at his operation instead of raising and breeding gilts on his own. From his home in Minnesota, Fowler searched a list of biographies among 300 farm families that PSM provided as possible fellow investors in CAFOs being sited across the Midwest. He and fellow investor Steve Krogmeier, an Iowa farmer, found each other. They joined with eight other anonymous investors to provide the capital necessary to start up South Morgan Acres, LLC, a \$10 million gestation, farrowing, and nursery facility proposed to house 18,220 hogs: 8,200 hogs over 55 pounds and 10,020 hogs under 55 pounds.

In the CMS, farmers no longer have to be burdened with every stage of hog production, from birthing the piglets to feeding out the hogs for slaughter, all of which require substantial amounts of time and labor and ample expertise. Fowler explained the appeal of PSM as a way to reduce family labor and provide biosecurity: "After coming home at about 7 or 8:00 at night most nights, my son also, taking its toll, and also the [hog]

disease pressure that we've been having, I talked with professionals to find out another avenue to economically raise hogs and through that discussion I was given the name of PSM here in Carthage" (IDOA 2011a:17). Fowler's investment in a PSM breed-to-wean LLC provided a venue to do less work that also saved him money: "[W]hat we have found with that is that it is a \$7 per pig savings and an economic reason to do things" (2011a:18). Krogmeier centered his reasoning for investing in South Morgan Acres LLC around pig health: "[W]e need 24 to 2500 pigs a week to fill our barns. In our county we have approximately 300,000 pigs in Fayette County, Iowa. . . . McDonough County has approximately 15,000 pigs, so the health standards are just a lot higher where you have a less pig dense area" (IDOA 2011a:20). PSM and laborers take over the raising of the hogs, the management of facilities, and disease control. Fowler escapes some of the taxes of farming, and Krogmeier is assured a healthy supply of piglets. These shifting labor conditions transform hog production by replacing individual farmers with PSM laborers. Controlling workers and biosecurity in increasing scales of hog production displaces smaller sites run by farmers. With the loss of a local connection to who is raising the hogs, trust in large livestock production declines for community members, as they lose their connection to the farmer they can hold responsible (Sharp and Tucker 2005).

Where's the Farmer? Outsourcing Labor and Protecting Capital

As a service company, PSM sets up the multiple LLCs throughout the Midwest for various parties to invest in (IDOA 2011a:21, 122; PSM 2013d). Each LLC serves a particular protective purpose to diffuse investor risk. Veterinarian and vice president of PSM Dr. Bill Hollis stressed to the tense crowd at the South Morgan Acres LLC hearing that PSM is a service company that would not own the proposed facility:

There are four of us that are veterinarians in the office that own [PSM], and that company operates to provide education, training, oversight, to provide the production for the farm. So the ten farmers that have chosen to invest in your neighborhood have trusted us to operate that farm. . . . PSM was hired by farmers who trust us to raise their livestock and educate our employees. (IDOA 2011a:24–25)

PSM and its investors engage in dialogue about farming to attract public sympathy and support. For example, Fowler shared with the Illinois audience that his family was selected as "Minnesota's Pork Family of the Year" (IDOA 2011a:17). None of the investors will work on or manage the site. And a farmer is not using his or her own labor to reap profit

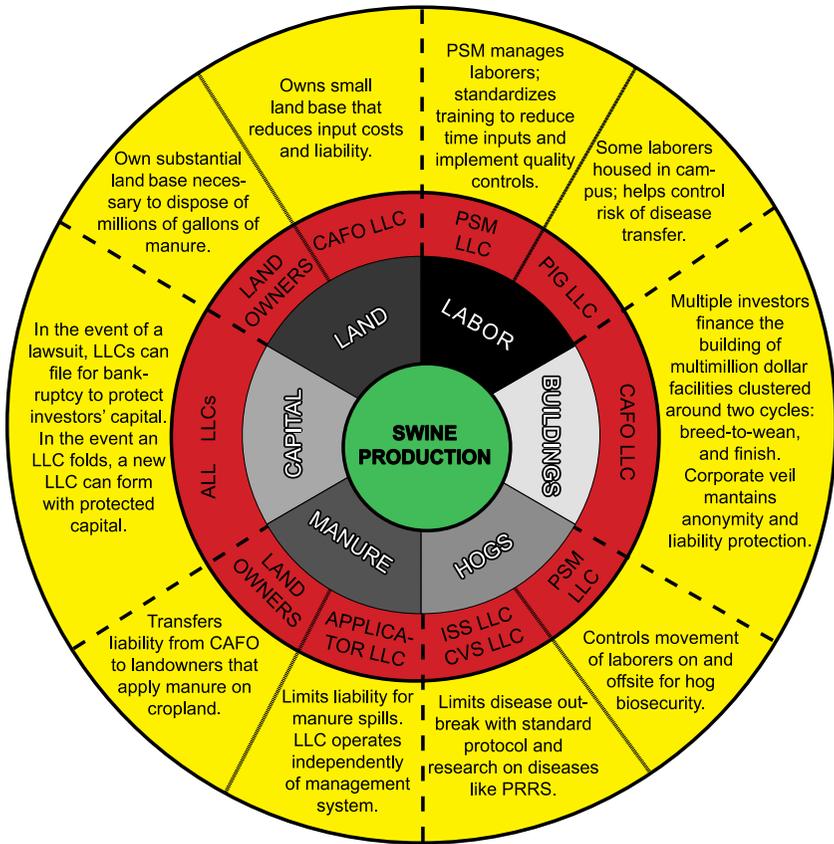


Figure 3. Reducing Liability and Risk in the Carthage Management System. The Carthage Management system limits liability and risk through the formation of a series of LLCs and actors, expanding from the six components of industrial hog production to the LLC or actor relevant to the component and then to the ways in which this system limits liability and risk.

from the land. Rather, the folding corporate structure that investors utilize through the CMS model protects investors from the liabilities of livestock husbandry that traditional farmers must face. In this model, the folding corporations diffuse risk in the six components of industrial hog production (see Figure 3).

Farmers who invest with PSM do not work at the LLC facility nor do they manage the operation, often-cited characteristics of being a farmer (Brookfield 2008; Djurfeldt 1996; Hill 1993). The folding corporate structure producers assume with PSM brings them another identity:

members of a CMS subsidiary. In the CAFO subsidiary they invest in, these business partners lose management and laboring roles typical of the farmer. Despite the transformation in his work, Fowler maintains that he and fellow investors are farmers. He uses his identification as a farmer as a tool to legitimize siting at the South Morgan Acres LLC CAFO:

One of the owners is a fifth generation farmer. I'm the fourth, with my son the fifth, and his son probably being the sixth. Another one [is] a third generation farmer. . . . [W]e as owners are not big corporate things that have just started or coming in and are going to jump on this . . . So we are asking the county board here to come together and support us on this endeavor. Thank you. (IDOA 2011a:59–60)

The contention by members of the LLC subsidiary that they were farmers received resistance from the crowd. Kurt Fowler, a local resident unrelated to Ron, responded: “Hi, Ron, over there. So Ron, I appreciate that you are farming in Minnesota, and I just wish you would stay in Minnesota” (IDOA 2011a:107). As Magnan (2012:173) warns in his study of a Toronto-based investment firm, producers like Ron are increasingly assuming new roles shaped by firms like the CMS: “Vertically integrated corporate mega-farms may increasingly assume the role of non-farm agribusiness by providing inputs, agronomic and farm management services, and processing to smaller, family-based operations.” By transitioning from farmers to members of subsidiaries, Ron and his business partners significantly transform their local and legal responsibilities. Structurally, farmers like Ron no longer face direct liability for South Morgan Acres LLC’s practices. Locally, they do not face community pressure for responsible operations that would inevitably arise in a farmer’s own community. And neither do the eight other investors who remain hidden behind South Morgan Acres’ corporate veil (see Figure 3).

The hidden identity of investors through LLCs complicates protest for neighbors who want to prevent the construction of the facilities. In Illinois, facilities over 1,000 animal units, or housing over 2,500 finishing hogs, are required to file a “Notice of Intent to Construct” with the IDOA before construction commences. Residents within a quarter mile of the site are informed of the application after it has been fully submitted to the IDOA. We obtained application documents from the IDOA via the Freedom of Information Act pertaining to South Morgan Acres LLC. The facility name is listed in the document as “South Morgan Acres, LLC,” but the address and phone number for the facility are left blank.

The owner or operator is also listed as “South Morgan Acres, LLC,” with a P.O. box address and two phone numbers. A Google search traced one of the phone numbers to a nearby veterinary clinic. The other was a cell phone number without a name. No further details of ownership, including PSM’s involvement, were listed in print. Local residents of the proposed South Morgan Acres LLC site first heard about the application from the Shamrock Acres LLC protest group Rural Residents for Responsible Agriculture. The organization actively monitored the IDOA’s online listing of expansion and new construction applications for CAFOs in McDonough County. The group then notified residents and helped them identify similarities between the two applications, which eventually led to identification of PSM’s involvement. Otherwise, Hollis’s and PSM’s involvement would have remained hidden. Community members, knowing of PSM’s involvement, then petitioned the McDonough County Board for a public hearing on the CAFO.

At the consequent public hearing on the proposed South Morgan Acres LLC CAFO, nearby resident Barbara Adams asked the PSM vice president about the missing information: “Why didn’t you put your telephone number on [the application] if you were involved in it?” Hollis answered, “The quick answer is going to sound like a smart-aleck. I apologize for the quick answer up front. But my name was in the paper for about a month a few months back. So putting my name on that would not have helped the situation one bit.” Adams replied, “It didn’t help the situation to have somebody answer the phone and say I can’t tell you anything, I just pick up the mail” (IDOA 2011a:109–10). These strategies to avoid public identification are common among corporate CAFO funders and operators. Despite CAFOs’ different locations across various states and operating levels, Bonanno and Constance (2006:77) report that transnational agribusiness and CAFO operator Seaboard “consistently employed a global sourcing strategy to obtain convenient factors of production and to avoid social and political resistance.” For communities without a preexisting network of activists, PSM’s involvement would be extremely difficult to discern. Without knowing who is proposing the facility, community members are denied the information necessary to understand the risks in a proposed site, creating a major roadblock for potentially contesting CAFO construction.

More Manure and Less Land

The folding corporate structure utilized by investors can limit very real and substantial liabilities associated with environmental pollution. Illinois attorney general Lisa Madigan charged PSM and nine of the

CAFO LLCs it operates in west central Illinois with pollution violations (*People v. PSM et al.* 2010). For example, the attorney general alleges that at Little Timber LLC outside of Carthage, a “liquid that was dark colored, very turbid with a strong, offensive, nauseating odor,” leaked from a pile of dead, composting hogs into nearby streams, and an “inspector observed skulls and various bones of swine in a burn area adjacent to a large stump” (41). At Timberline LLC in Schuyler County, the complaint charges that a “purple colored liquid” leaked from a pile of dead hogs and ran into a dam that discharged into Sugar Creek, a local water body listed as high priority on the EPA’s 303(d) list for fecal coliform pollution. At the Eagle Point LLC CAFO outside Vermont, Illinois, in Fulton County, a tile line around a gestation building allegedly discharged directly into a strip mine lake, leaving the water smelling of a “livestock waste odor” (17). Again, the fecal coliform levels registered high. Each of the 15 violations could cost PSM and fellow LLCs up to \$50,000, with an additional penalty of \$10,000 for each day during which each violation continued thereafter. In this case, the actual fines and penalties for these violations have remained minimal. Only one of the LLCs, North Fork Pork LLC, has actually been assessed a \$4,500 penalty in the proceedings (North Fork Pork, LLC 2011). The remaining charges against PSM and the other LLCs remain unresolved, and none have led to the piercing of the corporate veil. Personal assets and the profits previously paid out to investors remain protected, and the corporate veil tightly drawn.

Liability from state enforcement pales in comparison to the potential risk of civil lawsuits against such facilities. In Schuyler County, neighboring residents filed a private nuisance suit against PSM’s Hilltop View LLC, a 15,630-head breed-to-wean unit (*Ward et al. v. PSM* 2008). The neighbors allege that they are no longer able to enjoy their property due to the “foul and obnoxious odors” from the incineration of swine carcasses, composting dead hogs without proper disposal, and the spreading and spraying of swine waste (8). Speer Law Firm, P.A., which represents the plaintiffs, has won a series of multimillion dollar verdicts and settlements in other nuisance suits against CAFOs, including an \$11 million jury award in a 2010 trial against Missouri’s largest hog producer, Premium Standard Farms, a subsidiary of Smithfield Foods. The Speer Law Firm contends the plaintiffs residing near CAFOs suffer deteriorated health, loss of use and enjoyment of their homes and property, depressed home values, and negative quality of life and environmental impacts. Court documents in *Ward et al. vs. PSM* name the defendants in the Schuyler County lawsuit as the managing corporation, PSM LLC; the CAFO corporation, Hilltop View LLC; and Steven and Linda

Foglesong, who applied manure and composted dead hogs around the site.

During this litigation, PSM's insurance provider decided it would no longer fund PSM's defense. According to court documents, PSM and Hilltop View LLC jointly took out a farm pollution liability policy with Country Mutual in 1998, a policy that Country Mutual has argued does not cover the nuisance suit (Hollis 2011). The insurance company has consequently refused to pay PSM's defense fees. In response, PSM's vice president Hollis filed a sworn affidavit with the court asserting that the insurance company's refusal to fund the defendants in the suit would cause "significant financial hardship" and would "likely force PSM out of business" (Hollis 2011:2). Despite this claim, PSM filed applications in the same year to build at least four \$10-million dollar, breed-to-gestation sites in two neighboring counties: Shamrock Acres LLC, South Morgan Acres LLC, Junction Acres LLC, and Grand Tower Farms LLC. Should the court find that Country Mutual is not obligated to defend PSM, and PSM is found guilty and liable for legal fees and other related damages, the company may claim bankruptcy. Regardless of bankruptcy, the suit will not likely cause any of PSM's members to lose their profits or assets, unless the court pierces the corporate veil and the plaintiffs are compelled. Further, it is probable that PSM as a management company does not hold any assets. If PSM were to fold, it still has three other standing LLCs with overlapping staffs and responsibilities: CVS, PIG, and ISS (see Figure 2). This would explain PSM's claim of financial hardship in defending itself in *Ward et al. v. PSM* while it simultaneously constructs multiple new CAFOs in the area.

Hogs are biologically distinct from poultry, and have pollution liabilities relative to particular phases of the hog production cycle. A CAFO the size of South Morgan Acres LLC generates nearly 4,000 piglets weekly and houses over 8,000 sows and gilts, meaning it creates more nutrient waste than the nearly 33,000 residents of McDonough County where the CAFO was proposed (IDOA 2011a). Responsibly disposing of the waste generated from such facilities is a daunting task. In some cases, this means contracting out manure disposal to another company. PSM's contractor, Twin Valley Pumping Inc., received two violations for this type of work, one at Timberline LLC, where a clamp on a hose that was used to apply the manure failed, and about 3,000 gallons of manure were released into a nearby waterway. In the case of a violation, Twin Valley Pumping bears responsibility for the spill rather than the CAFO or PSM. While the CAFO LLC subsidiary received separate violations for other pollution events on the building site, the manure application liability rests on the pumping corporation. Parceling off liability for waste

application adds an additional layer of protection for investors and benefactors of industrial hog production (see Figure 3).

Establishing an appropriate place to site a PSM CAFO rests in part on lining up local landowners interested in a steady manure supply for crop application. Local cattle and grain farmers Phil and Dolores Butler offered a land plot, disjoined from their home, where they grow corn and soybeans, to site South Morgan Acres LLC. Hollis described their motivation at the South Morgan Acres LLC hearing: "Phil Butler would like to have manure for his grain farm. That's why he came to us. And Phil is not going to be one of the owners of South Morgan. And Dolores is wanting to see her son have an opportunity to help build the fertility and value of his farm" (IDOA 2011a:31–32). The specifics of the manure agreement with cropland owners vary: owners that sell a portion of their land to the LLC often receive free manure in return for having it disposed of on their cropland. As a consequence, liability is displaced from the LLC onto the landowner(s) or the applicators, who then become liable for pollution, as in the case of *Ward et al. vs. PSM*. Typically, no single landowner has enough property to utilize all the manure from a CAFO the size of South Morgan Acres LLC. Distance is critical. The farther the land is away from the CAFO, the more expensive it is to apply the manure. Pipelines running across roads and ditches are often the most cost-effective way to apply the waste. Without the cooperation of one or more neighboring cropland owners, there is no cost effective way to dispose of the manure.

The risk of waste mismanagement and overapplication is constant, particularly when LLCs can dodge what little government oversight exists. Illinois regulations, for example, require facilities with less than 5,000 animal units, or 12,500 feeder pigs, to provide a statement to the IDOA that they have prepared a waste management plan *three months after* operations commence (Illinois Compiled Statutes 1996). Only the very largest operators with more than 5,000 animal units are required to submit their plans to the IDOA for review before the CAFO begins housing animals (Illinois Compiled Statutes 1996). Combined, PSM *manages* far more than 5,000 animal units at its Illinois facilities, but since PSM operates facilities *owned* by different LLCs, PSM dodges animal unit thresholds requiring waste-management plans. This scheme enables PSM and individual facility investor-owners to escape regulatory oversight and public scrutiny over the management of waste at their operations.

The lion's share of waste produced at CAFOs and its disposal consequently faces little state oversight, and despite their protests, local neighbors have few tools to counteract overapplication and pollution. In the

case of South Morgan Acres LLC, Joel Gruver, a nearby agronomy professor at Western Illinois University (WIU), questioned how the engineers behind South Morgan Acres LLC could legitimize the application of over 6 million gallons of manure on only 970 acres of land. He said at the hearing:

There are a lot people in here who are pro agriculture, and I am one of them. I support the production of livestock, I support the production of grain in the state, and I think that manure has a very valuable role to play in grain production. But it concerns me when I hear numbers such as 970 acres as being appropriate acreage to receive the manure from a facility that's going to produce over 6 million [gallons] of manure. There are a lot of different ways you can calculate manure value. I do this every day. I teach my students how to do it at WIU. (IDOA 2011a:259)

Gruver went on to detail the math. His conclusion was that 6 million gallons would require at least 2,000 acres of cropland. The number of acres PSM presented as sufficient were only half that amount. Gruver added, "I am not really sure why, in this situation and in the last hearing I went to, I heard numbers which simply are not agronomically logical. . . . I think this facility needs to find people that can provide you with the proper agronomic information if you want to proceed and take good care of our land" (260). Finding enough local landowners willing to purchase the manure or have it applied to their land for free is no easy task. Some local farmers and landowners who reside nearby proposed CAFOs actively protest the building of confined livestock facilities that they consider inhumane and human health and environmental hazards (IDOA 2011a, 2011b). For many nearby neighbors, accepting the manure is akin to feeding the beast. Although this serves as a fundamental barrier to CAFO's access to land for manure disposal, little federal oversight exists to demand responsible application.

While overapplication is a constant challenge, manure also provides an important cost saver in hog production (Lawrence and Ellis 2008). Manure contains critical nutrients necessary for row-crop farming and increasingly serves as an asset that can offset financial risk. Based on Lory et al. (2006) estimates, the annual value of nitrogen, phosphorus, and potassium of swine slurry (manure and compost of dead hogs) is around \$86,000 for a 9,600 head finishing operation, and \$114,000 for a 9,600 head breed-to-wean operation. Even if the hog market collapses, the manure provides investors a fertilizer mainstay income, especially if the investors also happen to be farmland owners or grain farmers (Boessen 2005). For the 300 families that PSM serves, their finishing houses do not

only produce hogs, they also produce fertilizer for their own or neighbors' fields. PSM seals the deal by matching these farmers with markets for their slaughter pigs and checking on the health of the piglets provided by their breed-to-wean CAFOs (PSM 2013a, 2013b, 2013c).

Discussion and Conclusion

The CMS suggests that hogs do not necessarily follow the same path as broilers, a path that currently dominates discussions of animal industrialization in agrifood scholarship. This midwestern model, distinct from hog production in the South, provides hog farmers a way to survive in the finishing phase of production, while removing their labor and independence from every other stage of production: breeding, birth, weaning, nursery, and sales. Even in the finishing stage of production, CMS continues to manage the hogs and arranges for their eventual sales by assuring processors a standardized, quality product. Critically, though, the farmers maintain ownership of the hogs, unlike integration in the poultry industry. CAFO LLC subsidiaries, managed by the holding CMS, mark a new business organizational structure distinct from the integration model, derived from poultry production, that currently dominates agrifood scholarship. It may signal an increasingly popular management structure in various commodity systems that warrants further analysis.

The CMS's strength lies in its structure, tailor-made to the changing nature of hog production in the absence of the family farm. As a veterinary service and research group, PSM is positioned to combat constantly morphing diseases that plague animals in the confined space of the CAFO. By bringing multiple investors together, no one singularly bears the financial risk for the buildings or hog vitality. Wage laborers rather than farmers complete the everyday tasks of raising hogs in confinements. Former late nights at home for farmers are delegated to laborers, sometimes housed on the PSM-managed campus to control disease transfer. In the case of a lawsuit or substantial pollution, any of the multiple LLCs can fold, PSM included. Whether this folding involves an applicator, a building, a research firm, a labor housing campus, or a hog manager, the investor's profits and assets stay isolated from risk. The CMS model suits the decline of the farmer and the rise of the investor. In an age of industrial agriculture defined by risk, the folding corporation provides an easy pathway forward to make money without the liability that comes with the face of a farmer.

The protection of farmers' and PSM's interests through LLCs displaces liability onto rural communities. Residents have little recourse for

pollution at existing facilities. In Illinois, PSM's CAFO LLCs operate under different ownership agreements and consequently dodge animal unit thresholds required for manure-management plans. In the case of clean-water violations or civil lawsuits, each individual CAFO can claim bankruptcy and sustain owners' assets. These owners are positioned to take their preserved capital and invest in a new facility, and consequently face little motivation to change their poor management methods of the past. In the event residents want to protest the construction of an incoming facility, it is nearly impossible to discern ownership. LLCs legally withhold operating agreements that list investors, and only in the extremely rare case where a court demands the corporate veil be pierced can those names or entities be revealed. Once a case reaches the court, pollution and the degradation of the environment likely has already occurred. Preventing the construction of facilities operated by known polluters becomes a near impossibility for rural residents denied the vital information denoting ownership. The unknown operator lurking behind animal operations is a far cry from the few locally based farmers who remain and formerly defined rural America's recent past. When ownership is partially revealed, as in the case of South Morgan Acres LLC, investors maintain their identities as farmers, using it to gain public support, even though they live states away, and will never raise the animals on a site that neighboring residents call home. Distrust in industrial animal facilities builds for the rural residents who remain in the countryside as the tangible vestiges of the farmer slip away.

As part subsidiary, part laborer, and part manager, the hybrid PSM producer is difficult to place in current agrifood scholarship. These merged roles complicate more romantic understandings of the farmer as disappearing or becoming a serf on his or her land. Kautsky's ([1899] 1988) agrarian question, which motivates most studies of the infiltration of capitalism into agriculture, asks why precapitalist relations endure in agriculture, the centerpiece of which is the persistence of the family farm. By default, this analytical focus hones in on the processes affecting the farmer's demise or survival, and less so the costs borne by rural residents as a broader group. We hope this article encourages more work on the impacts of industrial agriculture on rural communities in different commodity and geographic contexts.

Perhaps now is the time to resume the scholarly discussion of what constitutes a farmer and a family farm. This project likely will be twofold. First, it is important to exhume discussions about different constructions of the "farmer" by those who call themselves such from many different stripes and colors, such as the gardener, the hobby farmer, the operator, the producer, and complementary adjectives such as conventional,

alternative, and organic. Different localities are likely to distinctly shape which types of farmers bear cultural authority on many different scales. Second, sociologists are well equipped to compare definitions of the farmer in the literature to legal definitions of farming and agriculture. The sociological definition of what constitutes a farmer is relevant to scrutinizing what the law affords a family farm and farmer. Certain farmers may enjoy more protections than others, through, for example, right-to-farm laws (Hamilton 1998). State and federal statutes that regulate and deregulate farming have important repercussions for urban and rural communities, which may promote different types of agriculture. Through a study of farmer rhetoric and law, sociologists can better understand who may benefit and who may bear the costs of certain agricultural constructs and definitions. The owners of PSM LLCs call themselves farmers in part because it allows them to shift the consequences of industrial agriculture onto rural communities. With renewed attention to the legal and rhetorical meaning of the farmer, scholars will be more readily equipped to reckon with the rapidly morphing conglomerations of industrial agriculture.

References

- Augsburger, Dyneah. 2009. "PRRS Project Launched in Illinois." *National Hog Farmer*, November 15, p. 18.
- Bair, Jennifer. 2005. "Global Capitalism and Commodity Chains: Looking Back, Going Forward." *Competition and Change* 9(2):153–80.
- Boessen, Christian. 2005. *Evaluating the Contract Swine Finishing Opportunity*. Agricultural Missouri University Guide. Columbia, MO: University of Missouri Extension. Retrieved January 2, 2013 (<http://extension.missouri.edu/explorepdf/agguides/ansci/g02511.pdf>).
- Bonanno, Alessandro and Douglas Constance. 2006. "Corporations and the State in the Global Era: The Case of Seaboard Farms and Texas." *Rural Sociology* 71(1):59–84.
- Boyd, William and Michael Watts. 1997. "Agro-industrial Just-in-Time: The Chicken Industry and Postwar American Capitalism." Pp. 192–225 in *Globalising Food: Agrarian Questions and Global Restructuring*, edited by D. Goodman and M. Watts. London, England: Routledge.
- Brookfield, Harold. 2008. "Family Farms Are Still Around: Time to Invert the Old Agrarian Question." *Geography Compass* 2(1):108–26.
- Code of Federal Regulations. 2003. US EPA, 40 C.F.R. § 122.23(b)(1), (2).
- Constance, Douglas. 2008. "The Southern Model of Broiler Production and Its Global Implications." *Culture and Agriculture* 30(1–2):17–31.
- Constance, Douglas and Alessandro Bonanno. 1999. "CAFO Controversy in the Texas Panhandle Region: The Environmental Crisis of Hog Production." *Culture and Agriculture* 21(1):14–26.
- Davenport, Jean. 2011. "Reader Urges 'No' Vote on CAFO." Letter to the editor. *McDonough County Voice*, December 15. Retrieved January 2, 2013 (<http://www.mcdonoughvoice.com/article/20111215/NEWS/312159958/0/SEARCH>).
- Davis, John E. 1980. "Capitalist Agricultural Development and the Exploitation of the Propertied Laborer." Pp. 133–54 in *The Rural Sociology of Advanced Societies*, edited by F. H. Buttel and H. Newby. Montclair, NJ: Allenheld, Osmun.

- Djurfeldt, Göran. 1996. "Defining and Operationalizing Family Farming from a Sociological Perspective." *Sociologia Ruralis* 26(3):340–51.
- Durrenberger, Paul and Kendall Thu. 1996. "The Expansion of Large Scale Hog Farming in Iowa: The Applicability of Goldschmidt's Findings Fifty Years Later." *Human Organization* 55(4):409–15.
- Echanove, Flavia and Christina Steffen. 2005. "Agribusiness and Farmers in Mexico: The Importance of Contractual Relations." *Geographical Journal* 171(2):166–76.
- Endres, Doug. 2012. "County Okays Junction Acres Proposal; DOA Must Make Final Decision before March 3." *Hancock County Journal-Pilot*, January 25. Retrieved January 2, 2013 (<http://www.journalpilot.com/articles/2012/01/27/news/news2.txt>).
- Federal Clean Water Act. 1972. 33 U.S.C. § 1362 (14).
- Freese, Betsy. 2012. "Drought Fuels Feed Cost Jitters among Pork Giants." *Successful Farmer*, September. Retrieved January 2, 2013 (http://www.agriculture.com/livestock/hogs/drought-fuels-feed-cost-jitters-among_283-ar26544).
- Goforth, Carol R. 1995. "The Rise of the Limited Liability Company: Evidence of a Race between the States, but Heading Where?" *Syracuse Law Review* 45: 1198–99.
- Goldschmidt, Walter. 1978. *As You Sow: Three Studies in the Social Consequences of Agribusiness*. Montclair, NJ: Allanheld, Osmun.
- Hamilton, Neil D. 1998. "Right-to-Farm Laws Reconsidered: Ten Reasons Why Legislative Efforts to Resolve Agricultural Nuisances May Be Ineffective." *Drake Journal of Agricultural Law* 3:103.
- Harrison, Jill and Sarah E. Lloyd. 2012. "Illegality at Work: Deportability and the Productive New Era of Immigration Enforcement." *Antipode* 44(2):365–85.
- Heffernan, William D. 1984. "Constraints in the Poultry Industry." Pp. 237–60 in *Research in Rural Sociology and Development*, vol. 1, edited by H. Schwarzweller. Greenwich, CT: JAI Press.
- . 2000. "Concentration of Ownership in Agriculture." Pp. 61–76 in *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment*, edited by F. Magdoff, J. B. Foster, and F. H. Buttel. New York: Monthly Review Press.
- Heffernan, William, Mary Hendrickson, and Robert Gronski. 1999. *Consolidation in the Food and Agriculture System*. Report to the National Farmers Union.
- Hendrickson, Mary, Harvey S. James, Jr., and William D. Heffernan. 2008. "Does the World Need U.S. Farmers Even if Americans Don't?" *Journal of Agricultural and Environmental Ethics* 21:311–28.
- Hendrickson, Mary K. and William D. Heffernan. 2002. "Opening Spaces through Relocalization: Locating Potential Resistance in the Weaknesses of the Global Food System." *Sociologia Ruralis* 42(4):347–69.
- Hill, Berekely. 1993. "The 'Myth' of the Family Farm: Defining the Family Farm and Assessing Its Importance in the European Community." *Journal of Rural Studies* 9(4):359–70.
- Hollis, William. 2011. "Affidavit of William L. Hollis, D.V.M." Exhibit 4 in *Donald Ward, et al., Plaintiffs v. Professional Swine Management, LLC, et al., Defendants*, Docket No. 08-L-2 at 2.
- IDOA (Illinois Department of Agriculture). 2011a. "Public Transcript. In RE: The Proposed Construction of a Livestock Management Facility by South Morgan Acres, LLC." December 5. Retrieved January 2, 2013 (<http://www.agr.state.il.us/Environment/LMFA/hearings/SouthMorganAcres2011-12-05.txt>).
- . 2011b. "Public Transcript. In RE: Shamrock Acres, LLC." July 12. Retrieved January 2, 2012 (<http://www.agr.state.il.us/Environment/LMFA/hearings/ShamrockAcres20110712.pdf>).
- Illinois Compiled Statutes. 1996. 510 ILCS 77 *Livestock Management Facilities Act*, Section 20.
- . 1998. 805 ILCS 180 *Limited Liability Company Act*, Section 10–10(a), (d).
- . 2012. 805 ILCS 180 *Limited Liability Company Act*, Section 5–40.
- In re Estate of Wallen*. 1994. 262 Ill. App. 3d 61 at 68, 633 N.E.2d 1350 at 1357.

- Iowa Code. 2009. Title XII, Subtitle 2, Chapter 489, Section 489.384.
- Johnsen, Sarah. 2004. "The Redefinition of Family Farming: Agricultural Restructuring and Farm Adjustment in Waihemo, New Zealand." *Journal of Rural Studies* 20:419–32.
- Kautsky, Karl. [1899] 1988. *The Agrarian Question. Volumes 1 and 2*. London: Pluto Press.
- Key, Nigel and William McBride. 2007. *The Changing Economics of U.S. Hog Production*. U.S. Department of Agriculture Economic Research Service Report 52. Washington, DC: U.S. Department of Agriculture. Retrieved July 23, 2013 (<http://www.ers.usda.gov/media/244843/err52.pdf>).
- Lawrence, John D. and Shane Ellis. 2008. "Returns from Farrowing and Finishing Hogs." *Ag Decision Maker*. File B1–30. Ames, Iowa: Iowa State University Extension.
- Lobao, Linda M.; Michael D. Schulman, and Louis E. Swanson. 1993. "Still Going: Recent Debates on the Goldschmidt Hypothesis." *Rural Sociology* 58:277–88.
- Lobao, Linda and Curtis W. Stofferahn. 2007. "The Community Effects of Industrialized Farming: Social Science Research and Challenges to Corporate Farming Laws." *Agriculture and Human Values* 25:219–40.
- Lorimor, Jeffery C., Wendy J. Powers, and Al Sutton. 2004. *Manure Characteristics: Manure Management Systems Series: MWPS 18, section 1, 2nd edition*. Ames, IA: Midwest Plan Service, Iowa State University.
- Lory, John A., Ray Massey, Amy Schmidt, Marcia Shannon, and Ann Ulmer. 2006. *Optimizing Fertilizer Value of Manure from Slurry Hog Finishing Operations*. G9334. Agricultural MU Guide. Columbia, MO: University of Missouri Extension. Retrieved January 2, 2013 (<http://extension.missouri.edu/explorepdf/agguides/soils/g09334.pdf>).
- Lyson, Thomas A. and Rick Welsh. 2005. "Agricultural Industrialization, Anti-corporate Farming Laws and Rural Community Welfare." *Environment and Planning A* 37:1479–92.
- MacDonald, James M. and William D. McBride. 2009. *The Transformation of U.S. Livestock Agriculture: Scale, Efficiency, and Risks*. Economic Information Bulletin No. 43, January. Washington, DC: Economic Research Service, U.S. Department of Agriculture.
- Magdoff, Fred, John Bellamy Foster and, Frederick H. Buttel (eds). 2000. *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment*. New York: The Monthly Review Press.
- Magnan, André. 2012. "New Avenues of Farm Corporatization in the Prairie Grains Sector: Farm Family Entrepreneurs and the Case of One Earth Farms." *Agriculture and Human Values* 29:161–75.
- Martinez, Steve W. 2002. *Vertical Coordination of Marketing Systems: Lessons from the Poultry, Egg, and Pork Industries*. U.S. Department of Agriculture Economic Research Service Report 807. Washington, DC: U.S. Department of Agriculture.
- Missouri Revised Statutes. 2011. Title XXIII, Chapter 347, Section 347.057.
- Mooney, Patrick H. 1983. "Toward a Class Analysis of Midwestern Agriculture." *Rural Sociology* 48(4):563–84.
- Morrison, John M. 1998. "The Poultry Industry: A View of the Swine Industry's Future." Pp. 145–54 in *Pigs, Profits, and Rural Communities*, edited by K. M. Thu and E. P. Durrenburger. Albany, NY: State University of New York Press.
- North Fork Pork, LLC. 2011. "Stipulation and Proposal for Settlement." Ill. Pollution Control Bd., 2010–84 (January 27) at 7.
- Pederson v. Paragon Pool Enterprises*. 1991. 214 Ill. App.3d 815 at 820, 574 N.E. 2d 165 at 167.
- People v. PSM et al. (People of the State of Illinois versus vs. Professional Swine Management LLC et al.)*. 2010. Ill. Pollution Control Bd. 2010–84. April.
- Pritchard, Bill, David Burch, and Geoffrey Lawrence. 2007. "Neither 'Family' nor 'Corporate' Farming: Australian Tomato Growers as Farm Family Entrepreneurs." *Journal of Rural Studies* 23:75–87.
- PSM (Professional Swine Management). 2013a. "Sow Unit Management Services." Retrieved January 2, 2013 (<http://www.psmswine.com/services-sow-unit.asp>).
- . 2013b. "Nursery/Finish Management Services." Retrieved January 2, 2013 (<http://www.psmswine.com/services-nursery-finish.asp>).

- . 2013c. “Professional Swine Management LLC.” Retrieved January 2, 2013 (<http://www.psmswine.com>).
- . 2013d. “About Us.” Retrieved January 3, 2013 (<http://www.psmswine.com/about.asp>).
- Rich, Ronald. 2008. “Fecal Free: Biology and Authority in Industrialized Midwestern Pork Production.” *Agriculture and Human Values* 25:79–93.
- Sharp, Jeff S. and Mark Tucker. 2005. “Awareness and Concern about Large-Scale Livestock and Poultry: Results from a Statewide Survey of Ohioans.” *Rural Sociology* 70(2):208–28.
- Steelman, Lanie. 2011. “Hog Confinement Controversy.” *McDonough County Voice*, December 7. Retrieved January 2, 2013 (<http://www.mcdonoughvoice.com/article/20111207/NEWS/312079961/0/SEARCH>).
- Striffler, Steven. 2005. *Chicken: The Dangerous Transformation of America's Favorite Food*. New Haven, CT: Yale University Press.
- Stull, Donald and Michael J. Broadway. 2004. *Slaughterhouse Blues: The Meat and Poultry Industry in North America*. Belmont, CA: Wadsworth.
- Swearingen, Joy. 2007. “New Owners Plan Business Opportunities at Former College Campus.” *Hancock County Journal-Pilot*, June 26. Retrieved January 2, 2013 (<http://www.journalpilot.com/articles/2007/06/26/news/news2.txt>).
- . 2008. “When You're Not 'Home for the Holidays.'” *Hancock County Journal-Pilot*, December 17. Retrieved January 2, 2013 (<http://www.journalpilot.com/articles/2008/12/17/news/news1.txt>).
- Ted Harrison Oil Co. v. Dokka*. 1993. 247 Ill. App. 3d 791 at 795, 187 Ill. Dec. 441, 617 N.E. 2d 898.
- Thu, Kendall J. and Paul E. Durrenberger. 1998. Introduction. Pp. 1–20 in *Pigs, Profits, and Rural Communities*, edited by K. J. Thu and P. E. Durrenberger. Albany, NY: State University of New York.
- Vansickle, Joe. 2007. “Carthage Group Expands Outreach Services.” *National Hog Farmer*, August 15, p. 34.
- . 2009. “Joe Connor, DVM.” *National Hog Farmer*, May 15, p. 34.
- Ward et al. versus PSM (Professional Swine Management, Inc.) et al.* 2008. 08-L-02, Cir. Ct., Schuyler Co.
- Watts, Michael. 1994. “Life under Contract: Contract Farming, Agrarian Restructuring, and Flexible Accumulation.” Pp. 21–77 in *Life under Contract*, edited by P. Little and M. Watts. Madison, WI: University of Wisconsin Press.
- Watts, Michael and David Goodman. 1997. “Agrarian Questions.” Pp. 1–14 in *Globalising Food: Agrarian Questions and Global Restructuring*, edited by D. Goodman and M. Watts. London, England: Routledge.
- Welsh, Rick. 1997. “Vertical Coordination, Producer Response, and the Locus of Control over Agricultural Production Decisions.” *Rural Sociology* 62(4):491–507.
- Wolf, Steven, Brent Hueth, and Ethan Ligon. 2001. “Policing Mechanisms in Agricultural Contracts.” *Rural Sociology* 66(3):359–81.
- Ziegenhorn, Randy. 1999. *Networking the Farm*. Burlington, VT: Ashgate.