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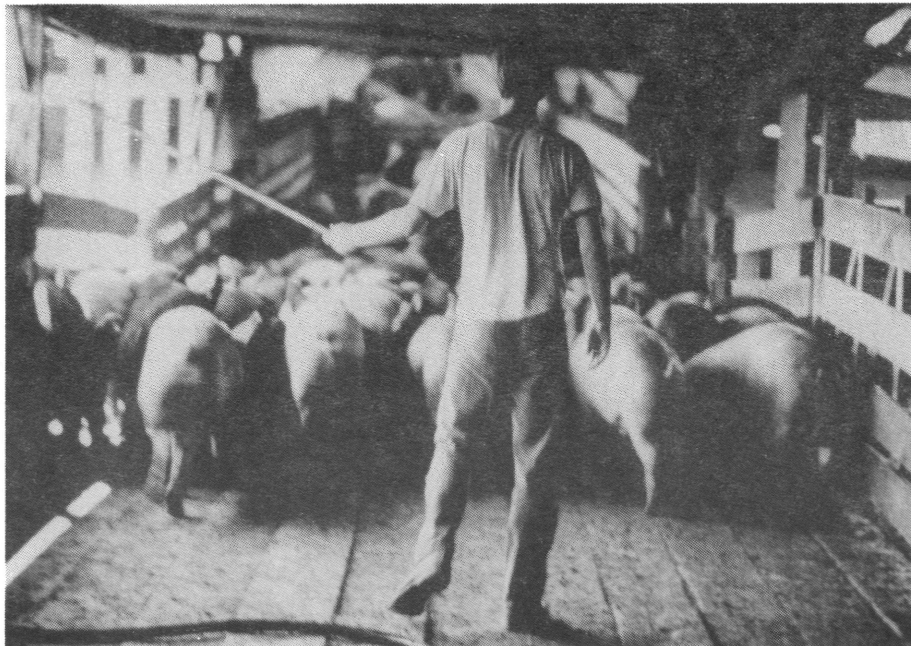
Killing Competition With Captive Supplies

A special report on how meat packers are forcing independent family hog farmers out of the market through exclusive contracts

A Land Stewardship Project publication

April 1999



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Acknowledgements

The Land Stewardship Project wishes to acknowledge the 28 independent hog farmers from Iowa, Minnesota and South Dakota who gave us their time and insights for the interviews which are the focus of this report.

LSP also thanks John Bixler, Dakota Rural Action; Paul Sobocinski, Land Stewardship Project; and Brad Wilson, Iowa Citizens for Community Improvement, for conducting research with independent hog farmers. Thanks to Lynn Hayes, attorney with the Farmers' Legal Action Group, for writing Chapter V ("Legislative Authority for Regulating Packer Practices and Price Reporting"), and for providing legal insights to market access issues; James Kliebenstein, professor of agricultural economics, Iowa State University, for his review of Chapter IV ("Economic Impact of Packer Concentration and Vertical Coordination on Family Farm Livestock Production") for accuracy and for suggesting other resources for our consideration.

LSP thanks Anne de Meurisse for writing and Brian DeVore for editing the final publication, We also thank Mark Schultz, LSP's Director of Public Policy and Organizing, for directing the research and publication of this report. LSP also thanks Kelly Taylor for his excellent illustrations.

Finally, LSP expresses sincere appreciation to North Central Region Sustainable Agriculture Research and Education (SARE), United States Department of Agriculture, for providing the funding that made this research and report possible. SARE is a USDA competitive grants program supporting economically viable, environmentally sound and socially responsible agricultural systems.

For information on ordering additional copies of this publication, contact: **Land Stewardship Project, 2200 4th Street, White Bear Lake, MN 55110; phone: 651-653-0618; fax: 651-653-0589; e-mail: <lspwbl@mtn.org>; home page: <www.landstewardshipproject.org>.**

The Land Stewardship Project is a private, nonprofit membership organization that was founded in 1982. Our mission is to foster an ethic of stewardship for farmland, to promote sustainable agriculture and to develop sustainable communities.

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I. Executive Summary

Purpose of this report

Livestock is a key component in bringing about a farming system that is environmentally and economically sustainable. Raising livestock enables a farmer to utilize manure and diverse crop rotations in a manner that cycles nutrients back to the land efficiently. Widespread ownership of the land and farming operations, and widespread distribution of the economic benefits of livestock production and markets are also key conditions for a sustainable agriculture.

Here's the problem: Without truly competitive livestock markets, farmers lack the incentive to make animals part of their production system. That's why supporters of sustainable agriculture are so concerned about current trends toward concentrating the control of hog farmers in the hands of a few corporate packers and mega-producers. These operations rely on management systems that makes hog manure a toxic waste, rather than a valuable resource. Rural communities are seeing the results of this market control in the form of fish kills, polluted air and fewer families on the land.

Farmers who attempt to maintain access to markets via production contracts are forced to adopt these industrial methods of production, leaving little room for implementation of innovative, sustainable hog farming methods.

For this report, we investigated the hog industry from three perspectives: farmers' experiences, economic analyses of trends in livestock markets, and policy review of federal legislation and rules regarding livestock

marketing issues. We conducted interviews with 28 independent hog farmers in Iowa, Minnesota, and South Dakota to document "on the ground" the problems that family farm hog producers have in finding competitive markets for their livestock. We reviewed economic studies of packer concentration and captive supplies, as well as vertical coordination in the red meat industry in general and the hog sector specifically. In order to understand the economic climate needed for sustainable livestock production to thrive, one requires an understanding of specific packer practices that may affect farmers' ability to sell their product at competitive prices.

We analyzed USDA's legal authority for regulating packer livestock buying practices and price reporting requirements to determine the extent to which this authority can be used to end the current trend toward an increasingly closed livestock marketing system. Specifically, the Packers and Stockyards Act of 1921, both in its original form and in revised versions, directs the USDA to take action against packers' livestock buying practices that lock independent family farmers out of the marketing system.

Summary of findings

The findings about packer impact on market access and price suggest a clear trend toward capital-intensive, large-scale hog production and marketing systems. If this trend continues at its present pace, significant expansion of the number of sustainable integrated crop and livestock production operations is virtually impossible without policy changes that protect the livestock market from being controlled by a particular sector of the industry.

■ **Packers' practice of requiring captive supplies through contracts and direct ownership is reducing the number of opportunities for small- and medium-sized farmers to sell their hogs.**

Farmers identified at least two ways in which packers restrict access to hog markets. One way is the closing of buying stations. The farmers interviewed said that half of hog marketing stations to which they once had the opportunity to sell are now gone. While farmers can still market hogs at buying stations and terminal markets, the farmers we interviewed said that it is becoming more difficult as packers' demand for single-shipment volume grows and as the huge industrialized hog farms increasingly dominate the hog industry.

The second way many farmers have lost access to markets is that hog buyers are now more often "out of the market" (not buying hogs or offering competitive prices) because the packer for which they buy have its slots filled by contract hogs, or by hogs the packer owns directly. Sixty-four percent of all hogs slaughtered in January 1999 were sold on some type of "prearranged marketing arrangement, not on cash price." Based on the total number of hogs being slaughtered as compared to the number actually being reported as purchased on the cash market, officials with the Agricultural Marketing Service's Des Moines office estimated in early 1999 that as much as 70 percent of the hog market is controlled by captive supply.

As a result of the growth of captive supplies, the buying stations to which farmers currently sell hogs now require two or three and as much as five days notice, which is a major change compared with prior years' practices of pricing and selling their hogs the same day.

Economic studies we reviewed show that hog packer concentration and level of packers'

captive supplies are high enough to have some control over price. A specific packer practice that adversely affects independent producers includes marketing contracts which have been found to reduce the amount and kind of price information that is publicly available for competitive marketing. Studies show that inadequate market information causes lower producer prices and higher costs at the grocery store.

■ With fewer buyers and more captive supply, there is less competition for independent farmers' hogs and insufficient market information regarding price. Lower prices result.

In particular, farmers reported that private deals offered in long term contracts to producers who can guarantee large volumes at each shipment make the market information private and disrupt the forces of competition. Higher prices paid to large-scale producers under marketing contracts with a packer are extracted from prices paid to independent, smaller producers, further reducing prices already pushed down by factory farm over-expansion. While the facts about special deals are important information for independent farmers to know, it is as critical to note that what farmers are hearing is considered rumor, "what you hear," and not reliable marketing information on which business decisions can optimally be made. Economic studies confirm that the changing structure and practices of the packing industry can affect market access and prices paid to family farm livestock producers, and thus can affect competition. The number of buyers and the amount of concentration in the industry also affects competition and price.

■ Despite some recent indications of growing interest in addressing the impact of packer concentration and vertical coordination in the livestock markets, the USDA has taken *no significant action to reform its trade practices regulations*.

The United States Department of Agriculture's Grain Inspection, Packers and Stockyards Administration (GIPSA) is a primary avenue for policy initiatives that will address independent and sustainable hog producers' concerns over price and market access in their rapidly restructuring industry. Our review of the USDA's enforcement practices show that GIPSA is not fulfilling its obligation of enforcing meat antitrust laws.

Legislative history shows that the concentration levels in the hog packing industry at the time the Packers and Stockyards Act was enacted over 75 years ago were similar to the levels of concentration today. A primary purpose for passage of the Packers and Stockyards Act was to protect the interest of the producer. Congress recognized that to protect producers' interests, the Secretary must be granted the authority to regulate packer practices to ensure open, competitive markets for livestock. The 1921 Act granted the Secretary of Agriculture an extraordinarily broad scope of regulatory authority to proactively make and amend rules as necessary to ensure packer compliance with the Act as industry structure changes.

■ Packer control of the market is pervasive.

For packers, concentration is measured by looking at the top four firms that process the most hogs. The concentration ratio for the top four pork packers rose to almost 60 percent in early 1998. When the four-firm concentration ratio gets over 40 percent, firms start having enough market power to have some control over price, and if the ratio gets over 80 percent, the firms have as much power as a monopoly.

Packer control of the market extends beyond their role as buyers. As sellers, packers seek to gain control of wholesale and retail markets. Packers use their control of the market to manipulate farmers, communities and policy makers to their advantage. In the case of farmers, packers have threatened to not buy from farmers who shop among packers for the best price offer for their hogs. In the case of communities and policy makers, packers have threatened to move their plants from areas where policies have been proposed that might restrict packers' practices environmentally or economically.

- **Finally, farmers reported facing daily what they call a mind game, which they describe as pressure from agricultural leaders to conform to the new factory farm system of hog production.** Farmers we interviewed talked about the attitude that has developed among their neighbors, suppliers, bankers, feed dealers, commodity groups and extension agents. That influential attitude holds that raising a moderate number of hogs without an infusion of investment capital or marketing contracts is said to be a thing of the past.

Recommendations

☛ The USDA and the Department of Justice should ***immediately*** develop and make public a coordinated plan for consultation, communication, investigation and enforcement of all antitrust laws in the livestock packing and production industries.

☛ The Packers and Stockyards Act and other antitrust laws should be aggressively enforced by the USDA and the Department of Justice.

☛ Regulations should be issued that identify the circumstances under which volume premiums, inconsistent application of grade and yield, and other terms of purchase violate Section 202 of the Packers and Stockyards Act because they are unfair, unjustly discriminatory, provide undue preferences for certain producers over other producers, and/or have the effect of manipulating or controlling prices.

☛ The USDA should be aggressive in bringing administrative complaints against hog packers to enforce Section 202 of the Packers and Stockyards Act to ensure open, competitive markets for independent hog producers and to prevent unjust discrimination, undue preference for large-scale producers, and manipulation or control of producer prices.

☛ The USDA should require packers to report all packer purchases of hogs, the price of these purchases, the substantive provisions of any forward contract, marketing agreement or production contract through which the hogs were acquired.

☛ USDA and land grant researchers should increase investigation and study of the impact of contract production, captive supply procurement, and vertical coordination practices in the hog industry on independent, family farm producers.

☛ State policy makers should specifically prohibit packers from owning hogs or hog operations in their state.

☛ State officials should develop practical proposals for support of producer-owned and controlled processing facilities.

☛ Independent producers should inform the regional Grain Inspection, Packers and Stockyards Administration (GIPSA) office of concrete evidence of disparate treatment between contract producers and independent producers regarding price or other terms of sale.

☛ Independent producers should call or write the USDA/GIPSA and their elected federal and state representatives to advocate for fair market access and prices for independent hog producers.

☛ Independent producers should explore innovative marketing strategies that reward farmers for raising hogs in a way that benefits the land and rural communities.

☛ Independent producers should work to end the mandatory pork checkoff, which supports vertical coordination by the packers and a few large producers, and has promoted massive overexpansion of pork production by individual operations, leading to oversupply and low prices.

☛ Consumers should ask who raises the pork on their supermarket shelves — a family farm, or a factory farm. They should also be aware and question the price differential between what they pay for pork and what farmers receive for their hogs.

II. Introduction

Study after study has shown that small and medium sized diversified farms can compete with the mega-factory operations. In some cases, they are ***more*** efficient. Inexpensive innovations such as the hoop house and the Swedish deep straw method of pork production promise to make small family farmers even more viable economically, environmentally and socially.

But they cannot compete without a market. And as this special report shows, that market is being eliminated through the use of exclusive contracts. It has been shown that prices paid to independent farmers decrease as packers enter captive supply forward contract arrangements. At the 10 percent level of integration, the price paid to independents declines by six percent. At 50 percent integration, independent farmers receive 26 percent less for their hogs. Now consider this: By early 1999, between 64 percent and 70 percent of all hogs were marketed under captive supply arrangements, according to separate analyses done by the University of Missouri and the USDA's Agricultural Marketing Service.

It is the opinion of the authors that if independent farmers are denied access to a marketing system that allows them to raise hogs, the result will be economic, social and environmental ruin for our rural countryside.

No one argues that pork processors don't need a significant volume of pigs to operate efficiently. However, when it comes to the health of rural communities, what's more important: large numbers of hogs, or large numbers of hog *producers*?

This report was written under the assumption that the latter is the case. There is plenty of evidence to support that argument. An analysis conducted by the University of Missouri found that each job created by large, concentrated factory hog operations results in the loss of three times that number of established independent farmers. Fewer farmers means fewer businesses

on Main Street, no matter how much buying power the remaining producers have. A 1992 study by the University of Minnesota analyzed the spending patterns of 30 farmers selected from the membership of the Southwest Minnesota Farm Business Management Association. The researchers found that for livestock intensive operations, the percentage of income spent locally (defined as within a 20-mile radius of the farm) declined dramatically with an increase in the size of the operation.

This is just the latest in a long line of studies on the relationship between structural changes in agriculture and health of rural communities. The classic study in this area of sociology/economics was conducted by Walter Goldschmidt during the 1940s when he compared two rural California communities and found the one supported by diverse, family-sized farms was significantly better off socially and economically. The town surrounded by large corporate operations had a much lower quality of life.

Making livestock less profitable for diverse, family farms makes it more difficult for them to be economically and environmentally sustainable. Hogs have traditionally been known as "mortgage burners" because of their ability to give a farm family a relatively quick turnaround on its investment.

A special multi-state study of sustainable agriculture conducted by the Northwest Area Foundation in the early 1990s found livestock to be key components of a farm striving to reduce reliance on chemical inputs. Nearly all of the sustainable farms had livestock, while conventional farms were much less likely to, the analysis found. In Minnesota, for example, 91 percent of sustainable farms had livestock, compared to 37 percent of conventional farms. Sustainable farmers are also more likely to have more than one kind of livestock. In Iowa, only about half the conventional farmers have livestock, and of those, three-fourths have only one species. In contrast, 93 percent of Iowa's sustainable farms had livestock, and 80 percent of those had two or more kinds.

The analysis concluded that livestock manure produced on a farm, along with the use of green manures and other sources of on-farm nutrients, played a major part in the success of sustainable operations. These operations, in turn, contributed much less to soil erosion and ground water contamination.

One well-known Midwestern sustainable farmer has been raising certified organic crops for more than two decades in western Minnesota. Hogs play a key role in his sustainable system. For extra nutrients and organic activity, he relies on the liquid manure supplied by the 1,500 hogs he markets with two other family members every year. He tests the manure to ensure it's being spread at appropriate agronomic rates. One advantage of planting small grains is that it provides a place to spread the manure during the growing season. To bring things full circle, the farmer uses his own soybean roaster to make feed for the hogs, giving him a value-added outlet for those beans he doesn't market.

This farmer is concerned that further concentration in the livestock industry will leave him no market for his hogs. Already, the local packer buying station has closed. If hogs were no longer profitable to raise and this farmer had to close down that part of his farm, he'd be denied not only a major portion of his income, but an important source of nutrients.

"I'm not sure if I can farm in an environmentally and economically sustainable manner without livestock enterprises like hogs," said this farmer recently.

The total demise of markets for independent hog producers is not inevitable. Despite the recent catastrophic prices due to oversupply and increased packer interference with the market system, we can as a nation act to restore fairness in the marketplace. We hope this report will prompt government officials, university experts, farmers and other citizens to take steps to ensure a diverse, sustainable livestock system in this country.

III. Patterns of Market Discrimination: Findings from Interviews with Farmers & Review of Literature

Hogs play a very important role in the development of sustainable farming systems. Raising hogs is a source of income that makes good use of on-farm resources while providing enterprise diversity. For sustainable farming to be adopted on a broad basis, family farmers must be able to develop whole farm systems that integrate grain, forage, food crops and live-stock production. Such operations can offer low-capital entry into farming for beginning farmers, while competing effectively with higher-capital operations in terms of cost of production.

The purpose of conducting interviews with farmers as part of this study was to document "on the ground" the problems that family farm hog producers have in finding competitive markets for their livestock. Telephone and personal interviews were conducted in three states (Iowa, Minnesota, and South Dakota) in the second half of 1997. The total number of hog farmers interviewed for all three states is 28. A few of them would describe themselves as sustainable farmers (defined as farmers who are taking significant steps to reduce their reliance on chemicals, antibiotics, energy-intensive production systems and expensive waste handling facilities).

The interviews focussed on what family farmers have experienced when marketing their hogs in the past two to seven years, what they have experienced when dealing with packers, and the impact of packers' activities on what markets are available to independent hog farmers and the prices they receive. The main problems highlighted by farmers in their interviews were:

- **Captive supply**, primarily through packer forward contracting with producers to deliver animals during a fixed time period.

- **Premium prices** paid to producers who provide packers with a guaranteed volume; lower prices received by smaller producers who don't provide such guarantees.

- **Packer delays** in purchasing independent producers' livestock because plant capacity is filled with captive supplies.

■ **Closure of buying stations** within a reasonable distance of the farmers' homes.

The results of the interviews are summarized below, followed by what our review of the economic literature says about farmers' experiences.

Editor's note: *In certain quotes where the farmer named a particular packer, we've inserted [a packer] or [the packer] to focus the reader's attention on the practices that farmers have identified and to avoid singling out a particular packer as being the only one engaging in that practice.*

A. INDEPENDENT HOG FARMERS ARE LOSING ACCESS TO MARKETS

Farmers identified at least two ways in which they are losing access to hog markets, both of which stem from packers' practice of capturing supplies or closing out buying stations, a trend which accelerated in the 1990s.

1. The practice of major packers to capture supplies through contracts and direct ownership is reducing the number of opportunities for small- and medium-sized farmers to sell their hogs

The USDA's Small Farm Commission defines captive supplies as "either...direct ownership of livestock by the packers themselves or ... forward contracting with livestock producers."[1]

Independent farmers no longer are assured of selling their hogs in a timely fashion when they are ready for market. Producers with marketing contracts are perceived to have that assurance.

Farmers reported that a major change they've seen in the past two to seven years is the packer practice of telling farmers they have no room for their hogs, to wait two to three, or as one farmers said, five days, for the packers' slots to open again. This is a significant change from a system in which farmers could deliver and sell their hogs the same day, without "calling ahead."

"It takes longer to sell livestock. Now you must call ahead. Previously I could just take it in. I think it's because they have so many contracts. They use us small guys to fill in," said one Iowa farmer we interviewed.

"It's getting harder to sell hogs when you want to," said another Iowa farmer. Waiting is caused in many cases because producers with contracts or with larger volumes (or both) are given preference.

Farmers have been told the waiting periods are because the packers have filled their capacity with hogs they've purchased from producers with marketing contracts. One Minnesota farmer said, "I have been good friends with the buyer. He was moved to this area three or four years ago by [a packer]. He has a family to support. He can't buy when contract hogs fill the slots."

The kind of waiting described by the farmers we interviewed is the result of captive supplies. Contracts are one way packers capture supply. There are plenty of large-scale producers that, because of their size, are highly capitalized and thus need the assurance of selling their hogs under contract. Of the 50 largest pork producers named in *Successful Farming's* 1998 Pork Powerhouses ranking, nine include Minnesota as part of their production base, 11 are in Iowa and four operate out of South Dakota.[2]

Many of the farmers we interviewed have had the opportunity to get involved in a long-term contract. When asked whom they would approach to get into a contract, farmers readily named one resource and usually named two or three. Feed dealers and packers were two entities which farmers named most often.

There are two basic categories of contracts: production and marketing. The box on page nine describes them in more detail.

Contracted supply is only a part of the captured supply. Direct ownership is another way in which packers capture supply.

In a 1996 study on vertical coordination in hog production, researchers found that 10.2 percent of hog production in 1993 was either under market contracts with packers, or directly owned by packers. Based on a survey of the 19

Demystifying Hog Contracts [3]

In today's hog industry there's a lot of talk about "contracts," and a fair amount of mystery as well. Here's a brief summary of these arrangements:

1. Production Contracts

In production contracts, the contractual relationship is between the owner of the hogs and farmer who agrees to raise those hogs. Production contracts refer to contracts in which an owner of hogs contracts with producers to farrow or to grow hogs to market weight. The hog owner may be another producer, a packer, or investors. To expand their own production more rapidly, many larger producers use contract production as a way to hold down risk and capital required. Investors, feed dealers, farmers, and others often are interested in producing hogs, but are unwilling or unable to provide the necessary labor, facilities and equipment.

2. Marketing contracts vary based on price and length of contracts

In marketing contracts or agreements, the contractual relationship is between the owner of the hogs and the packer. The buyer and seller agree in advance to terms which may include any or all of the following: price (including quality premiums and discounts), date of delivery, volume of delivery, exclusive rights to a particular genetic line, and method of delivery (eg., direct shipping versus delivery through a buyer). Marketing contracts have become an alternative to the more traditional "spot" or "open" markets in which the packer and farmer negotiate the price to be paid for the farmer's hogs, and the farmer delivers them within a couple of days from when the prices were settled.

a. Price

✔ **Fixed prices:** In this type of contract, the producer agrees to sell at a future date a specified number of hogs to a buyer for a certain price. Usually forward cash contracts are one-time contracts and tend to be shorter term; producers may engage in more than one forward cash contract with the same buyer or different buyers. The producer (seller) retains all production risks, other than the selling price, under a fixed price forward sale contract. A producer uses a forward sale contract to reduce the risk of price fluctuations and to lock in an acceptable selling price.

✔ **Unfixed prices:** Such contracts offer price agreements that are dependent on other variables such as the cost of production, or an agreed upon price range above or below the market price.

b. Length of contract

✔ **Short term:** The length of short term contracts can range from weeks to about two months. Short term contracts tend to have fixed price agreements.

✔ **Long term:** The length of long term contracts range from about six months to several years. Long term contracts tend to have unfixed price agreements. They may have all the elements of a fixed price forward cash contract, but with expanded or refined terms and additional risk-sharing between the packer (or buyer) and producer (seller).

■ **Examples of long-term contracts:**

— **Price-window (or Window):** This type of contract establishes a price range with an upper and lower limit. If the market hog price falls within that range, the farmer receives the market price. If the market price falls outside the range, the farmer and packer split the loss or gain in price.

— **Cost-Plus (or Formula Price):** This type of contract bases the price paid to the producer for hogs on a standardized cost of production and the factors that influence that cost such as feed prices. Cost-plus contracts guarantee hog producers a minimum price above the cost of production.

— **Ledger Arrangement:** These are arrangements — attached to other contracts — where a debit is recorded against the producer when the cash market price is below the contract price. The producer is credited when the cash market is above the agreed upon contract price.

largest hog packers, the authors predicted that the percentage of captive supplies would triple by 1998 to 32.3 percent, of which 25.6 percent would be contracted, and 6.7 percent directly owned.[4] According to two recent analyses — one from the U.S. Department of Agriculture's Agricultural Marketing Service and the other from the University of Missouri's Glenn Grimes — that prediction was far too conservative. Grimes, in a study funded by the National Pork Producers Council, found that 64.2 percent of all hogs slaughtered in January 1999 were sold on some type of "prearranged marketing arrangement, not on cash price."[5] Based on the total number of hogs being slaughtered as compared to the number actually being reported as purchased on the cash market, officials with the Agricultural Marketing Service's Des Moines office estimated in early 1999 that as much as 70 percent of the hog market is controlled by captive supply.[6]

Such estimates are likely to be ratcheted up if a massive buy-out announced in late February 1999 goes through. Smithfield Foods, Inc., announced an agreement in principle to acquire Carroll's Foods, Inc., and Carroll's affiliated companies, an acquisition that would make Smithfield the largest hog producer in the world. Smithfield is already the largest pork processor in the world. Carroll's has approximately 185,000 sows, and Smithfield has 150,000. Smithfield chair and chief executive officer Joseph W. Luter III told *Feedstuffs* magazine that Carroll's production " 'will increased Smithfield's levels of vertical integration to 27 percent,' from its present level of 11 percent, meaning that the company would own 27 percent of the hogs it kills and processes." Luter told the magazine that this acquisition will allow Smithfield to accomplish "in one transaction" what the company otherwise would have needed up to 10 years to complete. Smithfield already has acquired John Morrell & Co., once a major processor in its own right.[7]

"About 20 percent of Monfort's kill is now under a long-term contract," Ed Brems, Monfort's head of hog buying, told *Successful Farming* magazine in 1995. "It's entirely possible that 5 years down the road we could have 70 percent of them under contract." Farmland Foods has 20 percent contracted, with a goal of one third. Industry estimates put Hormel's contracted hogs at between 15 to 25 percent of its kill.[8]

Horizontal integration — where large hog production firms contract with growers to finish hogs — is a way for large producers to expand their production and are not marketing contracts per se.

Farmers also reported in their interviews that when hog prices are high, packers either slow down production or rely on their contracted hogs to keep their slots full. "When the hog price was high, [the packer] was out of the market for days at a time, and at one period of time, for a week," said another farmer interviewed.

Packers' new purchasing practices of capturing supply concern independent farmers for a few reasons. The first and most important reason is that if the packer's prices are high during the waiting period, farmers can't take advantage of them. Similarly, farmers can no longer predict or count on when, or if, a packer will buy hogs. When farmers with hogs ready for market are told to wait, they lose two opportunities — one, for taking advantage of good market prices and, two, the opportunity of earning a premium from selling the hogs in optimal condition. Waiting also creates extra feed and operational costs for farmers. In areas where the choice of buyers is small, this practice of being asked to wait severely undermines that producer's independence. We saw a graphic example of that during the hog price collapse that occurred during the winter of 1998-1999.

2. Packers are closing out markets

a. Buying stations are being closed

The farmers interviewed said that half of hog marketing stations to which they once had the opportunity to sell are now gone. Of the 28 farmers we interviewed, 16 have one or two buyers to choose from within a reasonable

distance. Farmers could name one and usually more buyers that have gone out of business or buying stations that have closed in the past two to seven years. The number of respondents who reported one closure – 10; two closures – 5; three closures – 1; four closures – 4.

Packers, buying stations, and auction barns are fewer and farther between. Some farmers have only one buyer nearby and others have two or three buyers in their area.

In many farmers' cases, the buying stations to which they currently sell hogs now require two or three days notice, which is a major change in practice compared with prior years' practices of pricing and selling their hogs the same day. Hog buyers are now more often out of the market because the packer for which they buy has its slots filled by contract hogs. Fewer buying stations creates fewer options for independent hog farmers to sell their products, which in turn means less competition among buyers for those farmers' hogs. With less competition, independent farmers have less bargaining power over the prices they receive. A 1995 study by John Lawrence of Iowa State University found that the number of markets in Iowa is a chief reason why Iowa has been number one in pork production for more than 100 years. The study also said that in 20 counties in Iowa, hog farmers had, in 1995, their choice of at least four local markets, and that the abundance of markets translates into brisk bidding for market hogs.[9] This is one reason why the recent closure of buying stations, as reported and experienced by the farmers we interviewed, is so significant.

Some farmers mentioned reasons why buyers closed. One cause is due to consolidation of companies ("the buyer who used to be the buyer for Wilson is now the buyer for Morrell"). Another reason is due to market control strategies of major packers, the most significant example of which is Smithfield's purchase and immediate closure of Dakota Pork in Huron, S. Dak.[10]

According to the farmers, the buyers are rarely being replaced, which creates greater distances for transporting hogs to market, and in some areas, has restricted the choice of buyers for farmers to approach.

"As a producer, I know that when [the packer's] buying station closed that means that [another packer] wouldn't have to compete in our area for hogs anymore," said a Minnesota farmer.

And this trend is likely to continue. According to another Minnesota farmer: "In second hand conversation, a friend of mine found out that [a packer] will not have any buying stations in the future. They intend for all their hogs to be direct shipped."

The status of buying stations varies greatly within local regions of each state and among the three states where we conducted interviews.

b. Feeder pig markets are closing

Traditionally, the feeder pig market has been a place where farmers sell weaned pigs when they are about eight or nine weeks old and weighing 40 to 60 pounds to farmers who finish them to market weights over 200 pounds. The volume of sales in the traditional feeder pig market is measured in lots that can range from 50 to 200 pigs. In this marketing system, farmers sell feeder pigs in public places such as an auction barn or in private deals with their neighbors. Our interviews indicate that farmers are beginning to see the loss of feeder pig markets.

"Up until two years ago, I used to just sell feeder pigs. That market has completely disappeared. The Minnesota Feeder Pig Market at Willmar and Gibbon is now closed," said a Minnesota farmer.

"Canby Sales barn is seeing a real drop in feeder pigs. Last week, it had 40 head for sale. It used to run from 400 to 1,000 a week," reported another Minnesota farmer.

"The market for feeder pigs has changed. The big boys lock them up. I can't buy [feeder pigs] from my previous sources. I can't get big lots of feeder pigs at the sale barns anymore. I can just get several smaller units," said an Iowa farmer.

While farmers can still market feeder pigs in the traditional ways described above, the

farmers we interviewed said that it is becoming more difficult as packers' demand for volume increases and as the huge industrialized hog farms increasingly dominate the hog industry. There are essentially two forces fueling the shift away from traditional feeder pig markets. One, as hog finishing operations get bigger — new finishing barns are designed to handle 1,000 pigs at a time on average — the demand for larger lots of feeder pigs from a single source increases. Large scale hog finishing operations may purchase lots ranging from 200 to 1,000 feeder pigs in order to deliver semi-loads (one semi-load is about 200 hogs) at a time to their packer. Currently, packers are offering premiums for such big loads to encourage hog producers to develop the capacity to deliver large volumes of supply. The second force comes from feed dealers. Local feed dealers are urging farmers to become large-scale hog finishers by arranging deals for farmers which include linking farmers to suppliers of large lots of feeder pigs along with a feed purchasing program.

3. With fewer buyers and more captive supply, there is less competition for independent farmers' hogs; lower prices result

Exclusive contracts affect the markets in that they help expand the scale of production and allow large producers to meet packers' needs for volume. To make up for paying higher prices to large production firms, lower prices are paid to the smaller independents. These arrangements also industrialize production so that large producers can deliver their supplies consistently to packers.

According to an Iowa farmer, "Pricing has all changed and is in flux. Now they take a three-day average, the best of three days, then plug in grade and yield. Pricing systems change all the time. Now there is probably a three-day wait to haul hogs to town. If you are an independent like me, you're probably used to fill in the gaps. I sell 50 head every two weeks."

"The biggest change for us occurred when [the packer] at Albert Lea closed. Our grade and yield premiums dropped from $2 to $4 a hundredweight to 0 to $2 a hundredweight."

As an Iowa farmer stated it, "With 30 to 40 head per week you don't have much bargaining power. It's take it or leave it."

"They [packers] are buying for tomorrow or two days out. Price quotes have dropped as much as $2 a hundredweight. For example, for hogs to be sold on Friday, one would have to wait until Tuesday to deliver. Two or three years ago, I could sell and deliver the hogs the same day. [A large packer], today, is typically out of the market $2 to $3 hundredweight." Here, the farmer was describing a more common practice in which packers buy hogs at lower prices when their need for hogs is low because they have captured their supply for a certain number of kills through contracts or direct ownership.

Such a situation, in which independent producers become the secondary suppliers of hogs, has already led to major price differentials. For example, in North Carolina, the norm is contract production that is controlled by a handful of mega-hog operations, most notably Murphy Farms and Smithfield. They have contracts and joint ventures with packers, or are themselves packers. Independent producers there often receive significantly lower prices than the mega-hog producers. *Hogs Today* magazine reported that in the last quarter of 1993, independent producers received 39 cents per pound for their pork, while the large operations got 51 cents per pound.[11]

4. Private deals offered through contracts make the market private and disrupt the forces of competition

Farmers were asked if they know of producers that receive "special" deals — or marketing contract arrangements in which producers receive premiums for anything other than the quality-based grade and yield premiums. The majority of the farmers we interviewed have heard about such deals (such as premiums for volume or guaranteed delivery).

A few farmers have already seen concrete evidence of this. One medium-sized farmer we

interviewed has such an arrangement with a packer in his region in which the farmer receives the top of a two-day average of the previous week if he agrees to sell all his hogs to that packer. Compare this to a larger premium offered by a different packer to a much larger farmer. An independent farmer we interviewed is working with a large livestock entity that sells 20,000 hogs per year. He showed us a long-term contract that states a particular packer will give that entity a premium of $5 per live hundredweight for delivering hogs in large volume.

Minnesota farmers are hearing about or receiving special deals: "I'm part of a marketing group that has a one-year contract with [a packer] that nets us $1.50 over DTN." (DTN is the acronym for "Data Transmission Network," an electronic agricultural report service used by farmers to track prices).

Many marketing agreements and forward contracts for the purchase of slaughter hogs require that the contract terms and prices paid be kept confidential. This prevents producers from confirming many of the rumors they hear and denies them access to information necessary to determine the true value of their livestock.

Another farmer heard from an employee of one of the largest hog producers in the U.S. that they received $7 a hundredweight more because of volume. "They also had a deal in which the market price for their hogs was tied to the grain price."

Two recent GIPSA reports point out dangers for smaller scale producers from the increasing use of long-term marketing agreements and vertical integration in the hog industry. GIPSA's *Concentration in the Red Meat Packing Industry* report issued in February 1996 acknowledges one likely outcome of a more tightly linked market through long-term contracts is "potentially more limited market access for hog producers, and increased short-term price volatility for smaller producers and/or producers heavily reliant on spot markets.[12] GIPSA's *Western Cornbelt Hog Procurement Investigation* report findings show that smaller-scale producers are receiving lower prices than large-scale producers who have access to market agreements. The report states "average base prices and premiums increased with seller size…[and that the study] shows that larger sellers are receiving higher premiums over the base price for hog characteristics, increasing the gap in price received over smaller sellers; marketing agreement transactions were most utilized by the largest sellers."[13]

While the facts about special deals are important information for independent farmers to know, it's as important to note that what farmers are hearing is considered rumor, "what you hear," and not reliable marketing information on which business decisions can optimally be made.

"I've heard a rumor that large producers receive higher prices that are not based on grade and quality premiums. I have no proof, but it is probably true. I've heard that there are special deals I can't get but I have no proof." This testimony from an Iowa farmer was shared by many producers who were asked what they know about special deals. What these farmers are experiencing is more than rumor.

For example, in the Oct. 26, 1998 issue of *Feedstuffs* magazine, National Pork Producers Council CEO Al Tank was quoted as saying that "a high percentage of pigs have been more profitable than market prices suggest because many producers have contracts and other marketing arrangements that have paid them $5 or more than the market price." Tank was explaining why, during a period of prices in the $20-$26 per hundredweight range (well below cost of production), he was telling producers to expand further.[14]

The USDA Advisory Committee on Agricultural Concentration found consensus on the need for "creating an atmosphere of open disclosure of basic operating facts, including many aspects of price discovery, earnings levels of packers and feeders, environmental management concerns, and contract terms between integrators and producers."[15]

"It was widely agreed that equal and accurate market information improves the price discovery and determination process. Poor information can lead to unnecessary price volatility or slow adjustment to changing supply and

demand conditions. Inadequate or uneven information can cause some market players to be disadvantaged relative to others, and some suggest that price levels could be biased for an extended period."[16]

In 1997, about one-fourth of the hogs sold were priced based on reported market prices such as a terminal market or the Iowa-southern Minnesota mid-day report, or a combination of more than one reported market.[17] At that time, about 38 percent of hogs were not involved in daily price development because they were purchased through formula pricing. According to Clement Ward, an extension economist at Oklahoma State University, cash market purchases by the largest pork packing companies were expected to decline from 87 percent in 1993 to 66 percent by 1998. Ward predicted the largest hog producers would market only 10 percent of their hogs in the cash market by 1998, and that forward contracts would make up nearly 75 percent of their expected marketings."[18]

This system of pricing and marketing benefits the packers, who control the terms and offer them on a case-by-case basis, without exposure to the public market and price discovery. Only the largest producers have the power to effectively negotiate with the big packers. Large producers also have ready formal and informal access to meat packing corporation decision makers. But it does not lead to an efficient pricing mechanism, nor does it lead to fair access to markets for all producers.

B. PACKER CONTROL OVER THE MARKET IS PERVASIVE

1. Packers are using grade and yield pricing systems almost exclusively

Most often, pricing of hogs today is based on a system in which the packer measures the "grade and yield" of each hog. "Carcass merit pricing," is the industry term for what most farmers refer to as "grade and yield." In the grade and yield system, the packer states up front the price it's willing to pay for a hog carcass that meets the packer's grade and yield standard. The price includes a base price plus a penalty or a premium depending on whether the carcass falls below the standard or exceeds it. A farmer who sells by grade and yield pricing delivers his or her hogs to the packer and, at a later time, receives the packers' estimate of the grade and yield of that farmer's hogs, as well as the resulting price premiums or discounts.

The following quote offers some background about how this system was developed and how it works:

"Carcass merit pricing systems were based on USDA grades and carcass weight until the advent of the National Pork Producers Council's (NPPC) *Lean Value Buying Guide* in 1981. Since then, backfat thickness and, in the original NPPC system, degree of muscling, have replaced USDA grades in most packer carcass-merit pricing programs. Today, the terms 'grade and yield,' 'carcass merit' and 'lean value' are synonymous. However, individual packers have developed their own versions of the system which have **(1)** base carcass weights and premium/discount structures which differ from the NPPC guide and **(2)** usually omit premiums and discounts for degree of muscling.

"In all carcass merit pricing systems, prices are paid for carcasses, not live animals. A base carcass price is applied to carcasses which meet certain standards for weight and backfat thickness. Premiums are paid for leaner carcasses of a given weight or heavier carcasses with a given backfat thickness. However, carcass weights must fall within a pre-specified range to be eligible for premiums. Packer employees do all of the carcass measuring in today's systems. Only after carcass prices have been determined is dressing percentage applied to convert prices to a liveweight basis."[19]

When it was first introduced to the industry, grade and yield was touted as just one tool for meeting consumer demand for lean pork. But in a very short time, grade and yield has become the only system used for pricing hogs 75 percent of the time, up from 25 percent in 1990.[20]

Packers, because of their use of the grade and yield pricing standard, have created incen-

tives for breeding hogs with low back fat and high muscle yield. According to Lawrence Duewer of the USDA Economic Research Service, in 1955 the average amount of fat per 100 pounds of pork carcass was 20.6 pounds. By 1975, the amount of fat was 10.7 pounds and by 1990, 5.3 pounds per 100 pounds of pork carcass. Carcass weights have increased 10 percent since 1980, or approximately 17 pounds.[21]

While the shift to grade and yield represents a major change for the farmers we interviewed, they did not express concern that it was an immediate barrier to their ability to access markets. They have adapted to this new standard of quality and expressed a great deal of confidence in their ability to compete with farmers of any size on the basis of grade and yield.

However, this system of valuing hogs makes it difficult to determine just exactly what the farmer is being paid for. In other words, it is one more way packers can control the price they offer for hogs, creating even more confusion in the price transparency picture.

The issue of grade and yield pricing was brought to the forefront on April 9, 1999 when the USDA charged that Excel Corp. (Cargill's meat packing division) violated federal meat packing laws. The lawsuit charges that Excel failed to notify farmers when it changed the formula that determines how much it pays for hogs. The formula change cost affected farmers about $1 a head, and "farmers did not have the information to detect the change."

Agricultural economists such as Brian Buhr of the University of Minnesota have expressed concern about the complexity of grade and yield pricing.
" 'Packers used to weigh hogs and pay based on weight. Now they've switched to paying by carcass traits — how much lean, how much fat,' " Buhr told the Minneapolis *Star Tribune* newspaper on April 10, 1999. " 'And it's extremely difficult to measure these things very accurately.' "[22]

And some farmers we interviewed did say that grade and yield standards seem to vary from seller to seller. As such, grade and yield is becoming a tool by which packers can maintain control over the market, especially when it is used unequally, such as when premiums paid by the same packer fluctuate. One Minnesota hog producer had this experience:

"Three years ago, according to [a buyer for a major packer], 90 percent of my hogs were grade one and I received a $0.30 premium over the $25.00 hundredweight market price. During that same period, according to the buyer, a large-scale hog production cooperative was getting $42 hundredweight and a substantial number of their hogs were grade three."

In general, confined hogs that have been bred for specialized genetics are more vulnerable to diseases. If pigs get sick, they must be treated with drugs. According to *Successful Farming*, "A producer in North Carolina says he has never seen so many veterinarians scurrying around hog farms. 'PRRS [Porcine Reproductive and Respiratory Syndrome] and pseudorabies are hurting production down here. Well, disease is a lot more serious than we give it credit for.' "[23] When lean genetics were introduced the health status of hog herds deteriorated. "The immune system has proved to be something the industry knows little about. Secondary infections can be killers," says the director of nutrition and technical services for Carroll's Foods, which was the second largest hog producer in the U.S. in 1999 (at the time of this writing, number four hog producer Smithfield was in the process of buying out Carroll's). Animal health has been further challenged as units have grown rapidly and as lean genetics from other countries have been introduced.[24] These lean genetics are creating a "hyper animal" that is difficult to handle during transport to slaughtering plants, says Temple Grandin, a Colorado State University animal scientist. These lean, high-strung animals can injure themselves easily, negatively affecting meat quality.[25]

While consumer demand for lean pork is high, there are other desirable qualities of pork that can open up potential markets as well. An Iowa farmer alluded to possible market potential

in raising breeds to appeal to consumers' demand for taste: "I talked to a guy ... who has a special breed which he feels is good tasting. He has it processed in Des Moines and packaged in his own name. He sells to upscale restaurants. He can't produce enough to keep up with demand."

A group of farmers from southeast Minnesota and northeast Iowa have joined forces to market antibiotic-free, humanely raised pork to Niman Ranch, a meat company in San Francisco. The premium paid for these hogs proved critical during the hog price collapse of 1998-1999. "It has been a godsend," said one southern Minnesota farmer who markets to Niman.[26]

Advocates of mega-scale production systems do not include in their definition of quality the way specialized breeds rely on large doses of antibiotics to survive, are raised in confinement, their vulnerability to diseases, and, in the opinion of many meat experts, their lack of much taste. Yet, packer standards for defining the quality on which price premiums are paid are increasingly based exclusively on grade and yield.

2. Packers seek to gain control of wholesale and retail markets

In their 1996 report to the Secretary of Agriculture, the USDA Advisory Committee on Agricultural Concentration stated, "Concentration on one side of the market tends to foster concentration on the other side of the market."[27]

Farmland Industries, the co-op meat packer based in Kansas City, provides an example:

"Farmland has moved networking from the farm through the retail level, operating satellite cutting operations in Wisconsin and Nebraska, with plans to add two more locations within the next year. Chris Hodges, director of strategic action and risk management for Farmland Meats Group, sees the handwriting on the wall. He estimates that less than 10 percent of the pork sold in the U.S. is branded by a packer or processor. In 1998, Farmland expected to deliver 25 percent of its pork volume as branded product. 'The Extra Tender line includes 70 products,' he says. 'This is fresh pork branded, enhanced with 7 percent solution of sodium phosphate to make overcooking almost impossible. When a retailer become a partner, Farmland becomes its sole supplier of fresh pork. This type of single supplier arrangement is quite a change from the way business has been done in the past. But Extra Tender has grown by double digits for each of the past five years."[28]

One Minnesota farmer interviewed has talked to regional retailers who want to buy pork from independent farmers. Grocers feel pressure from packers to carry the products the packer wants to sell — pork packaged with preservatives to extend its shelf life — even though this may raise consumer concerns.

3. Packers use threats to control farmers, communities and policy makers

Some farmers have been told or have heard that packers don't want farmers to shop around for price. A Minnesota farmer stated that, "About three years ago, [a packer] started a policy that if you sold hogs anywhere else, you would get a lower bid from them. [Another packer] started a policy five years ago to tell me, as a prospective seller, not to call if I was comparing prices." Not all packers engage in the practice of threatening farmers in these ways (refusing to buy or buying at a lower price), but farmers expressed concern that such practices may become the norm in the future. Such fears prompt farmers to get a production contract with a large producer — to raise the owners' pigs for them — because farmers are concerned they won't be able to market their own hogs in the future.

During the late summer of 1997, South Dakota farmers witnessed a blatant power play by Smithfield Foods Inc. which had recently acquired the Morrell plant in Sioux Falls. As a citizen-led petition drive for requiring a statewide referendum in 1998 to restrict hog factories gained momentum, Smithfield threatened to keep packing facilities closed if hog production was restricted.[29]

The first minority report of the USDA Advisory Committee identified this issue:

"Retaliation by an integrator for organizing activities can quickly lead to a [beef] producer's bankruptcy. While concentration in the swine

industry is not yet at the level of the beef and poultry industries, it is proceeding rapidly, and fear of losing independent competitive market outlets for pork producers grows right along with the packers."[30]

This sense of threat is also evident in the Advisory Committee's majority report:

"Trends in international trade will influence policy recommendations related to concentration. ...Since importing meat products is increasingly easy to accomplish, the very real potential exists for production to move out of the United States if unrealistic conditions are imposed on any element of the domestic industry."[31]

C. LENDERS AND FEED COMPANIES HAVE BECOME PART OF THE PUSH FOR FARMERS TO SPECIALIZE AND CAPITALIZE PRODUCTION SYSTEMS

The findings about packer impact on market access and price suggest a clear trend toward capital-intensive, large-scale hog production and marketing systems. If this trend continues at its present pace, significant expansion of the number of sustainable, integrated crop and livestock production operations is unlikely and impossible without policy changes that protect the livestock market from being controlled by a particular sector of the industry.

1. Access to credit

Some farmers have heard of bankers who discourage independent farmers from continuing, or have made major expansion a requirement for credit. An Iowa farmer told this story about seeking credit:

"A farmer told me his banker said, 'I think you guys can't compete and should get out.' The farmer did, then the banker went out and put up four or five [hog confinement] buildings. Another friend who sells seed said he was approached by a bank in Marshalltown to change banks. He went in for an interview. When the found out he sold 1,200 to 1,300 head of hogs per year, the banker sat back and laughed and said, 'We tell our farmer if they're not raising 25,000 head they need to get out.' "

A Minnesota farmer said:

"Yes, independent producers can compete if they have a level playing field in all aspects of pork production. One example is financing. The Farm Credit office near me, for example, is pushing loans to large livestock operations. Farm Credit lines up the credit for producers who put up finishing barns for one of the mega-producers in our area which is in the ranking of the top 50 producers in the United States."

Members of USDA's Advisory Committee on Agricultural Concentration who signed the minority report expressed their concern about the role of creditors in pushing for expanded hog production:

"Lenders of the 1990s, by promoting expanded concentrated livestock operations, are doing the same thing that got 1970s lenders and producers in trouble. An analogous downturn in livestock profitability or a parallel boost in the cost of capital will similarly leave its mark on the countryside. ... The consequences of capital wrongly pressed into the service of concentration are irreversible."[32]

That same advisory committee's majority report offers similar conclusions about the role of credit and lending in concentration:

"In today's agricultural economy, the availability of credit often determines whether a farming or processing operation can continue. Some farm lenders have adopted the view that mere continuation of a viable family farm enterprise is insufficient reason to grant operating credit. These lenders have assumed the role of farm manager and long-range planner, forgetting the lessons of the past two decades. Farmers who have made decent livings and survived the 1980s farm credit crisis are now refused operating loans unless they agree to expand. For these farmers, the price for survival is taking on excessive debt and expanding to factory farm size."[33]

How credit policies affect the entry of young farmers into hog production is another issue of sustainability. Hogs traditionally have been called "mortgage burners" because they