were a way for farmers to start small with minimal investment to build a business over a 10-year period. Young farmers seeking to expand their farms have few options except to raise the owners' pigs.[34] With access to credit disappearing for small- and medium- scale hog production, there is a significant impact on market access. Lenders' policies mean fewer small- and moderate-scale producers, which means they will comprise a smaller and smaller percentage of the hogs produced. At some point, packers can afford to ignore them, except as residual suppliers, and instead restrict their relationships, like the lenders, to the mega-hog factories.

2. Feed companies add to the pressure on farmers to get big

Fueling the overall industry trend toward fewer but larger hog production facilities is the hog supply and service sectors — feed companies and other supply co-ops or veterinarian networks whose business depends on farmers. Believing their markets/business will be lost if they depend on independent farmers, they are helping to finance large-scale producers in the hopes of cultivating customer loyalty. For example, in a USDA survey of the 21 largest feed manufacturers, nearly one-third of the firms offered financing for hog production facilities, and many of those surveyed remarked that they were considering financing facilities in the future.[35]

Farmers said that they feel the most pressure to get involved in large-scale farming from feed companies, particularly the large cooperatives such as Land O' Lakes, Harvest States, and Farmland. Feed dealers seem to be leading what farmers describe as a campaign with the message that farmers should get out of farming or become part of an aligned coordinated system in which a producer develops the capacity to direct-ship hogs to the packer.

When asked who they would approach if they were trying to secure a long-term contract, almost half of the farmers (13) we interviewed identified feed dealers and 11 identified packers.

D. THE MIND GAME

Farmers we interviewed talked about the attitudes that have developed among their neighbors and the local suppliers, bankers, feed dealers, and extension agents in which raising hogs below 1,000 head or without a marketing contract is said to be a thing of the past. Farmers referred to this attitude as a "mind game" or as propaganda.

The following statement characterizes the line of reasoning which some farmers face daily and which they find difficult to refute:

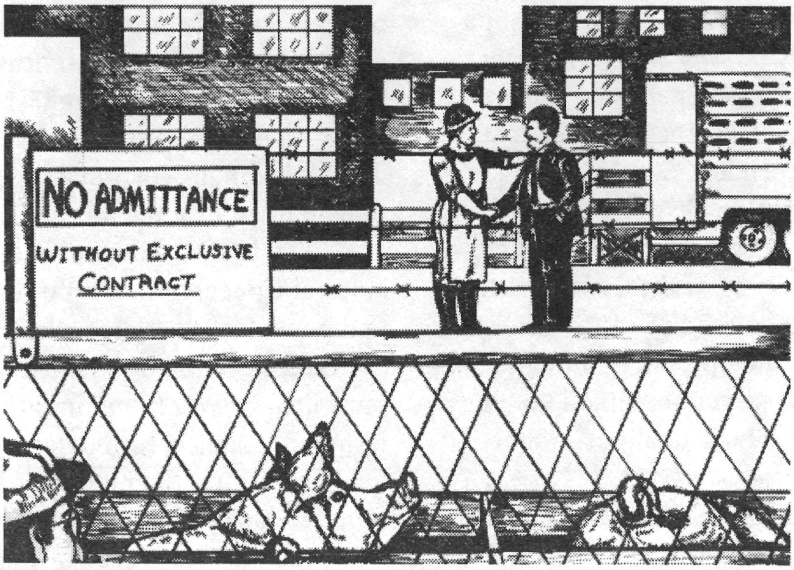
" 'Producers tend to discount the packers the most, but they have the biggest impact on what we do,' says Ron Nimmo, director of nutrition and technical services at Carroll's Foods, which, before Smithfield made a bid to purchase it, was the second largest hog producer in the United States. 'The domestic and export markets value lean pigs. However, the packers need to keep kill lines full. Raw material and labor are packers' two biggest costs. Because there are not enough lean hogs to satisfy the daily kills, many marginal pigs get a disproportionate price in some areas.' "[36]

The USDA Advisory Committee on Agricultural Concentration reported that, "producers feel powerless to address their problems in the closed concentrated systems with which they must deal."[37] We found in our interviews that farmers' isolation from alternative points of view may be because the major media and conventional industry publications are biased toward reporting the views such as those cited above. Another contributor to farmers' isolation is found in some Extension offices. For example, in western Minnesota an Extension forum on the future of hog production was held featuring 18 speakers from different parts of the industry. One speaker was a sustainable farmer. The other 17 were proponents of the mega-hog system that is threatening family farmers' independence today.

For readers who may not be aware, county agents with the Minnesota Extension Service are public employees. As disseminators of research and other information on farming practices, Extension personnel are in a leadership position. As such, county Extension educators are expected to serve the interests of all citizens in their counties, not just those they think will succeed. When Extension educators publicly take a stand in favor of large-scale hog operations, be it in the panels they assemble or the opinions they write, it communicates to farmers who are trying to learn about the changes happening around them that there is one type of farming system to which a "good manager" should conform.

If raising hogs on contract for a large hog integrator is the future of the hog industry because of what the top four meat packers dictate, then the future of sustainable swine production is severely compromised.

IV. Economic Impact of Packer Concentration & Vertical Coordination on Family Farm Livestock Production



A. ECONOMIC LITERATURE PROVIDES SOME PERSPECTIVE ON CONCERNS RAISED BY FARMERS

This section summarizes selected economic studies of packer concentration, captive supplies, and vertical coordination in the red meat industry in general and the hog sector specifically. Understanding the economic climate for sustainable livestock production requires an understanding of specific packer practices that may affect farmers' ability to sell their product at competitive prices. It is hoped that this review will help farmers, farm consultants, and policy makers better understand what opportunities and risks are present in raising and marketing livestock, and will expand the base of information on which they make decisions.

1. The rate of change in the hog industry makes some economic studies outdated

Much of what has been written about economic impacts of concentration in the hog sector during the past two to five years is already outdated because of the speed with which concentration is happening. For example, Smithfield Foods' purchases of John Morrell and Dakota Pork in the last two years not only gave Smithfield, primarily an East Coast packer, a major entree into the Midwest, but also brought the level of market control enjoyed by the top four hog packers to almost 60 percent.[38] That was ***before*** Smithfield announced it was acquiring Carroll's Foods, a move that will make Smithfield the largest pork producer and processor in the world.[39]

2. A review of the entire meat industry shows that the concentration ratios are steadily rising for each type of meat and poultry

Only a couple of corporations' names show up among the top four firms having the largest share of that industry. For example, ConAgra, the largest food company in the U.S., is the largest lamb packer, the largest turkey processor, the second largest beef packer, the third largest pork packer and the fourth largest broiler processor. While each meat sector within ConAgra is a separate profit center set up to compete with all other sectors, ConAgra has a huge share, and thus market power, over the meat industry as a whole.

B. STUDIES INDICATE NEW PACKER PROCUREMENT PRACTICES MAY HARM INDEPENDENT FAMILY FARM HOG PRODUCERS

1. Packer concentration and captive supplies are high enough to have some control over price

Concentration in the hog industry is happening. For packers, concentration is measured by looking at the top four firms that process the most hogs. According to William Heffernan, a rural sociologist at the University of Missouri, the concentration ratio for the top four pork packers rose to almost 60 percent in early 1998. The top four packers are: 1st – Smithfield Foods (Gwaltney, Cudahy, Morrell, Lykes); 2nd – IBP Inc.; 3rd — ConAgra (Swift); and 4th – Cargill (Excel).[40]

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 would have, according to John Helmuth, an agricultural economist at Iowa State University.[41]

Concentration of mega-producers has become measurable in the 1990s. *Successful Farming* magazine reported in its "1998 Pork Powerhouses," an annual measure of the top hog producers, that:

1) Murphy Farms owns 297,200 sows with a production base in four states (N.C., Mo., Okla., Ill.)
2) Carroll's Foods owns 185,000 sows and has a production base in four states (N.C., Virg., Iowa, Utah) and Mexico;
3) Smithfield Foods owns 150,000 sows and has a production base in three states (N.C., Virg., Utah)
4) Cargill, a privately-owned multinational agribusiness corporation, owns 120,000 sows and has a production base in three states (N.C., Ark., Okla.)
5) The newly consolidated holdings of Premium Standard Farms and Continental Grain now include 162,000 sows, with facilities in Missouri, Texas and North Carolina.[42]

Successful Farming revealed in its Pork Powerhouses 1998 report that the number of large-scale farms is growing: "With 2.6 million sows, the 50 largest producers now market or will market by 1999 half of the pigs in the U.S." In 1998, 34 of the 50 largest producers had expanded since the 1997 Pork Powerhouses report.[43] The 1997 Pork Powerhouses report found that in 1996, the number of farms with

10,000 sows or more was 43, and one year later that number grew to 54. Sow numbers for the largest producers grew 19 percent during that year.[44]

At least one study conducted by Azzadine Azzam and Allen Wellman, agricultural economists at the University Nebraska, addresses the impact of captive supplies, showing that prices paid to independent hog producers decrease as packers enter captive supply forward contract arrangements. ***They found that at "the 10 percent level of integration, the price paid to independents declines by six percent. At 50 percent integration, the price declines by about 26 percent."*** [45] Integration refers to the control of hog supplies through forward contracting or direct ownership. Such impacts from forward contracts appear to have occurred in North Carolina. *Hogs Today* magazine reported that at one time in North Carolina hog packers were paying $51.00/hundredweight for hogs from large contract producers while they were paying $39.00/hundredweight for independent producer's hogs on the open market — 24 percent less.[46]

A 1996 USDA study found that 10.2 percent of hog production in 1993 was either under market contracts with packers or directly owned by packers. The study predicted that the percentage of these "captive supplies" would increase to 32.3 percent by 1998, of which 25.6 percent would be contracted and 6.7 percent directly owned by packers.[47] That turned out to be a gross underestimate. In fact, there are indications it was off by 50 percent. Of all hogs slaughtered in January 1999, 64.2 percent were sold under some type of prearranged marketing arrangement, according to a study conducted by Glenn Grimes, a University of Missouri agricultural economist (Grimes' study accounts for 81 percent of all market hogs slaughtered at federally inspected plants in January; industry sources were used to estimate marketing methods used for an additional 10 percent of hogs slaughtered that month). That means only 35.8 percent of hogs were sold for cash on the open market.[48] In late March 1999, officials in the USDA's Agricultural Marketing Service office in Des Moines, Iowa, confirmed that their estimates — based on how many total hogs are slaughtered each day compared to how many are reported on the cash market — show a similar growth in captive supplies. In fact, AMS officials say roughly ***70 percent of the hog market is now marketed under a captive system. That is a flip-flop from earlier official predictions***.[49] With the recent announcement that Smithfield is buying out Carroll's Foods, these figures are bound to change even more.

With regard to what effect concentration and captive supplies have on production, the independent farmers interviewed said they feel pressure to conform to the large or mega-scale production systems that are tied into concentrated firms through various contracts and ownership or investment schemes. Concerned about being able to sell their hogs, they are pushed by lenders, Extension agents and feed suppliers to raise hogs on contract for an owner, such as Iowa Select, Tyson, or Christensen Farms. In such an arrangement, every part of the system is controlled by the owner of the pigs: the size and type of the finishing buildings, medication and veterinary services used, as well as what feeds and nutritional additives are utilized. Typically, producers are required to set up multiple numbers of 1,000-head barns in order to obtain a loan and get a contract with the integrator. If those facilities cause environmental harm to the area in the form of a manure spill or some other problem, the farmer, not the hogs' owner, is held liable by the law (as well as the neighbors).

2. Specific packer practices that adversely affect independent producers

In interviews, independent farmers identified that packer practices are shutting independent farmers out of market opportunities. In the short term they are doing this by making farmers wait to sell their hogs — often at lower prices than what is paid to larger production firms that hold exclusive contracts — and using independent producers for residual supplies. Packers shut out independents in the long term (perhaps permanently) by closing buying stations.

a. Packer motives for contracting and controlling supply

The USDA study, *Vertical Coordination in Hog Production*, found that vertical coordination has closed out markets for smaller farmers in the southeastern region of the U.S., where much of the supply of hogs is captured by contracts or vertical integration.[50] One analyst estimated in 1995 that 82 percent of hog inventory in North Carolina was secured by contracts, versus 15 percent of hogs in Iowa.[51]

The USDA study also says that supplies in the north central region are likely to follow the trends seen in the southeastern regions, and that the public cash markets will be diminished to residual markets as a result:

"Will a shift to more long-term coordination arrangements increase packer concentration and market power? ...They may make entry more difficult, and possibly more capital intensive, by requiring the development of hog supplies in some way connected with building the packing plant and developing product merchandising arrangements. Reliance upon spot (public) market competition for a major part of hog supplies would become increasingly difficult. ... Large producers and packers expect increased concentration of volume in the hands of fewer packers and producers in the future. Following current trends, terminal and auction markets for market hogs, dealers, and order buyers would decline rapidly in volume. Spot markets for the residual supply and demand would become more thinly traded, and probably more volatile as the 'shock absorber' for unanticipated changes in supply and demand. Price reporting would become more difficult, and concern about price manipulation would escalate as relatively small changes in the behavior of large market participants more likely could have an impact on reported market prices."[52]

In our review, we found different explanations for why markets are being closed to independents.

According to John Helmuth: "The nemesis of those who strive for market power over price is the free and open, competitive (auction) market. To have to bid competitively to buy livestock is the last thing a packer wants. ***Packers are closing out the markets by avoiding them"*** (emphasis added). As the phenomenon of closing markets continues over the years, "the cash markets become thinner and thinner and usually end up being residual markets."[53]

Various spokespersons quoted in industry publications say that packers are focused on making their slaughtering operations run more efficiently. According to them, packers are closing buying stations because they are closing the nearby slaughtering facilities that the stations serviced. They are closing slaughter facilities that have not historically operated at full capacity. Carl Kuehne, who closed the Dakota Pork slaughtering plant in Huron, S. Dak., on August 1, 1997, cited the pressure of obtaining hogs at a reasonable price in relation to value: "Within the past five years, the industry has been underutilizing capacity, averaging less than 75 percent."[54]

Mega-producers are cited as yet another force behind market closure trends. According to *Hog Industry Insider*, "It has dawned on an expanding segment of Midwestern pork producers that upscale pork corporations are betting heavily on their demise and that integration is here to stay. 'As long as traditional producers have enough money to buy a pickup truck and another six-pack, they will produce hogs,' remarked a dedicated mega-producer, who would like to see small, land-based hog farmers retire so fluctuation in the hog-corn cycles will smooth out and make accessing capital much easier."[55]

Thus, it's logical for mega-producers to adopt aggressive market and price strategies to drive out competition from efficient family farms.

b. Contracts reduce the amount and kind of price information that's available for competitive marketing

Market information is important in ensuring viability of independent hog producers. Market prices, voluntarily reported to private and public organizations by firms in an industry, provide key information needed to make subsequent marketing and purchasing decisions. Formula or contract prices typically are not released to private or public price reporting services.[56]

The percentage of hogs secured by contract suggests that market information is declining. In 1995, about 38 percent of hogs were not involved in daily price development because they were purchased through formula pricing.[57] Grimes, in his January 1999 study cited earlier, found that formula pricing accounted for 44.2 percent of the hog market. He reported the rest of the market breaking down like this: 3.4 percent cash contract; 2.9 percent fixed price, no ledger; 6.9 percent fixed price, ledger maintained; 3.6 percent window, no ledger; 2.3 percent other (this includes packer-owned hogs); 35.8 percent spot (cash market).[58] Another economist estimated that in 1996 about 25 percent of the hogs sold were priced based on reported market prices such as a terminal market or Iowa-southern Minnesota mid-day report, or a combination of more than one reported market.[59]

c. The impact of losing market information is far reaching

Information about market prices has traditionally been in the public domain. As indicated by the data above, prices are set more and more through private contractual arrangements, and thus the market information, which is even more important in an industry when it is going through a huge transition as is the hog industry, is kept in private hands. As government budgets are cut back, this makes it even more difficult to collect price information, and thus makes it difficult for farmers and policymakers alike to know what is going on in the industry.

A recent report from the Research Institute on Livestock Pricing at Virginia Tech discusses the importance of access to adequate market information for effective price discovery and to the organizational structure of the marketplace.[60]

This report emphasizes the "public good" that comes from easy access to adequate market information. Indicating that "Any decrease in industry supply that can be traced to a lack of market-related information means consumers face smaller supply and higher prices than might otherwise be possible."[61] Another social loss due to lack of adequate information occurs on the demand side: "To the extent slaughter livestock producers have difficulty estimating the value (price) of their livestock because of inadequate market information, they discount the uncertainty by trying to buy feeder animals at lower prices. Over time, this can cause the demand for feeder livestock to shift to the left (and/or rotate so that it is steeper). The result is what economists call a 'deadweight social loss' due to imperfection in the market. ..."[62]

The report discusses a recent research effort designed to estimate the impact of market information on price discovery for fed cattle:

Anderson *et al.* found **(1)** fed cattle prices became more variable as access to market information was decreased in a controlled experiment, **(2)** the use of contract (captive supply) arrangements between cattle feeders and packers increased when market information was decreased, **(3)** there was more reliance on cost and break-even information when information on markets and market prices was withdrawn, and **(4)** there was more tendency for slaughter weights to vary from the level that was most cost effective for the entire sector.[63]

Based on this important work, the report concluded that there are "clearly negative implications to social well-being from the withdrawal of market information."[64]

How the lack of adequate market information may impact the structure of the market was also addressed in this report. It notes the warnings of some economists in the 1950s, 1960s and 1970s that "if price-based open exchange systems do not improve inter-level coordination of activity in our production-marketing systems, they will eventually be replaced by contract or vertical integration which allow coordination to be ensured by management directives."[65] The report concludes that there is abundant evidence this warning is coming true in the livestock markets in this country and emphasizes that "*if* society values an atomistic structure in production agriculture made up of many independent producers, *then* there is reason to seek to improve the performance and effectiveness of the pricing mechanism by improving the information available to buyers and sellers — especially sellers."[66]

This report supports the need to improve the price and captive supply reporting done by the USDA. So does the USDA Advisory Committee on Agricultural Concentration:

"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."[67]

The argument has been made that small, independent producers are affected by exclusive contracts because of the ability of these contracts to lock up the market. But do these contracts also result in lower prices for these farmers because of the increased costs they inflict on packers? In other words, if a mega-producer receives $45 per hundredweight through an exclusive contract, a bottom line-minded packer is going to have to make up the difference by paying other farmers even less than the going market price. This is another reason why price reporting has become such a critical issue in recent years.

4. How the changing structure and practices of the packing industry affect market access and prices paid to family farm livestock producers

a. How competition is affected

The authors of the USDA-commissioned study, *Vertical Coordination in Hog Production*, performed a trend analysis from their 1993 survey of the largest packers, feed dealers and producers in hog industry:

"It is quite possible that by the year 2000, 25 to 35 percent of the output will come from 100 to 200 large producers (2,500 plus sows) and that a few producers will each be marketing 3 to 5 million head. It seems probable that a growing share of this large-scale production will be in the North Central Region (NCR). Such changes in the NCR will pressure the existing behavior and structure of the packing firms in the NCR. More dependence on long term contracting and vertical integration can be expected. The industry is entering an unstable and uncertain period; numerous structural configurations could result, depending upon various business and governmental decisions."[68]

The recent "Pork Powerhouses" numbers from *Successful Farming*'s research indicates that consolidation has occurred more quickly than predicted by the USDA's trends experts. *Successful Farming* reports that the largest 50 hog producers own more than 2,156,000 sows. Their production comprises an estimated 40 percent of production in the U.S.[69]

The USDA Advisory Committee on Agricultural Concentration says in its June 1996 report:

"Competition in the long run is more important than efficiency in the short run. Left unchecked, single-minded pursuit of efficiency can lead to concentration and market power that first destroys competition and then efficiency itself. Concentration on one side of the market tends to foster concentration on the other side of the market. And, concentration may also tend to encourage adverse environmental impacts."[70]

A recent survey of the largest packers and the 45 largest hog producers published by the Grain Inspection, Packers and Stockyards Administration showed that packers intended to rapidly increase captive supplies for hog slaughter through the use of marketing and production contracts, and packer-owned or joint venture facilities. The report found that:

Packers procured approximately 11 percent of their hogs through long-term (six months or longer) marketing contracts. Two percent of the packers' hog supply came from production in their own or joint facilities (slightly more than 1 percent) and contract producer's facilities (almost 1 percent).

By 1998, packers were expected to purchase only 66 percent of their hogs through the spot market, a 24-percent decrease from 1993 levels. That decline was expected to be split between reduced buyer/dealer volume and reduced spot-market purchases at plants or buying stations.

Large packers expect to increase sharply their use of long-term marketing contracts, from 11 percent in 1993 to over 25 percent in 1998. Over the same period, packers also expect to triple their own/contract production from 2 to 7 percent.[71]

It is also important to note that this survey study concluded that "nearly all of the packers' vertically procured hogs were supplied by the largest producers."[72]

The underlying survey report recognized that if these types of projections do in fact occur and the pork sector becomes much more tightly linked, one of the likely issues to arise is "less spot market volume, with associated problems of more limited market access for small producers and increased short-term price volatility for their hogs."[73]

b. Impact of number of buyers on competition and price

Studies of the economic impact of concentration in the packing industry and packer use of captive supply and vertical coordination methods of procurement have been much more extensive in the cattle industry than in the hog sector. However, there are reports that give cause for concern about the impact of these practices in the hog industry.

Today, four firms slaughter nearly 60 percent of this nation's hogs.[74] As we pointed out earlier, when four firms control 40 percent or more of a market, competitiveness is negatively affected. And as John Helmuth has noted, 80 percent control of the market by four firms gives those companies as much power as a monopoly would have.[75]

The Center for Rural Affairs reports on a series of economic studies examining concentration's effect on prices: "There is a large body of economic research establishing a high positive relationship between the level of concentration among *sellers* and prices buyers must pay. About three-fourths of the more than 70 studies undertaken in this field in general conclude that concentration is related to prices. Although this research relates to situations in which the concentration level is high among sellers (called oligopoly) rather than among buyers (called oligopsonies), the basic theory is the same on both sides of the market. Higher levels of concentration should result in price levels that favor the more concentrated side of the market – higher prices for concentrated sellers (oligopolies), lower prices for concentrated buyers (oligopsonies)."[76]

In a paper presented at the 1998 meeting of the American Agricultural Economics Association, Al-Amin Ussif and David Lambert found that all 47 subsectors of the U.S. food industry they analyzed had some degree of "market control" on both the input and output side of the equation. In other words, a few large firms maintain so much control that they are able to manipulate how much they pay for commodities they buy as well as what they sell them for after processing and packaging. And these firms can do that without worrying whether they are pricing themselves out of the market.[77]

Given the current four-firm concentration ratio in the hog sector and the finding of these numerous economic studies related to concentration's effect on prices, there is cause to be concerned about practices within the industry that may effect prices producers receive for their hogs.

One study from 1983 shows what happened in one instance to local market hog prices when a major buyer was eliminated from the market. In this study, Clement Ward reported that when there was a sudden change in the local hog market structure caused by the closing of Oklahoma's only pork plant, prices at the Oklahoma City terminal market in the year following the plant closing averaged $.63 to $1.05 lower per hundredweight than in Kansas City and Omaha terminals and direct trade markets in interior Iowa-Southern Minnesota in the year following the plant closing.[78]

c. The effect of concentration on prices

In April 1994, Bruce Marion of the University of Wisconsin released an update of his earlier study which found that as concentration increases, prices paid to farmers decrease. His study found: "...packer monopsony power had a significant negative effect on cattle prices during the 1971-86 period." Referring to this study, John Helmuth points out that "a three percent difference is more than $20 per head on $70/cwt cattle."[79]

John Lawrence, an Extension livestock economist at Iowa State University, found in his March 1996 paper, "Factors That Influence Prices Producers Receive for Hogs: Statistical Analysis of Killsheet and Survey Data," that "factors under the producer's control were the most significant variables and accounted for the vast majority of the explainable difference in price among producers. Packer buying systems also accounted for some difference in producer prices. Variables related to operation size, while statistically significant, increased the explanatory values of the equation very little." His study was based on a 1995 survey conducted by the Iowa Pork Producers Association.

Other findings of the analysis: Lawrence examined killsheet data for price differences due to size of operation. He found that "price increases at a decreasing rate as operations get larger. It suggests that a producer marketing 9,000 to 10,000 hogs ***per year*** (emphasis added) would receive about $0.85/hundredweight more than a producer marketing only 100 hogs a year. Prices to producers marketing over 5,000 head leveled off and this equation suggest that the size advantage peaks in the 9,000 to 10,000 head range."

Lawrence also looked at the size of operation from the perspective of load size rather than annual marketings. "The result suggests that load size may have more influence on price than does annual marketings. Producers marketing 13 to 40 hogs at a time receive $1.28/hundredweight more than those selling 12 or fewer at a time. Producers marketing 40 or more hogs received $1.39/hundredweight more than the 12 of fewer group — only $0.11/hundredweight more than the 13 to 40 group. ..."

In summary, the analysis of this data says that first, "a great deal of variability in price exists across producers, and the examined variables explain just over half of it. Second, factors under the producer's control (backfat, yield, sort loss) alone were the most significant variables and accounted for the vast majority of the difference in price among producers. Third, packer carcass-merit buying systems do differ and these differences helped explain variation in producer prices. Finally, variables related to operation size, while statistically significant, increased the explanatory value of the equation very little — only about three percentage points. Of these variables, load size was more significant than annual marketings, suggesting that procurement cost per hundredweight increases at smaller load sizes. Specialized pork operations also received higher prices for their hogs than did more diversified farms."[80]

This analysis, however, does not cover the two primary subjects of this report: It did not include data from extremely large operations, nor did it measure whether different payments were received for hogs under contract versus those sold without a contract.

In general, we did not find a study that deals with the 800-pound gorilla in the corner — the power of the 50 hog factories on the "Pork Powerhouses" list. We need to understand the market impact of operations that sell 10,000 hogs ***per week*** such as Christensen Farms and

Feedlots in Minnesota, which is the 18th largest hog producer, according to *Successful Farming's* 1998 Pork Powerhouses ranking. When such operations — and the 49 other "powerhouses" on the list are part or sole owners of packing companies (such as Smithfield Farms and Cargill, to name just two), or have negotiated long-term forward contracts with packers, the impact on price for independent producers may be severe. Such a study needs to be done. One major obstacle is getting access to accurate information in a timely fashion from the corporate offices that now control the information needed.

5. Changes in structure of the hog industry and packer practices contribute to the growing trend of fewer independent hog farmers and more large-scale confinement operations that use high-input, industrialized practices

The best evidence of this is provided in the testimony in the previous section, along with the data on number of farms and volume of production provided below. While the USDA measures farms by size and the amount of hog inventories secured by contracts, it doesn't distinguish independent farmers as a distinct entity.

Data from the December 29, 1998 USDA Hog Inventory shows that fewer farmers are producing more hogs, or put another way, the control of production is in fewer hands. "The number of hog operations with hogs totaled 114,380 during 1998, down 6 percent from last year and 20 percent below 1996. Places with 2,000 or more hogs on hand accounted for 6 percent of the operations and 64 percent of the inventory. This is the third time operations with inventories over 2,000 head have controlled over 50 percent of the total inventory. The number of operations with over 5,000 head of inventory, at 1,915 accounted for 42 percent of the total inventory."[81]

6. The effect of closing conventional markets on the development of alternative markets

The farmers' testimony indicated that their future and the future of some independent hog farmers will depend in large part on their ability to develop alternative markets. While it is not in the scope of this report to lay out the alternative marketing strategies available to independent producers, they will form an increasingly important avenue for market access for hog producers. However, at this time alternative markets offer limited market potential and therefore will not provide the kind of market power needed for a more complete transformation of the hog industry to one that's based on sustainable production.

Some strategies being pursued by farmers interviewed in the study include:

■ **Direct marketing.** An increasing number of livestock farmers are trying to bypass the increasingly closed packer system of marketing and going straight to consumers. Direct-marketing experts with the Minnesota Department of Agriculture report receiving more inquiries than ever concerning ways of selling meat straight to the consumer. According to Glenn Grimes, a livestock market analysis at the University of Missouri, consumers can save up to 50 percent on the cost of pork when they buy it straight from a farmer and have it custom processed at a locker plant. Because of the lower costs passed on to the consumer, farmers can retain a larger portion of the profits. The Minnesota Department of Agriculture estimates that in 1994 more than $31 million in sales and processing fees were generated through the state's 354 custom meat plants from directly marketed livestock. Farmers received an estimated $22.1 million of that amount.[82]

One southern Minnesota farmer started direct marketing his hogs a few years ago when the going market price hit 26 cents per pound. He's progressed from selling quarters and halves to packaged specialty products. He averages $700 in sales each week between May and October at a local farmers' market and has built up an extensive customer list through personal contacts and word of mouth. By 1998, this farmer was selling about 60 hogs direct to consumers each year (about 10 percent of his production). He figures that a hog that would receive $90 on the open market can increase in net value to as much as $225 once he's finished having it processed down into specialty items such as wild rice bratwurst.

"The customers don't pay attention to what the farm price is," he says. "All they care about is quality meat at a fair price."

But the hog price collapse of 1998-1999 hurt even innovative direct marketers like this farmer. As of early 1999, there was on average a three-month waiting list at small meat processing facilities as panicked farmers attempted to get rid of their hogs any way they could.[83]

■ **Networks.** Independent farmers who want to market to big packers must raise identical genetic stock and pool them for marketing, or specialize in a particular step in the pork production process on their own farm. On the one hand, networks are potentially a way for farmers to remain independent given the current packer demand for volume and consistent quality of meat. On the other hand, networks are viewed by some as problematic due to the difficulties of remaining independent while also being part of a group. Still others, who envision a more diverse hog industry that offers multiple points of access to the market, view networks as speeding up the ability of only a few big packers and producers to control the market.

Networks of independent farmers who want to enter niche markets have different opportunities and considerations. Taking on direct marketing chores can be difficult for individual farmers who are already busy with the day-to-day activities of producing meat. As a result, some livestock farmers have banded together to market their meat collectively as niche products. For example, in Oregon more than a dozen ranchers have teamed up to market their hormone and antibiotic-free cattle to stores in Portland, Seattle, San Francisco and Japan. The network has grown from selling a few head to a multi-million dollar business. These ranchers make personal visits to supermarkets where consumers can see firsthand who raises their beef.[84]

In 1998, some southern Minnesota and northeast Iowa pork producers teamed up to share transportation costs for getting their antibiotic-free, humanely-raised pork to a packing plant in Iowa. The processed pork is then shipped to California for a specialty "natural" market that pays a premium to farmers.[85]

Could such networks make hog production more profitable for independent family farmers? Yes, say marketing experts, as long as farmers don't try to slug it out directly with the Cargills and ConAgras of the world. Conventional pork processing plants owned by groups of farmers have not been successful in this country. However, a feasibility study conducted for the National Pork Producers Council in 1994 concluded there was a profitable niche available for small, farmer-owned plants that offer specialty products like pork raised in natural conditions or without certain antibiotics.[86]

■ **Research.** The focus of the majority of agricultural economics research is on the new trends related to the expansion of production capacity and vertical coordination. We found few economic studies that focus on the development of sustainable, independent markets.

C. SUMMARY

This review of the economic literature supports much of what the farmers we interviewed said in Chapter III regarding the effects of captive supplies on their access to market and on the prices they receive, and the diminishing ability of independent family hog farmers to survive farming or remain independent in the current hog industry. The changing structure and practices of the packing industry affects market access and prices paid to family farm livestock producers, and contributes to the growing trend of fewer independent hog farmers, and more large-scale confinement operations that use high-input, industrialized practices.

Rather than paint what might be seen as a hopeless picture of the future of independent hog farming, we turn to the next chapter, which focuses on what can be done to create some public accountability in the hog industry.

V. Legal Authority for Regulating Packer Practices & Price Reporting

Studies conducted by the Federal government have made it clear in recent years that the U.S. Department of Agriculture's Grain Inspection and Packers and Stockyards Administration is not fulfilling its obligation of enforcing meat antitrust laws. This chapter provides the legal history and grounding for using current law to bring to an end the current trend of an increasingly closed meat 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 livestock buying practices that lock independent family farmers out of the marketing system. This chapter sets the stage for a list of recommendations on how this and other antitrust laws should be utilized to fulfill the original intent of maintaining an open, competitive meat marketing system.

Editor's Note: *In this chapter, italics and bold italics have been used by the authors of this report to highlight important points in quoted passages.*

A. PACKERS AND STOCKYARDS

1. Background on Packers and Stock yards Administration policies on packer concentration and vertical coordination in the livestock industries

Concentration in the pork packing industry has risen sharply over the past several years to nearly 60 percent in 1998.[87] Packers have also increased their use of vertical integration and coordination arrangements, reducing the role of public markets where the terms of trade are openly visible to the public. As packer concentration levels and livestock procurement practices have changed over the past 10 to 15 years, livestock producers have become increasingly concerned about the effect of the changing structure and practices on producers' access to markets, prices paid to producers and the price discovery process. For example, many independent hog producers believe that the rapid shift in the hog industry to more vertical, coordinated livestock procurement methods increases packers' ability to exercise market power. That restricts not only their access to market information about the prices paid for slaughter animals, but also to markets for sale of their animals.

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 is through the United States Department of Agriculture's Packers and Stockyards Administration. The Packers and Stockyards Administration has the responsibility for fostering fair and competitive practices in the livestock packing and marketing industry through enforcement of the Packers and Stockyards Act. Under this Act, the agency has the responsibility for protecting industry members, in particular livestock producers, from anti-competitive, discriminatory, unfair and monopolistic practices.

As the structure of the livestock and meat packing industry has changed significantly over the past couple of decades, the Packers and Stockyards Administration has come under increasing criticism for failing to ensure that its regulatory and enforcement programs keep up with the times. For example, in 1991 the General Accounting Office concluded that the agency had not adequately modified its monitoring practices to keep pace with the increasing concentration in the packing industry. That provides opportunities for packers to use anti-competitive practices that lower the prices paid to producers to below the level that would be set in a competitive market.[88] This report also acknowledged that livestock industry representatives believe that the agency's trade practices regulations have become outdated because of changes in livestock marketing practices.[89] GAO recommended that in order for the agency to be effective in its responsibility to foster fair and competitive livestock markets, it must be able to define regional procurement markets for livestock in all sectors. It must also monitor the industry to collect data on such things as prices paid, quantities bought and sold, and vertical arrangements between buyers and sellers so that discriminatory, unfair, and anti-competitive practices can be identified and enforcement actions initiated.[90]

A more recent report from the USDA Advisory Committee on Agricultural Concentration again emphasized impacts of the changing structure of the livestock industries and the need for increased enforcement action by the Packers and Stockyards Administration both in the areas of packer mergers and consolidations and in unfair and discriminatory trade practices.[91] A minority report of this committee made specific recommendations regarding the use of captive supplies in livestock procurement by packers, which include:

- Packer feeding of livestock should be eliminated except where the owners of the livestock own the packing facility in a cooperative arrangement. If packer feeding is allowed, the livestock must be offered for sale on an open-market basis, and the price at which these livestock move into the market should be reported separately.

- Packers and principals in packer operations should be barred from custom-feeding livestock for others.

- Packers should be prohibited from futures market trading except for economically justifiable hedging activities.

- Formula contracts as they are presently constituted should be banned.

- Value-based pricing must be based upon readily verifiable market factors outside the control of the packer/buyer and must be made uniformly available within the limits of the packer's purchasing needs.

In addition to the issues related to Packers and Stockyards Act enforcement provisions, the Advisory Committee also emphasized the need for USDA to gather and report more detailed information about prices paid for livestock through all procurement methods. The committee recommended:

■ As part of a new reporting process, contract or formula pricing premiums and discounts, based on carcass merit, should be captured and reported. . . .

■ Research the reasons for and sources of economic difference in the value of market hogs — size of load, volume of annual business, timing of delivery, arranged time of delivery, plant operation economies, leanness, genetic line, etc. USDA should play a role in explaining the magnitude and sources of differences that exist.

■ Require timely, accurate price reporting for all packer livestock transactions. Reporting must include accurate, verifiable data on all captive supply.

■ For hogs, research and report on a quarterly or greater frequency the proportion of farm-packer sales which are formula-priced by state or region. Such research would provide valuable information about impact of formula pricing on the price discovery process.[92]

In recent years the USDA has taken some action to begin improving its enforcement of the Packers and Stockyards Act and to improve its information gathering and reporting on livestock prices and captive supplies. As a result of a Congressional directive and appropriation, in February 1996 the Packers and Stockyards Administration issued a report entitled *Concentration in the Red Meat Packing Industry.*[93] This report deals primarily with research studies related to concentration and vertical coordination in the cattle sector. However, it also includes a summary of two studies related to the hog industry. One was designed to provide base-line information on the hog industry's use of new methods of vertical coordination and develop projections suggesting where current trends may lead. The other involved hog procurement in the eastern Corn Belt.

In addition, the agency conducted an investigation of slaughter hog procurement in the western Cornbelt. The objectives of the investigation were to **1)** analyze various procurement and pricing arrangements for hogs, **2)** examine the effects of seller characteristics on prices received for hogs, and **3)** examine the relationship between transaction prices and prices reported by USDA Market News. The report on the investigation includes several findings that call into question whether violations of the Packers and Stockyards Act are occurring in the hog industry. For example, the report states: **1)** "average base prices and premiums increased with increasing seller size…[and 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;" **2)** "the analysis shows that reported prices did not reflect actual transaction prices paid;" and **3)** "marketing agreement transactions were most utilized by the largest sellers."[94] Based on these and other findings the report concludes "the differences found in prices paid among various types of marketing arrangements indicate the need for continued monitoring and investigation regarding existing and emerging procurement and pricing arrangements to ensure open, competitive slaughter hog markets."[95] This report also concluded that further investigation was needed to address other concerns including "differences in hog characteristics and prices by pricing and procurement methods and seller size, and if price reports reflect transacted prices."[96]

The agency has begun implementation of this plan by opening three regional offices, including one in Des Moines, Iowa, which will concentrate its work on addressing industry structure and competitive practice issues in the hog industry.

The agency also proposed in 1997 a plan for restructuring its Packers and Stockyards Programs which is designed "to strengthen the Agency's ability to investigate industry structure and competitive practice issues, and to provide greater flexibility in enforcing the trade practice and payment protection provisions of the P&S Act."[97]

As we noted earlier, in April 1999 the USDA charged Cargill's meat packing division, Excel, with "unfair and deceptive pricing practices" in the case of 1,250 farmers it bought hogs from in 1997. However, at the time of this writing, there were concerns that this regulatory move would not get at the heart of the issue. Agricultural economist Brian Buhr told the *Star Tribune* newspaper that "the complaint itself is a technical one about measurements and weights and doesn't address the issue of price transparency that worries farmers."[98]

In the cattle sector, the Agency has filed a major enforcement action against IBP alleging violation of the P&S Act based on a marketing agreement under which IBP allegedly paid preferential prices to an exclusive group of feedlots in Kansas. The agency won a ruling from USDA's Judicial Officer that IBP's right of first refusal for the purchase of cattle from these feedlots was a violation of the P&S Act. At this writing, this decision is on appeal in federal court.

Despite some recent indications of growing interest in addressing the impact of packer concentration and vertical coordination in the livestock markets, the agency has taken ***no significant action to reform its trade practices regulations***. The agency has issued no new regulations under the Packers and Stockyards Act that describe to the industry under which circumstances, if any, the agency will view the use of captive supply or vertically coordinated livestock procurement methods as violations of the Act's prohibition against unfair, deceptive, discriminatory, and anti-competitive trade practices. Without guidance on which practices may result in violations of the Act, the industry cannot adequately monitor its practices for compliance with the Act. Without such rules the industry cannot be self-regulating, and the agency opens itself to allegations of inconsistent or discriminatory enforcement actions whenever it does pursue enforcement actions related to these types of practices. For this reason a primary policy initiative recommended in this report is for the Packers and Stockyards Administration to issue substantive rules that describe the types of new vertically coordinated or captive supply procurement practices which may lead to violations of the Act.

2. USDA's rulemaking authority under the Packers & Stockyards Act

The legislative history, statutory language, and judicial case law set out the parameters of the Packers and Stockyards Administration's authority to issue regulations and to enforce the provisions of the P&S Act so as to foster fair and competitive livestock markets in this country. ***As shown below, the agency clearly has the authority to issue substantive rules restricting packer practices that are likely to cause harm to livestock producers, such as limiting their access to markets, reducing prices below a competitive level, or discriminating against certain groups or types of producers.***

2.1 Statutory authority regarding packer trade practices

The types of packer practices that are to be regulated through the Secretary's rulemaking authority were set out in Section 202 of the Act, 7 U.S.C. § 192. The relevant provisions of this section establish that:

It shall be unlawful with respect to livestock . . . for any packer . . . to:

(a) Engage in or use any unfair, unjustly discriminatory, or deceptive practice or device; or

(b) Make or give any undue or unreasonable preference or advantage to any particular person or locality in any respect whatsoever, or subject any particular person or locality to any undue or unreasonable prejudice or disadvantage in any

respect whatsoever;
or
(c) Engage in any course of business or do any act for the purpose or with the effect of manipulating or controlling prices, or of creating a monopoly in the acquisition of, buying, selling, or dealing in, any article, or of restraining commerce.

2.2 Legislative history of the Packers & Stockyards Act

The legislative history of the Packers and Stockyards Act provides the context in which to interpret the extent of the agency's rulemaking powers with regard to prohibited packers' trade practices, including captive supply and vertical coordination methods for procuring livestock.

a. Context of the packing industry at the time the Act was passed

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. Representative Voight, in the debate on the House bill, cited the concentration figures from the Federal Trade Commission report:

"It appears from the report of the Federal Trade Commission that in 1916 the Big Five's percentage of interstate slaughter was as follows: cattle 82.2, calves 76.6, ***hogs 61.2***, sheep and lamb 86.4."[99]

Today, four firms, rather than five, control almost 60 percent of the hog slaughter.[100]

Seventy-five years ago, when Congress recognized trends in the packing industry that virtually mirror those we see today, it acted to pass the most comprehensive antitrust legislation ever put in place in this country. The powers granted under that Act should be vigorously administered today to prevent the kind of harm to producers that the Act was written to address.

b. Purpose to protect producers' interest

A primary purpose for passage of the Packers and Stockyards Act was to protect the interest of the producer. This intention is clearly expressed in the legislative history. Representative Tincher stated:

"It is my judgment that the passage of this bill, that its proper administration, will *permit the meat producer to exist*; that it will reduce the amount paid out between the producer and the consumer to such an extent that it will make the business for the *producer more profitable*, and not be injurious to the consumer."[101]

Similarly, Representative Voight of Wisconsin expressed the sincere belief that this bill would benefit producer and consumer alike:

"I think if this monopoly of the Big Five is done away with, and the laws of trade are given a chance to function, it is going to benefit producer and consumer alike; genuine competition will benefit both."[102]

In an early case interpreting the Act, the U.S. Supreme Court recognized that one of its primary purposes was to protect producers from the packers' control over prices paid for livestock:

"The chief evil feared is the monopoly of the packers, enabling them unduly and arbitrarily to lower prices to the shipper, who sells, and unduly and arbitrarily to increase the price to the consumer, who buys."[103]

The Eighth Circuit Court of Appeals has more recently stated:

"One of the purposes of the Packers and Stockyards Act is to safeguard farmers and ranchers against receiving less than the true market value of their livestock."[104]

Courts have held that the Act should be liberally enforced in order to accomplish its purpose of protecting producers' interests:

"The Act is remedial legislation and is to be construed liberally in accord with its purpose to prevent economic harm to producers and consumers at the expense of the middleman."[105]

c. Authority to regulate to ensure open, competitive markets

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. When the Act was passed in 1921, virtually the sole source of supply for slaughter hogs was through the stockyards. Thus, Congress not only emphasized regulation of the packers but also of the stockyards as the public market of that day.

Congress, however, did make clear that its intention was to ensure open, competitive markets for buying and selling livestock no matter where those markets occurred. Rep. Haugen of Iowa, whose bill was ultimately enacted with only minor modification, introduced the conference report to the House on August 9, 1921. In his discussion of the rejected Senate amendments, he indicated that buying or selling "in commerce livestock at the stockyard" was equivalent to being a buyer or seller of "livestock in commerce."

Representative Jones from Texas, a strong supporter of the Act, most clearly stated the importance of open, competitive markets for the producer:

"The producer must always sell in a market that he does not control. He buys at the other man's price. *His only hope of securing a fair price lies in an open, competitive market.*"[106]

Congress knew well that the only way open, competitive markets for livestock and meat could be maintained was if the Agriculture Secretary was given the authority to regulate the practices of one sector of the industry that could adversely affect other sectors. Congress recognized that one of the most significant aspects of this legislation was that it authorized regulation of unfair practices such as those between the packer and the producer and between the packer and the consumer. In response to a question as to how this Act strengthened the authorities under the Federal Trade Commission Act, Representative Anderson stated:

"As to the intent of 'unfair competition' [in the FTC Act] it only includes acts which constitute a violation of the rights of the competitor, and it must be a method which is used by a competitor on the same plane. . . . For instance, the method of competition used by a manufacturer which we might think was a violation of the moral rights of the wholesaler would not be a violation of the Federal Trade Commission Act, because the interpretation of that is that it must be unfair as between competitors who stand on the same plane. This goes further than that, as it affects the public interest to a large extent, and the unfair competition or unfair practice as between the packer and the general public, the packer and the producer, or the packer and any other agency connected with the marketing of livestock." [107]

Congressional commitment to maintaining open and competitive markets for livestock was reemphasized throughout the amendments to the Act in later years. In 1924 the Act was amended to increase the Secretary's authority to sanction violators. The House Report notes that the Agriculture Secretary personally appeared before the committee and urged strengthening the law to enable him to confront "conditions that are detrimental to the *open, competitive marketing of livestock.*"[108]

When enacting the 1958 amendments, Congress noted significant changes in the meat packing industry and the environment in which it operates. The House report stated that "[e]qually significant (as the development of 1,400 to 1,500 country auctions and markets) is the growth which has taken place in country buying — buying by packers or livestock dealers direct form the producer . . . [T]oday [country buying is] a common practice in almost every part of the country and more than 40 percent of all livestock sold moves in this manner."[109] This report also makes clear that Congress intended the 1958 Act amendments to ensure that the Secretary had jurisdiction over "*all livestock marketing involved in interstate commerce including country buying of livestock.*"[110]

In 1976 Congress again strengthened the Act to give the Secretary greater powers in regulating packers. Further changes in the pattern of livestock marketing between 1958 and 1976 led to these amendments. Following the 1958 amendment, "packers continued to push to acquire slaughter livestock at its source," and by 1976 it was estimated that "well over 80% of all slaughter livestock is purchased by the packers directly from producers and custom feedlots."[111]

In 1978, when Congress amended the Act with regard to rates and charges at auction markets, it again expressed the importance of securing competitive livestock markets for producers. "*The continued availability of competitive, reasonably priced, and conveniently located livestock marketing channels is essential, particularly for small producers*."[112]

The legislative history clearly establishes that Congress intended to grant the Secretary the authority to regulate packer practices to ensure open, competitive markets for livestock. When marketing conditions changed over time, Congress amended the Act to ensure that the Secretary would continue to be able to address packer practices even in the context of country buying direct from feedlots or producers.

d. Obligation to adjust rules to changes in industry structure

While in 1921 the stockyards were the public market that Congress wanted to ensure would be made open and competitive, Congress had the foresight to recognize that, in the long-term, industry marketing practices might change. It structured the Act to grant the Agriculture Secretary authority to take action that would ensure open, competitive markets as the industry changed over time. In doing so, Congress intentionally placed the obligation on the Secretary of Agriculture to monitor the packing industry and adjust regulatory controls to ensure compliance with the purposes of the Act as industry structure changed. Congress recognized that enacting a statutory list of specific prohibited packer practices would not further one of its primary goals — to create an act that would keep pace with the changing structure of the livestock industry. Congressman Anderson of Minnesota, a member of the House Committee on Agriculture and a sponsor of one of the bills that led to the Act, stated during the debates in the House that:

"Industry is progressive. The methods of industry and the manufacture and distribution change from day to day, and no positive iron-clad rule of law can be written upon the statute books which will keep pace with the progress of industry. So we have not sought to write into this bill arbitrary and iron-clad rules of law. We have rather chosen to lay down certain more or less definite rules, rules which are sufficiently flexible to enable the administrative authority to keep pace with the changes of methods in distribution and manufacture and in industry in the country."[113]

Congressman Anderson later noted that "the provisions of this legislation as to the packers must be more or less elastic in order that they may *keep pace with the state and development of the industry*."[114]

e. Extraordinarily broad rulemaking power

Upon thorough review of the legislative history of the Packers and Stockyards Act, there can be no doubt that Congress meant to grant the Secretary the broadest possible rulemaking authority over the livestock procurement practices of packers.

The extraordinarily broad scope of the regulatory authority granted to the Secretary under the 1921 Act was expressed in the House report as follows:

"A careful study of the bill, will, I am sure, convince one that it and existing laws give the Secretary of Agriculture *complete* inquisitorial, visitorial, supervisory, and *regulatory power* over the packers, stockyards and all activities connected therewith; that it is a *most comprehensive measure and extends farther than any previous law in the regulation of private business*, in time of peace, except possibly the interstate commerce act."[115]

f. Authority to regulate to prevent and compel

The legislative history also makes it clear that Congress intended that the Secretary use his regulatory powers aggressively to *prevent* packer practices made illegal by the Act. Repeatedly the bill was described as giving the Secretary the authority "to *prevent* packers … from engaging in an unfair, unjustly discriminatory, or deceptive practice or device."[116]

The legislative history makes clear that