PACKERS AND STOCKYARDS STATISTICAL REPORT
1998 REPORTING YEAR

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INTRODUCTION

Reporting Firms

This report contains data on (1) slaughtering packers; (2) market agencies buying or selling livestock on commission, including auction markets and selling agencies at terminal stockyards; and (3) livestock dealers buying and selling livestock for their own accounts. It includes data for firms' 1998 reporting year. Part III of this report, Entities Registered with the Grain Inspection, Packers and Stockyards Administration, includes data for the year 1999.

All slaughtering packers operating in commerce in the United States have been subject to the Packers and Stockyards Act since its passage in 1921. The U.S. Department of Agriculture's (USDA) Grain Inspection, Packers and Stockyards Administration (GIPSA) exempts small-volume slaughtering packers from the annual reporting requirement. Prior to reporting year 1977, packers slaughtering less than 1,000 head of cattle or less than 2,000 head of all classes of livestock annually were exempted. Since reporting year 1977, packers that purchase $500,000 or less of livestock annually have been exempt from the bonding and reporting requirements. Since both slaughter volume and the value of purchases vary from year to year, certain small slaughtering packers report in some years but not in others. Packers beginning operation late in the year are not required to file annual reports for a partial year. Also, packers going out of business generally do not file annual reports, except those firms involved in mergers and acquisitions where the information is requested from the acquiring firm.

Packers reporting to GIPSA account for the following percentages of 1998 commercial slaughter:

Type	Percent
Steers and heifers	95
Cows and bulls	98
Cattle	95
Calves	80
Hogs	91
Sheep and lambs	87

While plants reporting to GIPSA account for a large percentage of commercial slaughter in each category, a number of small plants that slaughter livestock are not included in this report. In 1998, 279 firms operating 372 plants reported to GIPSA. On January 1, 1998, there were 966 federally inspected plants and 2,639 non-federally inspected plants. Many non-federally inspected plants, however, operate only as custom slaughterers.

The following table compares plants reporting to GIPSA in 1998 with all federally inspected (F.I.) plants by type of livestock.

Type of livestock	GIPSA coverage		F. I. plants	
	< 1,000 head	All plants	< 1,000 head	All plants
Cattle	48	221	570	795
Calves	38	83	240	339
Hogs	25	182	461	757
Sheep/lambs	36	70	487	556

Type of Outlet

Prior to 1988, statistics were reported separately for terminals and auctions. Livestock volumes sold through terminals and auctions are currently combined and reported as "public markets." These two types of markets can use both private treaty or public outcry (auction) methods of sale. Thus, the sales method difference between the two types of markets is no longer meaningful.

Calendar Year / Reporting Year

In most cases, the calendar year and the reporting year are the same. A majority of meat packers use the calendar year as their fiscal, or operating, year for accounting purposes. Many packers, however, have fiscal years that end in months other than December. The annual data supplied by these packers are included in whichever reporting years include the end of their fiscal years. Thus, a packer whose fiscal year ends May 31, 1998, would be included in the 1998 reporting year.

Consolidated Reports of Firms

The meatpacking industry has had many mergers and acquisitions in the past several years. Merged firms may or may not file consolidated reports for all their slaughter operations. Since 1980, annual reports filed by separate units of a firm have been combined by GIPSA when reporting firm-level data. Reports are combined when reporting entities are under one firm's management, control, or ownership.

HIGHLIGHTS OF THE CURRENT STATISTICAL REPORT

Concentration of Meatpacking Firms

This report contains two series of concentration ratios for steers and heifers, cows and bulls, cattle, hogs, and sheep and lambs. The first is based on procurement data reported to GIPSA, and includes all livestock procured for slaughter by each firm, including livestock that are custom-slaughtered for them by other firms and livestock that are slaughtered in State-inspected plants. The data are reported by the firms for their fiscal years. The second concentration series is based on slaughter data collected by USDA's Food Safety and Inspection Service (FSIS) from federally inspected plants. These data are for the calendar year. FSIS reports the number of animals slaughtered at each plant regardless of ownership. We have adjusted the data to reflect ownership of the animals. Both series use total commercial slaughter for the calendar year as the denominator for calculating concentration ratios. The discussion that follows is based on concentration ratios calculated using the FSIS data.

Concentration in beef packing increased in both 1998 and 1999 (see table 27). Four-firm concentration in cattle slaughter reached an all-time high of 70 percent in 1999. Overall concentration at the 8-, 20-, and 50-firm levels also increased to their highest recorded levels in 1998 (figures for 1999 are not yet available). A broader measure of concentration, the Herfindahl–Hirshman Index (HHI),[1] continued to rise to 1,475 in 1998, although this value was still below the high of 1,505 set in 1995.

Concentration for steer and heifer slaughter (see table 28) also rose in both 1998 and 1999, and levels approached the highest value set in 1994. The four-firm concentration ratio was relatively stable between 1993 and 1999, ranging between 79 and 82 percent during the period. The eight-firm concentration ratio showed similar stability during the period. The HHI increased marginally in 1998 to a value of 1,936 after a drop in 1997.

Concentration among cow and bull slaughterers continued its upward trend in 1998, but declined slightly in 1999 to 32 percent (see table 29). Concentration at the 4-, 8-, 20-, and 50-firm levels reached all-time highs in 1998. Increases in the market shares of the top 8 firms were responsible for this increase; as a group, firms not in the top 20 lost market share. The HHI also rose to its highest value of 455 in 1998.

[1]The HHI equals the sum of each firm's squared percentage of market share. The Department of Justice and Federal Trade Commission, in their 1992 *Horizontal Merger Guidelines*, consider markets to be unconcentrated when the value of the HHI is below 1,000; moderately concentrated when HHI is between 1,000 and 1,800; and highly concentrated when HHI is above 1,800.

Four-firm concentration in hog slaughter increased by 2 percentage points, to 56 percent, in 1998, and remained at that level in 1999 (see table 31). The increase in the top 4 firms' shares came at the expense of firms ranked 5 through 8, which also lost market share to firms ranked 9 through 20. The HHI fell in 1998 to a value of 966.

Overall concentration in the red meatpacking industry has increased markedly over the last two decades. In 1980, the four largest firms (in terms of total amount spent for all livestock slaughtered) accounted for less than 26 percent of all livestock procured for slaughter (see table 34). Concentration increased slowly until 1987, when it jumped from 37 percent to 47 percent. Concentration again continued to increase until the early 1990s. Since 1993, the top four firms have accounted for between 61 percent and 63 percent of the total. While many of the largest packers slaughtered both cattle and hogs, the top 20 packers slaughtered no calves and only a small number of sheep and lambs in 1998 (see table 12).

Number and Size of Plants

The number of packing plants slaughtering each species continued to fall in 1998 (see table 19). The number of plants reporting slaughter to GIPSA declined by about 15 percent in cattle, hogs and sheep and lambs, and 25 percent in calves. Most of the decrease in the number of reporting firms was due to firms ceasing operations or falling below the $500,000 reporting threshold.

While the overall numbers of reporting packing plants for each type of animal fell, the number of slaughter plants in the largest size categories remained largely steady (see tables 20 through 26). In contrast, the number of slaughter plants in the smallest size categories (slaughtering less than 1,000 head) for each type of animal fell dramatically. Meanwhile, total slaughter in the smallest category also declined markedly.

Use of Public and Nonpublic Marketing Channels

In 1998, the proportion of all types of livestock bought in public markets fell (see table 2). After a sharp drop in the 1980s from more than 50 percent to less than 20 percent, the use of public markets by calf packers rose in the mid 1990s. The 1998 proportion of calves purchased through public markets was 25 percent. The use of public markets by hog packers continued its downward trend in 1998, with only 3 percent of hogs purchased through public channels. Public market purchasing of slaughter hogs has virtually ceased. The proportion of sheep and lambs bought in public markets has remained within a range of 16 to 20 percent over the last two decades, while the proportion of cattle purchased in public markets ranged between 13 percent and 17 percent during the 1990s.

A larger proportion of slaughter cattle are purchased through public markets. The four largest packers procure the lowest proportion of their slaughter needs in public markets, but the proportion grows as packer size decreases. While overall a higher proportion of cattle is purchased in public markets than of hogs, this is largely driven by public market purchases of slaughter cows and bulls (see tables 5, 6, and 7). Packers use public markets to purchase nearly 60 percent of their slaughter cows and bulls, but only 3 percent of their steers and heifers (the same proportion as slaughter hogs).

There is regional variation in the use of public marketing channels for cattle. In 1998, only packers in the South Atlantic and South Central regions purchased a majority of their cattle through public markets – 77 and 72 percent, respectively (see table 7). Packers in each of the three largest cattle-producing regions (West North Central, South Plains, and Mountain) used public markets for less than 10 percent of their procurement. Most of the public procurement of cattle were purchases of cows and bulls; packers in every region except the East North Central purchased more than 50 percent of their cows and bulls through public markets (see table 6). Packers in the three largest cattle-producing regions (West North Central, Southern Plains, and Mountain) purchased less than 2 percent of their steers and heifers through public markets. Packers in other regions relied on public markets for procurement of steers and heifers to a greater extent, although only packers in the South Atlantic region obtained the majority of their procurement needs through public markets (see table 5).

Hog slaughterers showed much less regional variation in use of public markets. In 1998, packers in none of the eight regions procured more than 7 percent of their hogs through public markets (see table 9).

Carcass-Basis Procurement

The proportion of livestock purchased on a grade and weight carcass basis (grade, weight, yield, guaranteed yield, or a combination thereof) ranged between 39 percent and 58 percent in 1998 (see tables 11 and 12). The percentage of cattle purchased on a carcass basis in 1998 fell slightly to 44 percent, but was still in a range of 44 percent to 48 percent over the past 5 years. The percentage of carcass-basis procurement of calves increased slightly to 43 percent from the previous year's 41 percent, but that was still much lower than the 50 percent to 60 percent range in the early 1990s. The proportion of hogs bought on a carcass basis in 1998 fell to 58 percent, but remained 15 percentage points higher than the level in 1995 and 25 percentage points higher than the level in 1994. The percentage of sheep and lambs purchased on a carcass basis also fell slightly in 1998 to 42 percent. In 1998, the four largest packers purchased 64 percent of their hogs and 44 percent of their cattle on a carcass basis.

Packer Feeding and Forward Contracting

Packer feeding of most types of livestock remains relatively low (see tables 13, 14, and 15). Overall, only 3.5 percent of steers and heifers and 3.1 percent of all cattle were fed by packers in 1998. Packer feeding of hogs is even less common, accounting for less than 1 percent of all slaughter hogs. However, several hog packers are engaged in joint venture feeding operations that are not reported to GIPSA and are not included in this report. Packer feeding accounts for a larger proportion of slaughter calves and sheep and lambs. In 1998, packers fed 10 percent of slaughter calves and 13 percent of slaughter sheep and lambs.

Table 16 provides information on the use of packer feeding and acquisition through forward contracts and marketing agreements for the 4 and 15 largest steer and heifer slaughterers. The top 4 and top 15 firms used packer feeding to a slightly greater extent than smaller firms (3.5 and 3.7 percent, respectively, versus 3.5 percent for all firms). The top 4 and top 15 firms used forward contracts and marketing agreements for about 19 percent and 18 percent of their total steer and heifer procurement in 1998, respectively. Total procurement by all these methods for both the top 4 and the top 15 packers has been relatively constant (between 17 percent and 23 percent) since the early 1990s but is still below the 1989 level of 25 percent.

Packer Financial Performance

Tables 35 through 39 present financial ratios for several groupings of the 40 largest meatpacking firms. Firms are ranked by total expenditures for livestock. All firms included in these tables engage in livestock slaughter. Some of the firms also engage in further processing, and some have large non-red- meat operations. Often these firms file financial statements for their red meat operations only. However, a few firms file consolidated financial statements in which their meatpacking and processing operations are not separated from their other operations.

The profitability (measured by net income as a percentage of sales) of the 40 largest meat packers has varied widely since 1992. Profitability was relatively low in 1992 and 1993 (1.2 percent of sales) and relatively high in 1995 (3.7 percent of sales). Net income fell to 2.1 percent in 1996 and 1997, but rose again to 2.4 percent in 1998. Packers ranked from 9 through 40 reported larger profits as a percentage of sales than the top 8 packers throughout the 1992-98 period.

The top four firms generally operated on a smaller gross margin than smaller firms (see tables 35 and 37). Between 1992 and 1997, the top four reported gross income as a percentage of sales 2 to 4 percentage points below firms in most other categories. In 1998, these differences appeared to get larger. The top four packers' operating expense ratios were also lower, and the gap of operating expenses as a percentage of sales between the top four and other smaller firms widened in 1998 (see tables 35, 36, and 38).

The top four firms also appeared to use their assets more efficiently – their net sales per dollar of assets were significantly higher than any other group. Prior to 1996, the top four firms used less debt financing than other firms. Beginning in 1996, the top four firms' use of debt financing is little different from most other groups. In 1998, the top 4 firms' equity-to-asset ratio was about the same as that of the top 20 and top 40 firms, with firms ranked 5 through 8 appearing to be more highly leveraged.

Auction and Terminal Market Purchases

In 1998, the number of cattle and calves marketed through firms selling on commission fell (see table 42); total volume dropped from 39 million head in 1997 to 38 million head in 1998. The volume of hogs marketed through firms selling on commission, however, increased significantly to 11 million head in 1998, up by 2 million head from the level in 1997, ending the downward trend seen throughout the 1990s. The volume of sheep and lambs ranged between 5.1 million and 5.5 million head from 1991 to 1994, and then began to fluctuate. The highest volume of the decade, 5.7 million head, was reported in 1996, while the lowest volume, 4.0 million head, was reported in 1997. In 1998, the volume of sheep and lambs marketed through firms selling on commission was 4.3 million head, up from the 1997's level but still at the low end of the recent range.

Livestock Purchases by Dealers and Order Buyers

Purchases of cattle and calves by dealers and order buyers fell sharply to 31 million head in 1998, after rising in two previous years (see table 42). Purchases of hogs and pigs by dealers and order buyers have fallen every year since 1991. The volume in 1998, 20 million head, was 44 percent below 1991's level. The number of sheep and lambs purchased by dealers and order buyers also fell sharply from 4.0 million head in 1997 to 2.7 million in 1998, down 32 percent.

MERGERS AND ACQUISITIONS IN MEAT PACKING

Numerous mergers and acquisitions have occurred in meat packing during the last several years. The following table lists mergers and acquisitions in 1998 and 1999 involving firms that report to GIPSA. In most cases the transactions involved the purchase of entire firms. However, some transactions, which are noted, included only plants.

Meat Packer Mergers and Acquisitions, 1998-99

1998

Acquiring Company: IBP, inc.; Dakota City, NE.
Company Acquired: The appetizer division of Diversified Foods Group, including plants in Chicago, IL, and Newark, NJ.

Acquiring Company: IBP, inc.; Dakota City, NE.
Company Acquired: Beef America processing plant; Norfolk, NE.

Acquiring Company: Smithfield Foods, Inc.; Smithfield, VA.
Company Acquired: North Side Foods Corp.; Arnold, PA.

Acquiring Company: ConAgra, Inc.; Omaha, NE.
Company Acquired: Fernando's Foods Corp.; Commerce, CA.

Acquiring Company: ConAgra, Inc.; Omaha, NE.
Company Acquired: Signature Foods; Omaha, NE.

1998, cont.

Acquiring Company: Continental Grain Co.; New York, NY.
Company Acquired: 51 percent interest in Premium Standard Farms; Princeton, MO.

Acquiring Company: The John Morrell subsidiary of Smithfield Foods, Inc.; Smithfield, VA.
Company Acquired: Mohawk Packing Company; San Jose, CA.

Acquiring Company: Farmland National Beef; Kansas City, MO.
Company Acquired: Kansas City Steak Company; Kansas City, MO.

Acquiring Company: ConAgra, Inc.; Omaha, NE.
Company Acquired: Zoll Foods; Chicago, IL.

Acquiring Company: Packerland Packing Co.; Green Bay, WI.
Company Acquired: Murco, Inc.; Plainwell, MI.

Acquiring Company: ConAgra, Inc.; Omaha, NE.
Company Acquired: GoodMark Foods; Raleigh, NC.

Acquiring Company: Iowa Packing Co.; Des Moines, IA.
Company Acquired: American Meat Packing Co.; Chicago, IL.

Acquiring Company: American Foods Group; Green Bay, WI.
Company Acquired: Dawson-Baker Packing Co.; Louisville, KY.

1999

Acquiring Company: IBP, inc.; Dakota Dunes, SD.
Company Acquired: Corporate Brand Foods America; Houston, TX.

Acquiring Company: IBP, inc.; Dakota Dunes, SD.
Company Acquired: Wilton Foods; Goshen, NY.

Acquiring Company: IBP, inc.; Dakota Dunes, SD.
Company Acquired: Thorn Apple Valley; Detroit, MI.

Acquiring Company: IBP, inc.; Dakota City, NE.
Company Acquired: Zemco Industries, Inc. (Russer Foods); Buffalo, NY.

Acquiring Company: IBP, inc.; Dakota City, NE.
Company Acquired: H&M Food Systems Co., from Specialty Foods; Deerfield, IL.

Acquiring Company:	Atlantic Veal and Lamb, Inc.; Brooklyn, NY.
Company Acquired:	Berliner and Marx, Inc.; South Bend, IN.