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Beef By-Product Values: Trends and Current Issues

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Beef by-products have received increased attention in recent years. Factors such as export demand and domestic health issues have changed demand for by-products and value and affected prices that packers can pay for cattle. This Current Report discusses the impact that by-products have on cattle prices and examines some of the recent trends in by-product values.

By-Product Importance

An example illustrates the influence of beef by-products on cattle prices. At the end of August 1991, beef by-products were $1.42/cwt. less on a liveweight basis than at the same time in 1990, a decrease of 17.6 percent. At the same time, fed cattle prices were about $9/cwt. less than at the same time in 1990. Lower by-products accounted for about 16 percent of the difference in fed cattle prices between 1990 and 1991.

An illustration of how by-product values influence breakeven bids by packers is shown in Table 1. In this example, a 21 percent increase in by-product value results in a two percent increase in live animal bid prices. This increase in by-product values raises by-product values from 10 percent to 11.9 percent of live animal value.

By-product value currently makes up 10 to 12 percent of the value of a steer (Table 2). This compares to less than seven percent in May 1980. Total hide and offal values have increased in value twice as fast as cattle prices over the past 16 years. This means that by-products have doubled their influence on cattle prices over the same period.

Table 1. By-product Values and Packer Bid Prices

	High By-product Prices ($/cwt)	Low By-product Prices ($/cwt)
Boxed Beef Cutout (Ch 1-3, 700-850#)	$112.00	$112.00
Adjusted for 40% Select cattle	-2.80	-2.80
	109.20	109.20
Conversion to Live Weight Price (63% Dressing)	68.80	68.80
Plus By-product Value	8.50	7.00
	77.30	75.80
Less Processing Cost	6.00	6.00
Break-Even Bid	$71.30	$69.80

Hides

The hide is the single most important beef by-product component (Figure 1). Its contribution in 1990 to total by-product value was 66 percent, up from 48 percent in 1980 (Figure 2). The hide currently represents over seven percent of total steer value, up from 1.9 percent in January 1975. In fact, since 1964, hide

Table 2. By-Product Value Per 1000 Pound Steer and Percent of Steer Value, 1978-1990[a].

Year	Hide	Liver	Tongue	Heart	Cheeks	Tripe	Tallow Edible	Tallow Inedible	Meat Scraps	Total of Nine	Total of Other 14	Total By-Product Value	Percent of Steer Value
	dollars												
1978	29.95	2.13	2.09	1.31	1.71	0.88	3.45	7.04	3.60	52.45	4.00	56.45	10.93
1979	44.04	3.82	3.53	2.17	2.11	1.18	3.88	8.27	4.07	73.38	4.25	77.63	11.51
1980	27.77	3.12	3.46	1.56	1.94	1.34	3.25	6.30	3.99	52.72	4.50	57.22	8.48
1981	27.74	2.04	3.00	1.21	1.74	0.84	3.12	6.71	3.85	50.25	4.75	55.00	8.48
1982	25.97	1.42	2.48	1.66	1.84	0.69	3.09	5.64	3.35	46.14	5.00	51.14	7.88
1983	30.91	1.50	2.11	1.07	1.63	0.66	2.91	5.94	3.71	50.44	5.25	55.69	8.79
1984	36.58	1.80	2.35	0.75	1.62	0.89	4.36	7.72	3.15	59.22	5.50	64.72	9.83
1985	33.52	1.39	2.54	0.89	1.45	0.86	3.00	6.26	2.38	52.29	5.75	58.04	9.70
1986	39.51	1.41	2.91	0.83	1.41	0.60	1.99	3.97	2.82	55.44	6.00	61.44	10.55
1987	51.43	1.59	4.07	1.14	1.68	0.83	2.35	4.66	3.43	71.25	6.25	77.50	11.89
1988	57.86	1.38	4.12	1.39	1.68	1.14	2.68	5.79	4.21	80.25	7.88	88.13	12.52
1989	58.68	1.57	2.82	0.63	2.00	0.98	2.41	5.10	3.76	77.95	10.44	88.39	12.02
1990	60.29	1.94	3.51	1.19	2.16	1.07	2.22	5.10	3.02	80.50	11.00	91.50	11.73

[a]Texas-Western Oklahoma choice steers.

Figure 1: 1990 Percentages of Total By-Product Value

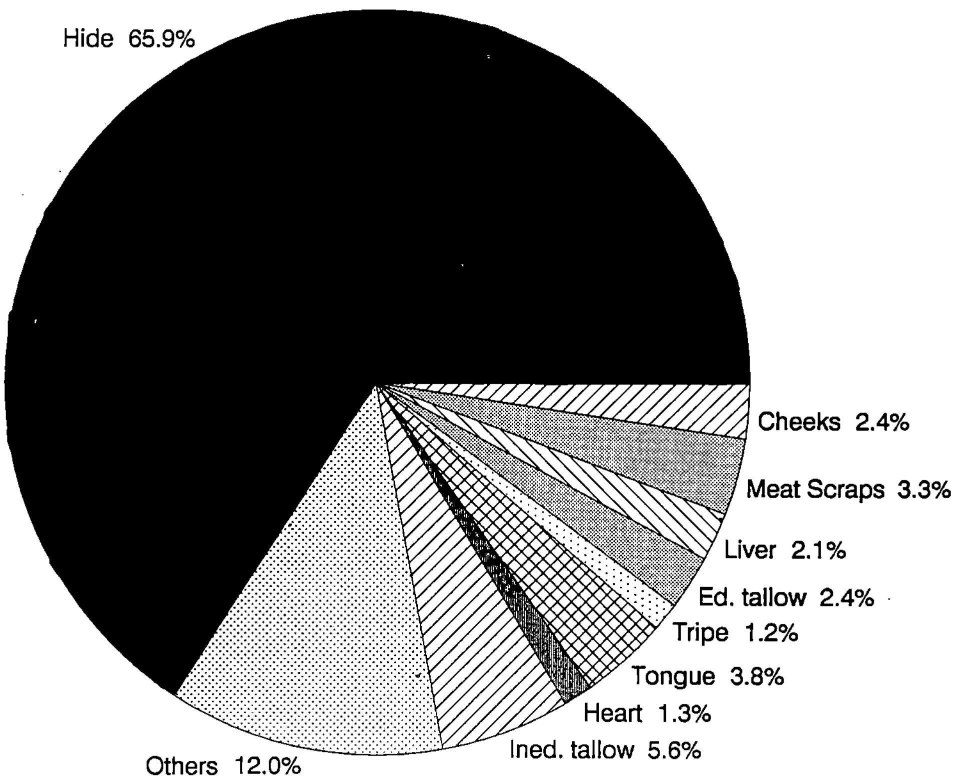


Figure 2: Hide as a Percent of Total By-Product

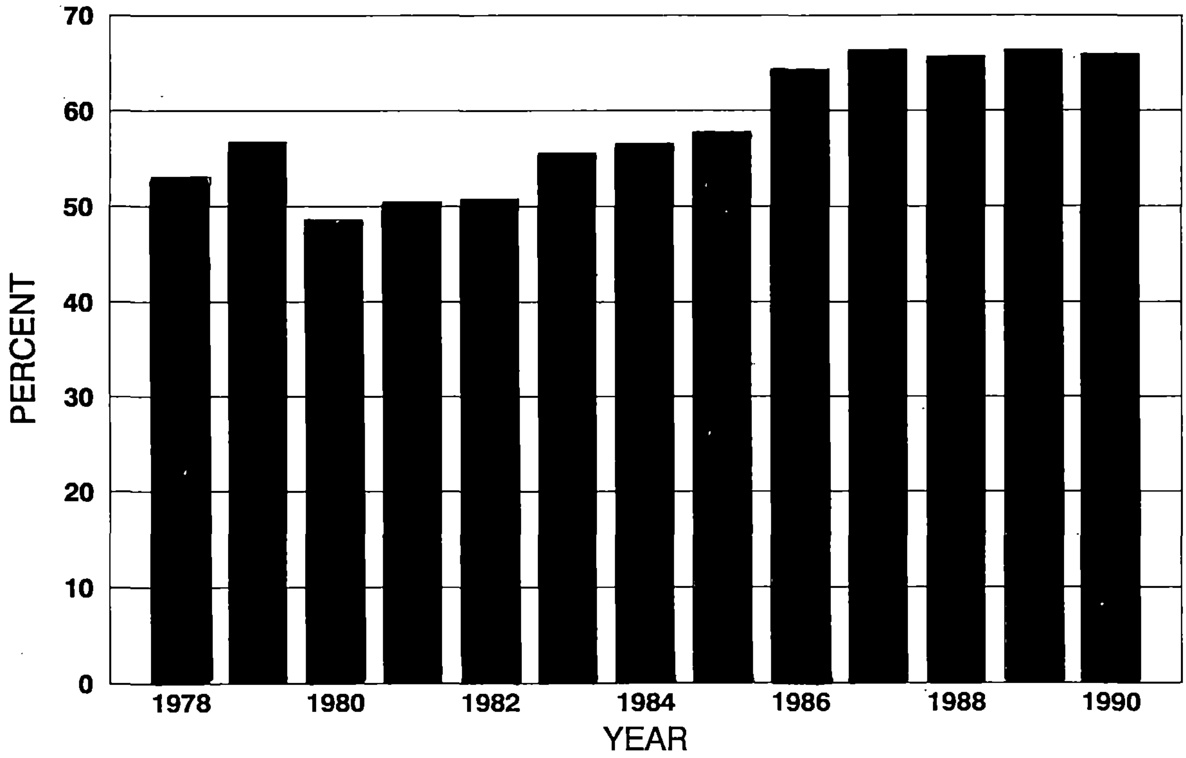
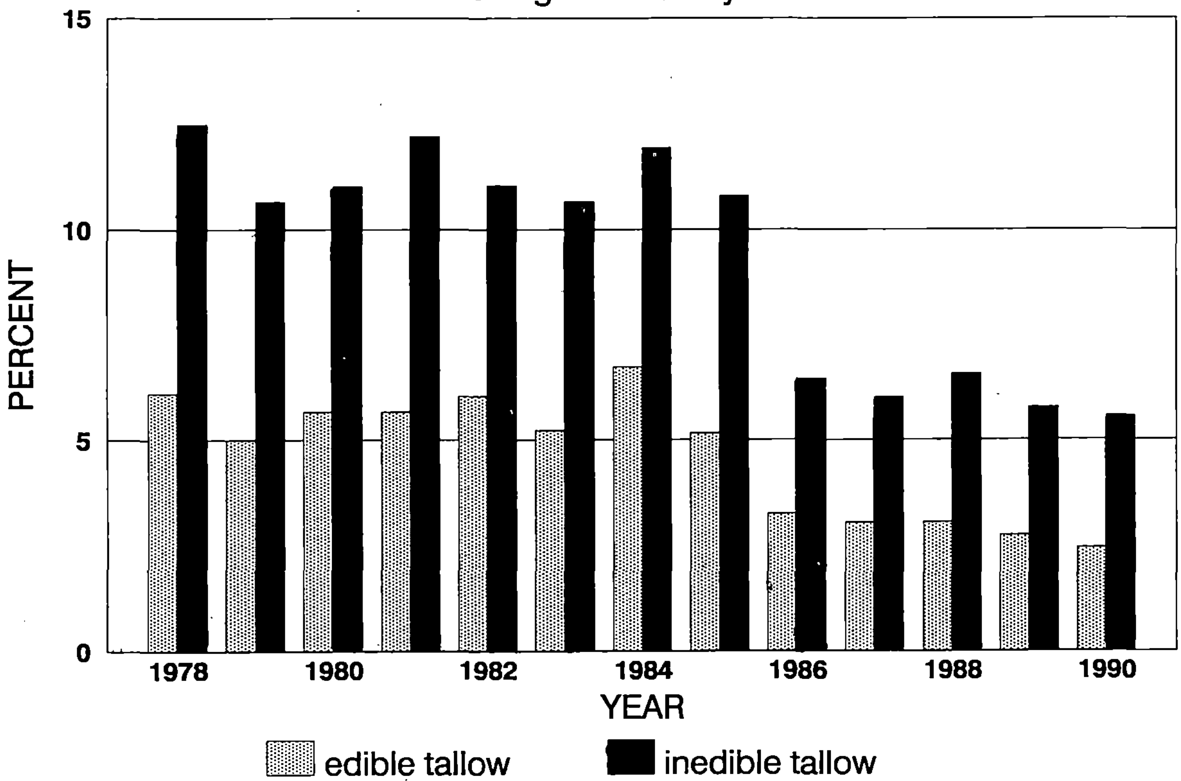


Figure 3: Edible and Inedible Tallow Values
As a Percentage of Total By-Product Value



prices have grown by a multiple of 14, while cattle prices have increased by only three times.

Whole cattle hides are a major export commodity. In 1990, 24 million whole cattle hides were exported, representing a value of $1.337 billion. About 70 percent of all U.S. hides were exported in 1990, with about 87 percent of the exports sold to the East Asian market. The largest markets for hides in 1990 were Korea (51 percent of quantity sold), Japan (29 percent), and Taiwan (seven percent).

The East Asian market reflects a high government priority on the development of their domestic tanning sectors. U.S. and Japanese import demand for leather shoes continues to fuel East Asia's appetite for U.S. cattle hides.

Due to the importance of the hide in international trade spectrum, a number of U.S. meat packers have expanded their tanning capacities. For example, IBP opened a new $15 million hide processing facility at its Dakota City, Nebraska, packing plant in May 1989. This addition makes IBP the largest volume hide tanner in the world.

Variety Meat and Edible Offal

Export markets for many of the variety meats and edible offals are very important. There is little or no domestic demand for some of these products. Variety meats and edible offals are exported to a diverse group of markets around the world. In 1990, variety meat and edible offal exports to Japan, Mexico, Western Europe, Canada, and Egypt accounted for over 90 percent of the export value of these products. This figure includes exports of variety meats and edible offals from other meat animals in addition to cattle. Japan is by far the largest market, accounting for 60 percent of the 1990 export value of variety meat and edible offals. In fact, variety meat and edible offals accounted for 16 percent of the value of total Japanese purchases of U.S. meat and meat products in 1990.

The European Communities' (E.C.) ban on hormones continues to cause great concern over the loss of edible offal exports to Europe. As a result of the ban which began January 1, 1989, U.S. exports of edible offals declined over $22 million in fiscal year 1989, a decrease of 50 percent. The U.S. and E.C. Joint Task Force charged with resolving the dispute has not yet formulated a plan that would return U.S. exports to the E.C. to pre-1989 levels.

Health issues have affected other beef by-products, some more than others. Edible tallow has declined in relative importance since 1984 (Figure 3), primarily due to nutritional concerns about animal fat usage. This is especially true in the fast food industry, where vegetable oils have replaced animal fats in deep fat frying. This decline in usage has caused a "spillover effect" on inedible tallow by-products, lowering its price and importance as well.

Summary

Until recently, a discussion of beef by-product values did not generate much interest. This has changed due to changing health preferences and a growing foreign demand for these products. By-product values as a percentage of steer value have doubled their influence on cattle prices in the past 16 years.

As hide values go, so do beef by-products in general since hides make up two-thirds of the total by-product value. The key to the continued success in hides is contingent on maintaining a large supply of high-quality cattle hides and capturing market shares in developing countries.

With a large portion of U.S. beef by-products exported, by-products values will be increasingly influenced by global economic forces and the politics of international trade. Increased by-products values and growing exports markets for U.S. meat highlight the importance of international trade to the U.S. livestock industry.

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