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U.S. Beef Packing Industry

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Production Background
The beef sector of the U.S. agricultural economy is dominated by four major packers who control more than 83 percent of the federal slaughtering. Furthermore, the number five beef slaughterer who has four plants was not even in the business a year ago.

The industry is based upon a national herd, which hovers around 100 million head. More than 60 breeds are prevalent on the American scene but British breeds predominate among beef animals.

Of significant importance is the dairy sector. They account for slightly less than 20 percent of the national herd and American Holsteins are the dominant dairy breed.

Traditionally the beef industry has been characterized by having two distinct sectors: breeding and raising and then feeding. Most of the former function is carried out either in the northern plains and Rocky mountain area and in the south from Texas across to Florida. However, it should be noted that Missouri is an important state composed of small farmers raising calves. These calves are then sold to feeders, who since the late '70s have been located primarily in Texas, Nebraska and Kansas. Some of these feedlots hold up to 100,000 cattle. This has diminished the role of the independent family feeder.

Typical Slaughter and Processing Costs
Mega packers are multi-plant, two-shift operations that employ economies of scale in order to drive down costs. These plants normally slaughter between 2,000 and 5,500 head per day on a double-shift basis. In the commodity environment, the most important differentiating factor is having the lowest cost and thus price. The most efficient of these packers have slaughter and fabrication costs of less than $100 per head. Other large competitors are about 10-15 percent higher, while single plant operations can range from $125 to $145 per head. This is calculated at about $35 to $45 for the slaughter step with the balance being fabrication, net of the drop credit for edible and inedible by-products.

A word of clarification is also warranted about the fabrication. While it is true in the slaughter element, one can relative closely compare one plant to another, this is not so easily done in the fabrication step. The main reason is that the product mix varies greatly from company to company and from plant to plant. The more products are closely trimmed and deboned, the higher the charges are for this function. Typically a plant produces about 30 to 40 different subprimals and other cuts from the primals.

The hide, which is worth from about $40 to $60 on average, is not included in this calculation. It is a “plus” for the packer. In fact, one major packer has a wet blue process, which is a closer step towards finished leather than the traditionally salted hides.

It is not only the production side that differentiates the large packer from the small ones, but importantly it is the marketing as well. The bulk of the demand for U.S. beef on the domestic market is in the form of steaks and ground beef. These items are easy to sell and the prices are somewhat elastic. However, it is the sales of the end cuts, rounds and chucks that present a challenge not only to the big packers, but especially to the smaller ones. It should be noted that within those primals are several steak items, which can be fabricated and merchandised as well. The prices received for these steaks more than off-set the additional labor to fabricate them and provide a better return than to turn the entire primal into ground beef.

Another area in which the small packer/processor finds it difficult is making the best use of the rough cuts. They are traditionally items such as pectoral meat, diaphragms, briskets, shin and shank meat, lifter meat, tendons, etc.

Exports represent another good market area for the large packers. Items such as short ribs, short loin, hanging tenders are excellent export items. Also, some of the middle meats, livers, and tongues, as well as some of the rough cuts, have long enjoyed excellent export prices.

And lastly, another advantage the major packers have is with the sales of offal. Both edible items such as tongues, livers, tripe, as well as the ability to render inedible by-product, all are positive revenue sources for the large packer.

Niche for Small Plants

Contrast the scenario of the large multi-plant packers with the one inhabited by smaller single plant facilities. Typically these plants kill between 250 to 600 head daily. These USDA inspected plants are likely located on the fringes of major cattle procurement areas, specialize in cows and bulls, do some toll slaughter, or have some other clearly identifiable niche. Since they do not have the economies of scale in processing and marketing of the major mega packers, they need to have a well-defined business plan that will enable them to compete in market segments where the mega packers cannot go or do not feel comfortable.

Most of these facilities have a “kill and cut” cost of at least $150. Typically if they have a rendering operation, it is a batch process, not continuous. They are not likely to be active in the export market nor receive maximum value for their by-products, especially edible. Often times they have difficulty marketing a full array of subprimals, including the rough cuts.

Some of these plants have turned to engaging in custom or toll slaughter for all or part of their income. The variety of offers or deals for this type of work is all over the ballpark. However, usually the packer keeps the by-products and hide (worth about $30 to $50) and then charges a breaking fee based upon the cold carcass weight. One plant may only break into primals and this costs the producer $.20/lb. Other establishments will fabricate into subprimals charging about $.35/lb. At any rate, it is at least two times more expensive to have cattle processed in this matter. Costs of $350 to $400/head are not unheard of. And then the producer has the challenging task of marketing the difficult parts of the carcass. Clearly the producer must have a well-defined marketing plant where the entire carcass can be sold at a premium in order to rightfully gain an identifiable niche in the marketplace.

Successful Small Packers?
Can a model be successful for a small packer? Yes, Harris Ranch, Coalinga, Calif., is successful. The company slaughters about 600 daily, mostly Herefords that are finished in its own feed yard. These cattle come to them via an alliance where the cow-calf operator must follow rigorous specifications before they are accepted into the feedlot. At the feedlot, cattle are fed a ration composed of Midwestern grain in order for the cattle to grade USDA Choice. Since the Californian market is mostly a USDA Select one, Harris Ranch has a leg up on most of the competition by offering a higher quality grade of beef. They then strive to deliver consistent taste, tenderness and quality through relationships with the cow-calf operator. Furthermore, Harris Ranch started several years ago to add further value by putting roast items and other cuts into pre-cooked entrees. This has been successful because the Harris Ranch brand is easily recognized and some would say that it even has some brand equity.

State Inspected Lockers?
What about the state inspected local locker plant? They operate from several diseconomies of scale. Usually they need to pay to get rid of the offal and by-product and only receive $5 to $7 for a hide. This hide price is low because they are sold in such meager quantities and are not salted. They are hardly worth the trouble to save. Typically these plants charge between $.35 to $.45 per pound for ungraded paper-wrapped beef. Both the producer, as well as the locker plant, may lack the skill and experience to save some of the rough cuts, and more importantly, the knowledge to market them.

In order to compete against the mega packers successfully, you need to go onto ground that the behemoth elephants will not tread. The most important thing is to use a good model and then develop a specific business plan to fit that model and continue to work the plan. This strategy will need to be adjusted.

BEEF SLAUGHTERERS - 2002

Rank	Company	Daily Capacity
1	Tyson Foods	34,500
2	ConAgra	20,600

3	Excel Corp.	23,000
4	Farmland National Beef	9,000
5	Smithfield Foods	8,000
6	Roseri's Diversified Inc.	3,800
7	Greater Omaha Packing Co.	2,600
8	Nebraska Beef, Inc.	3,000
9	Taylor Packing Co.	1,900
10	American Foods Group	1,800

Source: Meat & Poultry 2002 Facts

About the Author

Severin Johnson conducts special projects for the Iowa State University Extension Value- added Agriculture Program. Before beginning a phased-retirement at ISU, he was Assistant Director for Technology Transfer at the Utilization Center for Agricultural Products at Iowa State University.

Johnson has conducted numerous feasibility and marketing studies for food companies. He specializes in international market studies and has a long career in export development. He is fluent in Spanish, French and Portuguese.

Johnson was born in Illinois and attended the University of Wisconsin where he majored in Economics. After receiving his BA degree, he attended Stanford University, Palo Alto, Calif., where he received an MA in Latin American Studies. He then entered the U.S. Army, obtaining the rank of Captain. His service was primarily in France. On his return from military service, he attended the University of Missouri and earned an MBA in International Marketing.

He entered the meat industry in 1975 where he worked for Townsend Engineering in international marketing in Latin America. Prior to his employment with the Meat Export Research Center at Iowa State in 1984 as a trade liaison, Johnson spent three years with the U.S. Meat Export Federation working in market development in Japan, Korea and South America.