Programs to differentiate beef products based on geographic indications (GIs) include Nebraska Corn-Fed Beef, South Dakota Certified Beef, and Iowa-80 Beef. An unexpected difficulty in developing these types of brands will be a lack of federally inspected small- to medium-size packing facilities best suited for processing segregated cattle and beef products. South Dakota has eight small or very small federally inspected meat packing facilities. South Dakota Certified Beef is using a number of small packers. Currently four are licensed for the program and others have applied. Iowa has one major beef kill plant in Denison, but no processing is done on site. Nebraska-based brands have a major advantage in that the state has several large and small plants—some of which have experience in dealing with relatively small batches of different sizes. In developing Iowa-80 beef, we have found it difficult to develop a brand that can certify beef that comes from cattle born, fed, killed, and processed in Iowa so that it can be exported to other states and overseas. The lack of ideally sized facilities is a direct result of the increased concentration in the beef industry.

Packer History
Concentration in the U.S. packing industry has deep historical roots. In the early 1900s, a group of companies called the “Big Five” dominated the meat packing industry. Holding an estimated 50 to 75 percent of the market, these companies operated large, multispecies slaughter facilities near terminal markets. In 1920, following an investigation by the Federal Trade Commission, the Big Five packing companies agreed, among other things, to divest themselves of certain assets such as public stockyards and to cease retail sales. Over the following 40 years, single-species slaughter plants gradually were located in livestock production areas and the proportion of cattle slaughter by the four largest packing firms fell to about 30 percent by 1956.

The transition from carcasses to boxed beef took place in the 1960s, and high slaughter levels kept plenty of independents in business until the late 1970s, when slaughter numbers dropped. Since then, the pendulum has swung back toward consolidation, with a few companies operating very large plants. In 1996, 28.6 million steers and heifers were slaughtered, with 22 plants slaughtering 79 percent of this total. By 2003, the top four companies accounted for about 80 percent of steer and heifer slaughter.

Currently the beef packing industry fits the Federal Trade Commission’s definition of a highly concentrated industry (see the four-firm concentration ratios in the table below). Research on the effects of this concentration has focused on whether packers have used market power to lower the prices they pay for slaughter-ready cattle or whether packers have used captive supplies to manipulate market prices. Little attention has been paid to the effect

Percentage of total commercial slaughter by four largest firms

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<td>Four-firm concentration</td>
<td>35.7</td>
<td>50.2</td>
<td>71.6</td>
<td>80.8</td>
<td>81.4</td>
<td>80.4</td>
<td>79.2</td>
<td>80.3</td>
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of this concentration on producer groups or small companies that need to segregate cattle in a fully traceable system.

**A Hurdle for Niche Products**

There are two difficulties raised by a lack of competition between packers for developers of niche beef products. The first is that the economic fortunes of today’s packers are driven by maximizing throughput. That is, because of large fixed costs, money is made by moving large numbers of animals through packinghouses quickly and efficiently. Stopping or slowing a production line to process a batch of animals separately simply runs counter to how modern packers operate.

A second potential problem can occur after an agreement is reached with a packer for special treatment of a batch of animals. A traceable and auditable system requires close coordination between all participants in a value chain. Any break or disruption in the chain implies that no product can be sold under that system. This dependence creates the possibility that one participant can “hold up” the value chain by demanding more favorable terms. Of course, the credibility of any such attempt depends on the ease with which a participant can be replaced. If there is only one packer in a state and the niche product requires that livestock be slaughtered in the state, then over time one would expect that most of the value in a value-chain will be captured by the packer.

Iowa’s unique problem of having only a single major beef facility did not result solely from increased packer consolidation. Perhaps the biggest driver of this change was the movement of cattle away from the Corn Belt. Historically, the majority of cattle were fed in the Corn Belt. As shown in the accompanying figure, Iowa once accounted for a relatively large proportion of cattle production. But the feedlot industry gradually migrated to the Southern Plains, leaving less than 5 percent of U.S. cattle-feeding capacity in the hands of smaller-scale farmers. Texas, Kansas, Nebraska, and Colorado now account for 65 percent of U.S. feeder cattle supply and more than two-thirds of U.S. cattle slaughter.

Nobody expects increased development of small-scale slaughter and processing capacity to meet the demands of niche beef markets and small-scale producers. In fact, the economic realities of livestock processing favor continuing consolidation in the number of packers and plants. A key strategic hurdle for niche players in the beef business is the development of business relationships with multiple packers and plant managers to avoid the possibility of a holdup in the chain. In addition, care must be taken in defining the standards for GI certification. In the case of Iowa-80 Beef, for example, requirements may reflect that the animal must be born and fed in Iowa but that it can be slaughtered in Nebraska.

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**Corn Prices, Basis, and Transportation**

Continued from page 5

Are not reported from late December to the first of March due to ice buildup on the Upper Mississippi River. Barge rates shot up in mid-September 2004 and have been consistently above average since then. The pressures of large corn and soybean crops—combined with barge traffic near or at capacity on the Upper Mississippi River, increased competition on covered barges from imported non-grain commodities (such as steel), lower water levels due to drought, and higher fuel prices—drove barge rates up. These pressures have continued through 2005 and have been intensified by the potential size of the 2005 crops and the double-barreled impacts of Hurricanes Katrina and Rita, limiting barge movement and fuel supplies.

As of early October, only 15 percent of the capacity in the Port of New Orleans is up and running. Barges cannot unload grain shipments because of damaged freight terminals, which has delayed the movement of barges back up the river and consequently limited barge supplies for farmers in the Midwest. In simple economic terms, given the limited supply of barge space and the increased demand for that space from strong crop production, barge rates (the price for barge space) had to increase. Fuel cost increases in the barge industry are passed on to the farmer in the competition to obtain barge space. The effects of the hurricanes just exacerbate the problem. Barge rates are not the only transportation costs that have skyrocketed.

Agricultural commodities shipped by truck and/or rail face many of the same issues: limited transportation supplies and higher fuel costs.

**Low Prices, Higher Support**

All of these factors point to a continuation of low crop prices in Iowa and the nation over the near term. USDA is currently projecting a season-average farm price of $1.90 per bushel for the 2005 corn crop. This would be 16¢ per bushel below the 2004 crop year price and 52¢ below the 2003 crop year price. Price support government programs, such as the marketing loan and countercyclical payment program, will likely provide a significant amount of support to the farm sector in the coming year.