

Shipments of Grain by Rail in Kansas

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This summary of grain shipments by rail in Kansas is drawn from *State Grain Rail Statistical Summary*,¹ a report that describes the grain and oilseed shipped by rail in the United States from 2006 to 2010. The full report collects information on rail shipments from each State and to each State and examines some of the factors that influence the amount of grain grown and used. It examines rail shipments, rail receipts, grain and oilseed production, animal and poultry production, grain and oilseed exports, and grain and oilseed rail rates per ton-mile to explain the variations between States in shipments of these commodities.

Kansas ranks sixth among the grain and oilseed producing States, with a 2006–2010 average yearly production of 1.2 billion bushels (bbu).

During the period 2006–2010, 44 percent of Kansas crops were corn, 29 percent wheat, 17 percent sorghum, and 10 percent soybeans.

Nationally, Kansas is ranked fifth in animal and poultry production, averaging 24.4 million Grain Consuming Animal Units (GCAU)² from 2006 to 2010.

Railroad originations of grain and oilseeds averaged a market share of 35.4 percent during the crop marketing years of 2007 to 2010, a decrease from the 41.9 percent average during the period 2001–2004.

From 2006 to 2010, Kansas shipped 7.6 million tons of corn by rail, down 4.1 percent from 7.9 million tons from 1996 to 2000. (fig. 1)

1 Available at <http://dx.doi.org/10.9752/TS066.06-2013>

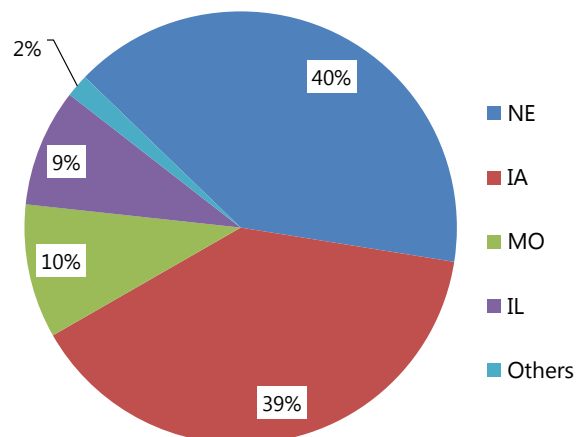
2 A standard unit used to compare feed needs of different livestock and poultry.

Figure 1. Business Economic Areas Receiving Kansas Corn by Rail, 2006–2010



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 2. Sources of Kansas Rail Corn Receipts, 2006–2010



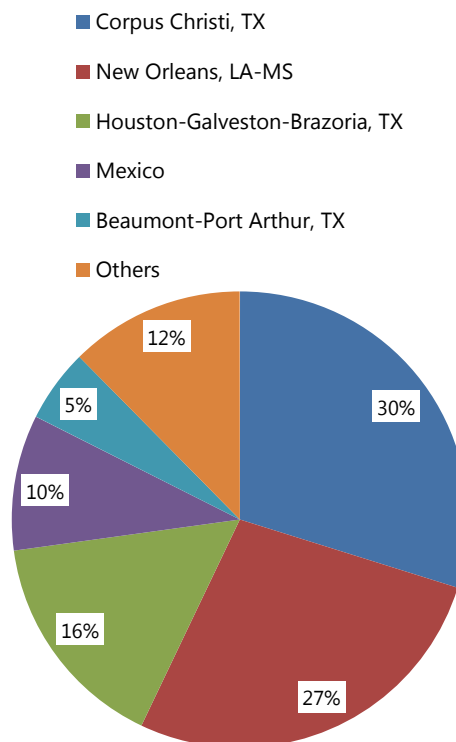
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Kansas received a total of 1.2 million tons of corn by rail during the 2006–2010 marketing years, down 15.8 percent from 1.4 million tons during the 1996–2000 marketing years. (fig. 2)

From 2006 to 2010, Kansas shipped 5.2 million tons of soybeans by rail, up 45.3 percent from 3.6 million tons shipped in the period 1996–2000. (fig. 3)

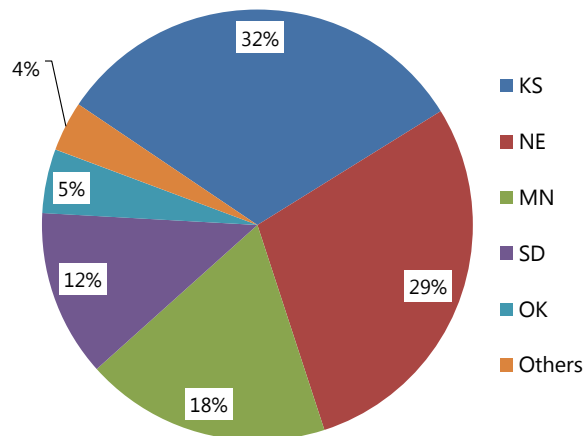
Kansas received a total of 381,000 tons of soybeans by rail during the 2006–2010 marketing years, down 70.4 percent from 1.3 million tons during the 1996–2000 marketing years. (fig. 4)

Figure 3. Business Economic Areas Receiving Kansas Soybeans by Rail, 2006–2010



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 4. Sources of Kansas Rail Soybean Receipts, 2006–2010



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

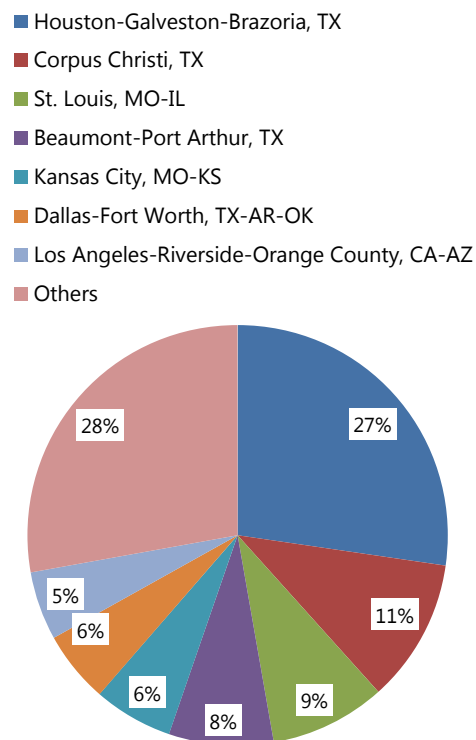
In the years 2006–2010, 35.3 million tons of wheat were shipped by rail from Kansas, a 17.6 percent decrease from 42.8 million tons from 1996 to 2000. (fig. 5)

In the crop marketing years 2006–2010, Kansas received 3.3 million tons of wheat by rail, a 54.9 percent decrease from 7.3 million tons in the years 1996–2000. (fig. 6)

Five percent of the grain car shipments originating in Kansas from 2006 to 2010 were 1–5 cars in size, 28 percent were 6–49 cars, 6 percent were 50–74 cars, and the remaining 61 percent of shipments were 75 cars or greater. (fig. 7)

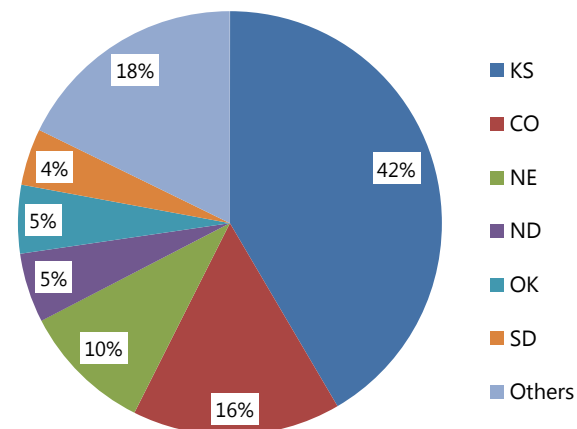
Average tariff rail rates for shipments originating in Kansas were 3.7 cents per ton-mile from 2006 to 2010. Rates ranged from 2.61 cents per ton-mile in 1999 to 4.21 cents in 2009. Rates increased 25 percent from 2005 to 2010. (fig. 8)

Figure 5. Business Economic Areas Receiving Kansas Wheat by Rail, 2006–2010



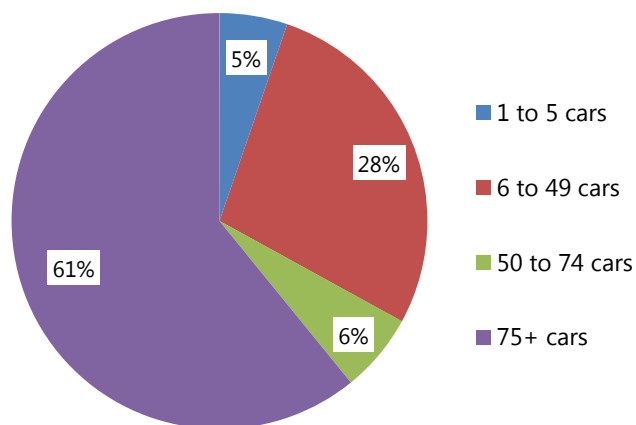
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 6. Sources of Kansas Rail Wheat Receipts, 2006–2010



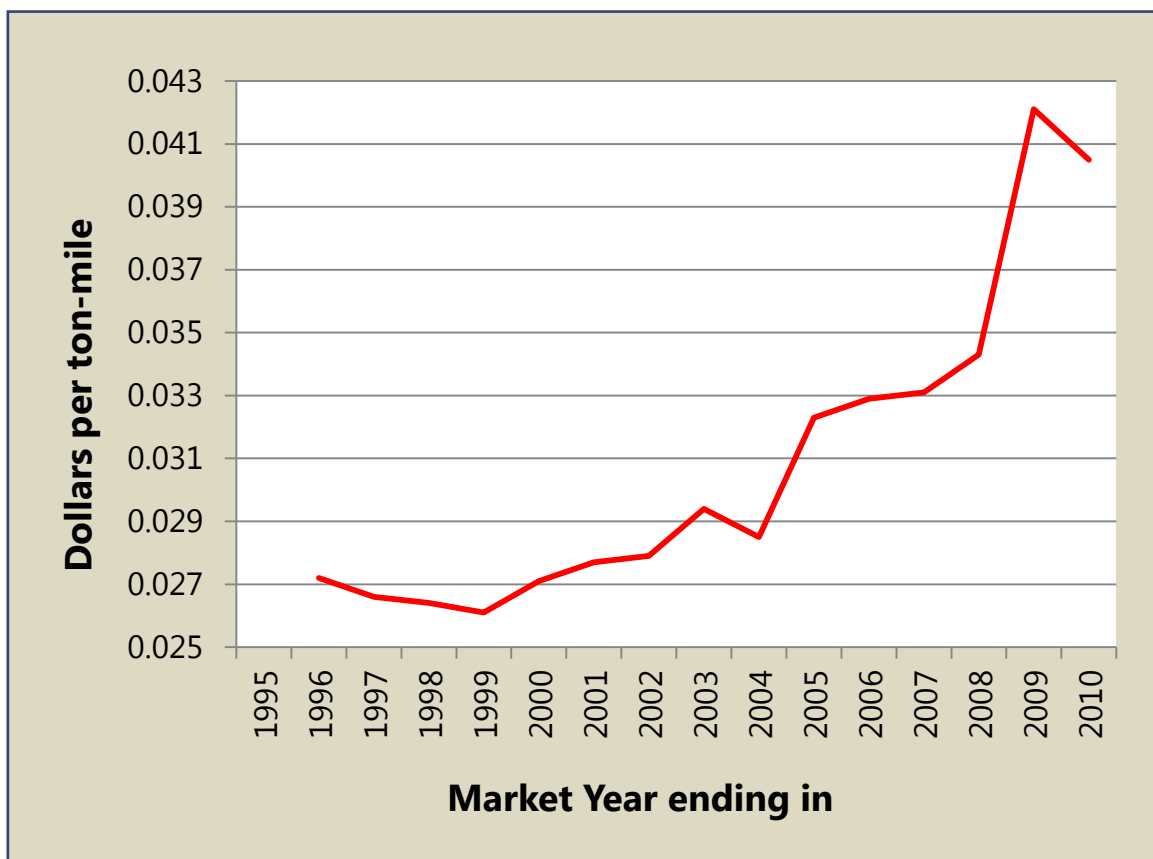
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 7. Kansas Grain Originations by Shipment Size



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 8. Average Kansas Rail Tariff Rates



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Table 1. Kansas Grain and Oilseed Production and Rail Shipments, 2006-2010

	Corn	Soybeans	Wheat	Total Grain and Oilseeds	GCAUs*
Average Yearly Production	503.76 mbu†	120.73 mbu	332.12 mbu	1153.07 mbu	24,364,659
Total Rail Receipts (tons)	1,161,620	381,060	3,314,456	-	-
Total Rail Shipments (tons)	7,572,238	5,171,749	35,298,760	-	-

* Grain Consuming Animal Units

† Million bushels

Data and Methodology

Data from the Surface Transportation Board's Confidential Waybill Samples over the period 1996-2010 were analyzed to measure grain and oilseed shipments by rail. The data were aggregated and sorted by a number of characteristics, the major categories being shipment origin, destination, and type of grain or oilseed. This information was then organized by both origin and destination State. The data were also sorted by shipment size for each State, showing the relative frequencies of grain and oilseed shipments of different sizes. Data having less than 30 observations are excluded, as are States having data for only 1 or 2 years of the 5-year period. Despite these precautions, States with relatively low volumes are more subject to year-to-year variation than are States with higher volumes because of the number of available observations used to calculate totals. This is a result of the sampling techniques used in the Waybill Samples. Thus, higher volumes are less likely to suffer from sampling limitations and be more representative of actual rail movements for any given year than are lower volumes.

GCAUs were calculated for each State using information on animal populations and the corresponding levels of feed necessary to maintain the populations. These calculations included meat and poultry for consumption and production purposes. Cows, sheep, turkeys, hogs, and chickens were included.

The export inspection numbers in this report were taken from USDA Grain Inspection, Packers and Stockyards Administration grain and oilseed export inspections at U.S. ports exporting grain and oilseeds in bulk. Grain and oilseed production levels by State were also calculated.

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Preferred citation:

Prater, Marvin E., Daniel O'Neil, Jr., and Adam Sparger. *Shipments of Grain by Rail in Kansas*. U.S. Department of Agriculture, Agricultural Marketing Service, January 2014. Web. <<http://dx.doi.org/10.9752/TS108.01-2014>>