

# Shipments of Grain by Rail in Montana

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This summary of grain shipments by rail in Montana is drawn from *State Grain Rail Statistical Summary*,<sup>1</sup> 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.

Montana ranks 18th among the grain and oilseed producing States, with a 2006–2010 average yearly production of 213.9 million bushels (mbu).

During the years 2006–2010, 80 percent of Montana crops were wheat, 17 percent barley, 2 percent corn, and 1 percent oats.

Nationally, Montana is ranked 38th in animal and poultry production, averaging 1.1 million Grain Consuming Animal Units (GCAU)<sup>2</sup> from 2006 to 2010.

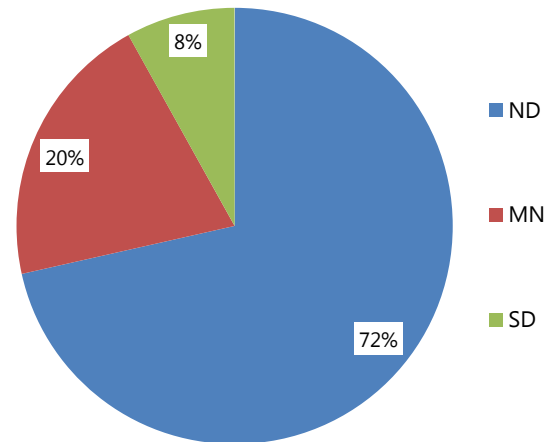
During the crop marketing years from 2007 to 2010, railroad originations of grain and oilseeds averaged a market share of 95 percent, an increase from the 2001–2004 average 76.7 percent.

Montana received a total of 512,000 tons of corn by rail during the 2006–2010 marketing years, up 84.8 percent from 277,000 tons during the 1996–2000 marketing years. (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.

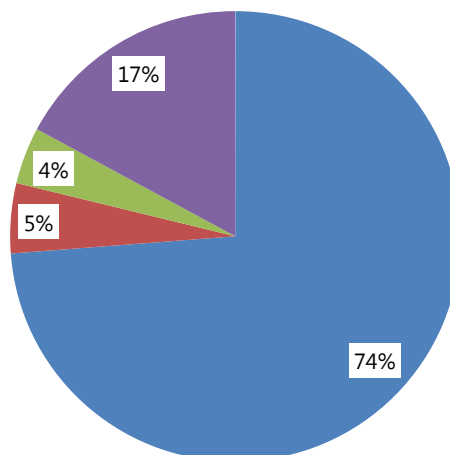
Figure 1. Sources of Montana Rail Corn Receipts, 2006–2010



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 2. Business Economic Areas Receiving Montana Wheat by Rail, 2006–2010

- Portland-Salem, OR-WA
- Los Angeles-Riverside-Orange County, CA-AZ
- Spokane, WA-ID
- Others



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

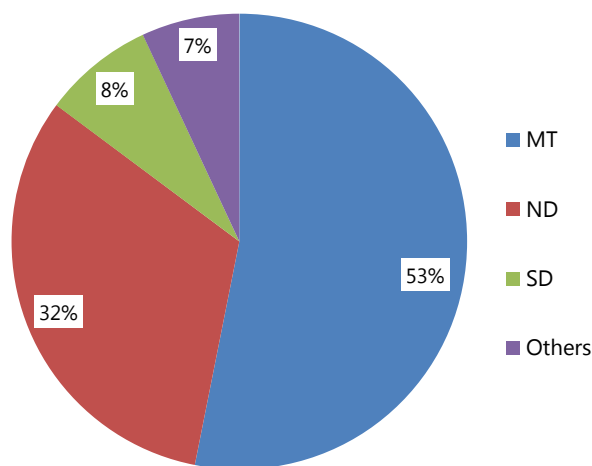
In the years 2006–2010, 25.8 million tons of wheat were shipped by rail from Montana, a 48-percent increase from 17.4 million tons from 1996 to 2000. (fig. 2)

Montana received a total of 396,000 tons of wheat by rail during the 2006–2010 marketing years, up 29.9 percent from 305,000 tons during the 1996–2000 marketing years. (fig. 3)

Eleven percent of the grain car shipments originating in Montana from 2006 to 2010 were 1–5 cars in size, 35 percent were 6–49 cars, 13 percent were 50–74 cars, and the remaining 41 percent of shipments were 75 cars or greater. (fig. 4)

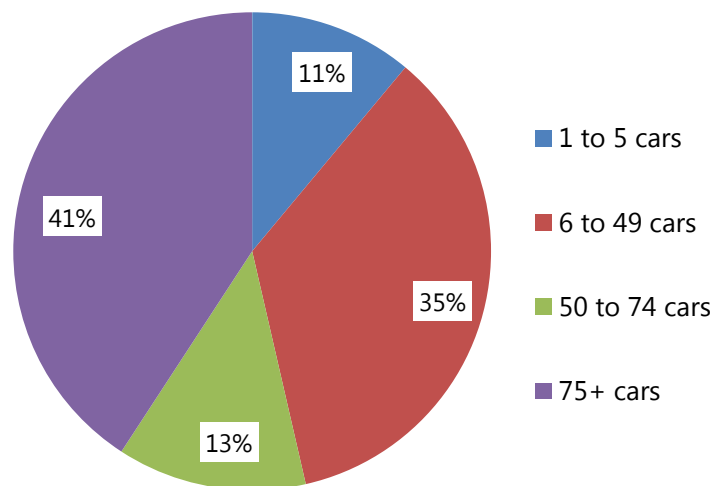
Average tariff rail rates for shipments originating in Montana were 3.3 cents per ton-mile from 2006 to 2010. Rates ranged from 2.82 cents per ton-mile in 2001 to 3.54 cents in 2010. Rates increased 16 percent from 2005 to 2010. (fig. 5)

**Figure 3. Sources of Montana Rail Wheat Receipts, 2006–2010**



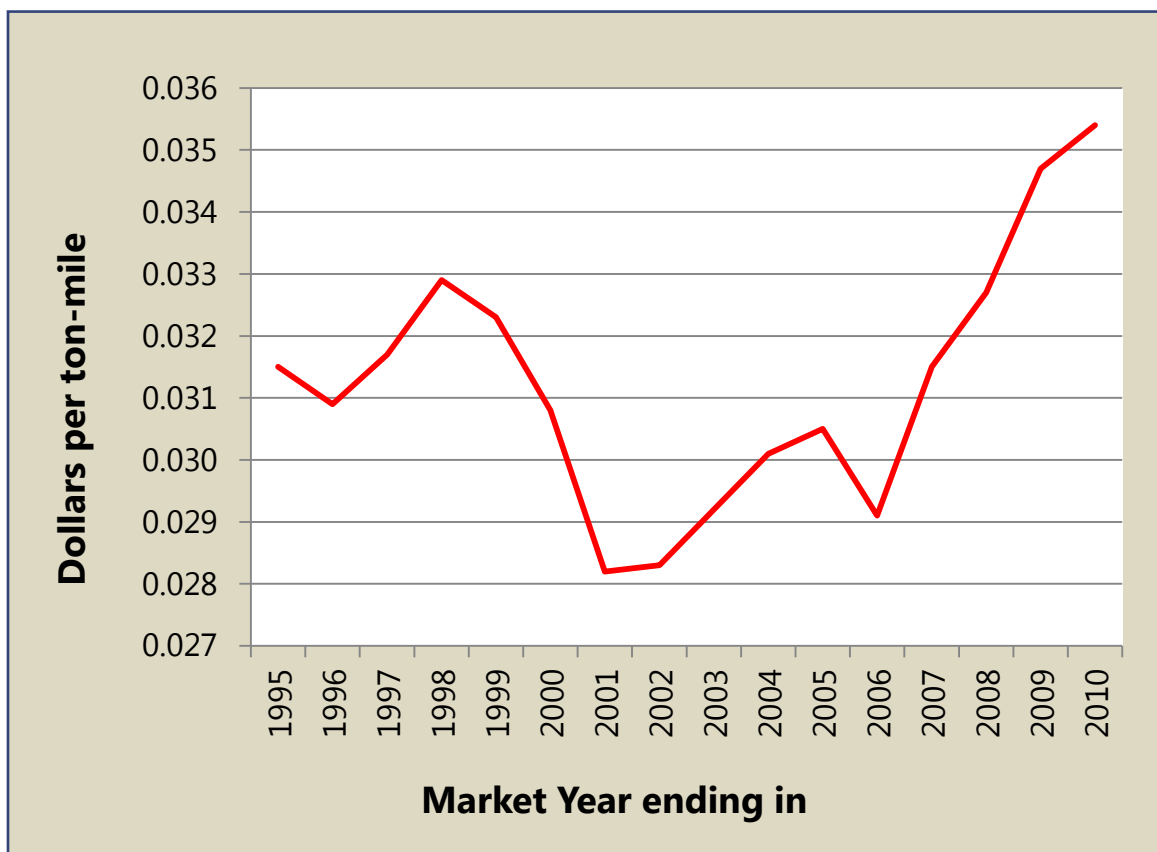
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 4. Montana Grain Originations by Shipment Size**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 5. Average Montana Rail Tariff Rates



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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

|                             | Corn      | Soybeans | Wheat      | Total Grain and Oilseeds | GCAUs*    |
|-----------------------------|-----------|----------|------------|--------------------------|-----------|
| Average Yearly Production   | 4.25 mbu† | -        | 171.92 mbu | 213.91 mbu               | 1,129,415 |
| Total Rail Receipts (tons)  | 512,168   | -        | 396,264    | -                        | -         |
| Total Rail Shipments (tons) | -         | -        | 25,772,457 | -                        | -         |

\* 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 Montana*. U.S. Department of Agriculture, Agricultural Marketing Service, January 2014. Web. <<http://dx.doi.org/10.9752/TS119.01-2014>>