

# Shipments of Grain by Rail in Pennsylvania

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This summary of grain shipments by rail in Pennsylvania 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.

Pennsylvania ranks 26th among the grain and oilseed producing States, with a 2006–2010 average yearly production of 157.8 million bushels (mbu).

During the years 2006–2010, corn comprised 77 percent of Pennsylvania crops, soybeans 12 percent, wheat 6 percent, oats 3 percent, and barley 2 percent.

Nationally, Pennsylvania is ranked 17th in animal and poultry production, averaging 10.8 million Grain Consuming Animal Units (GCAU)<sup>2</sup> from 2006 to 2010.

In the crop marketing years 2007–2010, railroad originations of grain and oilseeds averaged a market share of 1.2 percent, a decrease from the 2001–2004 average of 4.6 percent.

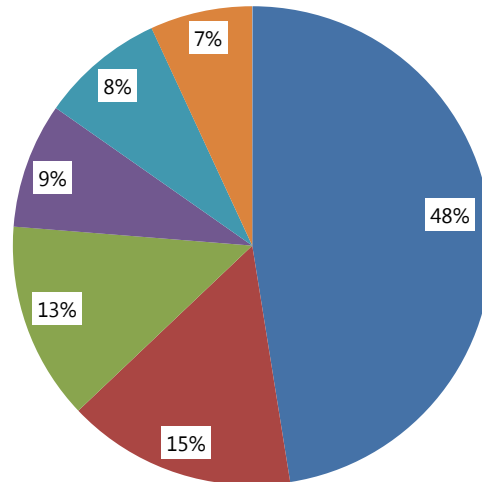
During the period 2006–2010, Pennsylvania shipped 57,000 tons of corn by rail, down 73.8 percent from 216,000 tons from 1996 to 2000. (fig. 1)

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

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

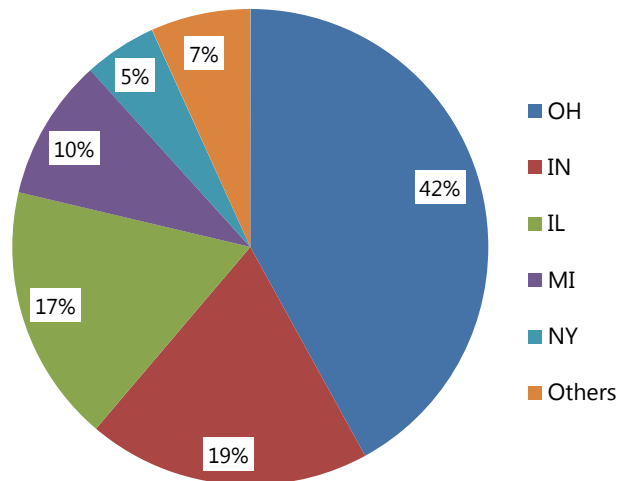
**Figure 1. Business Economic Areas Receiving Pennsylvania Corn by Rail, 2006–2010**

- New York-No. New Jersey-Long Island, NY-NJ-CT-PA-MA-VT
- Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD
- Albany-Schenectady-Troy, NY
- Harrisburg-Lebanon-Carlisle, PA
- Fort Wayne, IN
- Toledo, OH



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Pennsylvania received a total of 1.8 million tons of corn by rail during the 2006–2010 marketing years, down 46.5 percent from 3.3 million tons during the 1996–2000 marketing years. (fig. 2)

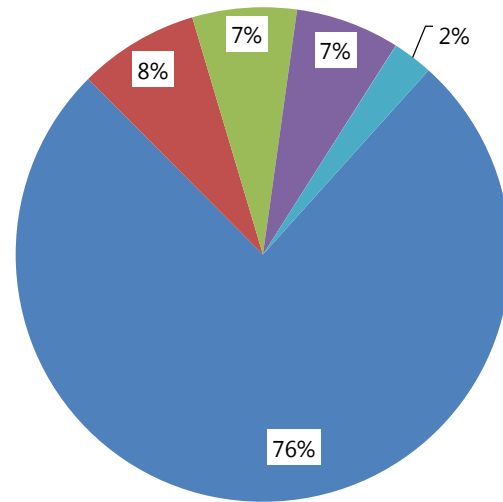
From 2006–2010, Pennsylvania shipped 162,000 tons of soybeans by rail. (fig. 3)

Pennsylvania received a total of 5.8 million tons of wheat by rail during the 2006–2010 marketing years, up 45.6 percent from 4 million tons during the 1996–2000 marketing years. (fig. 4)

Ninety-four percent of the grain car shipments originating in Pennsylvania from 2006 to 2010 were 1–5 cars in size, while the remaining 6 percent of shipments were 6–49 cars long. (fig. 5)

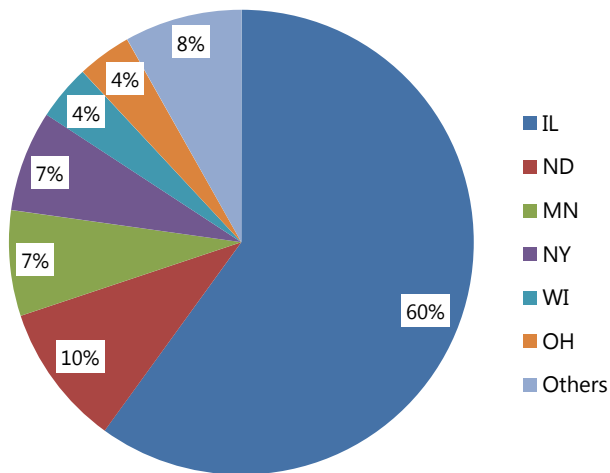
**Figure 3. Business Economic Areas Receiving Pennsylvania Soybeans by Rail, 2006–2010**

- Raleigh-Durham-Chapel Hill, NC
- New York-No. New Jersey-Long Island, NY-NJ-CT-PA-MA-VT
- Norfolk-Virginia Beach-Newport News, VA-NC
- Miami-Fort Lauderdale, FL
- Atlanta, GA-AL-NC



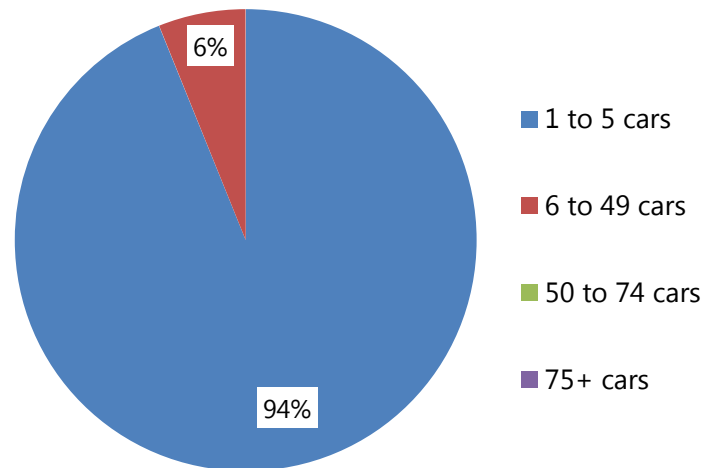
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 4. Sources of Pennsylvania Rail Wheat Receipts, 2006–2010**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 5. Pennsylvania Grain Originations by Shipment Size**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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

	Corn	Soybeans	Wheat	Total Grain and Oilseeds	GCAUs*
Average Yearly Production	120.74 mbu†	18.62 mbu	9.67 mbu	157.84 mbu	10,798,187
Total Rail Receipts (tons)	1,782,706	-	5,762,248	-	-
Total Rail Shipments (tons)	56,752	161,608	-	-	-

\* 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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