

# Shipments of Grain by Rail in North Carolina

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This summary of grain shipments by rail in North Carolina 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.

North Carolina ranks 21st among the grain and oilseed producing States, with a 2006–2010 average yearly production of 191.8 million bushels (mbu).

From 2006 to 2010, corn comprised 45 percent of North Carolina crops, soybeans 24 percent, wheat 14 percent, cottonseeds 9 percent, peanuts 6 percent, and oats and barley 1 percent each.

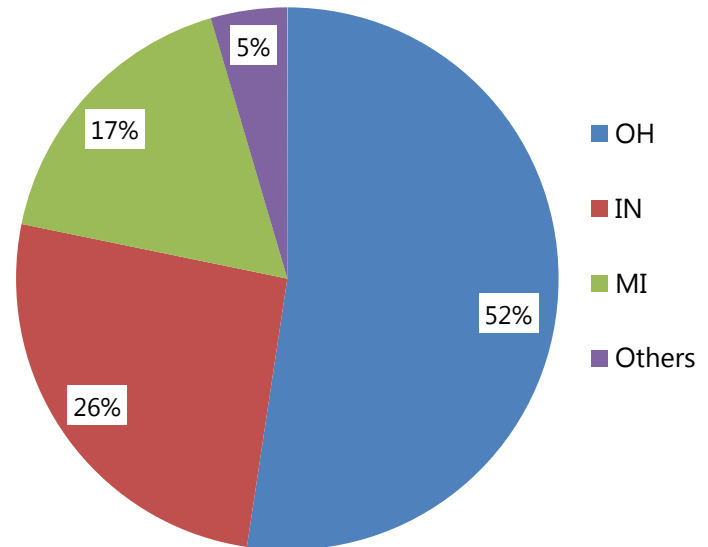
Nationally, North Carolina is ranked third in animal and poultry production, averaging 35.9 million Grain Consuming Animal Units (GCAU)<sup>2</sup> from 2006 to 2010.

For each year from 2006 to 2010, an average of 122,000 metric tons of grain and oilseeds were inspected for export from North Carolina. Railroad originations of grain and oilseeds had an average market share of 5.8 percent during the crop market years of 2001–2004, which decreased to an average of 2.2 percent in the period 2007–2010.

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

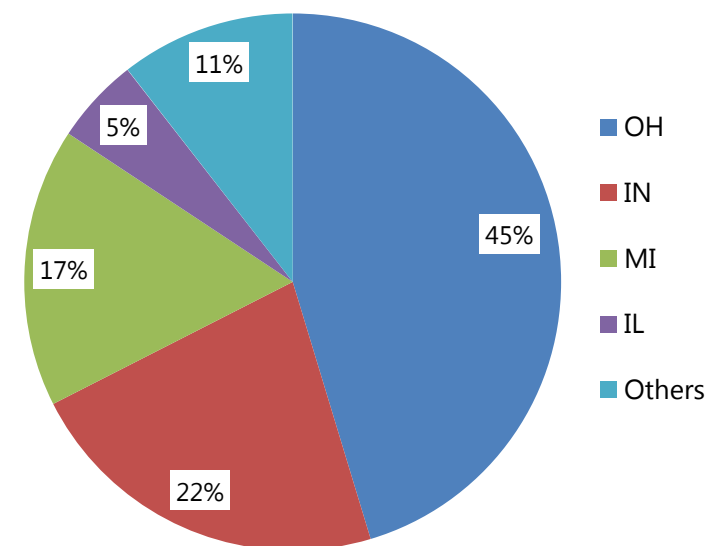
2 A standard unit used to compare feed needs of different livestock and poultry.

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 2. Sources of North Carolina Rail Soybean Receipts, 2006–2010



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

North Carolina received a total of 26 million tons of corn by rail during the 2006–2010 marketing years, down 2.4 percent from 26.7 million tons during the 1996–2000 marketing years. (fig. 1)

North Carolina received a total of 4.1 million tons of soybeans by rail during the 2006–2010 marketing years, down 20.4 percent from 5.1 million tons during the 1996–2000 marketing years. (fig. 2)

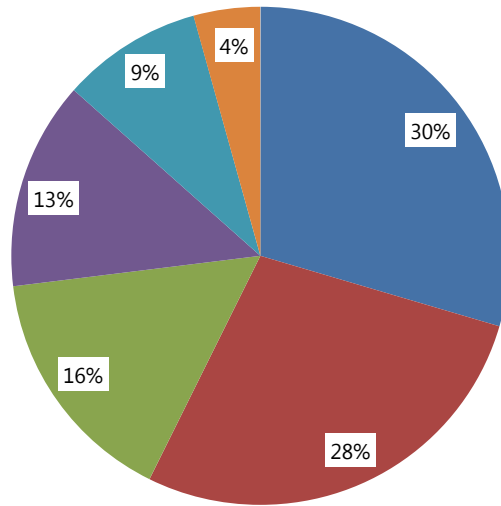
In the years 2006–2010, 232,000 tons of wheat were shipped by rail from North Carolina, a 59.3-percent decrease from 569,000 tons from 1996 to 2000. (fig. 3)

North Carolina received a total of 3.3 million tons of wheat by rail during the 2006–2010 marketing years, down 4.3 percent from 3.4 million tons during the 1996–2000 marketing years. (fig. 4)

Eighty-nine percent of the grain car shipments originating in North Carolina from 2006 to 2010 were 1–5 cars in size; the remaining 11 percent of shipments were 6–49 cars long. (fig. 5)

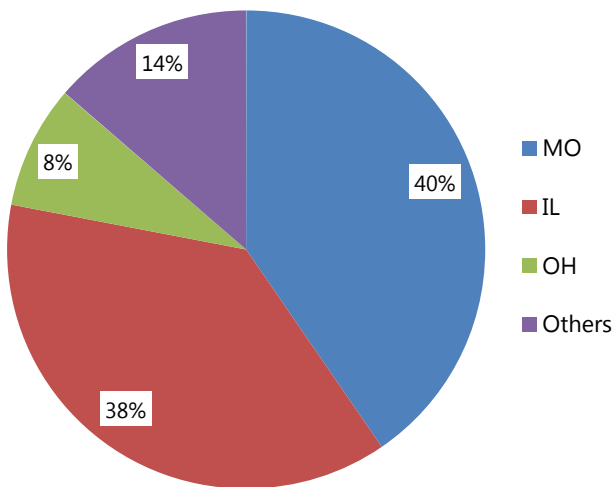
**Figure 3. Business Economic Areas Receiving North Carolina Wheat by Rail, 2006–2010**

- Charlotte-Gastonia-Rock Hill, NC-SC
- Norfolk-Virginia Beach-Newport News, VA-NC
- Chattanooga, TN-GA
- Roanoke, VA-NC-WV
- Hickory-Morganton, NC-TN
- Others



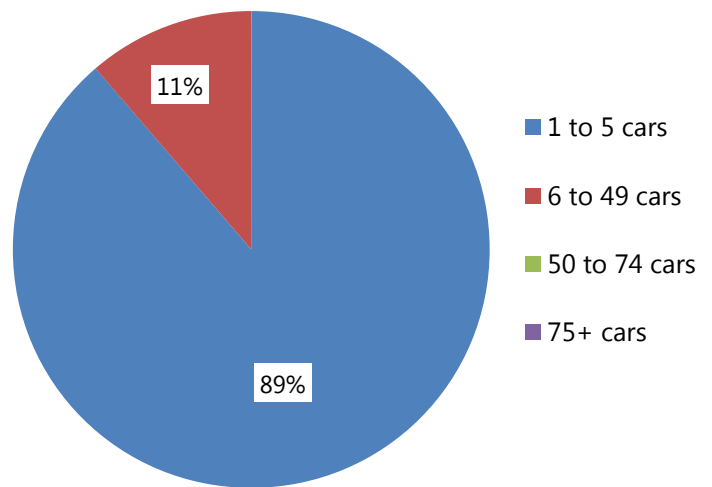
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 5. North Carolina Grain Originations by Shipment Size**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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

	Corn	Soybeans	Wheat	Total Grain and Oilseeds	GCAUs*
Average Yearly Production	86.69 mbu†	45.89 mbu	26.29 mbu	191.80 mbu	35,913,906
Average Yearly Export Inspections (metric tons)	24,570	89,188	8,084	121,945	-
Total Rail Receipts (tons)	26,013,640	4,064,890	3,248,143	-	-
Total Rail Shipments (tons)	-	-	231,724	-	-

\* 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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