



# Red River Geography

## General Statistics

The Red River of the North is formed by the confluence of the Bois de Sioux and Otter Tail rivers at Wahpeton, ND and Breckenridge, MN. It flows northward forming for 440 miles the North Dakota-Minnesota border, before entering Manitoba and emptying into Lake Winnipeg after a course of 545 miles. It's drainage area is 40,200 square miles.

The Red River Valley occupies 17,000 square miles of eastern North Dakota, northwestern Minnesota and southern Manitoba. It is approximately 60 miles wide at its widest point and 315 miles long, from Lake Traverse at the southern end to Lake Winnipeg at the northern end. The elevation at Wahpeton, North Dakota, is 943 feet above mean sea level (msl). Lake Winnipeg is at the elevation of 714 feet above msl. The fall in elevation from Wahpeton to Lake Winnipeg is only 233 feet, with the slope of the main channel averaging about one-half foot per mile. Channel widths of the river vary from 200 to 500 feet, and average depths at bank-full stage range from 10 to 30 feet.

## Glacial Lake Plain

The Red River Valley is a plain extending from 10 to 40 miles on either side of the Red River of the North. The valley is underlain by Cretaceous rocks. At one time it was the floor of glacial Lake Agassiz, and the silty loam that accumulated there forms the fertile soils making one of North America's most fertile farming regions.

## Tributaries

The Wild Rice, Sheyenne, Pembina, and Assiniboine rivers are among its major tributaries.

## Land forms, Soils and Terms

Flat surfaces with poor drainage are the terrain left by glacial Lake Agassiz. Tall grasses, together with deciduous trees along the streams, can be found in the better drained portions. The heavy grass cover of the Red River Valley formed black soils. Poorly drained portions have sparse and scattered areas of a mosaic of boreal forest interspersed with peat bogs.

Soils in the bed of Lake Agassiz vary considerably, depending upon location. Fine silts and lacustrine clay cover most of the old lake bed to depths of up to 150 feet. Sand deposits accumulated at the lake's margins. Deltas of silt and sand were formed where rivers emptied into the lake.

## Climate

The Red River Basin has a subhumid to humid continental climate. Moderately warm summers, cold winters, and rapid changes in daily weather patterns are characteristic of the region.

The annual mean temperature is about 40°F. Temperatures of 85 to 95 are common in summer, with temperatures as low as 35 below in winter.

About three quarters of the basin's precipitation occurs during April through September, and almost two thirds comes during May, June and July. November through February are the driest months, with precipitation averaging about one-half inch per month. Most summertime precipitation comes from thunderstorms.

## Products of the Red River Valley

The river valley produces cereals, potatoes, sugar beets and livestock.

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### For More Information Contact:

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