2004 Weather Summary

Snow and cold air were abundant in January and February, a switch from some of the balmy winters that Minnesota experienced over the past seven years. Despite the hefty amounts of snow, most of it was accompanied by very cold temperatures so the snow to water ratio was very high. The temperatures for January were cooler than normal. February started out cool, but then a warm up late in the month brought the monthly average back to near normal.

Two springtime storms brought some badly needed moisture to the state in March. The eastern third of the state had greater than average precipitation, while far west central was below normal. Northwest Minnesota saw at or slightly above average precipitation. The rain in northwestern Minnesota coincided with a rapidly melting snow pack. This led to some flooding along the Red River and its tributaries.

Despite some welcome rains in April, rainfall totals were generally short of the historical average. It was extremely dry in sections of west central and northwestern Minnesota where monthly precipitation totals were less than 20 percent of normal. This was part of a dry spell that began in July 2003 and continued until April 2004. The ten-month period saw rainfall deficits of four to six inches over central Minnesota and eight to twelve inches over the southeast.

In May, with an abruptness common to Minnesota's climate, precipitation patterns changed significantly across most of the state. The statewide area averaged precipitation total approached six inches, the fifth wettest May of the 114-year modern record. Along with the rain it was a cold month. The cool weather significantly delayed crop growth and spring green-up, especially in the north.

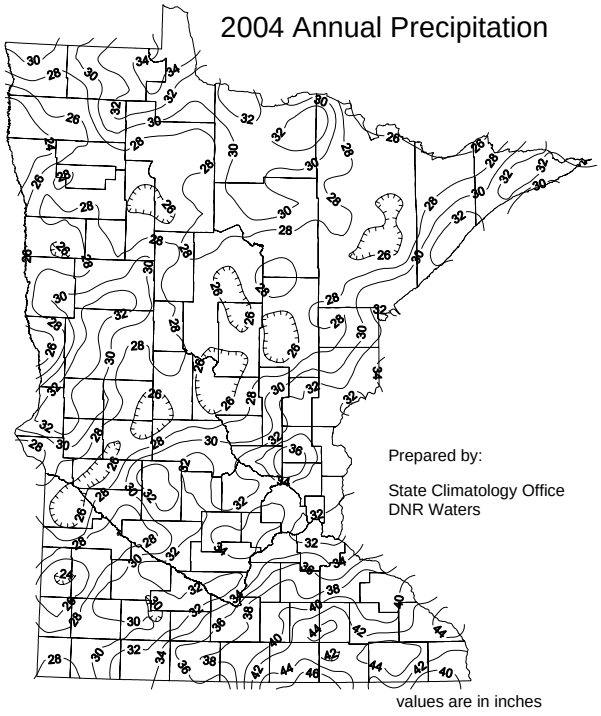
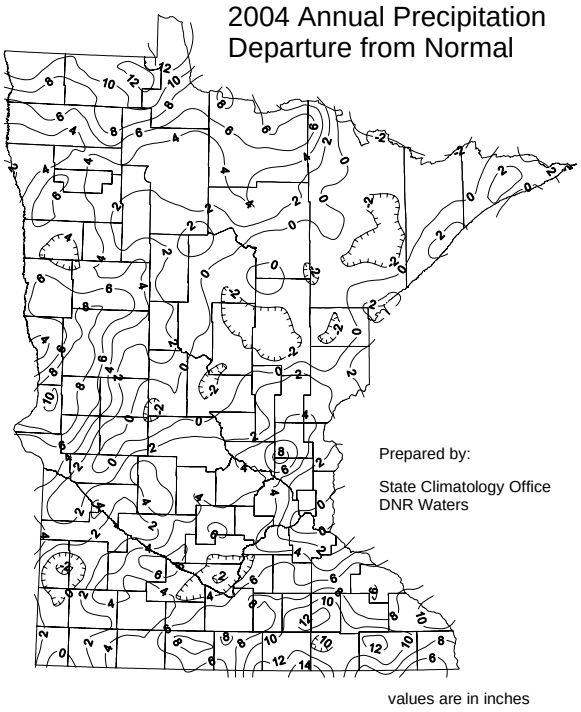
June was a return to drier than normal conditions. Rainfall was generally one to three inches below normal in most communities. However, there were exceptions. Portions of south central and southeastern Minnesota were extraordinarily wet, especially during the first half of the month. June monthly mean temperatures were generally three to five degrees below normal. In some northern Minnesota communities, the May plus June mean temperature was among the coldest on record.

Rainfall totals were highly variable in July. The heaviest precipitation occurred in portions of the south central where rainfall totals topped historical averages by two to four inches. Rainfall was short of average by one to two inches in some sections of the northeast. Continuing the cool summer that began in May and June, July temperatures were cool.

August was another cool and dry month. The continued cold temperatures sparked fears of reduced yields from crops. Rainfall was short of the historical average by one to two inches in many locations. Above normal precipitation was reported only in some areas of northwest, southwest, and south central Minnesota.

Much to the relief of farmers, September was much warmer than normal and had generous amounts of rain. It was among the warmest and wettest Septembers in the modern climate record. In fact, the average statewide temperature for September was higher than August. This is very rare, only happening once before in the modern climate record. It was exactly the weather needed for a good harvest.

October started off wet and mild allowing the soils to recharge nicely before the first frost. November was dry. In western communities, November 2004 was one of the driest Novembers on record. In December, there was little snowfall except in northern Minnesota. Temperatures were also mild at the close of the year with December finishing three to six degrees above normal.

The accompanying maps show that the northwest and southeast portions of the state finished above normal, while southwest through northeast Minnesota finished near normal.

Source: State Climatology Office, DNR – Division of Waters