

RECORD MOISTURE LEVELS IN IOWA

From: "Anderson, Christopher [AGRON]" <cjames@iastate.edu>

Date: 29 July, 2011 13:47:26 GMT

To: David Novak <david.novak@noaa.gov>, "map@atmos.albany.edu" <map@atmos.albany.edu>

Subject: RE: Dubuque Rain vs. Chicago Rain

Unfortunately, this discussion is happening on a hectic day for me. I'll just say I feel lucky everything pushed south of Iowa and the low-probability area for 1" got hit rather than the relatively high probability area in Iowa.

Dave -- I think the size of the area might reflect the Gaussian smoothing to some extent, but it also goes to show the uncertainty inherent in the prediction system errors as well as the atmosphere itself. That latter might be addressed in this technique or a similar one by use of multiple models and initializations

No floods in Iowa this morning, lots of sun, but it smells like mold in a forest, without the forest.

BTW, a plot of the July average mixing ratio from Des Moines, dating back to 1951, shows just how humid it has been in this area. The 2011 July average surface mixing ratio is more than 1 g/kg above any other year. The 1951-2011 mean is about 13 g/kg with standard deviation of about 1 g/kg (eyeballing it).

<http://mesonet.agron.iastate.edu/onsite/features/cat.php?day=2011-07-27>

This has also caused minimum temperature to be elevated to a level not seen since the 1930s (not good if it persists into the corn grain-fill stages coming up in the next couple of weeks).

<http://mesonet.agron.iastate.edu/onsite/features/cat.php?day=2011-07-26>

Chris

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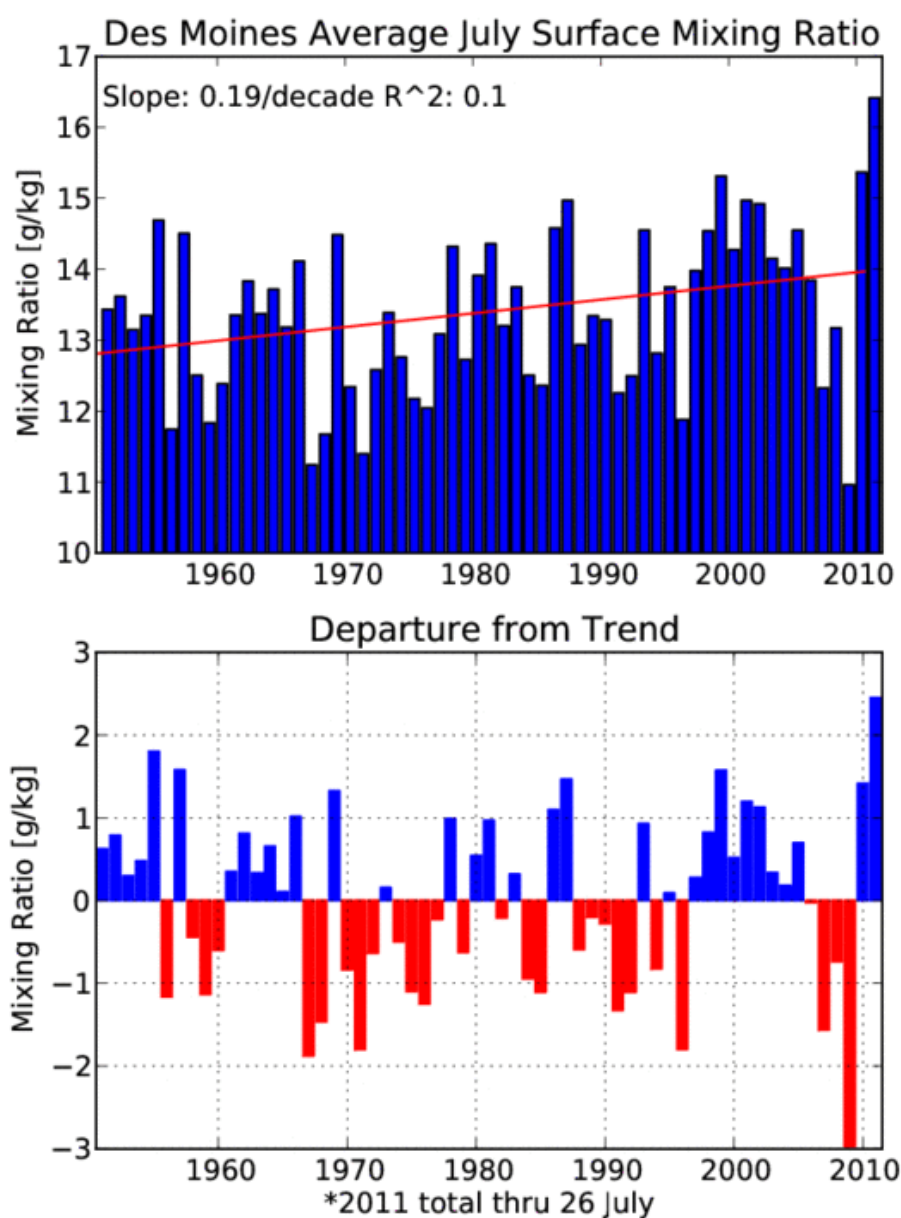
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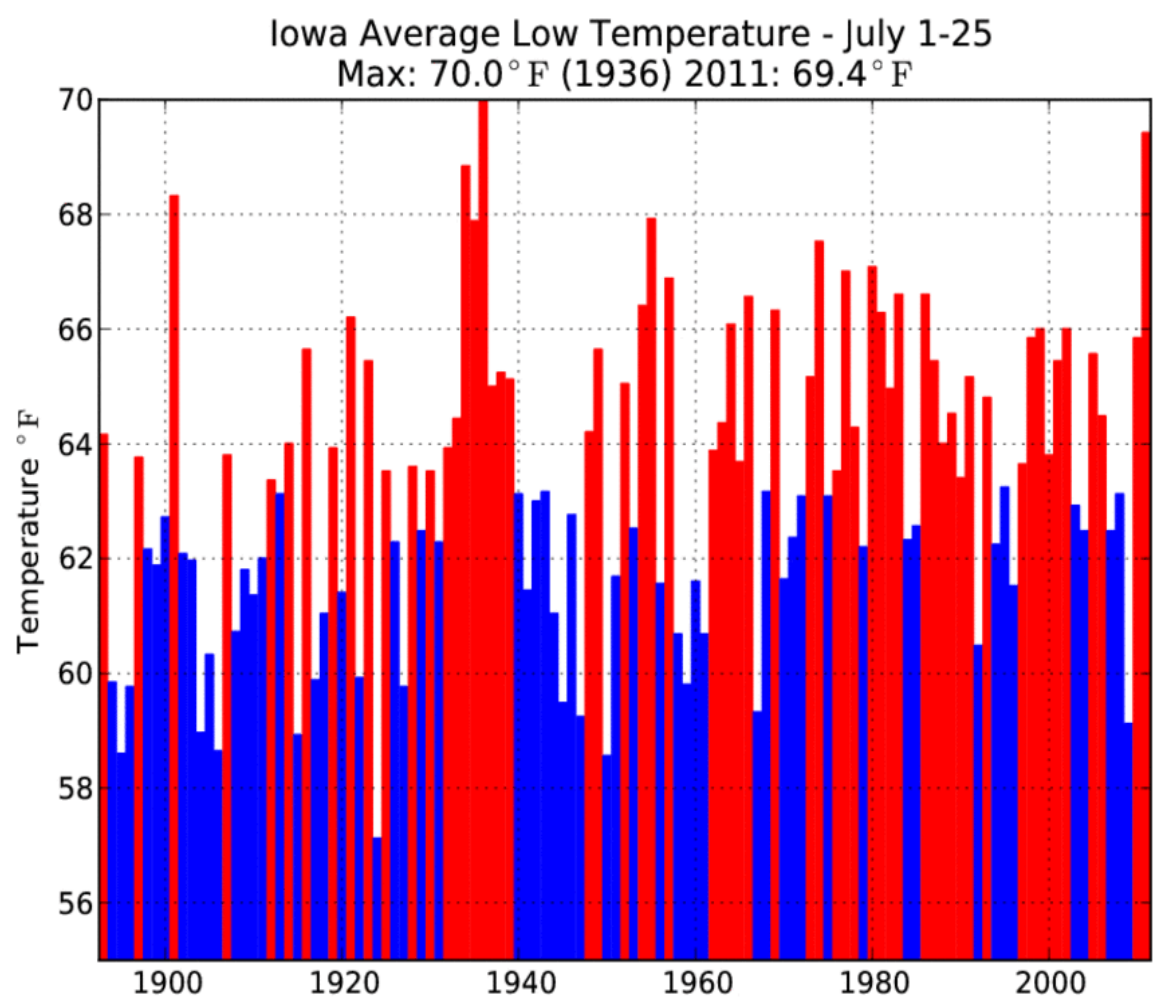
Irrationality cannot be fought with empirical evidence. --- Jon Stewart



More Humid than the rest

27 Jul 2011 05:58 AM

This month has seen a remarkable amount of humidity in the area as shown by the featured chart comparing average mixing ratio for July since 1951 at the Des Moines Airport. Last year had been the previously most humid for July, but this year has soundly beat it by a full gram! Of course, there is still a few days left in this July, but judging by the forecast, the sticky weather looks to stick around until the end of the month.



Warm July Nights

26 Jul 2011 05:52 AM

This July has been one of the warmest we have seen in a very long time. As measured by average daily low temperature, this year comes in second behind 1936 based on IEM statewide estimated data as shown by the featured chart. Years above average are shown in red and the 1930s really stand out. One reason why overnight lows have been so warm is the vast amount of moisture in the air this month (more on this tomorrow). The warm weather is expected to continue until the end of the month.

Source: Iowa State University Department of Agronomy