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## Projected Crop Reporting District Yields Compared to Historical Yields Given Drought

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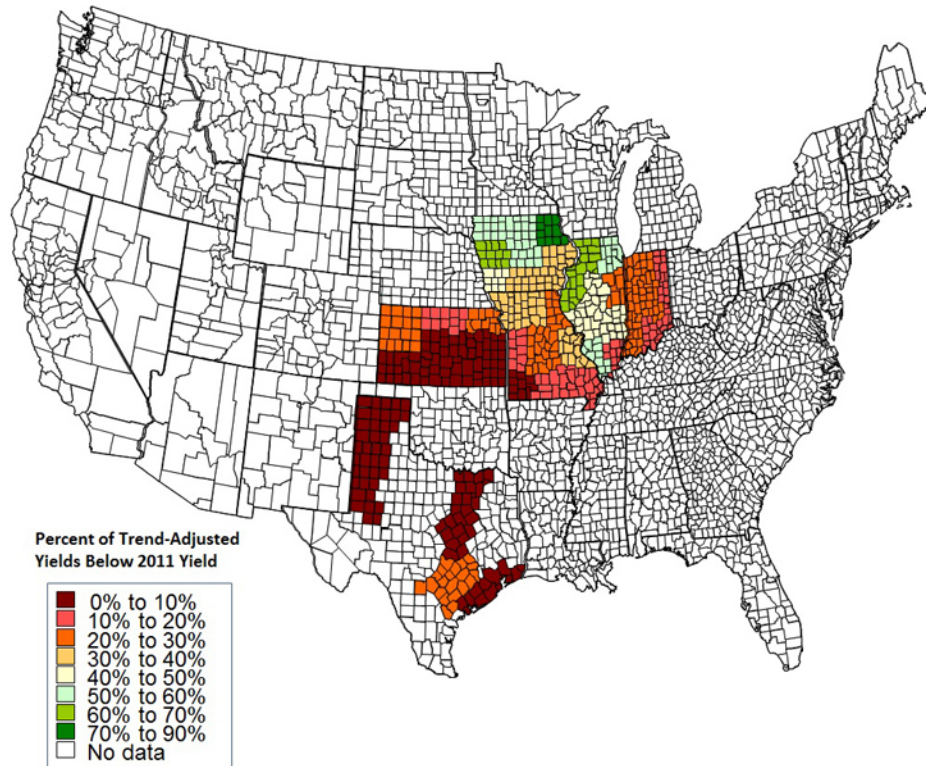
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The National Agricultural Statistical Service (NASS) released projected 2011 corn yields by Crop Reporting District (CRD) on August 12th. In this post, the 2011 projected yields are compared to trend-adjusted historical yields for 1972 through 2010. Comparisons are made for six states for which NASS releases CRD estimates: Illinois, Indiana, Iowa, Missouri, Texas and Oklahoma. Northern Iowa, central Iowa, northern Illinois, western Illinois, and southwest Illinois have 2011 projected yields in the top half of historic trend-adjusted yields (see Figure 1). The remaining areas have below average yields. Kansas and Texas have extremely low yields, with some of Kansas and Texas CRD yields being the worst in the 1972 through 2010 period.

Figure 1. 2011 Projected Yields as a Percent Rank of Trend-Adjusted Yields



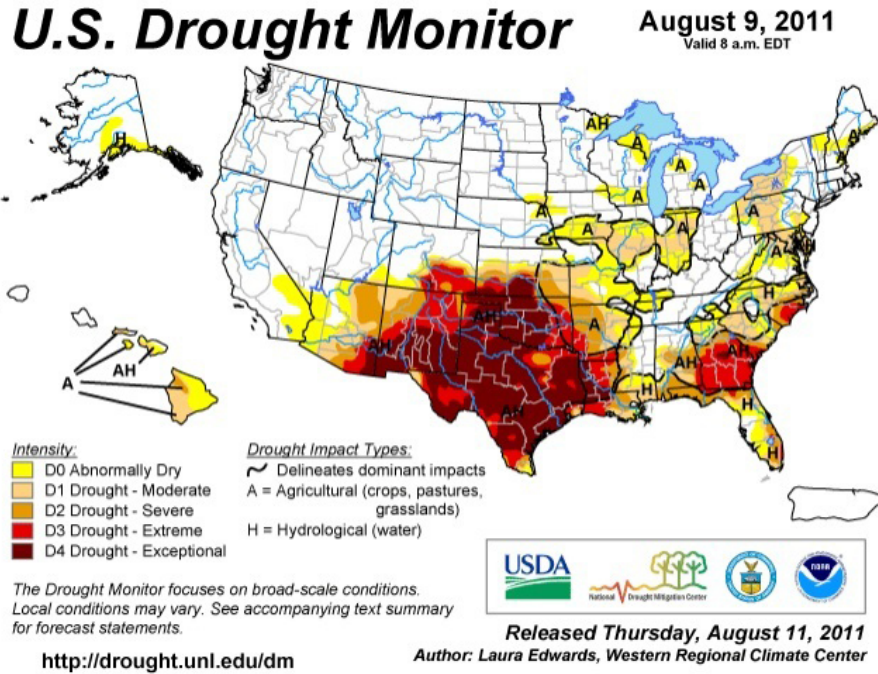
Yields in Figure 1 are colored based on percent of historic yields below the 2011 projected yield. For example, the central CRD yield in Illinois is 44 percent. This means that 44 percent of the trend-adjusted yields from 1972 through 2010 are below the projected 2011 yield of 179 bushels. A lower number indicates a worse yield. Trend-adjustments are made by first calculating a linear trend increase for each CRD. Then each year's historic yield is adjusted to today's conditions by adding a trend adjustment. The trend adjustment increases the further the year is back in history. The trend increase for the central Illinois CRD is 2.0 bushel per year. The 2010 trend-adjusted yield is 164 bushels, which equals the 162 bushel actual yield plus the 2 bushel trend adjustment. The 2009 trend-adjusted yield is 187 bushels, which equals the 183 bushel actual yield in 2009 plus a 4 bushel trend adjustment. The 2009 trend-adjustment of 4 bushels equals the 2 bushel trend increase times 2 years from 2011.

The poor yields for Texas and Kansas are not surprising. The drought centered in Texas is causing dramatic reduction in yields in drought stricken areas.

Some CRDs in Iowa and Illinois have relatively good yields. CRDs in northern Iowa have projected yields that are in the top half of historic trend-adjusted yields. The highest relative yield occurs in the northeast CRD of Iowa with 78 percent of historic yields below the 188 projected 2012 yield. Four CRDs in Illinois have more than 50 percent of the historic yields below the 2011 projected yield. Three of these districts are located in northern Illinois: northwest, northeast, and west CRDs. The southwest Illinois CRD also has a yield in the top 50 percent.

July weather was hot and dry, resulting in a growing area designated as drought. Within the corn-belt, much of Missouri, southeast Iowa, central Illinois, much of Indiana, and northwest Ohio was given a drought designation in the August 6th report (see Figure 2). Given drought conditions, projected CRD yields are remarkably high. For example, the central Illinois CRD in Illinois is designated as drought stricken. During July, the Bloomington airport in the middle of the central CRD had 1.4 inches of rain, well below the 4.0 inch average. The central CRD is projected to have a 179 bushel yields in 2012, with 43 percent of historic yields below the 2012 projected yields.

Figure 2. Drought Monitor Map from August 9, 2011



If yields turn out as predicted by NASS, it will be a tribute to genetic and farming improvements. However, drought conditions may point to lower estimates of CRD yields in future reports.

Table 1 gives tabular data for Illinois, Indiana, and Iowa CRD.

**Table 1. 2011 Projected Crop Reporting District Yields Compared to Previous Yields.**

State	Crop Reporting District	2011 Projected Yield <sup>1</sup>	2010 Actual Yield <sup>1</sup>	2011 Trend Yield <sup>2</sup>	2011 Rank <sup>3</sup>
\$ per acre					
Illinois	Northwest	184	170	176	63%
Illinois	Northeast	175	169	169	50%
Illinois	West	182	138	174	60%
Illinois	Central	179	162	180	43%
Illinois	East	161	158	170	25%
Illinois	West Southwest	172	153	172	45%
Illinois	East Southeast	162	158	158	43%
Illinois	Southwest	145	141	141	55%
Illinois	Southeast	126	138	139	18%
Indiana	Northwest	157	165	163	25%
Indiana	North Central	151	162	164	20%
Indiana	Northeast	135	146	152	15%
Indiana	West Central	161	166	166	25%
Indiana	Central	153	158	165	20%
Indiana	East Central	142	155	156	18%
Indiana	Southwest	151	152	158	23%
Indiana	South Central	127	131	138	18%
Indiana	Southeast	131	139	144	15%
Iowa	Northwest	184	185	181	53%
Iowa	North Central	184	176	178	53%
Iowa	Northeast	188	176	177	78%
Iowa	West Central	179	172	175	60%
Iowa	Central	182	168	180	50%
Iowa	East Central	173	165	174	33%
Iowa	Southwest	161	152	163	43%
Iowa	South Central	143	98	147	30%
Iowa	Southeast	157	111	158	38%

<sup>1</sup> Source is National Agricultural Statistical Service website on August 15, 2011.

<sup>2</sup> Equals the extrapolation of a linear trend through 1972 through 2010 data.

<sup>3</sup> Indicated the percent of trend-adjusted yields from 1972 through 2010 that are below the 2011 projected yield. A 40 percent means that 40 percent of trend-adjusted yields from 1972 through 2010 are below the 2011 projected yield