



Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS
U.S. DEPARTMENT OF AGRICULTURE

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CROP REPORT FOR WEEK ENDING AUGUST 10

Crop conditions continue to decline as dry weather persists, according to the Indiana Agricultural Statistics Service. The southern region as well as the west central and east central districts appear to be the hardest hit where about a third of the crops are rated poor to very poor. Topsoil moisture is more than 90 percent short to very short in these areas. Soil moisture conditions are rapidly declining statewide, with 82 percent of the topsoil and 72 percent of the subsoil rated as short to very short.

CORN

Corn condition is rated 34 percent good to excellent, compared to 57 percent last week. Ninety-two percent of the corn acreage is **silking**, ahead of 75 percent last year, but behind 93 percent for the 5-year average. Twenty-nine percent of the corn is in the dough stage behind 37 percent for the 5-year average.

SOYBEANS

Condition of the **soybean** crop is 41 percent good to excellent, down from 59 percent a week ago. Eighty-nine percent of the soybean acreage is **blooming**, well ahead of 70 percent last year and 1 percent behind the 5-year average. Fifty-five percent of the crop is **setting pods**, ahead of the 5-year average of 52 percent.

OTHER CROPS

Pasture condition is rated 14 percent good to excellent, down from 29 percent last week. **Wheat** harvest is complete. Third cutting of **alfalfa** is 20 percent complete.

DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 6.9 days were rated **suitable for fieldwork**. **Topsoil moisture** was rated 41 percent very short, 41 percent short, 17 percent adequate and 1 percent surplus. **Subsoil moisture** was rated 31 percent very short, 41 percent short, 2 percent adequate and 1 percent surplus.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
	Percent			
Alfalfa 2nd Cutting	89	79	84	91
Corn Silked	92	77	75	93
Corn Dough	29	11	21	37
Soybeans Blooming	89	79	70	90
Soybeans Podding	55	32	21	52

CROP CONDITION

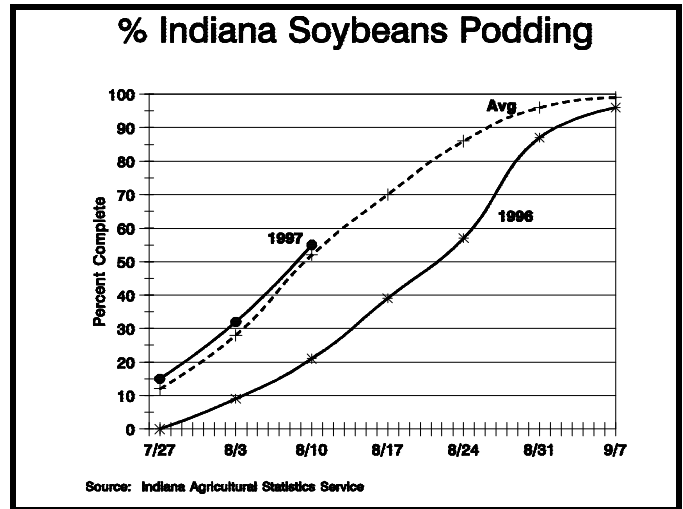
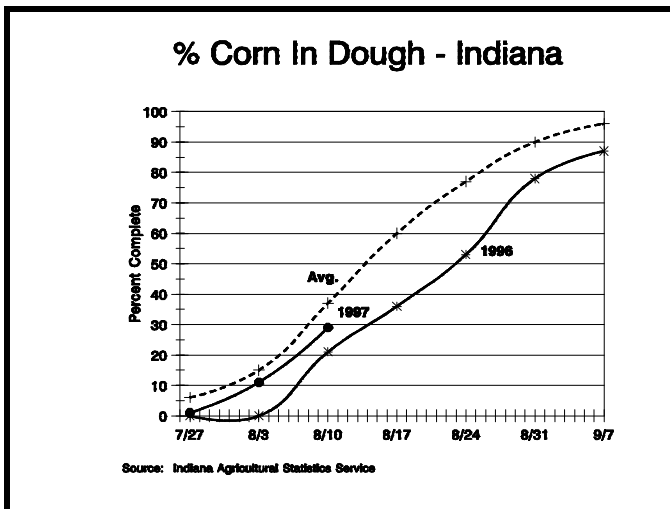
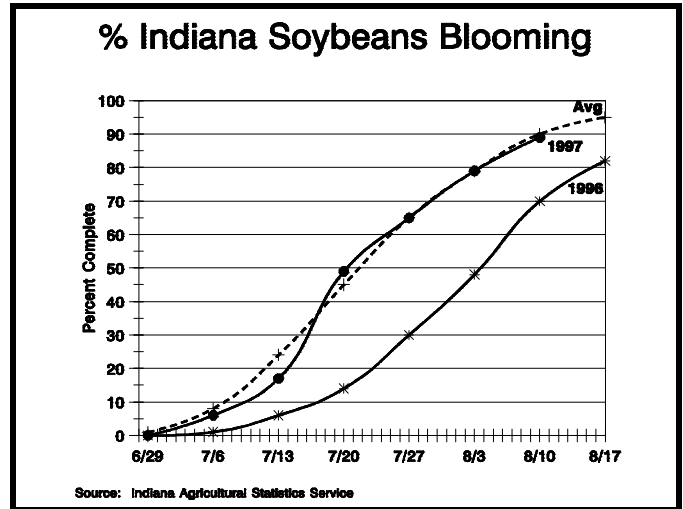
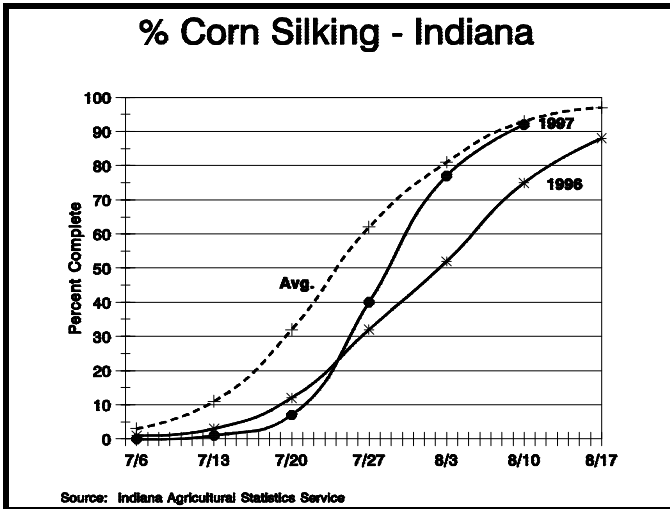
Crop	Very Poor	Poor	Fair	Good	Excellent
	Percent				
Corn	6	15	45	29	5
Soybeans	5	12	42	34	7
Pasture	14	36	36	13	1

SOIL MOISTURE

	This Week	Last Week	Last Year
	Percent		
Topsoil			
Very Short	41	20	6
Short	41	32	33
Adequate	17	45	57
Surplus	1	3	4
Subsoil			
Very Short	31	13	3
Short	41	31	21
Adequate	27	54	71
Surplus	1	2	5

--Ralph W. Gann, State Statistician
--Lance Honig, Agricultural Statistician
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Crop Progress



Moisture Stress During Corn Grain Fill

- Corn has been under severe stress in west central and southwestern Indiana
- Stress during and for two weeks after pollination has the greatest affect on yield potential

While some areas received adequate rainfall in July (mostly the northern one-third of Indiana), much of the state was below normal. West central and southwestern Indiana generally received the least rain. Corn yield potential in these areas has been severely reduced and the areas with severely stressed crops grow each day without rain.

Severe moisture stress (leaf rolling during most of the daylight hours) has prevented pollination in some areas by delaying silk emergence until after pollen-shed was mostly completed. We have a few reports of entire fields on droughty soils that were not pollinated.

If pollination was completed, the fertilized kernel will swell and form "blisters" 10 to 14 days after silking. However, kernels are most susceptible to abortion from stress during the first two weeks after pollination, particularly kernels near the ear tip. Abortion can continue during the "milk stage" (18-22 days after silking), but it's less likely.

Once kernels reach the "dough" stage of development (24-28 days after silking), further yield losses will occur mainly from reduction in kernel dry weight accumulation. Reduction in dry weight usually means a lower test weight (pounds/bushel) at harvest, in addition to lower yield.

While cooler than normal weather may lessen the effect from drought, it will also slow growing degree day accumulation, and normal GDD are needed to mature much of this year's crop before fall frost.

--Don Griffith, Extension Agronomist

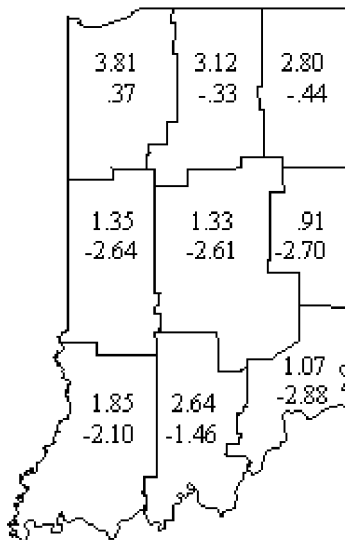
Average Daily Values for week ending Monday morning August 11, 1997

Area	Station	Air			Precipitation			Growing Degree Days		
		Temperature			Past Week	Since April 1	DN Since April 1	Past Week	Since April 1	DN Since April 1
		Max	Min	DN						
NW	Wanatah	79	53	-5	.23	16.58	-.26	122	1789	-121
	Kentland	79	58	-4	.10	13.00	-4.02	135	1954	-164
	Winamac	77	57	-4	.15	15.77	-.77	123	1889	-152
NC	South Bend	80	58	-3	.45	9.94	-6.24	138	1870	-105
	Waterford Mills	81	55	-3	.02	14.70	-.51	132	1852	-163
NE	Prairie Heights	80	57	-2	.09	12.33	-3.54	133	1848	+49
	Columbia City	79	57	-3	.00	15.08	-.93	131	1861	-40
	Fort Wayne	79	57	-5	.00	15.48	+4.45	131	1874	-203
	Bluffton	79	59	-4	.00	18.41	+2.32	139	1941	-191
WC	West Lafayette	78	57	-4	.00	14.62	-1.98	130	1983	-84
	Lafayette	82	61	-1	.00	13.96	-2.64	153	2075	+9
	Perrysville	78	57	-7	.29	11.63	-7.08	131	2020	-336
	Crawfordsville	80	55	-5	.01	12.41	-3.90	131	1887	-173
	Terre Haute 8s	82	58	-4	.58	13.82	-4.34	145	2222	-88
C	Tipton	77	54	-6	.00	14.63	-2.22	116	1837	-193
	Indianapolis	78	60	-5	.00	9.35	-7.67	136	2093	-206
	Indian Creek	81	58	-4	.31	13.26	-4.18	139	2103	-71
EC	Farmland	79	59	-2	.00	12.58	-3.77	137	1940	-18
	Liberty	80	58	-4	.08	13.38	-4.67	136	2039	-112
SW	Vincennes	80	58	-6	.24	20.78	+2.64	139	2217	-157
	Dubois	81	58	-5	.30	19.05	-.53	139	2157	-159
	Evansville	80	62	-6	.16	13.98	-3.49	147	2324	-269
SC	Bedford	79	59	-5	.73	19.65	+8.84	134	2105	-142
	Louisville	81	64	-4	1.08	16.55	-1.59	158	2389	-163
SE	Butlerville	80	57	-6	.28	16.59	-1.50	132	2079	-315

DN = departure from normal.

Growing Degree Days = daily mean - 50 (below 50 adjusted to 50, above 86 adjusted to 86.)

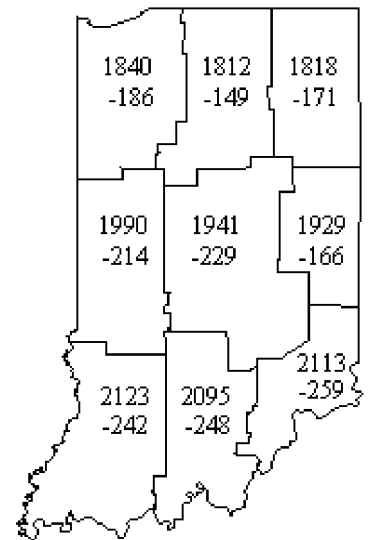
Rainfall for Past 4 Weeks
and Departure from Normal



Rainfall of 1 Inch or More
for Past 7 Days
as of Monday morning



Growing Degree Days
and Departure since April 1



Pollination Success In Corn

There are two techniques commonly used to assess the success or failure of pollination. One involves simply waiting until the developing ovules (kernels) appear as water blisters (the "blister" stage of kernel development). This usually occurs about 1-1/2 weeks after fertilization of the ovules. However, there is a more rapid means to determine pollination success.

Each potential kernel on the ear has a silk attached to it. Once a pollen grain attaches to an individual silk, it quickly germinates and produces a pollen tube that grows the length of the silk to fertilize the ovule in 12 to 28 hours. Within 1 to 3 days after a silk is pollinated and fertilization of the ovule is successful, the silks will detach from the developing kernel. Unfertilized ovules will still have attached silks. Silks turn brown and dry up after the fertilization process occurs. By carefully unwrapping the husk leaves from an ear and then gently shaking the ear, the silks from the fertilized ovules will readily drop off. Keep in mind that silks can remain receptive to pollen up to 10 days after emergence.

--Peter Thomison, Ohio State University

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