



# Indiana Crop & Weather Report

United States Dept of Agriculture

Indiana Agricultural  
Statistics

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## CROP REPORT FOR WEEK ENDING AUGUST 1

### AGRICULTURAL SUMMARY

Cool, dry weather prevailed during most of the week, according to Indiana Agricultural Statistics. Some areas received rain and strong thunderstorms moved through isolated areas late in the week. The recent cooler temperatures have slowed crop development in some fields, but progress remains ahead of normal for major crops. Third cutting of hay crops was underway. SDS is showing up in some soybean fields. Irrigation systems were active.

### FIELD CROPS REPORT

There were 5.2 days suitable for fieldwork. Ninety-eight percent of the corn acreage has **silked** compared with 76 percent last year and 90 percent for the average. Thirty-eight percent of the corn acreage has reached the **dough** stage compared with 14 percent last year and 28 percent for the average. Five percent of the corn acreage has reached the **dent** stage compared with 1 percent last year and 3 percent for the average. Corn condition is rated 77 percent good to excellent compared with 59 percent last year at this time.

Ninety percent of the soybean acreage is **blooming** compared with 67 percent last year and 84 percent for the 5-year average. Fifty-six percent of the soybean acreage is **setting pods** compared with 23 percent last year and 43 percent for the average. Soybean **condition** is rated 73 percent good to excellent compared with 58 percent last year at this time.

Second cutting of **alfalfa hay** is 93 percent complete compared with 84 percent last year and 95 percent for the average.

Other activities during the week were attending county fairs, repairing equipment, spraying, scouting fields, mowing roads and waterways, moving grain to market, hauling manure and taking care of livestock.

### LIVESTOCK, PASTURE AND RANGE REPORT

**Pasture condition** is rated 14 percent excellent, 59 percent good, 20 percent fair, 6 percent poor and 1 percent very poor. Livestock are in mostly good condition. Cooler temperatures have helped.

### CROP PROGRESS TABLE

Crop	This Week	Last Week	Last Year	5-Year Avg
Percent				
Corn Silked	98	94	76	90
Corn in Dough	38	24	14	28
Corn in Dent	5	NA	1	3
Soybeans Blooming	90	77	67	84
Soybeans Podding	56	36	23	43
Alfalfa Second Cutting	93	85	84	95

### CROP CONDITION TABLE

Crop	Very Poor	Poor	Fair	Good	Excellent
Percent					
Corn	2	5	16	53	24
Soybean	3	5	19	54	19
Pasture	1	6	20	59	14

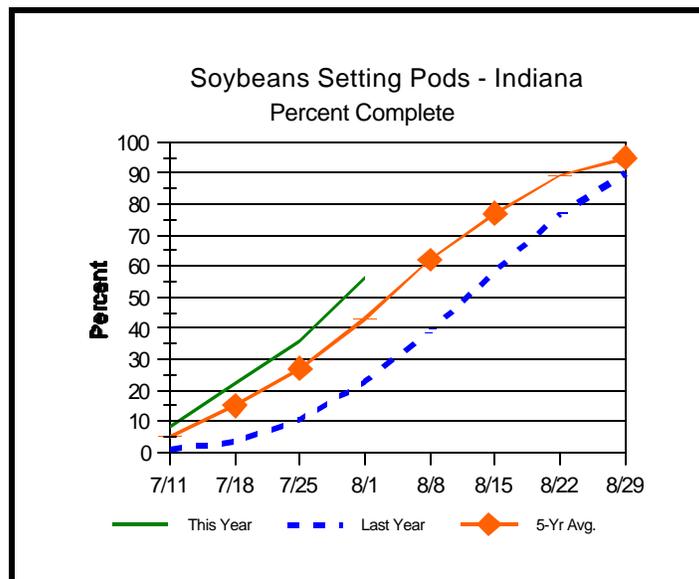
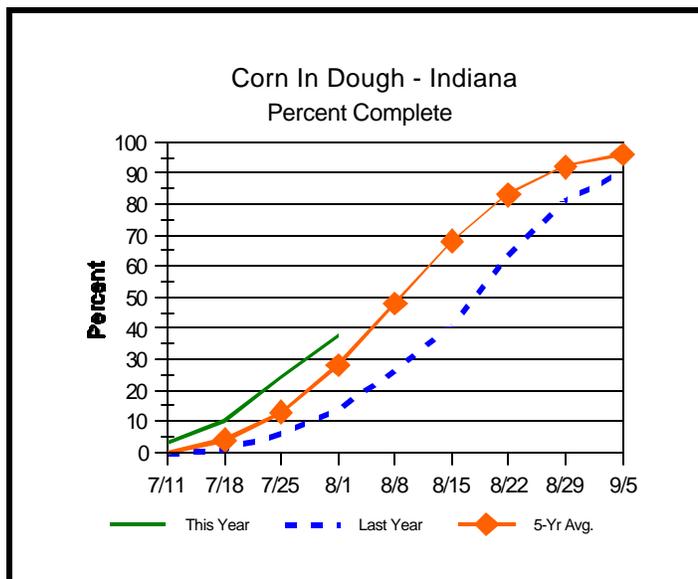
### SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK TABLE

	This Week	Last Week	Last Year
Percent			
<b>Topsoil</b>			
Very Short	2	2	1
Short	14	12	4
Adequate	79	79	75
Surplus	5	7	20
<b>Subsoil</b>			
Very Short	1	1	1
Short	14	12	7
Adequate	82	82	78
Surplus	3	5	14
<b>Days Suitable</b>	5.2	5.0	5.0

### CONTACT INFORMATION

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# Crop Progress



## Other Agricultural Comments And News

### Soybean Sudden Death Syndrome

- **Now is the time to scout fields for SDS**

Sudden death syndrome is starting to show up in Indiana soybean fields. It has been observed in some fields in northern Indiana. Foliar symptoms of SDS are also evident across most of southwest Indiana. Symptoms are seen in early-planted full season beans, but so far not in double cropped fields. Soybeans in fields with SDS are in growth stages R4 to R5 (pods are beginning to fill on the lower part of the plant but are still small on the upper nodes).

Sudden death syndrome is caused by the soil-borne fungus *Fusarium virguliforme* (previously known as *Fusarium solani* f. sp. *glycines*). Foliar symptoms are initially expressed as yellowing between the major veins. This tissue rapidly turns brown, then the leaflets die and shrivel. In severe cases they drop off, leaving the petioles (leaf stalks) attached. Brown stem rot has similar foliar symptoms, but the leaflets tend to remain attached to the petioles. Brown stem rot is distinguished from SDS by symptoms in the plant stem. Brown stem rot darkens the pith but not the cortex. In contrast, the lower stem and taproot of a plant with SDS will exhibit a dark-brown cortex, but white, maybe tan, pith. If a plant with symptoms of SDS is dug from moist soil, there may be small, light-blue patches on the surface of the taproot. These are spore masses of the SDS fungus. As the plant dries, this color will fade, but when it is seen, in conjunction with the other symptoms, a diagnosis of SDS is strongly indicated.

Early planting into cool soils favors SDS. In 2004, some fields were planted in mid to late April; others were planted much later, depending on rain patterns this spring. The early-planted fields are at highest risk for SDS. *Fusarium virguliforme* colonizes the root systems of susceptible plants and can be detected in soybean seedlings as early as one week after planting. The fungus may cause some root necrosis, but foliar symptoms occur only after mid-season. Heavy rains during reproductive stages seem to be a critical predisposing factor for SDS. Under these conditions the fungus starts producing toxins in the root system that are transported upwards in the plant. The toxins disrupt the leaf physiology and lead to the foliar symptoms while the fungus remains restricted to the root system.

It is likely that yield will be reduced in affected fields because once foliar symptoms are expressed it is an indication that the plant's root system has been significantly compromised and is not functioning well. Uptake of water and nutrients is diminished. At that time, the toxin from the invading fungus is transported to the leaves causing them to decline and fall off. The amount of yield reduction depends on the growth stage of the soybean during disease outbreak. The earlier the plants succumb to SDS the greater the yield loss. If diseased early, entire pods may fall off; if later, seeds within retained pods may abort, and seeds that do develop may be small, all of which will result in reduced yield. The amount of yield reduction will also depend on how much of the field is affected. Grain yield reductions from SDS can range from 20 or 30% to as high as 80%.

# Weather Information Table

Week ending Sunday August 1, 2004

Station	Past Week Weather Summary Data							Accumulation					
	Air Temperature				Precip.		Avg 4 in Soil Temp	April 1, 2004 thru August 1, 2004					
	Hi	Lo	Avg	DFN	Total	Days		Precipitation			GDD Base 50°F		
							Total	DFN	Days	Total	DFN		
<b>Northwest (1)</b>													
Chalmers_5W	88	52	68	-6	0.12	2	69	20.66	+5.31	42	1872	-55	
Valparaiso_AP_I	81	51	68	-6	0.39	3		13.63	-2.53	48	1758	+20	
Wanatah	84	47	66	-7	0.34	3	75	13.47	-2.25	50	1656	-4	
Wheatfield	82	54	67	-6	0.70	2		26.32	+10.97	55	1736	+29	
Winamac	81	52	67	-6	0.12	2	73	17.20	+1.82	53	1793	+23	
<b>North Central (2)</b>													
Plymouth	82	53	68	-7	0.39	5		16.57	+0.50	54	1733	-114	
South_Bend	82	54	68	-6	0.21	3		15.77	+0.70	53	1829	+108	
Young_America	81	53	67	-7	0.79	5		18.83	+4.00	49	1897	+87	
<b>Northeast (3)</b>													
Columbia_City	80	51	66	-7	0.65	4	70	17.13	+2.03	58	1725	+82	
Fort_Wayne	80	53	67	-7	0.91	4		18.72	+4.75	53	1869	+64	
<b>West Central (4)</b>													
Greencastle	80	49	65	-11	0.82	3		18.55	+0.96	51	1887	-157	
Perrysville	84	50	68	-7	0.37	2	75	16.20	-0.55	42	2074	+157	
Spencer_Ag	82	52	66	-9	0.81	4		22.25	+4.28	57	2027	+106	
Terre_Haute_AFB	83	52	68	-8	0.90	4		14.81	-2.18	48	2200	+159	
W_Lafayette_6NW	83	49	66	-7	0.22	2	77	19.42	+4.01	38	1908	+98	
<b>Central (5)</b>													
Eagle_Creek_AP	80	54	68	-7	0.67	3		16.18	+0.38	51	2094	+72	
Greenfield	81	53	67	-8	0.61	3		17.32	-0.07	53	1989	+57	
Indianapolis_AP	81	54	68	-7	0.71	2		21.64	+5.84	48	2183	+161	
Indianapolis_SE	81	53	67	-9	0.33	5		17.54	+1.07	47	2005	+3	
Tipton_Ag	80	49	66	-8	0.81	4	73	16.11	+0.51	50	1829	+74	
<b>East Central (6)</b>													
Farmland	81	52	66	-7	1.39	5	63	17.10	+1.72	52	1867	+160	
New_Castle	80	49	63	-10	2.08	3		19.70	+2.79	42	1654	-92	
<b>Southwest (7)</b>													
Evansville	82	56	69	-9	0.48	3		19.53	+3.13	45	2487	+119	
Freelandville	82	55	68	-9	1.50	3		19.17	+2.16	47	2214	+102	
Shoals	82	54	67	-9	0.56	3		22.68	+4.27	51	2211	+181	
Stendal	82	55	68	-9	0.48	3		19.71	+1.57	48	2363	+144	
Vincennes_5NE	82	54	68	-9	1.05	4	67	19.42	+2.41	56	2307	+195	
<b>South Central (8)</b>													
Leavenworth	82	55	69	-6	0.71	3		26.56	+7.94	54	2242	+217	
Oolitic	82	53	66	-9	0.83	3	72	21.88	+4.42	55	2085	+148	
Tell_City	85	58	72	-6	0.44	2		24.28	+5.84	47	2524	+277	
<b>Southeast (9)</b>													
Brookville	86	57	69	-5	1.19	3		15.17	-1.69	44	2097	+267	
Milan_5NE	83	56	68	-7	2.07	4		22.24	+5.38	71	2071	+241	
Scottsburg	83	53	69	-8	0.92	2		29.74	+12.47	51	2183	+88	

DFN = Departure From Normal (Using 1961-90 Normals Period).

GDD = Growing Degree Days.

Precipitation (Rainfall or melted snow/ice) in inches.

Precipitation Days = Days with precip of .01 inch or more.

Air Temperatures in Degrees Fahrenheit.

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## Soybean Sudden Death Syndrome (Continued)

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The disease was first identified in the southwest corner of Indiana in the mid 1980s. It is now widespread in Indiana. The distribution of past outbreaks suggests that the disease may show up in virtually any area of Indiana, when conditions are favorable. If fields show SDS, there is no remedy for the current crop. However, it is important to make careful note of where the disease occurs (which fields, the pattern of the disease within a field, and symptom severity). This information will be valuable in making future management decisions. In future plantings, the avoidance of extremely early planting, choosing varieties less susceptible to SDS, and any cultural methods that reduce excessive soil moisture, e.g., breaking of compaction layers or improved drainage, will help to manage SDS. Soybean leaf showing symptoms of SDS.



Soybean leaf showing symptoms of SDS.

—Andreas Westphal, Charles Mansfield, and Gregory Shaner, Purdue University

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