



Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS
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CROP REPORT FOR WEEK ENDING MAY 6

AGRICULTURAL SUMMARY

Corn and soybean planting are both on a **record** pace, according to the Indiana Agricultural Statistics Service. Corn planting is 8 days ahead of the previous record pace established in 1988 and soybean planting is 7 days ahead of the record pace set a year ago. This was the best progress in one week for planting corn and soybeans in history. Many fields of corn have emerged and stands look good. Soils are drying out rapidly in most areas from lack of precipitation.

FIELD CROPS REPORT

Fieldwork made excellent progress in all areas of the state. There were **7 days** suitable for fieldwork. Ninety percent of the **corn** acreage is planted compared with 62 percent last year and 36 percent for the 5-year average. By area, 81 percent of the corn is planted in the north, 96 percent in the central regions and 92 percent in the south. Thirty-one percent of the intended corn acreage has **emerged** compared with 13 percent last year. Fifty-two percent of the **soybean** acreage is planted compared with 26 percent a year ago and 14 percent for the average. By area, 39 percent of the soybeans is planted in the north, 61 percent in the central regions and 56 percent in the south. Other activities during the week included tilling soils, hauling grain to market, applying anhydrous ammonia, preparing equipment, spraying and hauling manure.

Ninety-nine percent of the winter wheat acreage is **jointed**, behind the 100 percent for the previous year, but ahead of the 84 percent for the 5-year average. Twenty-nine percent of the wheat is **headed** compared with 25 percent last year and 13 percent for the average. Winter wheat **condition** is rated 71 percent good to excellent compared with 79 percent a year ago at this time.

LIVESTOCK, PASTURE AND RANGE REPORT

Pasture condition is rated 4 percent excellent, 41 percent good, 38 percent fair, 13 percent poor and 4 percent very poor. Livestock are in mostly good condition. Calving remains active.

CROP PROGRESS TABLE

Crop	This Week	Last Week	Last Year	5-Year Avg
Percent				
Corn Planted	90	40	62	36
Corn Emerged	31	NA	13	NA
Soybeans Planted	52	10	26	14
Winter Wheat Jointed	99	82	100	84
Winter Wheat Headed	29	4	25	13

CROP CONDITION TABLE

Crop	Very Poor	Poor	Fair	Good	Excellent
Percent					
Pasture	4	13	38	41	4
Winter Wheat 2001	1	6	22	62	9
Winter Wheat 2000	1	3	17	53	26

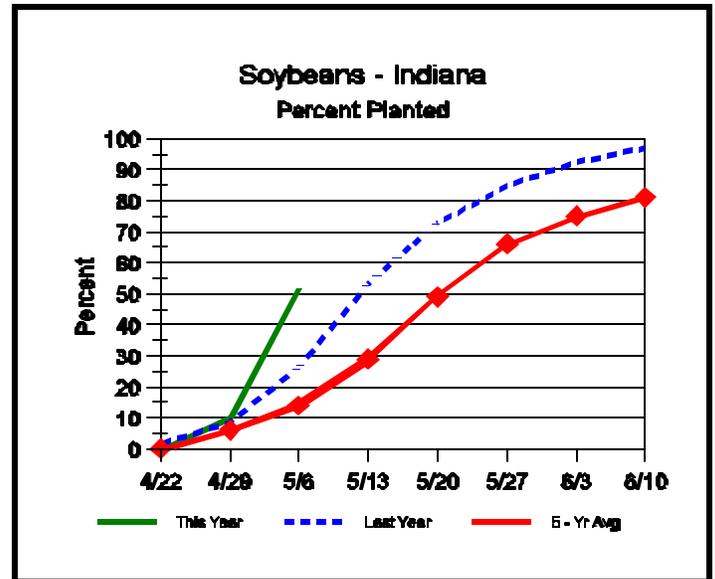
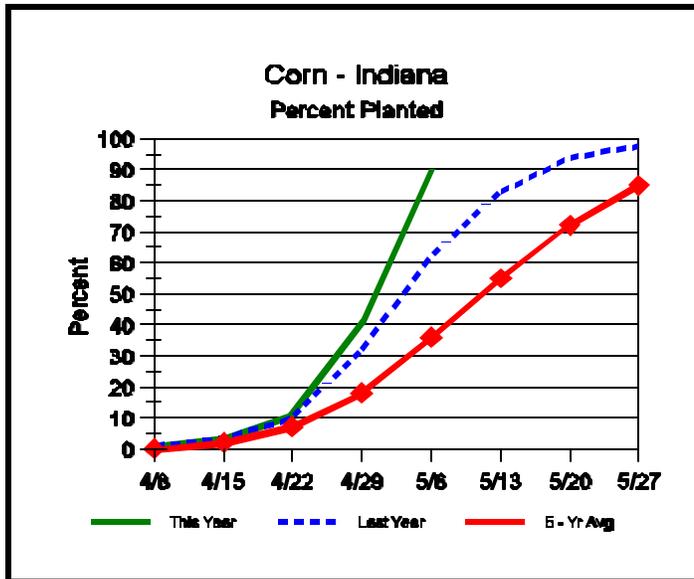
SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK TABLE

	This Week	Last Week	Last Year
Percent			
Topsoil			
Very Short	19	5	4
Short	41	19	17
Adequate	40	70	69
Surplus	0	6	10
Subsoil			
Very Short	11	5	17
Short	34	23	37
Adequate	54	68	42
Surplus	1	4	4
Days Suitable	7.0	5.2	4.7

CONTACT INFORMATION

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Crop Progress



Other Agricultural Comments And News

What Exactly Do You Mean By 'Growing Degree Day'?

- Crop development is dependent on temperature
- Thermal time (heat accumulation over calendar time) can be called heat units or growing degree days

Growth and development of corn are strongly dependent on temperature. Corn develops faster when temperatures are warmer and more slowly when temperatures are cooler. For example, a string of warmer than normal days in late spring will encourage faster leaf development than normal. Another example is that a cooler than normal grain filling period will delay the calendar date of grain maturity.

The phrases "string of warmer than normal days" and "cooler than normal grain filling period" can be converted mathematically into measures of thermal time by calculating the daily accumulations of heat. Commonly used terms for thermal time are Growing Degree Days (GDDs) or heat units (HUs). Different methods exist for calculating heat units depending on a) the crop or biological organism of interest and b) the whim or personal preference of the researcher. In Purdue's *Pest & Crop* <<http://www.entm.purdue.edu/Entomology/ext/targets/newslett.htm>>, you will often see more than one type of calculated GDD or HU reported depending on the insect or crop of interest.

The calculation method most commonly used in the U.S. for determining heat unit accumulation relative to corn phenology is the formula first suggested by the National Oceanic and Atmospheric Administration in 1969 and labeled as the 'Modified Growing Degree Day' formula in 1971.

This method calculates daily accumulation of GDDs as the average daily temperature minus 50°F. The 'modification' refers to the limits imposed on the daily maximum and minimum temperatures allowed in the calculation. Daily maximums greater than 86°F are set equal to 86 in the calculation of the daily average temperature. Similarly, daily minimums less than 50°F are set equal to 50 in the calculation.

Example 1: If the daily maximum temperature was 80°F and the minimum was 55°F, the GDD accumulation for the day would be $((80 + 55)/2) - 50$ or 17.5 GDDs.

Example 2 (Illustrating the limit on daily maximums): If the daily maximum temperature was 90°F and the minimum was 72°F, the GDD accumulation for the day would be $((86 + 72)/2) - 50$ or 29 GDDs.

Example 3 (Illustrating the limit on daily minimums): If the daily maximum temperature was 68°F and the minimum was 41°F, the GDD accumulation for the day would be $((68 + 50)/2) - 50$ or 9 GDDs.

(Continued on Page 4)

Weather Information Table

Week ending Sunday May 6, 2001

Station	Past Week Weather Summary Data							Accumulation				
	Air Temperature				Precip.		Avg	April 1, 2001 thru May 6, 2001				
	Hi	Lo	Avg	DFN	Total	Days	4 in Soil Temp	Precipitation		GDD Base 50°F		
								Total	DFN	Days	Total	DFN
Northwest (1)												
Valparaiso_Ag	84	46	67	+13	0.17	1		2.73	-2.01	14	313	+189
Wanatah	86	46	65	+12	0.06	1	66	2.74	-1.79	17	268	+169
Wheatfield	87	49	67	+13	0.21	2		3.41	-1.05	17	323	+216
Winamac	85	43	69	+13	0.07	2	69	3.11	-1.26	16	328	+195
North Central(2)												
Logansport	83	45	66	+11	0.05	2		3.76	-0.43	16	317	+188
Plymouth	85	45	66	+10	0.13	1		3.07	-1.55	16	293	+149
South_Bend	85	49	67	+13	0.08	1		3.92	-0.54	15	310	+198
Young_America	88	46	69	+14	0.08	2		2.84	-1.35	13	350	+221
Northeast (3)												
Bluffton	85	38	67	+11	0.26	1	60	3.62	-0.78	17	322	+186
Fort_Wayne	84	39	66	+11	0.06	1		3.66	-0.38	17	311	+191
West Central (4)												
Crawfordsville	85	40	66	+9	0.08	2	62	2.58	-2.32	15	343	+167
Perrysville	86	48	69	+12	0.42	2	64	2.41	-2.24	13	393	+236
Terre_Haute_Ag	89	47	71	+13	0.04	1	66	3.38	-1.38	15	449	+260
W_Lafayette_6NW	86	49	69	+14	0.04	1	66	2.85	-1.64	12	364	+230
Central (5)												
Castleton	85	44	68	+11	0.00	0		2.67	-1.94	11	387	+223
Greenfield	84	44	68	+12	0.00	0		2.18	-2.70	13	388	+238
Greensburg	85	48	69	+12	0.00	0		3.01	-1.98	10	414	+248
Indianapolis_AP	84	48	70	+12	0.00	0		1.86	-2.62	10	442	+264
Indianapolis_SE	84	46	68	+10	0.00	0		1.90	-2.71	9	388	+224
Tipton_Ag	85	38	66	+11	0.00	0	60	3.04	-1.63	10	316	+204
East Central (6)												
Farmland	85	38	66	+12	0.04	1	65	3.56	-0.73	12	321	+216
New_Castle	83	42	65	+11	0.00	0		4.09	-0.84	14	297	+187
Southwest (7)												
Dubois_Ag	86	42	69	+10	0.00	0	77	1.74	-3.35	6	454	+237
Evansville	85	45	69	+8	0.00	0		1.69	-3.23	9	501	+222
Freelandville	86	49	70	+11	0.00	0		1.62	-3.19	10	451	+243
Shoals	87	40	67	+9	0.00	0		1.78	-3.30	8	429	+225
Vincennes_5NE	88	47	70	+12	0.00	0	65	1.20	-3.61	9	466	+258
South Central(8)												
Bloomington	85	44	68	+10	0.00	0		1.35	-3.46	9	434	+230
Tell_City	86	50	70	+9	0.00	0		1.67	-4.10	6	477	+226
Southeast (9)												
Scottsburg	86	50	69	+10	0.00	0		2.13	-2.91	8	453	+243

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

GDD = Growing Degree Days.

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

Precipitation Days = Days with precipitation of 0.01 inch or more.

Air Temperatures in Degrees Fahrenheit.

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What Exactly Do You Mean By 'Growing Degree Day'? (Continued)

In late April to early May, normal daily GDD accumulations for central Indiana are about 10 GDDs. By late July, the normal daily accumulation rises to about 23 GDDs. For a typical corn growing season in central Indiana, say from late April to late September, the total seasonal accumulation of GDDs is about 2800 GDDs. Historical normal GDD accumulations on a weekly basis for Indiana's nine Crop Reporting Districts are available in Purdue's *Corn & Soybean Field Guide*, Extension publication # ID-179. Daily or monthly normal GDD accumulations for Indiana are also available at the Indiana Climate Page on the Web at <http://shadow.agry.purdue.edu/sc.norm-geog.html>.

Obviously, the ability to calculate daily heat unit accumulations is dependent on your having access to daily maximum and minimum temperatures. If you do

not have your own max/min recording thermometer, you can guesstimate the daily highs and lows by manually recording the temperatures shortly after sunrise (approximate daily low) and late in the afternoon (approximate daily high). Daily temperature data for specific locations are also recorded and reported at the Indiana Climate Page on the Web at <http://shadow.agry.purdue.edu/sc.obs-geog.html>.

Don't forget, this and other timely information about corn can be viewed at the Chat 'n Chew Café on the World Wide Web at <http://www.kingcorn.org/cafe>. For other information about corn, take a look at the Corn Growers' Guidebook on the World Wide Web at <http://www.kingcorn.org/>.

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