



Indiana Crop & Weather Report

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CROP REPORT FOR WEEK ENDING JULY 22

AGRICULTURAL SUMMARY

Hot, humid weather prevailed during the week. Corn and soybean growth and development continued to make good progress in most areas of the state, although crop conditions began to suffer due to the heat. Showers and thunderstorms occurred, with some areas receiving heavy amounts.

FIELD CROPS REPORT

There were 5.4 **days suitable for fieldwork**. Corn **condition** is rated 72 percent good to excellent compared with 78 percent last week and 85 percent last year at this time. Eighty-six percent of the corn acreage has **silked** compared with 87 percent last year and 52 percent for the 5-year average. Eleven percent of the corn acreage has reached the **dough** stage compared with 12 percent last year and 7 percent for the average. Soybean **condition** is rated 67 percent good to excellent compared with 70 percent last week and 69 percent last year. Eighty percent of the soybean acreage is **blooming** compared with 77 percent last year and 58 percent for the average. Thirty percent of the soybean acreage is **setting pods** compared with 25 percent last year and 16 percent for the average. Other activities during the week included mowing road sides, cleaning grain bins, repairing equipment, moving grain to market, and county fair activities.

Wheat **harvest** is virtually complete compared with 100 percent last year and 90 percent for the 5-year average.

LIVESTOCK, PASTURE AND RANGE REPORT

Pasture condition is rated 5 percent excellent, 42 percent good, 35 percent fair, 12 percent poor and 6 percent very poor. Second cutting of **alfalfa** hay is 92 percent complete compared with 90 percent last year and 71 percent for the average. Livestock were under some stress last week.

CROP PROGRESS TABLE

Crop	This Week	Last Week	Last Year	5-Year Avg
Percent				
Corn Silked	86	52	87	52
Corn Dough	11	2	12	7
Soybeans Blooming	80	56	77	58
Soybeans Podding	30	17	25	16
Wheat Harvested	100	96	100	90
Alfalfa Second Cutting	92	75	90	71

CROP CONDITION TABLE

Crop	Very Poor	Poor	Fair	Good	Excellent
Percent					
Corn	1	5	22	52	20
Soybeans	1	6	26	55	12
Pasture	6	12	35	42	5

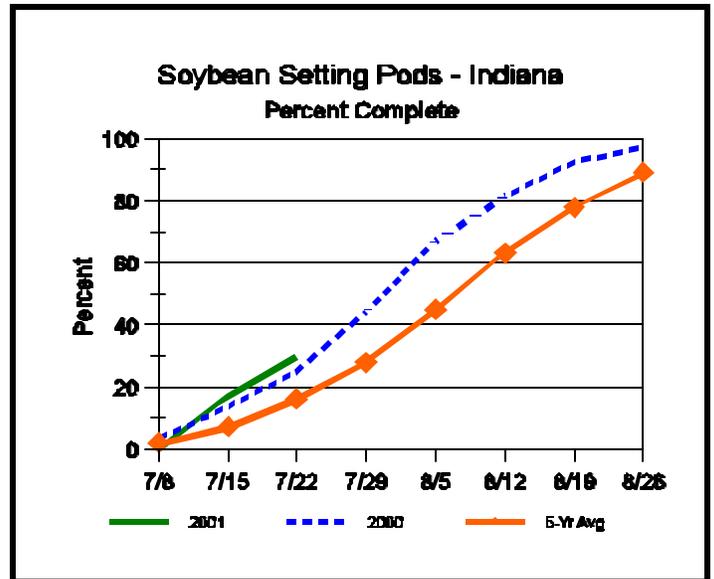
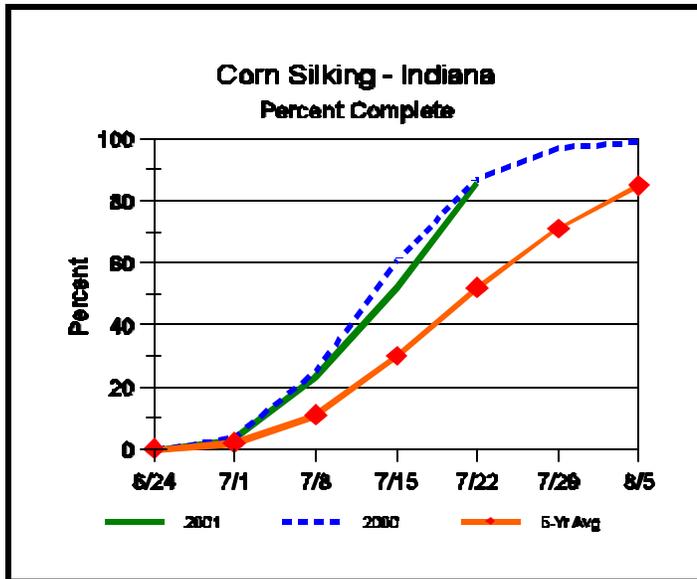
SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK TABLE

	This Week	Last Week	Last Year
Percent			
Topsoil			
Very Short	8	4	1
Short	23	17	12
Adequate	55	71	77
Surplus	14	8	10
Subsoil			
Very Short	9	6	2
Short	25	18	18
Adequate	58	70	74
Surplus	8	6	6
Days Suitable	5.4	5.2	5.6

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Crop Progress



Other Agricultural Comments And News

Short Corn At Tasseling

- Some tasseling corn is shorter than normal
- Likely caused by early planting and cold snap back in May

Early-planted corn in Indiana is well into, if not beyond, the pollination stage. Some folks have noticed that the height of plants in these fields is noticeably shorter than they normally expect to see. The causes of shorter than normal corn can be traced back to planting date and temperature during stalk elongation.

Remember that stalk elongation begins at about the V5 stage of development (five visible leaf collars). Prior to that stage, most of the plant's energy is directed to root development and leaf initiation. After that stage, the plant enters its so-called grand growth phase wherein above - and below - ground growth accelerates to an exponential pace that peaks near tasseling.

Elongation of the stalk occurs primarily by cell expansion near the bases of the internodes at what are called the intercalary meristems. Stalk elongation is influenced by a number of factors, among which are light/shade relationships, daylength and temperatures. Shade tends to increase levels of the plant growth regulator auxin, which, in turn, encourages greater elongation of internodes. The 'shading effect' contributes to the greater plant heights of densely planted corn. Intense solar radiation is thought to result in photodestruction of auxin, which leads to less

internode elongation, which results in shorter plants. Interestingly, though, longer daylengths tend to increase internode lengths and overall plant height. Cold temperatures are thought to increase the rigidity of basal internode cell walls, thus limiting cell expansion and internode elongation.

Given these physiological causes of short plants, one can think about this year's corn crop and begin to understand why some of it is pretty darn short at tasseling. Indiana's corn planting progress finished six days ahead of the previous record pace set in 1988. Early-planted corn normally reaches the V5 stage at dates earlier than does later-planted corn. Stalk elongation in early-planted corn, therefore, begins in a time period that is characterized by shorter daylengths and generally cooler temperatures than corn planted later in the season. As described above, both of these factors contribute to shorter internodes and plant heights.

Now consider the two - to three - week period beginning in mid-May when temperatures were significantly lower than normal throughout much of the state. Much of the early-planted corn was beginning or well within the stalk elongation period while most of the later planted crop was younger than V5. This extended period of cool temperatures influenced the elongation of internodes in the lower third of the stalk and accentuated the expected typically shorter heights of early-planted corn.

(Continued on Page 4)

Weather Information Table

Week ending Sunday July 22, 2001

Station	Past Week Weather Summary Data							Accumulation				
	Air Temperature				Precip.		Avg	April 1, 2001 thru July 22, 2001				
							4 in	Precipitation		GDD Base 50°F		
	Hi	Lo	Avg	DFN	Total	Days	Soil Temp	Total	DFN	Days	Total	DFN
Northwest (1)												
Valparaiso_Ag	91	62	78	+5	1.29	4		12.13	-2.83	54	1642	+156
Wanatah	94	59	77	+5	1.18	4	82	13.40	-1.04	54	1554	+135
Wheatfield	92	60	78	+6	0.33	3		12.27	-1.88	51	1644	+183
Winamac	91	61	77	+5	0.87	2	82	16.04	+1.87	51	1639	+117
North Central(2)												
Logansport	91	58	77	+4	4.28	3		20.73	+7.11	55	1649	+96
Plymouth	91	59	76	+3	0.74	2		13.75	-1.11	50	1512	-75
South_Bend	91	64	77	+5	0.50	2		15.01	+1.12	50	1602	+133
Young_America	89	61	76	+3	3.46	3		16.20	+2.58	47	1722	+169
Northeast (3)												
Bluffton	89	62	77	+3	0.37	2	76	13.68	-0.42	53	1670	+78
Fort_Wayne	88	60	76	+3	2.80	2		15.96	+3.09	52	1649	+106
West Central (4)												
Crawfordsville	91	54	75	+1	1.68	2	76	14.44	-0.91	46	1641	-50
Perrysville	89	61	77	+3	0.32	3	79	10.88	-4.45	44	1789	+135
Terre_Haute_Ag	93	60	77	+2	0.42	2	79	18.01	+2.55	43	1974	+210
W_Lafayette_6NW	90	60	78	+4	0.43	2	83	11.86	-2.23	45	1780	+223
Central (5)												
Castleton	88	59	77	+2	2.66	4		19.12	+4.24	46	1805	+81
Greenfield	92	66	81	+6	2.95	3		18.37	+2.74	48	1850	+188
Greensburg	89	61	78	+5	1.64	4		17.53	+2.04	45	1910	+277
Indianapolis_AP	89	66	78	+3	1.17	1		15.75	+1.38	38	1925	+178
Indianapolis_SE	89	61	77	+2	1.43	4		14.95	+0.07	41	1739	+15
Tipton_Ag	89	57	76	+3	1.68	3	74	13.74	-0.44	40	1595	+91
East Central (6)												
Farmland	90	55	76	+3	1.85	2	77	14.97	+0.79	45	1637	+177
New_Castle	87	54	72	-2	2.23	2		21.77	+6.26	50	1458	-36
Southwest (7)												
Dubois_Ag	91	57	78	+3	1.02	3	85	13.48	-3.17	39	2049	+277
Evansville	90	61	79	+1	1.44	4		13.87	-1.29	42	2254	+190
Freelandville	90	63	78	+2	0.81	2		12.11	-3.54	36	2038	+209
Shoals	90	57	77	+1	1.09	2		13.78	-3.10	41	1916	+162
Vincennes_5NE	92	61	78	+3	1.19	3	77	11.54	-4.11	31	2119	+290
South Central(8)												
Bloomington	89	65	78	+2	1.04	3		16.06	+0.47	45	1933	+151
Tell_City	92	58	79	+2	0.13	2		11.84	-5.16	29	2164	+216
Southeast (9)												
Scottsburg	89	59	77	+2	1.52	5		15.98	+0.18	50	1990	+178

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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Short Corn At Tasseling (Continued)

Are there yield consequences of unusually shorter corn? There are probably no negative consequences, unless the short height is dramatic enough to significantly reduce crop canopy cover and harvest of sunlight. Conversely, shorter corn is usually a benefit from the standpoint that the risk of stalk lodging is decreased due to the lower center of gravity.

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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