



USDA, National Agricultural Statistics Service

Indiana Crop & Weather Report

USDA, NASS, Indiana Field Office
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Vol. 56, No. 20

CROP REPORT FOR WEEK ENDING MAY 14

AGRICULTURAL SUMMARY

Rain showers have halted fieldwork over most of the state, according to the Indiana Field Office of USDA's National Agricultural Statistics Service. Farmers made good progress planting both corn and soybeans before the rains began on Wednesday. The cool, wet weather has slowed crop emergence and growth, and some producers feel that replanting of some corn and soybean acreage may be necessary.

FIELD CROPS REPORT

There were 2.7 days suitable for field work. Seventy-four percent of the intended **corn** acreage has been **planted** compared with 87 percent last year and 70 percent for the 5-year average. By area, 82 percent of the corn acreage has been planted in the north, 77 percent in the central region, and 55 percent in the south. Thirty-eight percent of the corn acreage has **emerged** compared to 47 percent last year and 46 percent for the 5-year average. Thirty-two percent of the **soybean** acreage is **planted** compared to 54 percent for last year and 44 percent for the 5-year average.

Forty-six percent of the **winter wheat** acreage is headed compared with 39 percent last year and 48 percent for the 5-year average. Winter wheat **condition** is rated 83 percent good to excellent compared with 68 percent last year at this time.

Major activities during the week included: checking drainage tiles, applying fertilizer, spraying chemicals, preparing equipment and taking care of livestock.

LIVESTOCK, PASTURE AND RANGE REPORT

Pasture condition is rated 15 percent excellent, 67 percent good, 16 percent fair and 2 percent poor. Livestock remain to be in mostly good condition. Pastures and barn lots are currently very muddy.

CROP PROGRESS TABLE

Crop	This Week	Last Week	Last Year	5-Year Avg
Percent				
Corn Planted	74	52	87	70
Corn Emerged	38	17	47	46
Soybeans Planted	32	15	54	44
Soybeans Emerged	6	NA	11	16
Winter Wheat Headed	46	27	39	48

CROP CONDITION TABLE

Crop	Very Poor	Poor	Fair	Good	Excellent
Percent					
Pasture	0	2	16	67	15
Winter Wheat 2006	0	2	15	60	23
Winter Wheat 2005	2	6	24	56	12

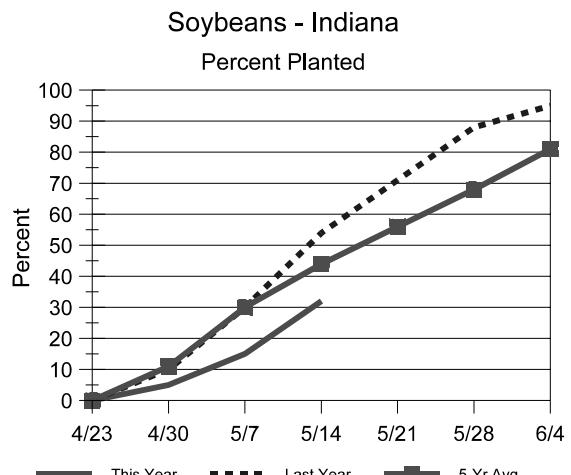
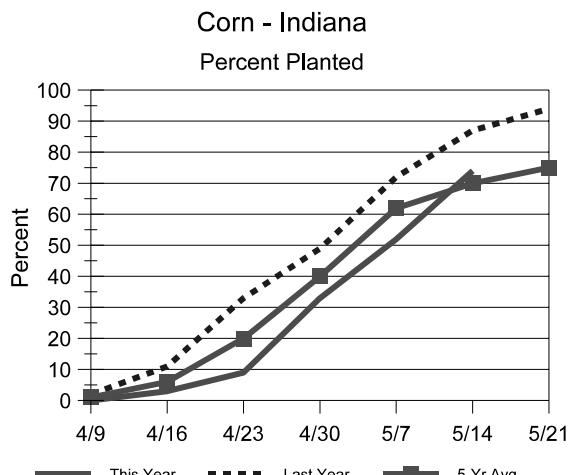
SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK TABLE

	This Week	Last Week	Last Year
Percent			
Topsoil			
Very Short	0	0	4
Short	0	3	14
Adequate	41	74	64
Surplus	59	23	18
Subsoil			
Very Short	0	1	1
Short	2	5	13
Adequate	64	76	75
Surplus	34	18	11
Days Suitable	2.7	3.2	4.8

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Crop Progress



Other Agricultural Comments And News

Staging Growth in Early Season Corn

When estimating yield losses in corn due to hail, frost, and other types of plant injury, it's essential to establish the stage of plant growth at the time damage occurred. In recent years, it's also become increasingly important to know corn stage of development in order to use postemergence herbicides effectively with minimum crop damage. This knowledge could be particularly important this year if the dry conditions we're experiencing in parts of the state continue resulting in uneven growth of corn.

Several systems are currently used to stage vegetative growth in corn. The "leaf collar" system is probably the method most widely used by university and seed company agronomists in the Corn Belt. With this method, each leaf stage is defined according to the uppermost leaf whose leaf collar is visible. The first part of the collar that is visible is the back, which appears as a discolored line between the leaf blade and the leaf sheath. The oval shaped first leaf is a reference point for counting upward to the top visible leaf collar. This oval shaped leaf is counted as the number 1 leaf when staging. If a plant has 4 visible leaf collars, then it is defined as being at V4. Normally a plant at the V4 stage will have parts of the 5th and 6th leaves visible, but only four leaves with distinct collars. A field is defined as being at a given growth stage when at least 50% of the plants show collars.

Another widely used staging method is the "hail adjustor's horizontal leaf method" developed by the crop insurance industry. Rather than using the uppermost leaf collar, hail adjustors identify the

uppermost leaf that is 40 to 50% exposed and whose tip points below the horizontal. Typically a given "horizontal leaf" growth stage based on the hail adjustor's method will be 1 to 2 leaf stages greater than the collar method. From growth stage V1 through about V5 there is typically one additional leaf (above that leaf with the last visible collar) whose leaf tip is pointing below the horizontal. Beyond growth stage V5, two or more additional leaves with 'droopy' leaf tips will be evident above the leaf with the last visible collar (so a V6 plant according to the leaf collar method will typically be a 8-leaf plant according to the hail adjustor's horizontal leaf method). One problem with the horizontal leaf method is that it is often difficult to identify the uppermost horizontal leaves in fields that have recently experienced severe leaf damage. Hail adjustors get around this problem because they usually assess hail damage 5 to 10 days after the storm, by which time 1 or more leaves have emerged from the whorl.

Corn leaf stage is a more reliable indicator of corn development than plant height. This is especially true in a cool, wet spring when corn is growing more slowly from a height standpoint. Differences in tillage and soil type often have a pronounced effect on plant height but relatively little effect on the stage of vegetative development. For example, within a field, corn may be taller in those areas characterized by darker soil (with higher organic matter) than in areas with lighter soil, especially the clay knolls, yet plants in both areas of the field may be at nearly the same stage when counting leaf collars.

(Continued on Page 4)

Weather Information Table

Week ending Sunday May 14, 2006

Station	Past Week Weather Summary Data										Accumulation				
	Air					Avg					April 1, 2006 thru May 14, 2006				
	Temperature			Precip.		4 in		Precipitation			GDD		Base	50°F	
	Hi	Lo	Avg	DFN	Total	Days	Temp	Total	DFN	Days	Total	DFN			
Northwest (1)															
Chalmers_5W	78	39	53	-8	2.10	4		7.02	+1.57	16	261	+8			
Francesville	75	38	54	-6	1.64	4		5.86	+0.61	17	247	+36			
Valparaiso_AP_I	74	37	55	-4	1.63	4		4.06	-1.64	16	280	+84			
Wanatah	77	37	53	-5	1.33	4	59	4.96	-0.52	16	223	+60			
Winamac	77	38	54	-6	1.98	4	57	5.73	+0.48	13	265	+54			
North Central (2)															
Plymouth	76	37	53	-7	1.83	4		5.41	-0.17	18	235	+10			
South_Bend	76	37	54	-4	2.69	4		5.47	+0.21	20	262	+81			
Young_America	77	39	54	-5	2.48	4		6.52	+1.37	17	292	+87			
Northeast (3)															
Columbia_City	76	37	54	-4	3.08	4	54	5.91	+0.73	17	210	+48			
Fort_Wayne	75	39	55	-5	2.25	4		7.54	+2.62	19	267	+74			
West Central (4)															
Greencastle	72	40	54	-8	2.90	4		7.87	+2.03	15	295	+12			
Perrysville	76	40	56	-4	1.53	4	58	6.22	+0.53	16	337	+96			
Spencer_Ag	75	42	55	-6	2.15	4		8.34	+2.15	19	329	+83			
Terre_Haute_AFB	72	44	56	-6	1.75	4		6.57	+0.61	18	379	+98			
W_Lafayette_6NW	75	39	55	-5	2.24	4	60	6.29	+0.76	16	300	+89			
Central (5)															
Eagle_Creek_AP	74	42	56	-6	2.03	4		8.03	+2.51	17	375	+105			
Greenfield	76	41	54	-7	2.71	4		9.83	+3.79	20	300	+65			
Indianapolis_AP	74	42	56	-6	2.14	4		7.65	+2.13	19	387	+117			
Indianapolis_SE	76	41	54	-7	2.51	4		8.68	+2.87	17	298	+45			
Tipton_Ag	75	38	53	-6	1.64	4	61	7.05	+1.37	23	259	+76			
East Central (6)															
Farmland	75	37	53	-6	2.82	4	60	7.12	+1.87	20	223	+47			
New_Castle	76	41	53	-6	3.17	4		8.79	+2.68	19	259	+78			
Southwest (7)															
Evansville	73	46	59	-5	0.82	3		6.02	-0.18	18	513	+123			
Freelandville	73	46	57	-5	1.57	3		6.49	+0.34	17	401	+98			
Shoals	76	41	58	-4	1.40	4		8.70	+2.23	18	406	+111			
Stendal	73	38	58	-6	1.65	5		7.46	+0.67	19	483	+142			
Vincennes_5NE	73	46	59	-4	1.74	5	63	10.57	+4.42	20	430	+127			
South Central (8)															
Leavenworth	74	46	57	-5	1.14	5		8.06	+1.27	23	422	+120			
Oolitic	74	41	55	-6	2.00	4	62	8.16	+1.99	19	325	+63			
Tell_City	76	49	61	-3	1.07	4		6.98	-0.07	21	525	+169			
Southeast (9)															
Brookville	78	41	56	-4	1.39	4		9.05	+3.09	19	343	+126			
Greensburg	76	43	57	-4	2.38	4		8.77	+2.50	19	370	+120			
Scottsburg	78	42	59	-4	1.13	4		9.63	+3.39	21	416	+109			

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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Staging Growth in Early Season Corn (Continued)

At about V6 stage, or 8-leaf stage of the hail adjustor's method, increasing stalk and nodal growth combine to tear the smallest lower leaves from the plant. This results in degeneration and eventual loss of lower leaves. Hail damage, insect feeding, and fertilizer/herbicide burning promote this process. There may also be occasions when the lower leaves are hard to identify prior to V6 stage. When extensive early season leaf damage has occurred, identification of the first rounded leaf and subsequent leaf collars may be difficult.

Dr. Bob Nielsen at Purdue has described a method for predicting leaf stage development using accumulated heat unit or growing degree day (GDD) information. Given an understanding of corn leaf stage development and heat unit calculation, a grower can predict what leaf stage of development a particular field is at given its planting date and temperatures since planting. It is useful to know when the crop emerged, but if you do not you can estimate that event also. Corn emergence typically requires 100 to 150 GDDs.

Dr. Nielsen proposes that corn leaf developmental rates may be characterized by two phases. From emergence to V10 (ten visible leaf collars), leaf emergence occurs approximately every 85 GDDs.

From V10 to tasseling, leaf emergence occurs more rapidly at approximately one leaf every 50 GDDs. Previously, about 60-65 GDDs were associated with the appearance of new leaf collars during vegetative growth.

Example: A field was planted on April 28, but you do not know exactly when it emerged. Since planting, approximately 785 GDDs have accumulated. If you assume that the crop emerged in about 125 GDDs, then the estimated leaf stage for the crop would be between V7 and V8. We arrived at this estimate by first subtracting 125 from 785 to account for emergence, then dividing the result (660) by 85 to equal 7.8.

Dr. Nielsen warns that these predictions of leaf stage development are only estimates. One of the factors that most influences the accuracy of these estimates is the existence of other growth-limiting stresses and conditions (nutrient deficiencies, compaction, etc.). Despite these potential drawbacks, this heat unit method may be useful in timing when plants will reach an approximate stage of growth.

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The INDIANA CROP & WEATHER REPORT (USPS 675-770), (ISSN 0442-817X) is issued weekly April through November by the USDA, NASS, Indiana Field Office, 1435 Win Hentschel Blvd, Suite B105, West Lafayette IN 47906-4145. Second Class postage paid at Lafayette IN. For information on subscribing, send request to above address. POSTMASTER: Send address change to the USDA, NASS, Indiana Field Office, 1435 Win Hentschel Blvd, Suite B105, West Lafayette IN 47906-4145.
