



Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS
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Released: Monday, 3PM

July 20, 1998

Vol. 48, #16

West Lafayette, IN 47907

CROP REPORT FOR WEEK ENDING JULY 19

Corn and soybeans continue to develop nearly one week ahead of average, according to the Indiana Agricultural Statistics Service. Severe storms moved through parts of southern Indiana over the weekend and any damage should be reflected in next week's condition ratings. Topsoil moisture conditions are declining in the northern part of the state, especially in the northeast. Fortunately subsoil moisture is holding up well, keeping crops in good condition.

CORN AND SOYBEANS

Corn condition showed very little change from last week, with 58 percent rated good to excellent. Forty-five percent of the crop is **silked**, ahead of the 23 percent average. By region, 56 percent of the crop is silked in the north, 40 percent in the central, and 33 percent in the south. Six percent of the corn is in the **dough** stage. **Soybean condition** also showed little change, with 58 percent rated good to excellent. Forty-nine percent of the soybeans are **blooming**, ahead of 44 percent last year and the 39 percent average. By region, 56 percent are blooming in the north, 54 percent in the central, and 25 percent in the south. Seven percent of the soybean crop is **setting pods**, ahead of the 4 percent average.

WINTER WHEAT

Wheat harvest progressed to 99 percent complete, 27 percent ahead of last year and still about two weeks ahead of average. Harvest is virtually complete in the southern two-thirds of the state, with 2 percent of the crop remaining to be harvested in the northern region.

OTHER CROPS

Pasture condition is rated 11 percent excellent, 54 percent good, 29 percent fair, 5 percent poor and 1 percent very poor. **Second cutting of alfalfa** is 72 percent complete.

DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 5.9 days were rated **suitable for fieldwork**. **Topsoil moisture** was rated 3 percent very short, 21 percent short, 58 percent adequate and 18 percent surplus. **Subsoil moisture** was rated 2 percent very short, 15 percent short, 69 percent adequate and 14 percent surplus.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
				Percent
Corn Silked	45	18	6	23
Corn Dough	6	NA	0	0
Soybeans Blooming	49	28	44	39
Soybeans Podding	7	NA	6	4
Winter Wheat Harvested	99	92	72	80

CROP CONDITION

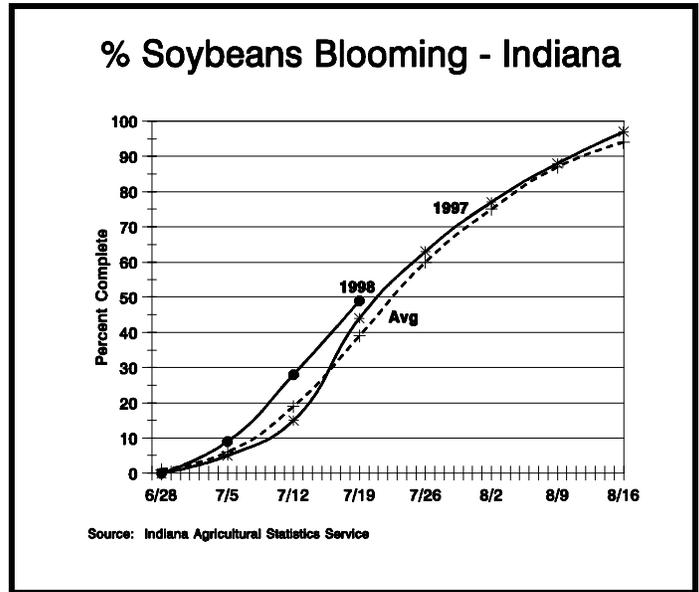
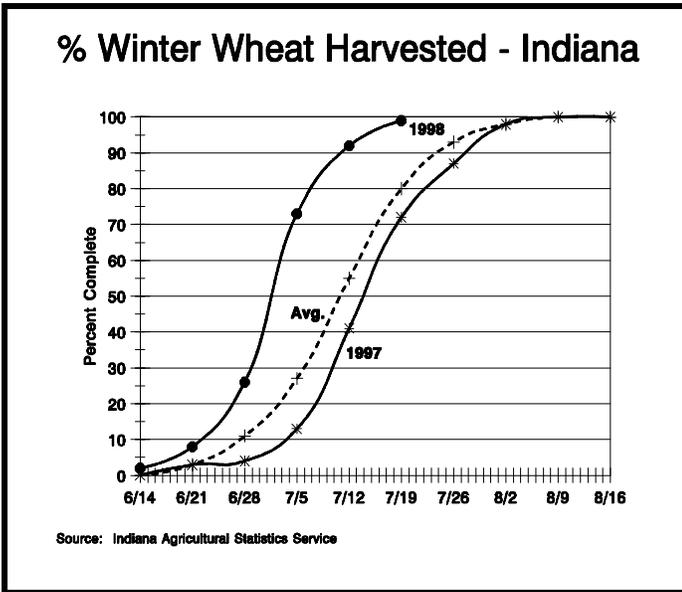
Crop	Very Poor	Poor	Fair	Good	Excel-
					lent
Percent					
Corn	3	8	31	47	11
Soybeans	3	7	32	47	11
Pasture	1	5	29	54	11

SOIL MOISTURE

	This Week	Last Week	Last Year
			Percent
Topsoil			
Very Short	3	1	13
Short	21	4	48
Adequate	58	61	38
Surplus	18	34	1
Subsoil			
Very Short	2	0	6
Short	15	4	32
Adequate	69	66	61
Surplus	14	30	1

--Ralph W. Gann, State Statistician
 --Lance Honig, Agricultural Statistician
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<http://info.aes.purdue.edu/agstat/nass.html>

Crop Progress



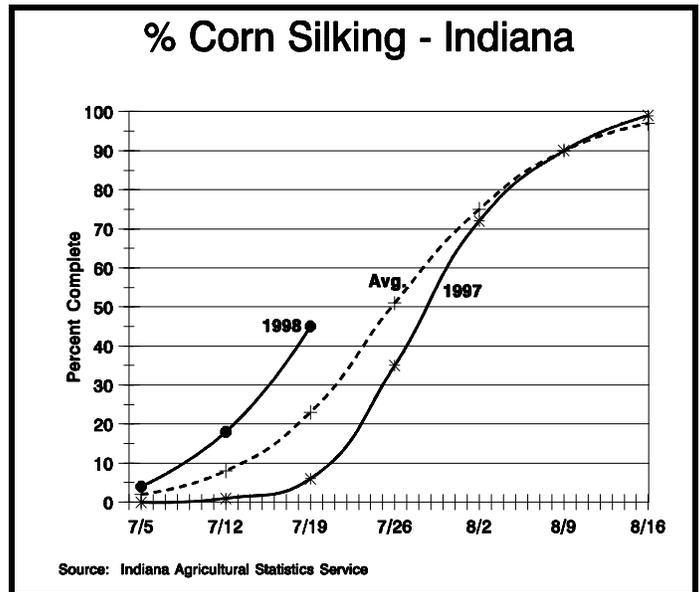
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Post-Flood Syndrome: Interesting Research

Frequent and excessive rainfall throughout Indiana during the past several months has resulted in extensive flooding of river bottoms and ponding in low-lying areas of other fields. Some river bottom ground has yet to be planted for the first time this year, some has been replanted two or more times but is still devoid of crop growth because of continued flooding. Many fields throughout the state contain "wet holes" that have ponded numerous times this growing season, killing young corn or soybean, and have not been replanted.

Where such fields or parts of fields have been left fallow due to flooding or ponding, corn growth the following year sometimes displays symptoms of phosphorus deficiency even if adequate levels of soil phosphorus exist. Recently published research from USDA-ARS at the University of Nebraska sheds some light on this phenomenon known as Post Flood Syndrome. The complete citation is: *J.R. Ellis, Post Flood Syndrome and Vesicular-Arbuscular Mycorrhizal Fungi, J. Prod. Agric. 11:200-204 (1998).*

The fungi referred to in the article's title (acronym: VAM) are plant fungi that routinely colonize roots of crops in a mutually beneficial (symbiotic) relationship. The fungi benefit from the host plants' resources, the crop benefits from the increased nutrient absorption zone offered by the fungal hyphae (the many threads that make up the mycelium of fungi).



(Continued on Page 4.)

Weather Data

Average Daily Values for week ending Monday morning July 20, 1998

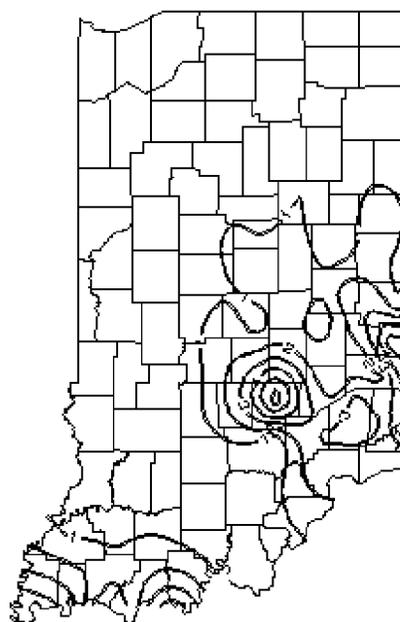
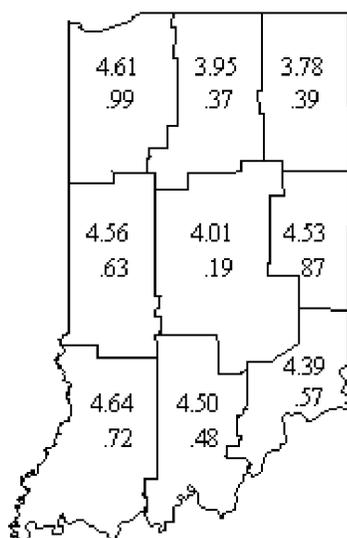
Area	Station	Air Temperature			Precipitation			Growing Degree Days		
		Max	Min	DN	Past Week	Since April 1	DN Since April 1	Past Week	Since April 1	DN Since April 1
NW	Wanatah	86	59	+0	.28	16.28	+2.27	159	1668	+233
	Kentland	87	64	+2	.20	18.46	+4.31	179	1826	+218
	Winamac	86	64	+2	.41	15.02	+1.25	176	1773	+219
NC	South Bend	86	65	+2	.25	12.43	-1.10	179	1720	+242
	Waterford Mills	87	61	+1	.27	13.34	+ .76	168	1762	+240
NE	Prairie Heights	86	63	+3	.31	12.31	- .70	173	1756	+433
	Columbia City	85	62	+1	.21	13.67	+ .21	166	1709	+284
	Fort Wayne	85	64	+1	.47	15.05	+2.50	173	1784	+218
	Bluffton	86	66	+2	.40	14.53	+ .81	182	1822	+209
WC	West Lafayette	87	65	+2	.00	21.40	+7.67	179	1874	+306
	Perrysville	86	66	+0	.18	22.22	+6.62	183	1924	+90
	Crawfordsville	87	63	+1	.32	19.82	+6.11	171	1810	+226
	Terre Haute 8s	88	68	+2	.00	20.91	+5.89	189	2068	+303
C	Tipton	85	62	+0	1.40	21.15	+7.35	164	1722	+181
	Indianapolis	86	68	+2	1.49	24.85	+10.85	189	1953	+199
	Indian Creek	87	66	+2	.39	21.16	+6.78	183	1943	+290
EC	Farmland	86	65	+3	.25	20.11	+6.39	179	1800	+326
	Liberty	85	64	+0	.19	20.84	+5.87	171	1835	+181
SW	Vincennes	87	68	+1	.60	27.84	+12.52	185	2038	+215
	Dubois	85	68	+1	.57	20.61	+4.35	181	1993	+225
	Evansville	86	70	+0	1.15	21.09	+6.25	192	2196	+186
SC	Bedford	85	68	+2	.33	30.38	+14.87	182	1908	+217
	Louisville	85	72	+1	2.24	22.78	+7.63	197	2225	+262
SE	Butler ville	85	65	+0	3.35	28.26	+13.30	174	1929	+84

DN = departure from normal.

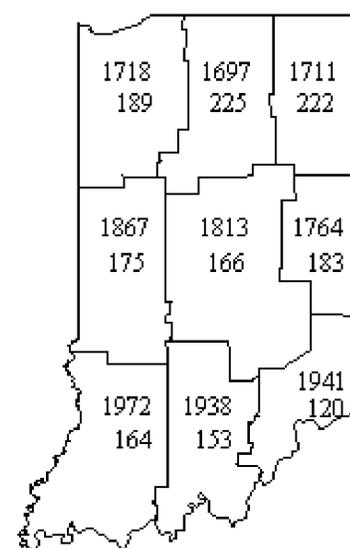
Growing Degree Days = daily mean - 50 (below 50 adjusted to 50, above 86 adjusted to 86.)

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

Rainfall for Past 4 Weeks
and Departure from Normal



Growing Degree Days
and Departure since April 1



Post-Flood (continued)

The bottom line of the research is that prolonged fallow periods, such as caused by flooding or ponding, significantly reduce the populations of the VAM fungi in the soil. Following the seeding of a subsequent crop, the VAM fungi slowly recolonize and restore their populations. Until the populations of the VAM fungi are sufficient, plant nutrient uptake (especially phosphorus) is restricted and nutrient deficiency symptoms can occur.

The author suggests several alternatives to forestall the development of the Post Flood Syndrome in corn. One is to apply 60-80 lbs per acre of starter phosphorus to the following corn crop, equal to 16 to 21 gallons of 10-34-0 starter fertilizer (easily accomplished by many Indiana corn growers). Another alternative is to seed a host cover crop in the fall to encourage the regeneration of the VAM fungal populations (seeding the areas to corn or soybean now would accomplish the same thing). While VAM fungal inoculants exist, the author suggests that using them would be too expensive for field crops.

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.agry.purdue.edu/agronomy/ext/corn/chatchew.htm>. For other information about corn, take a look at the Corn Growers' Guidebook on the World Wide Web at <http://www.agry.purdue.edu/agronomy/ext/corn/>

-- Bob Nielsen, Purdue University

The INDIANA CROP WEATHER REPORT (USPS 675-770), (ISSN 0442-817X) is issued weekly April through November by the Indiana Agricultural Statistics Service, Purdue University, 1148 AgAd Bldg, Rm 223, West Lafayette IN 47907-1148. Second Class postage paid at Lafayette IN. For information on subscribing, send request to above address. POSTMASTER: Send address change to the Indiana Agricultural Statistics Service, Purdue University, 1148 AgAd Bldg, Rm 223, West Lafayette IN 47907-1148.
