USDA, National Agricultural Statistics Service

Indiana Crop & Weather Report

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CROP REPORT FOR WEEK ENDING APRIL 27

AGRICULTURAL SUMMARY

Planting of corn got off to a good start early in the week with the most progress being made in northern and central portions of the state, according to the Indiana Field Office of USDA's National Agricultural Statistics Service. Corn planting is slightly ahead of last year, but is about a week behind the 5-year average pace. Some farmers have not begun planting yet, as they feel the soil is still too damp and cool. Only a few scattered fields of soybeans have been planted at this time. Some winter wheat fields are still being top dressed with nitrogen. Oats are being planted in some northern counties.

FIELD CROPS REPORT

There were 4.8 **days suitable for field work**. Eleven percent of the intended **corn** acreage has been **planted** compared with 10 percent last year and 30 percent for the 5-year average. By area, 12 percent has been planted in the north, 12 percent in the central region, and 6 percent in the south.

Fifty-three percent of the winter wheat acreage is **jointed** compared with 56 percent last year and 68 percent for the 5-year average. Winter wheat **condition** is rated 67 percent good to excellent compared to 34 percent last year at this time. Very few fields of wheat will have to be destroyed due to poor stands.

Major activities during the week included: tillage operations, spreading dry fertilizer, applying anhydrous ammonia, preparing planting equipment, spraying herbicides, hauling grain to market, hauling manure, and taking care of livestock.

LIVESTOCK, PASTURE AND RANGE REPORT

Pasture condition is rated 15% excellent, 52% good, 28% fair, 4% poor and 1% very poor. Pastures continued to improve with the warmer temperatures and sunshine the state experienced early in the week. Livestock remain in mostly good condition.

CROP PROGRESS TABLE

Crop	This Week	Last Week	Last Year	5-Year Avg
	Percent			
Corn Planted	11	NA	10	30
Winter Wheat Jointed	53	27	56	68

CROP CONDITION TABLE

Crop	Very Poor	Poor	Fair	Good	Excel-lent
	Percent				
Pasture	6	11	31	40	12
Winter Wheat	1	4	28	52	15

SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK TABLE

	This Week	Last Week	Last Year
	Percent		
Topsoil			
Very Short	0	0	0
Short	1	0	0
Adequate	76	50	54
Surplus	23	50	46
Subsoil			
Very Short	0	0	0
Short	1	0	0
Adequate	66	49	67
Surplus	33	51	33
Days Suitable	4.8	2.4	2.9

CONTACT INFORMATION

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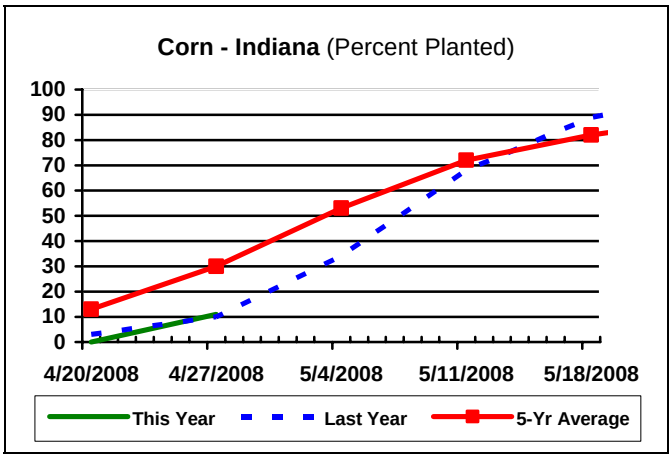

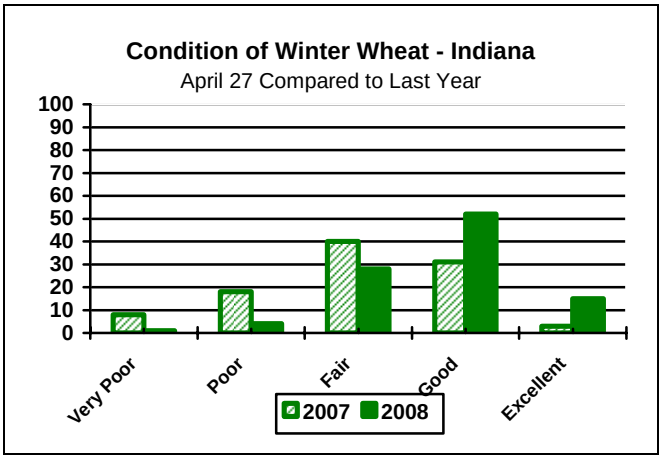

Other Agricultural Comments And News

Bt-Rootworm Corn and Protecting Refuge Acres from Damage

- Planting of refuge with Bt-Rootworm corn is necessary and crucial to prevent resistance.
- Misinformation and creativity abound concerning refuge acres.
- Refuge strips throughout a field best facilitate intermixing of beetle populations.
- Protecting refuge acres from rootworm feeding can be a challenge, especially in high-risk rootworm damage areas.

Bt-Rootworm corn's popularity and use continues to increase. Hopefully all who are planting this technology understand and will implement EPA's mandated refuge. This is important for 2 reasons: First, it is the law. Second, not using refuges could have disastrous consequences in the long-term for growers, due to insect resistance. The refuge is crucial to preserve the longevity of this technology. There are few guarantees in agriculture, but one is that insects will always evolve and adapt to counteract whatever we throw at them. The other guarantee is that once resistance occurs, it will be on commercial farms, not in research plots or laboratories.

The refuge must comprise 20% of the production field where Bt corn is used. The 80/20 arrangement of the field is quite flexible, but using the neighbor's corn as a refuge is NOT. Options include planting the refuge in blocks, strips throughout, or end rows all are acceptable as long as it equals or exceeds 20% of the field's total acreage. The idea behind each of these arrangements is that beetles emerging from Bt-Rootworm corn (yes, there are survivors) will mate with beetles from the refuge. Two years of our refuge design research shows that striping the refuge within the field better mixes the emerging beetle populations, potentially delaying insect resistance.

Protecting refuge corn from rootworm feeding has presented some challenges for producers. They have shared a wide range of thoughts on this from providing no protection for the refuge, to mixing Bt and refuge seed in the seed boxes, and mounting insecticide boxes that may or may not be approved by the equipment manufacturer. In moderate to high-risk rootworm areas, 20% of a field is worth protecting from the rootworm's potentially devastating damage. Mixing Bt and refuge seed ("refuge-in-the-bag") is not allowed or recommended at the present time. Since the refuge seed will have no protection, and eggs will be distributed throughout the field, the 20% unprotected seed will be subject to high pressure and damage.

Therefore we are left with planting and protecting the refuge separately from the rest of the field. This entails using granular, liquid or seed-applied insecticides. The newer John Deere planters have eliminated granular insecticide units, although they can be "plumbed" for liquid soil insecticides. Some of these planters have been successfully retrofitted with SmartBox® systems that fall within the manufacturer's weight tolerances. Splitting the planter with Cruiser Rootworm or Poncho 1250 seed-applied insecticides is possible with planters that have row seed boxes, but may not be possible with bulk seed boxes. Also, it should be mentioned that low rates of the seed-applied insecticides (Poncho 250, for example) do NOT control rootworms. Rootworm product efficacy should be considered depending of the anticipated risk to damage. In general, liquid soil insecticides and seed-applied insecticides perform poorly under high rootworm pressure. Granular insecticides are still the best bet to protect a refuge that is under high pressure.

Should the refuge remain untreated at planting time and damage is anticipated or noticed, rescue treatments are still a possibility. Liquid insecticides (i.e., Furadan, Lorsban) can be applied at post-emergence or cultivation-time. Obviously planting the refuge in a block design that is well marked will help in treating the unprotected corn. Shortly before rootworm egg-hatch, about the third week of May, drop nozzles should be directed toward the base of the corn plants with the labeled rate of insecticide. Following-up with cultivation will incorporate the insecticide and promote the establishment of brace roots. Weather is often a limiting factor in getting postemergence insecticides applied in a timely manner.

John Obermeyer and Larry Bledsoe, Department of Entomology, Purdue University, West Lafayette, IN, 47907.

(Additional Article on Page 4)

Weather Information Table

Week ending Sunday April 27, 2008

Station	Past Week Weather Summary Data							Accumulation				
								April 1, 2008 thru April 27, 2008				
	Air Temperature				Precip.		Avg 4 in Soil	Precipitation			GDD Base 50°F	
	Hi	Lo	Avg	DFN	Total	Days	Temp	Total	DFN	Days	Total	DFN
Northwest (1)												
Chalmers_5W	81	38	61	+7	0.30	2		2.30	-0.96	10	127	+27
Francesville	81	36	61	+8	0.20	2		2.30	-1.03	10	128	+53
Valparaiso_AP_I	82	36	61	+9	0.19	2		2.12	-1.46	8	136	+66
Wanatah	82	36	60	+10	0.37	2	62	3.21	-0.24	12	120	+67
Winamac	81	39	62	+9	0.33	2	59	2.51	-0.82	10	135	+60
North Central(2)												
Plymouth	81	38	61	+8	0.23	2		2.69	-0.80	10	136	+53
South_Bend	83	37	62	+10	0.18	2		2.60	-0.87	10	153	+91
Young_America	81	39	61	+9	0.10	2		2.33	-0.79	10	140	+68
Northeast (3)												
Columbia_City	81	37	60	+10	0.29	1	50	2.69	-0.57	9	134	+83
Fort_Wayne	81	39	61	+9	0.21	1		2.20	-0.85	9	143	+76
West Central(4)												
Greencastle	82	38	60	+4	0.45	1		3.34	+0.02	7	128	+13
Perrysville	82	36	62	+9	0.29	1	63	2.91	-0.58	9	143	+50
Spencer_Ag	83	39	61	+7	0.52	1		2.84	-0.74	8	146	+48
Terre_Haute_AFB	83	39	62	+7	0.32	1		2.09	-1.39	6	166	+50
W_Lafayette_6NW	82	36	63	+10	0.63	2	62	2.69	-0.65	12	144	+68
Central (5)												
Eagle_Creek_AP	81	44	63	+8	0.22	2		2.12	-1.19	9	182	+75
Greenfield	80	40	61	+7	0.18	3		2.26	-1.36	12	145	+59
Indianapolis_AP	82	43	63	+9	0.12	2		2.06	-1.25	9	196	+89
Indianapolis_SE	81	39	62	+7	0.32	2		1.68	-1.68	10	154	+57
Tipton_Ag	81	40	61	+9	0.14	2	62	2.76	-0.75	11	131	+71
East Central(6)												
Farmland	80	36	59	+8	0.18	3	59	2.47	-0.75	11	124	+69
New_Castle	80	40	60	+8	0.23	3		3.07	-0.60	11	127	+68
Southwest (7)												
Evansville	84	44	64	+6	0.29	1		5.96	+2.37	9	214	+31
Freelandville	83	45	63	+7	0.51	1		4.23	+0.79	10	177	+46
Shoals_8S	85	37	61	+5	0.79	2		6.26	+2.61	11	156	+27
Stendal	85	45	65	+8	0.55	2		7.15	+3.18	12	214	+60
Vincennes_5NE	84	42	64	+8	0.55	1	62	4.01	+0.57	8	200	+69
South Central(8)												
Leavenworth	82	43	63	+7	0.34	2		5.60	+1.48	14	201	+67
Oolitic	84	38	60	+6	0.60	2	60	3.51	-0.07	12	155	+44
Tell_City	85	46	64	+7	0.33	1		5.89	+1.57	12	218	+55
Southeast(9)												
Brookville	83	40	61	+8	0.47	2		3.23	-0.19	12	158	+76
Greensburg	81	40	61	+7	0.31	3		3.10	-0.53	11	177	+78
Scottsburg	81	43	63	+6	0.46	2		3.60	-0.15	11	201	+70

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.

Soilborne Viruses of Wheat

- Widely fluctuating temperatures bring on symptoms.

Published April 18, 2008

Two soilborne viruses infect wheat in Indiana: Soilborne wheat mosaic virus (SBWMV) and Wheat spindle streak mosaic virus (WSSMV). From a distance, fields or parts of fields are pale green or yellow, as though they are deficient in nitrogen. Closer inspection of plants reveals a mosaic symptom on leaves--narrow, pale green to yellow, wavy-margined streaks on the leaf blade. The streaks induced by WSSMV infection tend to be longer than streaks induced by SBWMV, and taper at both ends, hence the name "spindle." In practice, it is impossible to distinguish symptoms of the two viruses visually. Both viruses may be found in the same field, and both viruses may infect a single plant. WSSMV tends to be more uniformly distributed throughout fields than is SBWMV.

The viruses persist in a common soilborne microorganism, *Polymyxa graminis*. *Polymyxa* infects wheat roots in the fall. This infection is of little consequence itself, but it allows transmission of the viruses to the plant. Wetter areas of fields may show more intense symptoms because *Polymyxa* prefers moist conditions. Rains that fell during late September and again during late October may have been sufficient for infection in some fields. Although infection occurs in the autumn, symptoms of virus infection don't appear until the following spring. The timing of symptom development depends on weather. Intermittent periods of warm and cold weather favor symptom development. Recent wide fluctuations in temperature may trigger symptom development as temperatures rise again.

Most varieties of soft red winter wheat grown in Indiana have some degree of resistance to these viruses. They may show some yellowing during periods of fluctuating temperatures during the spring, but once the cold weather is past, these varieties tend to outgrow the symptoms on lower leaves and there is probably little damage. A few varieties are more susceptible. The intensity of yellowing is greater, and is accompanied by stunting, reduced tillering, and death of some plants. These varieties will suffer economic damage from these diseases. Some varieties show a rosette symptom when infected by SBWMV. They produce numerous, stunted tillers. There is no remedial action that can be taken at this stage. If a variety develops severe symptoms, don't plant it again next year. There are plenty of varieties with good resistance.

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