



EXTENSION

Institute of Agriculture and Natural Resources
UNIVERSITY OF NEBRASKA-LINCOLN
Northeast Research & Extension Center
601 E. Benjamin Avenue, Suite 104
Norfolk, NE 68701-0812
Phone: (402) 370-4000
Fax: (402) 370-4010

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Insect Update

There has been quite a variety of insects out in the crop fields but the good news is no major outbreaks or economic damage has been reported. Here are some general outlooks.

Western bean cutworm - We continue to catch moths in our light trap, but scouting efforts have produced few egg masses. Continue to scout later maturing fields since females will look for pre-tassel corn to lay eggs on.

Second generation European corn borer - Moth flight has not started yet in northeast Nebraska but should commence shortly. Usually flights peak the last week of July – first week of August in northeast Nebraska. More will be written on second generation corn borer next week.

Corn leaf aphids - Some corn leaf aphids have been reported in the area. These bluish-green aphids will sometimes cover the tassels of individual plants, but they are not considered an economic threat. Usually predators remove them a week or so after tasseling.

Grasshoppers - We are seeing the results of a late hatch of grasshoppers appearing in field margins with brome grass, and in some pastures. There may be enough food in these areas to keep them from moving into crops but if 20 or more per square yard are found in crop borders, it may pay to spray them before they move into the crop itself.

Bean leaf beetles - The first generation of beetles is now present and will be putting holes into soybean leaves the next couple of weeks, before another generation is produced in late August. Usually the soybean plant has plenty of leaf area to withstand bean leaf beetle feeding at this time but if plants are approaching 20% or more leaf area removed, it may pay to spray. This is a relatively rare occurrence so be sure enough leaf damage is present before spraying.

Soybean aphids - Soybean aphids are present in soybeans in very low numbers which is typical of this time of the year. The hot temperatures will slow their reproductive rate but will not entirely remove them. Continue to monitor soybeans for aphids.

University of Nebraska-Lincoln, cooperating with the counties and the counties and the U.S. Department of Agriculture

Corn Rootworm Damage

Corn rootworm beetles are emerging in the northeast, indicating that rootworm larval feeding is ending. Now is a good time to dig roots to evaluate the efficacy of your rootworm management program. The presence of adult beetles or rootworms in a field is not necessarily an indication of product failure. Soil insecticides are applied in a narrow band or infurrow to the soil, or as a seed treatment, and corn roots grow beyond the treated zone where rootworm larvae may survive. Some rootworm beetles will emerge from Bt corn hybrids labeled for corn rootworm control. Also, plant lodging may occur without significant rootworm feeding. Dig and wash some roots to check for rootworm injury before assuming that rootworm damage is responsible for lodging.

Rootworm efficacy can only be evaluated reliably if replicated, untreated check strips are left in the same field as the treatment. Without check strips, you won't know whether the absence of injury is due to product efficacy or the absence of rootworms. Before corn plants can be rated for injury they need to be at a growth stage where at least three nodes of roots are clearly visible. Dig at least 10 randomly selected plants from several areas of a field. Leave a 9-inch cube of soil surrounding the root system, wash the roots to remove soil and rate each plant for injury using the rating scale. If several weeks have passed between the end of rootworm injury and the time of root rating, new root growth may hide the injury. Examine roots carefully to accurately rate them.

The most widely used method to evaluate root injury has been developed at Iowa State University. It is based on a 0-3 scale. In this scale 0 = no damage, 1 = one complete node of roots is pruned within 1 ½ inches of the stalk, 2 = two complete nodes of roots are pruned, and 3 = 3 nodes of roots are pruned. Fractional ratings are possible, e.g. 1.5 = equivalent of 1.5 nodes of roots pruned. A visual aid is available on an Iowa State University Web site.

The relationship between root injury rating and yield loss is complex, but usually a root injury rating of 0.25 or more on the 0-3 scale is needed to cause economic yield loss. The corn plant has the capacity to regrow roots and compensate for some early season injury, especially if soil moisture and fertility are adequate during the regrowth period.

The most common problem that is confused with corn rootworm injury is shallow planting. Especially this year, when farmers planted into wet conditions and may have experienced sidewall compaction among other wet soil planting effects, it would not be unusual to have many fields with lodging corn mostly due to poor root development. Washing and rating roots is the only way to confirm if rootworm damage is the cause of plant lodging.

Contributing Authors:

Keith J. Jarvi, Editor & IPM Extension Assistant
Charles A. Shapiro, Ext. Soils Specialist
William L. Kranz, Ext. Irrigation Specialist
Stevan Knezevic, Integrated Weed Mgmt. Spec.
Tom Hunt, Extension Entomologist
David P. Shelton, Extension Agricultural Engineer

7/18/2007

CROP WATER USE SUMMARY

Ending on 7/17/2007

GDD @ Matur.=Acum. GDD at Maturity

--Station--	Crop	-Emerg		Accum -GDD-	---Past---			--Future--		---Stage---	GDD @ Matur
		mon	da		week	3days	day	3days	week		
AINSWORTH	Corn	5	5	1288.	0.32	0.31	0.34	0.31	0.30	Silks--HMAX	2600.
AINSWORTH	Corn	5	19	1100.	0.32	0.31	0.34	0.31	0.30	16leaves 4	2600.
AINSWORTH	Soybean	5	22	1042.	0.26	0.26	0.29	0.27	0.26	FullBloom	2500.
AINSWORTH	Soybean	6	5	890.	0.22	0.23	0.25	0.24	0.24	BegBloom	2500.
AINSWORTH	Potato	5	15	1481.	0.26	0.25	0.26	0.24	0.22	Tuberization	2500.
AINSWORTH	Potato	5	30	1233.	0.25	0.25	0.28	0.26	0.24	Tuberization	2500.
AINSWORTH	Wheat	4	5	2172.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
AINSWORTH	Grass	4	5	2172.	0.27	0.26	0.28	0.26	0.24	Full Cover	4000.
AINSWORTH	Alfalfa	4	5	2172.	0.29	0.28	0.30	0.29	0.27	Full Cov	4000.
BRUNSWICK	Corn	5	5	1374.	0.35	0.34	0.38	0.33	0.30	Silks--HMAX	2600.
BRUNSWICK	Corn	5	19	1166.	0.35	0.34	0.38	0.33	0.30	16leaves 4	2600.
BRUNSWICK	Soybean	5	22	1100.	0.30	0.29	0.33	0.30	0.27	FullBloom	2500.
BRUNSWICK	Soybean	6	5	933.	0.25	0.26	0.29	0.27	0.25	BegBloom	2500.
BRUNSWICK	Potato	5	15	1554.	0.27	0.26	0.28	0.24	0.20	Tuber bulk	2500.
BRUNSWICK	Potato	5	30	1290.	0.28	0.28	0.30	0.27	0.24	Tuberization	2500.
BRUNSWICK	Wheat	4	5	2299.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
BRUNSWICK	Grass	4	5	2299.	0.29	0.27	0.30	0.27	0.24	Full Cover	4000.
BRUNSWICK	Alfalfa	4	5	2299.	0.32	0.31	0.34	0.30	0.27	Full Cov	4000.
CENTRALCITY	Corn	5	5	1411.	0.25	0.28	0.33	0.29	0.26	Silks--HMAX	2600.
CENTRALCITY	Corn	5	19	1196.	0.25	0.28	0.33	0.29	0.26	16leaves 4	2600.
CENTRALCITY	Soybean	5	22	1133.	0.21	0.25	0.29	0.27	0.25	FullBloom	2500.
CENTRALCITY	Soybean	6	5	940.	0.18	0.21	0.26	0.24	0.22	BegBloom	2500.
CENTRALCITY	Potato	5	15	1576.	0.19	0.21	0.24	0.21	0.18	Tuber bulk	2500.
CENTRALCITY	Potato	5	30	1293.	0.20	0.23	0.26	0.24	0.21	Tuberization	2500.
CENTRALCITY	Wheat	4	5	2362.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
CENTRALCITY	Grass	4	5	2362.	0.20	0.22	0.26	0.23	0.20	Full Cover	4000.
CENTRALCITY	Alfalfa	4	5	2362.	0.23	0.25	0.30	0.27	0.24	Full Cov	4000.
ELGIN	Corn	5	5	1354.	0.32	0.35	0.41	0.36	0.32	Silks--HMAX	2600.
ELGIN	Corn	5	19	1151.	0.32	0.35	0.41	0.36	0.32	16leaves 4	2600.
ELGIN	Soybean	5	22	1088.	0.27	0.30	0.36	0.32	0.29	FullBloom	2500.
ELGIN	Soybean	6	5	928.	0.23	0.27	0.32	0.29	0.27	BegBloom	2500.
ELGIN	Potato	5	15	1538.	0.25	0.27	0.31	0.27	0.22	Tuber bulk	2500.
ELGIN	Potato	5	30	1282.	0.25	0.29	0.33	0.29	0.26	Tuberization	2500.
ELGIN	Wheat	4	5	2290.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
ELGIN	Grass	4	5	2290.	0.26	0.28	0.33	0.29	0.25	Full Cover	4000.
ELGIN	Alfalfa	4	5	2290.	0.29	0.32	0.37	0.33	0.29	Full Cov	4000.
MEADAGROFARM	Corn	5	5	1496.	0.30	0.34	0.41	0.35	0.30	Blister 6	2600.
MEADAGROFARM	Corn	5	19	1272.	0.30	0.34	0.41	0.35	0.30	Silks--HMAX	2600.
MEADAGROFARM	Soybean	5	22	1212.	0.27	0.32	0.38	0.33	0.29	Beg Pod	2500.
MEADAGROFARM	Soybean	6	5	997.	0.23	0.28	0.34	0.30	0.26	FullBloom	2500.
MEADAGROFARM	Potato	5	15	1686.	0.21	0.23	0.27	0.22	0.17	Tuber bulk	2500.
MEADAGROFARM	Potato	5	30	1392.	0.24	0.28	0.33	0.28	0.23	Tuberization	2500.
MEADAGROFARM	Wheat	4	5	2442.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
MEADAGROFARM	Grass	4	5	2442.	0.23	0.27	0.32	0.27	0.23	Full Cover	4000.
MEADAGROFARM	Alfalfa	4	5	2442.	0.27	0.31	0.37	0.32	0.27	Full Cov	4000.
MONROE	Corn	5	5	1464.	0.28	0.30	0.35	0.31	0.28	Silks--HMAX	2600.
MONROE	Corn	5	19	1237.	0.28	0.30	0.35	0.31	0.28	Silks--HMAX	2600.
MONROE	Soybean	5	22	1172.	0.25	0.27	0.32	0.29	0.27	Beg Pod	2500.
MONROE	Soybean	6	5	970.	0.21	0.24	0.29	0.26	0.24	FullBloom	2500.
MONROE	Potato	5	15	1633.	0.21	0.21	0.24	0.21	0.17	Tuber bulk	2500.
MONROE	Potato	5	30	1343.	0.23	0.24	0.28	0.25	0.22	Tuberization	2500.
MONROE	Wheat	4	5	2415.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
MONROE	Grass	4	5	2415.	0.22	0.24	0.27	0.24	0.21	Full Cover	4000.
MONROE	Alfalfa	4	5	2415.	0.25	0.27	0.32	0.29	0.26	Full Cov	4000.

NEWPORT	Corn	5	5	1344.	0.34	0.34	0.38	0.34	0.31	Silks--HMAX	2600.
NEWPORT	Corn	5	19	1138.	0.34	0.34	0.38	0.34	0.31	16leaves 4	2600.
NEWPORT	Soybean	5	22	1079.	0.29	0.29	0.33	0.30	0.28	FullBloom	2500.
NEWPORT	Soybean	6	5	915.	0.24	0.25	0.29	0.27	0.25	BegBloom	2500.
NEWPORT	Potato	5	15	1517.	0.27	0.26	0.29	0.26	0.22	Tuberization	2500.
NEWPORT	Potato	5	30	1260.	0.27	0.28	0.31	0.28	0.25	Tuberization	2500.
NEWPORT	Wheat	4	5	2249.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
NEWPORT	Grass	4	5	2249.	0.28	0.28	0.31	0.28	0.25	Full Cover	4000.
NEWPORT	Alfalfa	4	5	2249.	0.31	0.31	0.35	0.31	0.28	Full Cov	4000.
CONCORD (NE)	Corn	5	5	1391.	0.33	0.32	0.37	0.33	0.30	Silks--HMAX	2600.
CONCORD (NE)	Corn	5	19	1175.	0.33	0.32	0.37	0.33	0.30	16leaves 4	2600.
CONCORD (NE)	Soybean	5	22	1109.	0.28	0.28	0.33	0.30	0.28	FullBloom	2500.
CONCORD (NE)	Soybean	6	5	929.	0.24	0.24	0.29	0.26	0.25	BegBloom	2500.
CONCORD (NE)	Potato	5	15	1559.	0.26	0.25	0.27	0.24	0.20	Tuber bulk	2500.
CONCORD (NE)	Potato	5	30	1282.	0.26	0.26	0.30	0.27	0.24	Tuberization	2500.
CONCORD (NE)	Wheat	4	5	2309.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
CONCORD (NE)	Grass	4	5	2309.	0.27	0.26	0.30	0.26	0.24	Full Cover	4000.
CONCORD (NE)	Alfalfa	4	5	2309.	0.30	0.29	0.33	0.30	0.27	Full Cov	4000.
ONEILL	Corn	5	5	1318.	0.33	0.33	0.37	0.33	0.29	Silks--HMAX	2600.
ONEILL	Corn	5	19	1115.	0.33	0.33	0.37	0.33	0.29	16leaves 4	2600.
ONEILL	Soybean	5	22	1054.	0.27	0.28	0.32	0.28	0.26	FullBloom	2500.
ONEILL	Soybean	6	5	898.	0.23	0.24	0.28	0.25	0.23	BegBloom	2500.
ONEILL	Potato	5	15	1491.	0.27	0.26	0.29	0.25	0.21	Tuberization	2500.
ONEILL	Potato	5	30	1240.	0.26	0.27	0.30	0.27	0.24	Tuberization	2500.
ONEILL	Wheat	4	5	2232.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
ONEILL	Grass	4	5	2232.	0.28	0.28	0.30	0.27	0.23	Full Cover	4000.
ONEILL	Alfalfa	4	5	2232.	0.30	0.30	0.34	0.30	0.27	Full Cov	4000.
ORD	Corn	5	5	1349.	0.28	0.30	0.35	0.32	0.29	Silks--HMAX	2600.
ORD	Corn	5	19	1143.	0.28	0.30	0.35	0.32	0.29	16leaves 4	2600.
ORD	Soybean	5	22	1084.	0.23	0.26	0.30	0.28	0.26	FullBloom	2500.
ORD	Soybean	6	5	911.	0.20	0.22	0.27	0.25	0.24	BegBloom	2500.
ORD	Potato	5	15	1531.	0.22	0.23	0.27	0.24	0.20	Tuber bulk	2500.
ORD	Potato	5	30	1268.	0.22	0.25	0.28	0.26	0.23	Tuberization	2500.
ORD	Wheat	4	5	2258.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
ORD	Grass	4	5	2258.	0.23	0.24	0.28	0.26	0.23	Full Cover	4000.
ORD	Alfalfa	4	5	2258.	0.25	0.27	0.32	0.29	0.26	Full Cov	4000.
WESTPOINT	Corn	5	5	1428.	0.29	0.30	0.34	0.31	0.28	Silks--HMAX	2600.
WESTPOINT	Corn	5	19	1211.	0.29	0.30	0.34	0.31	0.28	16leaves 4	2600.
WESTPOINT	Soybean	5	22	1146.	0.25	0.27	0.31	0.28	0.26	FullBloom	2500.
WESTPOINT	Soybean	6	5	944.	0.21	0.23	0.27	0.25	0.23	BegBloom	2500.
WESTPOINT	Potato	5	15	1597.	0.22	0.22	0.24	0.22	0.18	Tuber bulk	2500.
WESTPOINT	Potato	5	30	1306.	0.23	0.25	0.28	0.25	0.22	Tuberization	2500.
WESTPOINT	Wheat	4	5	2365.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
WESTPOINT	Grass	4	5	2365.	0.23	0.24	0.27	0.24	0.21	Full Cover	4000.
WESTPOINT	Alfalfa	4	5	2365.	0.26	0.27	0.31	0.28	0.25	Full Cov	4000.
YORK	Corn	5	5	1431.	0.27	0.29	0.32	0.30	0.27	Silks--HMAX	2600.
YORK	Corn	5	19	1215.	0.27	0.29	0.32	0.30	0.27	16leaves 4	2600.
YORK	Soybean	5	22	1157.	0.24	0.26	0.29	0.27	0.26	Beg Pod	2500.
YORK	Soybean	6	5	953.	0.20	0.23	0.26	0.24	0.23	BegBloom	2500.
YORK	Potato	5	15	1611.	0.20	0.21	0.23	0.20	0.17	Tuber bulk	2500.
YORK	Potato	5	30	1322.	0.22	0.24	0.26	0.24	0.21	Tuberization	2500.
YORK	Wheat	4	5	2382.	0.00	0.00	0.00	0.00	0.00	Mature	1800.
YORK	Grass	4	5	2382.	0.22	0.23	0.25	0.23	0.21	Full Cover	4000.
YORK	Alfalfa	4	5	2382.	0.25	0.27	0.29	0.27	0.25	Full Cov	4000.