**SUDDEN DEATH SYNDROME AND HEAVY SPRING RAINS: ANOTHER BAD YEAR?**

By Daren Mueller and Leonor Leandro, Department of Plant Pathology and Microbiology

Soybean sudden death syndrome (SDS) is one of the most damaging diseases of soybeans in Iowa and much of the Midwest. There are two phases of this disease – a root rot phase and a foliar symptom phase. SDS will be most problematic when weather conditions are conducive for disease development during both phases. The early cool, wet weather we have seen so far in 2013 helps increase the root rot phase of the disease. This can lead to development of severe SDS later in the growing season, as was seen in 2010 in Iowa.

In a recently published journal article, several plant pathologists at Iowa State University looked at rainfall, soil moisture and soil temperature in years with SDS (e.g., 2010) vs. years with little SDS (e.g., 2011). In this study, rainfall in April and May was similar in “SDS years” to “non-SDS years.” However, rainfall in June and July differed between disease years and non-disease years (Table 1). This highlights the importance of rainfall a bit later in the season to trigger the second phase of the disease. Also, soil temperature was less correlated to SDS severity compared to rainfall. The entire article is available in the Plant Health Progress Journal on the Plant Management Network at [www.plantmanagementnetwork.org](http://www.plantmanagementnetwork.org/)


<table>
<thead>
<tr>
<th>Year</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
</tr>
</thead>
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<tr>
<td>Mean SDS year</td>
<td>10.4</td>
<td>15.1</td>
<td>26.3</td>
<td>19.5</td>
<td>14.7</td>
</tr>
<tr>
<td>Mean non-SDS year</td>
<td>8.9</td>
<td>15.4</td>
<td>11.5</td>
<td>8.9</td>
<td>12.2</td>
</tr>
<tr>
<td>30-yr Mean x</td>
<td>9.0</td>
<td>12.2</td>
<td>12.4</td>
<td>12.2</td>
<td>11.2</td>
</tr>
</tbody>
</table>

One bit of good news for the 2013 season is that severe SDS usually is associated with early planting of soybeans. As many farmers are experiencing, the wet spring weather has delayed planting throughout the state. Fields with delayed planting should have less SDS develop in them. However, we have found research plots planted as late as June 15 still get SDS, so you are not completely out of the woods. SDS severity in these late planted fields is very low, and much lower than fields planted in May.

Daren Mueller is an assistant professor in the Department of Plant Pathology and Microbiology. He can be reached at 515-460-8000 or e-mail [dsmuelle@iastate.edu](mailto:dsmuelle@iastate.edu), Leonor Leandro is an Associate professor in the Department of Plant Pathology and Microbiology.
NITROGEN—LATE SPRING NITRATE TEST

By Brian Lang, ISU Extension Agronomist

With the heavy rains in some areas we have likely lost some nitrogen again this year. There is a good chance that many corn fields could benefit from another 40-50 lbs of N. A good way to check the N status of the soil is to sample for the Late Spring Nitrate Test. The normal instructions are to take one-foot depth soil samples when the corn is 6-12” tall. With the late start to planting, don’t wait for 6-12” tall corn. Take samples in the first 2 to 3 weeks of June. Take at least 16 soil cores for a sample, 24 is better. Cores should be pulled in a systematic way going across corn rows (i.e. first core pulled in the row, next one-1/8 the distance between rows, next 1/4 the distance between rows, etc.). For more information on the process see www.agron.iastate.edu/soiltesting/pm1714.pdf An information sheet for sending samples to ISU is at www.agron.iastate.edu/soiltesting/LSN.pdf The cost for analysis is $5/sample.

WEATHER—GROWING DEGREE DAYS

By Brian Lang, ISU Extension Agronomist

The automated weather station at the ISU Northeast Research Farm shows accumulated GDDs:

- May 1 to June 10 = 427, 80 GDD behind normal.
- May 15 to June 10 = 322, 54 GDD behind normal
- May 31 to June 10 = 113, 67 GDD behind normal

http://mesonet.agron.iastate.edu/GIS/apps/agclimate/gsplot.phtml

Corn takes about 90 to 120 GDD from planting to initial emergence. Average GGD for mid-June is about 18 per day.

HYBRID MATURITY FOR CORN SILAGE

By Brian Lang, ISU Extension Agronomist

Here is a University of Wisconsin newsletter discussing “Switch Dates for Corn Silage”. From this article… if the end-use of corn will be for silage, then farmers can stick with full-season hybrids longer than if corn is used for grain. By June 12, the difference between full- and shorter-season hybrids is about 2000 lbs of milk per acre. Please refer to the article at this link for more information: http://ipcm.wisc.edu/download/wcm-pdf/WCM2013/WCM20_12_with_flyer.pdf

BORERS IN DECLINING ASH TREES

Ash trees decline for a variety of reasons, and not just because of the emerald ash borer.

Reminder: Emerald ash borer has only been found in Allamakee County in Iowa. See the Emerald Ash Borer Team news release for January 17, 2013.

Declining, dying or recently-killled and cut ash trees will be infested by a variety of native borers. The most common is the flatheaded apple tree borer (Chrysobothris femorata) that attacks a wide variety of hardwood trees. The larvae create galleries of scooped-out tunnels and chambers just under the bark. See photo on the right.

Ash bark beetle larvae are about one-eighth inch long and feed between the bark and the wood creating a feather-like pattern of parallel tunnels.

Spray treatments for these borers are not practical. Maintaining tree health and vigor is our best management option.

These and other common problems of ash are described in ISU Extension & Outreach pamphlet SUL 0021, "Common Problems of Ash Trees," available online at the ISU Extension Online Store.

For more information, contact Cerro Gordo County Extension, 641-423-0844.
Soybean

Stay with your same maturity group (MG) for now. When we get to June 20 or so, growers in northern and central Iowa should switch to a shorter MG. Shorten by 0.5 to 1.0.

**Hybrid choices for June planting**

If you are still planting corn, here are some Relative Maturity (RM) recommendations based on 2010 and 2011 research. This year may or may not be as favorable for late planted corn.

**Planting Dates**

- **Yellow**
  - June 11th: 83 < 93 < 98 < 105 therefore stick with 105d hybrid
  - June 25th: 83 < 93 < 98 < 105 therefore stick with 105d hybrid

- **Red**
  - June 11th: 83 < 93 = 98 > 105 therefore stick with 93 or 98d hybrid
  - June 25th: 83 = 93 = 98 < 105 it didn’t matter

95 to 105 RM

**Late Planting/Prevented Planting**

Continue to work through your planning with your crop insurance agent before making a final decision as to whether to do late planting or go with the prevented planting option on corn and soybean acres.

**LATE-PLANTED SOYBEANS**

Prepared by Brian Lang, ISU Extension Agronomist

1) Here is an article from the late 90’s on switching varieties. This research was conducted following the 1993 flood issues. [www.extension.iastate.edu/CropNews/2008/0621PallePedersen.htm](http://www.extension.iastate.edu/CropNews/2008/0621PallePedersen.htm) Stay with full season soybeans through mid-June.

Some additional information is found in “Twenty-six Years of Soybean Planting Date Studies” which takes planting dates to June 10 and June 16 in separate trials at Nashua: [www.ag.iastate.edu/farms/2001reports/ne/Twentysixyearsofsoybean.pdf](http://www.ag.iastate.edu/farms/2001reports/ne/Twentysixyearsofsoybean.pdf)

2) Much of the information above was summarized in the ISU publication PM-1851, Soybean Replant Decisions: [https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=5422](https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=5422) Pages 6-8 cover late-planted decisions.

3) For late planted soybeans, consider narrower rows if possible (close rows sooner), up the population a bit, and inoculate the seed with rhizobia (saturated soils may deplete bacterial populations).

4) What if N fertilizer was applied to the field? From the University of Wisconsin: “In excess nitrogen situations soybean will generally utilize the background nitrogen prior to initiating maximum N fixation. This may lead to luxurious early season growth, which in fields with a history of white mold, may cause problems if weather conditions are conducive. High soil N reserves may also lead to increased lodging. In either case, manage your soybean crop accordingly to minimize risk of white mold or lodging. This can be accomplished through variety selection (e.g. white mold tolerance, short statured soybean cultivars or good lodging tolerance) and proper scouting to time fungicide applications if needed.” I would add to the UW comments in (4) that some extra vegetative growth of “late planted” soybeans may actually be a benefit consider that late planted soybeans are often shorter and may not canopy well.
Would you like to receive the Ag Newsletter electronically?

Call 641-423-0844 or email bartus@iastate.edu and provide your email address!

CERRO GORDO COUNTY EXTENSION - CALENDAR OF EVENTS

Saturday, June 22, 2013
9:00 AM - 4:00 PM North Iowa Herb Festival Clear Lake/Cerro Gordo County

Monday, June 24, 2013
7:00 PM - 8:30 PM Cerro Gordo County Extension Council Meeting Mason City/Cerro Gordo County

Tuesday, June 25, 2013
8:00 AM - 11:59 PM 4-H State Conference Ames/Cerro Gordo County
9:00 AM - 12:00 PM Kanawha-ISU Research Farm Field Day June 25, 2013 Kanawha/Cerro Gordo County
6:30 PM - 8:00 PM 4-H Harvest Workshop Mason City/Cerro Gordo County

Wednesday, June 26, 2013
1:00 PM - 4:00 PM Nashua-ISU Research Farm Field Day June 26, 2013 Nashua/Cerro Gordo County

Thursday, June 27, 2013
5:30 PM - 7:30 PM 4-H Cheese & Chocolate Making Workshop Mason City/Cerro Gordo County

Friday, June 28, 2013
9:00 AM - 11:00 AM Fresh on Fridays Clear Lake/Cerro Gordo County

Saturday, June 29, 2013
9:00 AM - 11:00 AM Master Gardener Tour of Landfill of North Iowa Clear Lake/Cerro Gordo County
2:00 PM - 2:30 PM "Plant ID" Program at the M.C. Library Mason City/Cerro Gordo County

July 10-14, 2013—North Iowa Fair

Find more information about these events at www.extension.iastate.edu/cerrogordo or call 641-423-0844.