

# ***Extension Crop Update***

Prepared by Joel DeJong, ISU Extension Crops Specialist

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This newsletter, and previous issues from this year, can be found on-line at:

<http://www.extension.iastate.edu/plymouth/info/cropupdate.htm>

**Crop Emergence in Flooded Soils** - How long can corn seeds and seedlings survive when they are in flooded conditions? Smaller seedlings are more susceptible than larger seedlings. The effect of standing water on germinating seeds is not well known. Some hybrids will probably respond better than others yet differentiating among poor and good hybrids is not possible due to a limited data set. A germinating seed is a living organism and as such requires oxygen to survive. In flooded soil conditions, the oxygen supply will become depleted within approximately 48 hours. Cool air temperatures (less than 77° F) help to increase the possibility of survival. Germinating seeds and young seedlings should not be expected to survive more than 4 days in flooded conditions.

After the waters go down, plant survival should be confirmed by examining the color of the growing point of the seedlings if present. The radicle (root) and coleoptile (shoot) should appear white or cream colored. Seeds could be cut in half to determine if turgor pressure is still present. If the seed is extremely soft and does not hold form, it probably will not survive. Surviving plants will resume growth within 3 to 5 days after the water recedes. To access the full-length article and figures on response to flooding go to: <http://www.agronext.iastate.edu/corn/production/management/early/survival.html>

A decision to replant should be made only after assessing stands and considering the economics of replanting or converting the acreage to soybean or another crop. An ISU resource on determining when to replant is the *Corn Planting Guide* (<http://www.extension.iastate.edu/Publications/PM1885.pdf>). (source: Roger Elmore and Lori Abendroth, ISU.)

**Heavy rains, planted corn, tilled soils – crusts possible?** I do not know if corn emergence will be a problem, but if you have planted corn, had heavy rain, and the corn is not yet emerged, check it carefully for developing crusts that could interfere with emergence. I think the soils might stay damp enough until emergence that this is not an issue, but if it dries before emergence, crusts might form. If so, remember that a rotary hoe does the best job of breaking up a crust before it gets totally dried out – don't wait until you have a deep crust before you decide to break up this crust.

**Black Cutworm Scouting Date:** Black cutworm moths were caught in northern Iowa in late April and early May. By using this information, and calculating growing degree days, it is estimated that the date to start scouting emerged corn for black cutworm injury is May 20 for NW Iowa.

Some dingy cutworms have been found in fields – these are not a crop threat. To see the difference, visit the ISU ICM Newsletter article that has pictures of the two here:

<http://www.ipm.iastate.edu/ipm/icm/2005/5-16-2005/cutworm.html>

**Nitrogen and Herbicides on Emerged Corn Revisited:** This week I have had several more calls about applying UAN and preemergence herbicide applications on emerged corn. In the last issue of this newsletter I outlined some concerns of each individually (follow the link to the discussion in the article listed below) along with the discussion of the increased risk by putting both together on emerged corn. Remember, most labels do **not** allow the mixing of the two when the corn is emerged. Many allow mixing the two before emergence, but the risk of crop injury increases when they are applied together after the corn plants have emerged. One herbicide label allows it, but has a statement that notes crop injury can occur, and it is not recommended. Therefore, I would suggest you **not** mix the two after emergence. Two trips are probably needed.

A recent ISU ICM Newsletter article discusses these topics in more detail. It can be found here: <http://www.ipm.iastate.edu/ipm/icm/2007/4-23/uan.html>. I would suggest you read it first if you are considering this timing of application.

**Thanks for "Subscribing!" For more information contact:**

Joel DeJong, ISUE FS/Crops  
24 1<sup>st</sup> St, NW, LeMars, IA 51031  
Phone 712-546-7835, FAX 712-546-7837  
E-mail: [jldejong@iastate.edu](mailto:jldejong@iastate.edu)

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**IOWA STATE UNIVERSITY**  
**OF SCIENCE AND TECHNOLOGY**

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**Plymouth County**

**24 1<sup>st</sup> St NW**  
**LeMars, IA 51031**  
**Phone 712-546-7835**  
**FAX 712-546-7837**  
**Email [jldejong@iastate.edu](mailto:jldejong@iastate.edu)**

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