

# Extension Crop Update

This newsletter, and previous issues from recent years, can be found on-line at:

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

**April 9, 2009**

Volume 12, Issue #3



Prepared by

**Joel DeJong,**

Extension Field Agronomist

Plymouth County Extension

24 1<sup>st</sup> St. NW

LeMars, IA 51031

Phone: (712) 546-7835 e-mail:

[jldejong@iastate.edu](mailto:jldejong@iastate.edu)

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**Nitrogen Application in the Spring – Some Thoughts:** This looks like a year when more than normal amounts of nitrogen are applied in the spring. In fact, a producer I talked with yesterday informed me that today was the day they were going to start applying anhydrous

Anhydrous in the root zone of a corn plant can cause root burning, and even plant death, if not managed well. One of the most common questions I get is “How long do I need to wait after anhydrous application before it is safe to plant corn?” There is no good answer to that question, although everyone wants a magic number. My best response is a segment of what John Sawyer wrote in an [ICM News article](#) early last year: “Anhydrous ammonia must be injected, and the ammonia band will initially have high pH and considerable free ammonia which can burn corn seedlings and roots. There is no exact “safe” waiting period before planting, and injury can happen even if planting is delayed for a considerable time period. This happens because the risk of ammonia injury depends on many factors, with several that are not controllable.

For example, risk increases if application is made when soils are wet and then dry (ammonia moving up the injection track, even several days after application); with higher N application rates; when soils with high clay content are wet (sidewall smearing of the injection track and ammonia moving toward the soil surface during application); and when soils are very dry and coarse textured (larger ammonia band).

This year, with the wet soils, the first risk is more likely and it is not uncommon for damage to be found later in the spring in those situations. A few things can reduce the risk of ammonia damage: wait and apply when soil conditions are good; have a deep injection depth (seven or more inches); if you can't control the injection placement relative to future corn rows, apply at an angle; wait several days until planting; if you can control the injection placement with GPS guidance positioning technology, such as swathing and auto-steer, then split future corn rows – with this system no waiting period is needed.” In addition, I think it might be good idea to use a spade to analyze the soil at seeding depth and sniff the soil before planting to see if a strong ammonia smell remains in the zone where the seed will be growing. What about other forms of N? Review pros and cons of different forms on this previous ICM Newsletter article titled “Nitrogen Fertilizer Management Options,” <http://www.ipm.iastate.edu/ipm/icm/2001/2-26-2001/noptions.html>.

**Managing Winter Annuals in No-till:** No-tillers sometimes have fields that can look pretty ragged early in the season if winter annuals like marestail are not controlled. I believe that the best time to go after these

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weed pests is almost as soon as you can get into the field in the spring, and it is warm enough to get these plants started again. They get a lot tougher to control as they get bigger! ISU Weed Specialist Bob Hartzler posted an article on the ICM News just yesterday on this topic: <http://www.extension.iastate.edu/CropNews/2009/0408hartzler.htm>. If you are no-till planting any acres this year, I would suggest you take a little time to read this article.

**ISU Extension Entomology Changes** – Many of you have had the pleasure to hear or work with Dr. Marlin Rice, the ISU Extension Entomologist for many years. Marlin left us for greener pastures this winter, but a new Extension Entomologist, Dr. Erin Hodgson, will start in May. Dr. Hodgson helped develop the soybean aphid speed scouting method while working with Dr. David Ragsdale in Minnesota, and has spent the last three years as an Extension Entomologist at Utah State University. I look forward to working with her! In the mean time, long-time ISU Entomologist and rootworm researcher Jon Tollefson will fill in the void.

**Alfalfa Issues** – It is early April, and we've had some real up and down temperatures. As we warm up, we need to start looking at alfalfa fields. I encourage you to dig a few square foot areas in your fields, count how many crowns are living per square foot, then split and evaluate the color of those crowns. Fields seeded last year should have over 12 crowns, over 8 for hay seeded in 2007, and over 4 for seeding years prior to that. The University of Wisconsin has a good discussion on winter injury at their web site, and they recommend counting stems per square foot once they are growing, preferring over 55 in that area (this is probably a better predictor of production than the crown counts). Spend a little time reading this information if you are a serious alfalfa producer: <http://www.uwex.edu/ces/crops/uwforage/StandEvaluationFOF.htm> .

**NW On-Farm Research Results from 2008 on the WEB!** Want to see how comparing 125,000 and 175,000 soybean seeds planted per acre turned out the last three years? Check out the results from 2008, along with the previous two years data, at our web site: <http://ofr.ag.iastate.edu/>. Thinking of changing seeding rate? Also see Palle Pedersen's fact sheet on that topic at: [http://extension.agron.iastate.edu/soybean/documents/OptimumPlantPop\\_000.pdf](http://extension.agron.iastate.edu/soybean/documents/OptimumPlantPop_000.pdf).

**Elwynn Taylor now on Twitter!** Since ISU Extension Climatologist is not on WOI daily with his weather comments, he is now using Twitter to give short, daily updates. Twitter is a free site where you can post short comments frequently. He has started posting something almost every day. I view his comments at <http://twitter.com/elwynntaylor>, but you could also choose to have his comments sent to your cell phone. For example, yesterday he wrote "Rain in next 5 days likely centered on Arkansas. Should it become a pattern it could move north after 2 or 3 weeks." Like I said, short comments, but they might be helpful. Take a look!

**Where do I find the daily average 4" soil temperature?** Go to this web site: [http://mesonet.agron.iastate.edu/data/soilt\\_day1.png](http://mesonet.agron.iastate.edu/data/soilt_day1.png). Yesterday's average was 39 degrees for much of NW Iowa. Or, see the data from the ISU Research Farm weather network at this site: <http://mesonet.agron.iastate.edu/agclimate/index.phtml>.

**"Thanks for Subscribing!"**