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Nitrogen Loss in Wet Soils

It's amazing what even a relatively 'small' rain can do when a soil has already been soaked up. Ponding occurs in a hurry! That usually raises our concern for nitrogen loss. Is it a possibility? If it isn't already, with the forecast for moisture ahead, it certainly could be!

The mechanisms for N loss in wet soil tend to center around leaching or denitrification. They are very different processes and occur under different situations, even as the result is the same. For a full rundown of those processes, how they are affected by different products, timing of application, etc..., check out an article put together by K-State Research & Extension Soil Fertility specialists Dr. Dave Mengel and Dr. Dorivar Ruiz-Diaz at: <http://ksu.ag/1FiUOwL>.

Bottom line? If soils have been saturated for several days, there is the potential for significant denitrification loss. It's not likely that all of the N has been or will be lost, but if nitrogen was applied in the fall/early spring, you may want to consider an application of additional N if needed. Symptoms right now may be from cool temperatures and saturated soils, but firing lower leaves later on could be an indicator of N deficiency.

If you start to see a need for additional N, timing and application practices are important. Recent work at K-State has shown that N applied as late as the 16-leaf stage of corn can be effective. It will require dribbling N on between the rows with high clearance application equipment, but if wet weather results in nitrogen loss, at least there are options. Look for further information in future news columns and on Twitter. My handle is @MEDAgronomy.

Bagworms

If you've ever had a bagworm infestation on evergreens, you understand the need for proactive efforts to make sure they don't cause too much defoliation damage before you notice they are even there! So far, I haven't heard any reports of larvae hatch anywhere, nor have I seen them on my own trees, but the time to initiate scouting efforts is now.

Notice I didn't say control. Control shouldn't occur unless you know you have an infestation. There is no sense in applying product that has no target! Control also needs to be timed to coincide with the life cycle of bagworms. They exhibit what we call an extended hatch period that lasts 3-5 weeks. Control as soon as we see the first bagworms may only give us the false impression that we've controlled them, when we may get only a few on the front end, missing completely the 'peak' of the cycle. Bagworm larvae at this point are, at best, small and eating little. If you feel past infestations have been severe enough that you aren't going to chance missing them, at least hold off insecticide applications until the very end of May or first week of June to allow hatching to occur. If you spray early, be prepared to do so again at the end of June/first week of July to get the remainder of the hatch.

For one time application, shoot for the end of June/first week of July. By that time, all eggs should have hatched. Early hatching larvae likely will not have had the capability of inflicting visible damage. If a 'one shot' program is your desire, use this time frame.

While there is no 'best' product to use, there are best management practices to implement. Make sure you apply the proper amount at the proper time in a slow and thorough pattern that results in thorough coverage, a key when it comes to eliminating bagworms. As in any pesticide application, always read and follow label directions.