

Weed control, nitrogen loss among challenges facing farmers with soggy fields

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Producers dealing with soggy fields will need to assess weed control and potential nitrogen loss after a very wet June in many parts of the state, University of Nebraska-Lincoln agronomists say.

Plentiful rains likely have delayed weed control in many fields, meaning weeds are growing larger alongside crops, said Bob Klein, UNL Extension cropping systems specialist.

Corn farmers whose crop has topped 12 inches will need to consider a different herbicide than the atrazine they normally would use.

Also, increased weed size may force a change to a different herbicide. Producers also may need to use drop nozzles to apply herbicides to avoid crop damage.

Klein suggested producers consider filling their sprayer tank only a third-full or so until the ground dries out. While that will slow herbicide application, it may keep them from getting stuck in their fields with a heavy tank.

“These big sprayers are pretty heavy, and you put the additional weight in there of 1,200 gallons of spray solution and you’ve got a tremendous amount of weight,” said Klein, of UNL’s West Central Research and Extension Center at North Platte.

Klein encouraged producers to consult UNL Extension’s [2010 Guide to Weed Management EC130](#) online, or available at local extension offices. They also should carefully read herbicide labels.

Producers also should consider the possibility that heavy rains have caused some nitrogen loss from their fields, said Charles Shapiro, UNL Extension soils specialist.

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“We cannot provide estimates of N loss with any certainty—there are too many variables,” Shapiro wrote in UNL Extension’s CropWatch newsletter. “Given that corn is growing fast, the time for sidedressing is short and where fertigation is not available, the time window for rescue treatments may be ending shortly. The general strategy should be to determine how much nitrogen may have been lost, and then calculate a replacement strategy.”

Among the questions producers need to answer:

- How much nitrogen was already applied and when? How much more was scheduled?
- What is the soil water holding capacity and soil moisture deficit at the time of the rainfall?
- How much of the rain infiltrated and how much ran off?
- How long has the soil been saturated?
- Is fertigation an option?

Shapiro said producers will be able to come up with only rough answers to many of these questions. Advice on how to proceed in the article titled “ [Unknown Soil N Losses. What to Do?](#) ”

If water is standing in the fields, nitrogen loss from denitrification is possible. Research has shown that waterlogged soils can lose 2 percent of their nitrogen per day when soil temperatures are 55 to 60 degrees. “Soils that have been waterlogged for seven or eight days could lose 15 percent of the nitrogen,” Shapiro said.

Producers who determine that water drainage has diluted nitrogen to the point that some of the nitrogen is now below the bottom of the root zone may want to consider a revised nitrogen plan, said Shapiro, who’s based at the Haskell Agricultural Lab near Concord.

Steps might include sidedressing fields with extra nitrogen—perhaps at an application rate of 40 to 50 pounds per acre, Shapiro suggested. “The nitrogen could help the corn reach nitrogen that has moved deep in the profile, or replace nitrogen that has moved beyond the reach of the roots,” he said.

Producers who can apply nitrogen with their irrigation system or with a high-clearance rig might

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consider another option. They can put strips of extra nitrogen in the field and if they see a difference in color between the area where they applied the extra N and the rest of the field, they can apply more N to the rest of the field.