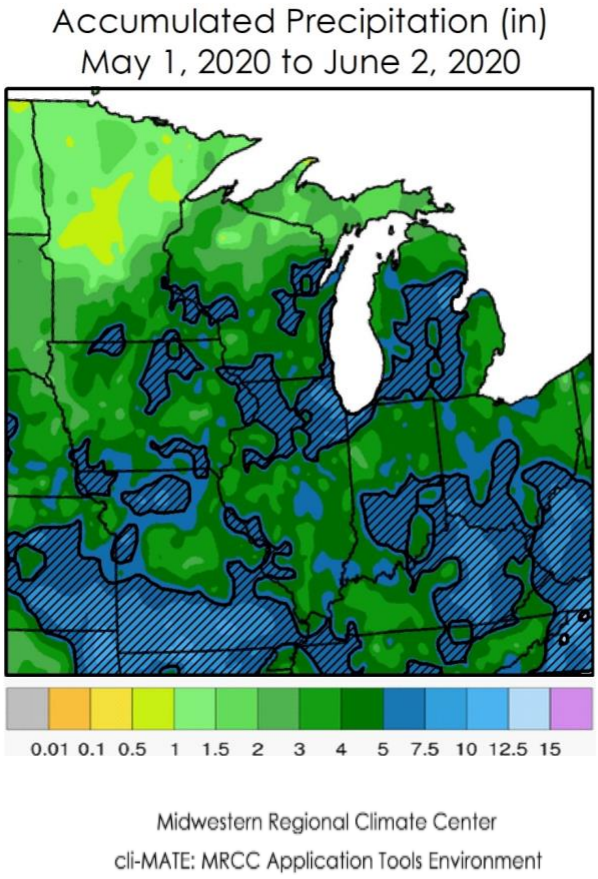
Nitrogen watch for poorly- and somewhat poorly-drained soils



Poorly-drained soils lose N mainly by denitrification, which is very temperature-sensitive. My rule of thumb is that wet conditions in May and June cause denitrification losses, but losses in April are minimal.

Areas with diagonal shading are 'danger areas' that are on track to have 12 or more inches of rainfall from May 1 to June 30. This does not mean that significant loss of N has already happened, just that producers in these areas should be watchful and aware of the potential for N loss and deficiency.

Areas shown in cross-hatch are 'problem areas' that have already received 12 or more inches of rainfall since May 1. I expect a majority of fields to have substantial yield loss due to N deficiency when all N was applied pre-plant. I suggest that producers look at their fields and when N stress is seen apply additional N. Rescue N applications are likely to be profitable until tasseling or later in fields with deficiency symptoms. Satellite images or canopy sensors potentially provide a way to improve distribution of this N application, putting more N where stress is greatest and little or none where corn looks good.