

INTEGRATED CROP MANAGEMENT

Urea-ammonium nitrate as herbicide carrier in emerged corn

The rapid progression of corn planting followed by the current wet period prevented many growers from applying preemergence herbicides and nitrogen fertilizer when fields were planted. Both corn and weeds will have emerged in many of these fields by the time field work resumes. Growers in this predicament should adjust their weed management program rather than trying to force their previously planned herbicide treatment into the current situation.

Most herbicides registered for preemergence use in corn allow application following corn emergence (using water as a carrier); however, they do not provide effective control of emerged weeds, particularly grasses. Neither Balance Pro nor Axiom allow application following corn emergence. The temptation for some growers will be to combine trips and use urea-ammonium nitrate (UAN) as the herbicide carrier, with the hope that the fertilizer-herbicide combination will provide sufficient control of emerged weeds. Liquid nitrogen alone has foliar activity on corn (see [article in this issue](#) [1]) and the combined activity of UAN and herbicide on emerged corn presents a high potential for crop injury. Thus, we feel these combinations should be avoided.

Several options are available that provide effective control of emerged grasses and broadleaves. These programs will provide more consistent control of emerged weeds and avoid the high risk of crop injury associated with fertilizer-herbicide combinations. Applying the herbicide a few days prior to broadcast applications of UAN will reduce the potential for reductions in herbicide performance caused by foliar burning by the nitrogen.

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<http://www.ipm.iastate.edu/ipm/icm//ipm/icm/2001/5-14-2001/ureacarrier.html>

Links:

[1] <http://www.ipm.iastate.edu/ipm/icm/2001/5-14-2001/watchuan.html>