WEED MANAGEMENT IN THE ABSENCE OF A CROP

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Abstract

The time between crop harvest and planting of another crop the next year can be rather long. Corn, cotton, and soybean planting dates can range February through June and harvest in July through November. Therefore, a producer's field could be without a crop for 3-6 months; thus, weeds are not managed. This is important because weeds will continue to grow and produce seed that could affect the next crop. For example, Palmer amaranth (glyphosate-susceptible and –resistant) can produce viable seed within 4-6 weeks after emergence. If corn is harvested in early-August and a frost event does not occur until mid-November, then two to three generations of Palmer amaranth may emerge, with each generation producing seed that will influence the next crop. Post-harvest weed management can include mowing, tillage, and herbicide applications. University scientist may suggest slightly different practices, but they all agree that weed seed production should be prevented. One possible management plan is: (1) Mow field within two weeks after harvest; (2) till 3-4 weeks after mowing; (3) apply a non-selective and residual herbicide 3-4 weeks after tillage. Spacing weed management practices 3-4 weeks apart has shown to prevent weed seed production.

Glyphosate-resistant (GR) Italian ryegrass has become a significant issue for many areas of the lower Mississippi River Delta region. When not controlled prior to planting corn, GR Italian ryegrass will significantly reduce corn yield. Research has shown that applying Dual Magnum in November followed by a Select Max application in January and/or Gramoxone SL application in February is the best overall plan to management GR Italian ryegrass. A double disking in November is an alternative to Dual Magnum. Applying either Select Max in January or Gramoxone SL in February should be based on scouting.

Winter annual weed management, specifically henbit, is crucial because henbit has been documented as an over-wintering site for spider mites that could infest the next crop. Henbit management with only a spring herbicide application provides variable results. Research indicates that fall applications of residual herbicides such as Galigan/Goal, Valor, or Dual Magnum or tillage will control fall-emerged henbit. Controlling the fall-emergence will help producers achieve better overall henbit control in the spring because spring-emerged henbit is smaller, thus easier to control with herbicide burndown applications.

Historically, producers have only utilized herbicides applied in the spring to manage fall/winter emerged weeds. However, producers and scientist typically observe differences in the overall efficacy of treatments (i.e. glyphosate + 2,4-D or dicamba) from one location to another. Research has shown that a co-application of glyphosate, 2,4-D, and Valor or Goal/Galigan provides the most consistent control of numerous grass and broadleaf winter annuals.