Managing Poison Hemlock in No-till

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Abstract
Poison hemlock, a biennial in the carrot family (Apiaceae), is becoming more common in crop fields as no-till acres increase. Infestations typically start in fencerows or other less-intensively managed areas and creep into production fields. Like other biennial weeds, its tolerance to control tactics increase rapidly as the plant moves from a vegetative rosette to reproductive stages in early spring.

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Managing Poison Hemlock in No-till

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Poison hemlock, a biennial in the carrot family (Apiaceae), is becoming more common in crop fields as no-till acres increase. Infestations typically start in fencerows or other less-intensively managed areas and creep into production fields. Like other biennial weeds, its tolerance to control tactics increase rapidly as the plant moves from a vegetative rosette to reproductive stages in early spring.

The simplest method of controlling poison hemlock is to eliminate seed sources in areas adjacent to the field. Fall applications of 2,4-D + dicamba are highly effective against the plant. Applications to these areas can be made following corn or soybean harvest, and infested areas of crop fields should be treated at the same time.

Poison hemlock will not be controlled consistently by the standard burndown program of glyphosate + 0.5 lb/A 2,4-D LVE (1 pt 4 lb a.e./gal). Increasing the rate of 2,4-D LVE to 1 lb will improve control, but this requires a 15 day planting interval for soybean and 7 to 14 day interval for corn.

Alternatives to the standard glyphosate +2,4-D burndown treatment include dicamba (14 day planting interval is required before planting soybean following an 8 oz application of Clarity) or Basis (corn only). Field observations suggest that mesotrione (Callisto, Lumax, etc.) has activity on poison hemlock, but we are unaware of any research documenting this product’s effectiveness on poison hemlock.

In summary, poison hemlock in no-till fields may have reached a stage where consistent control will not be achieved by any registered treatment. However, the competitiveness of the weed should be greatly reduced with a traditional burndown herbicide followed by an early postemergence application of glyphosate, dicamba, Ignite or Callisto. In future years, targeting seed sources of poison hemlock in areas adjacent to the field and making applications in the fall or early spring will minimize problems with this weed.

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