

## CAN WE BRIDLE HORSEWEED'S RACE?

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Horseweed is a common winter/spring annual weed of no-till production fields and waste areas. Also known as Maretail or *Conyza Canadensis*, horseweed has demonstrated “nature’s abhorrence of a vacuum” once again. First documented in the Delaware, horseweed biotypes displaying resistance to the popular herbicidal chemical glyphosate have appeared in at least three different geographic regions. These source populations, or foci, are spreading quickly. Both the rapid adoption of glyphosate resistance crops over large portions of the landscape and the capacity of the weed to produce large numbers (50,000 to 200,000 seeds/plant) of aerially dispersed seed have allowed horseweed to capitalize quickly on its genetic innovation. Currently there are no known resistant biotypes in Wisconsin. To the best of our current knowledge, no state bordering Wisconsin has detected the problem. However, researchers in Indiana have performed widespread surveys throughout the state and approximately 350 miles from Madison are populations capable of surviving four times the typical use rate.

Using geographical data compiled by researchers at Penn State University and analyzing the historical distribution and rate of spread across the landscape, I will address the question of when we are likely to have the problem reach Wisconsin. I will also report on investigations into our capacity to avoid or slow down the problem by employing ‘resistance management’ strategies that effectively lower the selection pressure responsible for the problem in the first place.

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