I farm approximately 550 acres (corn/soybean rotation) in central part of southern Iowa. As far as I know, I do not have a problem with herbicide resistant weeds on my farm. Some of the management practices that I use to minimize the risk of weeds developing herbicide resistance on my farm include regular crop rotation, use of multiple herbicide technologies, and avoidance of “half-rate” applications.

But the question to be addressed is, “What are the impediments to using best management practices”? I believe the primary impediment is the near term costs associated with implementation of best management practices to forestall a problem that may or may not develop at some unspecified time in the future. The corn seed I buy often has multiple stacked traits. Imbedded in the cost of that seed are technology fees for these traits. I pay those fees even if I choose to use a different herbicide and not use the herbicide tolerance trait incorporated into the seed. I do this because I want (or need) the other traits contained in the stack, but the choice to not use the herbicide resistance trait can result in a $15 to $20 per acre increase in my herbicide costs in those years when I use alternative herbicide technologies.

The second most important deterrent to implementing best management practices with respect to minimizing herbicide resistance in weeds is strict adherence to no-till production practices. Eliminating tillage from the production protocol increases reliance on post-emergence herbicides and realistically, on glyphosate-based formulations.

There are other impediments to using best management practices for managing herbicide resistance in weeds. They include weather-induced delays that can result in untimely herbicide applications, monoculture crop rotations due to dominant economics for that particular crop, as well as the “ease” of using a single herbicide technology across multiple crops, rotations and geographies.