

It is not just about the tank

Overall sprayer maintenance and cleanout is important. Researchers at Mississippi State University recently published results where they studied combinations of spray line types and cleanout practices to determine which were most likely to perform best and leave the least amount of dicamba residue to contaminate subsequent spray mixes. They compared 5 types of hose (Table 1). Dicamba and glyphosate were added to each hose. The hoses were drained and cleaned with either water or an ammonia solution or not cleaned at all for comparison. The researchers found that the type of hose mattered more than whether ammonia or water was used for cleaning. The black, Goodyear hose retained the most dicamba regardless of the cleanout procedure used. Amounts of dicamba in the Goodyear hoses were similar between the ammonia rinse and no cleanout and only slightly less with water. The blue, low-density polyethylene hose held the least amount of dicamba at less than 1 ppm when washed with either water or ammonia. Detectable dicamba in the other three hoses fell in between the Goodyear and the blue, low-density polyethylene blend, and detected levels did not change regardless of whether ammonia or water was used for cleaning the tank. The scientists cut open the tubes following the experiments to look at wear and tear on the inside of the lines using a specialized microscope. As might be expected, the black Goodyear hose had the most wear and tear over the three years of the experiments and the polyethylene hose had the least.