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I am writing today to provide comment on the biological evaluation that was recently completed for the herbicide glyphosate. Though I applaud the EPA for performing this exercise and acknowledge that an evaluation of this type is exceedingly complex, I would suggest that some assumptions are incorrect and have led to improper conclusions. For example, the assumption that 8 lb/A of glyphosate is applied across all aquatic sites and is “likely to adversely affect 93% of endangered species and 96% of critical habitat” does not appear to match reality.

Before I begin, I will provide a summary of myself. My name is Dr. Jason Ferrell and I am the Director of the UF/IFAS Center for Aquatic and Invasive Plants and the Pesticide Information Office. I have over 20 years of experience working with pesticides in general, and glyphosate in particular. For this letter, I will provide comment specifically about glyphosate use in aquatic and rights-of-way sites within Florida. I hope this will provide greater context for further evaluations.

Aquatic Use. There is over 1.1 million acres of state-owned water in Florida, all of which is managed by the Florida Fish and Wildlife Conservation Commission (FWC). Though FWC is managing over 1 million acres, only about 2000-3000 acres are treated with glyphosate annually. This can be referenced in their NPDES reports for accuracy. The reason for this low usage is due to the fact that glyphosate is non-selective. The primary goal of FWC management is reduce populations of troublesome or invasive plants while encouraging native plant recruitment. Since glyphosate controls native and invasive plants alike, the number of sites where glyphosate can effectively be used is quite low. Where glyphosate is used is in areas where large monocultures of weedy plants thrive, and native diversity is already near zero and wildlife habitat is degraded. For this reason, impacting endangered species is unlikely since the habitat is already corrupted. In areas where glyphosate is needed, the maximum use rate of 3.75 quarts/A (3.75 lb ae/A) is often used since the target plants are commonly robust perennials. Though the label allows a max of 8 lb ae/A/yr, a follow-up application is rarely (if ever) employed. Follow up applications would use selective herbicides so damage to newly emerged native plants would not occur. In short, acreage of glyphosate use is low considering the amount of water managed and total use rates are below (approximately half) the annual allotment allowed by the label. Again, I would encourage EPA to check this based on the annual NPDES reports that are filed by FWC.

Moreover, applications are made by high-pressure handgun or helicopter. Spray drift in both scenarios is exceedingly rare. The contract applicators are keen to watch and record wind speed and direction while always adding drift reducing adjuvants to the mix. I would encourage EPA to follow up on this with the Florida Department of Agriculture and Consumer Services (FDACS) who investigate all drift complaints. You will find that essentially no citations given by FDACS for glyphosate drift originating from an aquatic application.

Rights-of-ways. Though some states utilize aggressive broadcast strategies to manage weeds and grass growth along highways, Florida Department of Transportation (FDOT) does not have such a program. There are essentially no broadcast applications of any herbicide (including glyphosate) on Florida roadsides. Instead, all vegetation is managed by mowing 3 to 12 times per year, depending on location. However, glyphosate is used as a spot-treatment on these sites. Glyphosate, generally mixed as a 1% solution, will be sprayed from a low-pressure sprayer around the base of signs or in drainage ditches where weeds are present and preventing flow. Again, this results in very low levels of glyphosate use relative to total acreage and off-site movement of the herbicide is exceedingly rare.

It is my understanding that a significant amount of data relative to glyphosate use patterns and stewardship has been previously provided as part of the registration review. Though I realize it is nearly impossible to keep track of all the data, I would encourage EPA to use this information in the Biological Evaluation. I think doing so would result in a realistic model that is based more on data and less on assumption and extrapolation.

Glyphosate is, and will continue to be, an important (if not essential) component of aquatic and rights-of-way management in Florida. It has a bevy of favorable characteristics (efficacious, non-staining, non-odor, forms true solution in water, low PPE requirements, etc.) that make it a useful and preferred herbicide. Though we do not use a large amount on an annual basis, it is essentially irreplaceable when the conditions are right. Therefore, we sincerely ask that EPA consider using NPDES reports, previously supplied stewardship data, and state citations of drift complaints to inform your models with the best data possible.

With Respect,



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