

United States. U.S. Department of the Interior. *Herbicide Use in the Management of Roadside Vegetation, Western Oregon, 1999–2000: Effects on the Water Quality of Nearby Streams.* Washington: GPO, 2001. (Reviewed by Aimee Furber)

The Oregon Department of Transportation (ODOT) uses an integrated vegetation management (IVM) program to control roadside vegetation. The plan uses a variety of methods, including herbicides. The goal of the study is to determine the effects of possible runoff on the biota of the nearby streams. Previous studies found several compounds; however, none could be traced to IVM because of their use in surrounding farm lands. Some of these were diuron and bromacil.

The testing site for this study was the intersection of Bull Creek with Highway 211 near Colton, Oregon. The study used combinations of Krovar, Oust, and Roundup. Rainwater was simulated by commercial sprinklers and could be varied in intensity.

The study found that in worst case scenarios the herbicide concentrations in small streams could reach up to 1 mg/L. ODOT operations could possibly be adding concentrations close to the 90th percentile of these concentrations. However, this would occur only if there was a heavy rainfall about a day after application. The study also found long term residual of the compounds for many months after application.

The report also noted that this study was done in rural environment with well drained soils and an unpaved drainage system to lead to streams. In urban areas the impact of spraying vegetation would be far greater.

Critique

The report presented some useful information that I hadn't come across yet in my research. In previous studies pollution sources analyzed were primarily industrial wastes. Pollution from vegetation management spray seems like it would be something that could be replaced fairly easily by a more environmentally friendly method. This could be a fairly easy way to help reduce pollution. I think that spraying in general is an issue that has not been addressed as much as others because of its difficulty to measure and lack of alternatives. I think that it is time for this to change.

The data presented by the study was interesting; however, a discussion of alternative methods would have produced a more rounded report. I would be interested to see what alternatives to spray exist.

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