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Herbicides When Soil is Moved From the Application Site

With every irrigation we continue having new generations of weeds germinating. Herbicides with a good soil residual are very useful for extending good control for a longer period. The ideal scenario would be that the herbicide is present only when we need it and dissipate when we rotate to a sensitive crop. This can become a challenge when we have products that have a long soil residual. Sometimes herbicides have a low use rates and long residuals. As an example, we have some of the sulfonylureas and imidazolinones that are highly effective but have to be carefully used for some scenarios. Some of the factors affecting the persistence of herbicides are the soil characteristics, herbicidal characteristics, and environmental conditions[1].

The University of Nevada, Reno explained that problems can occur when soil where sterilant products has been applied is moved or blows from the application site to other part of a field[2]. Interestingly recently the IPM Team received a report of a field of radishes with injury in a pattern that was consistent with the passes of the disk. It appears that accidentally a high rate of DCPA and metholachlor was applied previously. Even after land prep and irrigations the crop presented phytotoxicity symptoms. Also, a celery field located South of a treated, dusty non-agricultural area presented injury consistent with the wind blow. The damage was more severe closer to the treated area (North) and gradually disappeared as walking South into the celery field. Similarly, it has been reported that compost can be contaminated with herbicides such as clopyralid when treated plants are added to the compost mix causing symptoms to lettuce.

References:

1. Retrieved from: https://ag.arizona.edu/crops/vegetables/advisories/more/weed31.html

2. University of Nevada Reno: *https://extension.unr.edu/publication.aspx?PubID=3322*