

POTENTIAL DAMAGE TO COVER CROPS BY
HERBICIDE CARRYOVER

by

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An Arkansas study (Kendig, et al. 1991)^{1/} found that some herbicides used in cotton and soybean production may carry over and cause damage to fall seeded cover crops. Carryover injury to cover crops ranged from complete kill to slight or none, depending on several factors. Long-term, continuous use of the same herbicide was the primary problem. Other factors included variations of soils and changes in climatic conditions.

The herbicides norflurazon (Zorial, Solicam) and clomazone (Command) caused the most carryover problems. Norflurazon caused significant injury on Sharkey clay, Dundee silt loam, and Loring silt loam soils. Clomazone caused significant injury on Sharkey clay, but only slight damage on the silt loam soils in most years. Flumeturon (Cotoran) also carried over on the Sharkey clay and caused significant stand reductions of cover crop stands.

Some cover crop stand reduction was observed from a carryover of imazaquin (Scepter), Chlorimuron (Classic), and metribuzin (Lexone, Sencor), but varied with different soils and year to year.

This study indicates that the more clay content a soil has, the greater the potential for herbicide carryover injury to cover crops. The most susceptible cover crop evaluated was crimson clover. Hairy vetch, wheat, and rye followed in order, with rye being the least susceptible to herbicide carryover damage.

A producer using one of the above-mentioned herbicides may consider rotating the herbicides from year to year to lower the potential for damage to cover crops. Another consideration for the producer is to use rye as the cover crop.

^{1/}Kendig, J.A., R. E. Talbert, D. L. Jordan, R. E. Frans. 1991. Herbicide Carryover May Limit Winter Cover Cropping Potential in Arkansas. 1991 Southern Conservation Tillage Conference