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Mesotrione carryover to soybeans

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Abstract
Mesotrione provides excellent residual control and breaks down readily in the soil provided there is sufficient moisture. Another important consideration is the rate of application, the timing of application, and soil characteristics likely influences the rate of degradation. Another possible consideration is the interaction of the atrazine included in Lumax with the mesotrione. Typically the mesotrione rate for a soil application of Callisto is approximately twice the rate when applied postemergence and is 0.24 and 0.1 lbs active ingredient/acre. The maximum rate of mesotrione in Lumax is 0.2 lbs active ingredient/acre.

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Mesotrione symptoms in soybean.

Enlarge [1]

Most of the carryover injury has been observed along field margins, boom overlaps, turn rows, and point rows (thus application rate is likely higher than labeled). It is important to recall that last summer was relatively dry and thus did not afford the best opportunities for degradation. The fact that this spring was cool and wet caused the soybeans to be under early stress, and made the mesotrione residues available for uptake. Based on the samples we have received and the discussions we have had with the field crop specialists and various clients, we do not anticipate that mesotrione carryover will significantly impact the 2004 soybean crop. However, in isolated fields, specific areas within those fields may experience some loss of yield. It would be wise to avoid subsequent herbicide applications (e.g., PPO inhibitors), which could contribute to greater problems.

The concern for mesotrione drift should not be great, and the injury that we have observed is more cosmetic than agronomically important. However, the occurrence of mesotrione drift does suggest that greater “drift management” should be implemented.

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http://www.ipm.iastate.edu/ipm/icm//ipm/icm/2004/7-12-2004/mesotrione.html

Links:
[1] http://www.ent.iastate.edu/imagegal/plantpath/soybean/mesotrione/mesotrione_injury.html

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