151 - Environmental impacts of transgenic glyphosate-resistant soybean cultivation in Brazil

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Glyphosate-resistant soybeans (GRS) effects on contamination of soil, water, and air are minimal, compared to those caused by the herbicides that they replace when GRS are adopted. Transgenes encoding glyphosate resistance in soybeans are highly unlikely to be a risk to wild plant species in Brazil. GRS resulted in a significant shift to no-tillage practices, but weed resistance may reduce this trend. Probably the highest agricultural risk in adopting GRS in Brazil is related to weed resistance due to use of glyphosate. Weed species in GRS fields have shifted in Brazil to those that can more successfully withstand glyphosate or to those that avoid the time of its application. These include *Chamaesyce hirta*, *Commelina benghalensis*, *Digitaria insularis*, *Spermacoce latifolia*, *Richardia brasiliensis*, and *Ipomoea* spp. Four weed species, *Conyza bonariensis, Conyza Canadensis*, *Lolium multiflorum*, and *Euphorbia heterophylla*, have evolved resistance to glyphosate in GRS in Brazil. *Conyza* spp are the most difficult to control.

Tuesday, March 23, 2010 11:00 AM

Comparing Conventional and Biotechnology-Based Pest Management (09:00 AM - 11:50 AM)

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