Ecological Risk Assessment of Gene Flow in Transgenic Crops. (C03-horak181153-Poster)

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Abstract:

Prior to commercialization, data are needed for an appropriate risk assessment of the ecological effects of biotechnology crops under their intended use. One part of an ecological assessment evaluates pollen-mediated gene flow. Information in the scientific literature and experimental studies are used as part of the assessment process. In an ecological assessment of pollen-mediated gene flow, the crop, the introduced trait, the geographic region of introduction, and the occurrence of related species are considered. Gene flow is a natural biological process and as such does not in and of itself constitute a 'risk' in a biological system. Rather, the consequences of gene flow in the biological system must be assessed. In an agricultural system gene flow can occur to other populations of the same crop or, if present, to related species. To determine the potential for harm that may result from gene flow several considerations must be evaluated including: 1) whether the modified plant has a greater weed tendency than the unmodified plant; 2) whether the trait would confer a selective advantage if transferred to a related species; and 3) the potential to harm man and animals.

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