

Monitoring Gene Movement from Transgenic to Non-Transgenic Hybrids Using Remote Sensing

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Why Quantify Gene Movement?

- Concern about the potential environmental risks presented by the movement of genes from genetically modified crops
- Determine isolation boundaries

Objectives

- Identify locations of greatest gene flow risk
- Determine the presence of genetically modified hybrids
- Examine pollen dispersal patterns

Methods

- Locate hybrids in a particular area (32 ha)
- Reference field records of area
- Acquire image using Landsat 7 ETM /
Hyperspectral Images

Methods

- Derive spectral signature information from the image data
- Use spectral signature statistics to train the classification algorithm into statistically similar spectral characteristics