GENE FLOW DYNAMICS AND CONFINEMENT: A REGULATORY PERSPECTIVE. Subray Hegde*, Biotechnology Regulatory Services/Animal and Plant Health Inspection Service, /United States Department of Agriculture, Riverdale, MD.

Gene flow is a natural biological process with potential evolutionary consequences. For a few human activities, however, gene flow from certain source populations into the environment is undesirable, which prompted the development of confinement protocols to contain gene flow to a defined physical space. A variety of confinement protocols are currently in use to prevent unintended gene flow from genetically engineered (GE) crops beginning from their creations to their intended use. Because gene escape from focal populations can occur in time and space, and is affected by a variety of genetic and ecological factors, the existing confinement protocols have gradually been evolving to address new issues and concerns raised by stakeholders. A few issues that could significantly alter the confinement principle in the future are: (i) an acceptable level of gene flow from GE plant populations into the environment, (ii) the cost and benefit of doing business with alternate gene flow containment strategies, and (iii) the public perception about genetically modified plants and plant products.

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