

Regulation of Genetically Modified Crops – An Overview

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Abstract

The advent of biotechnology has ushered in gene manipulations wherein genes identified for distinctive features in one organism are inserted into another in a laboratory. This technology is referred to as genetic engineering and the genetically modified plants known as GM plants are grown in controlled conditions. The United States Department of Agriculture was entrusted the responsibility of regulating and issued guidelines to enforce regulation based on the Federal Plant Pest Act and the Federal Plant Quarantine Act. The European commission in 1990 based on the Directive 90/220 redefined the previously established precautionary principle in regulating the risks associated with transgenic plants. It also made revisions to the directive after signing the Cartagena Protocol on Biosafety. In India, Ministry of Environment and Forest oversees the regulation of GM crops and the regulation comes under the purview of Environmental Protection Act. Any technology developed and aimed at meeting the food requirements should be evaluated keeping in view its immediate impact on the agricultural ecosystems that includes production practices, socio-economic variables and several other factors that interplay in different areas of the world.

Key Words – Biotechnology, Genetically Modified, Regulation, Precautionary Principle, Agricultural Ecosystem

Introduction

Genetic modification of plants has been in vogue for centuries and modification by Artificial Selection has been suggested by Charles Darwin where in organisms with the most desirable