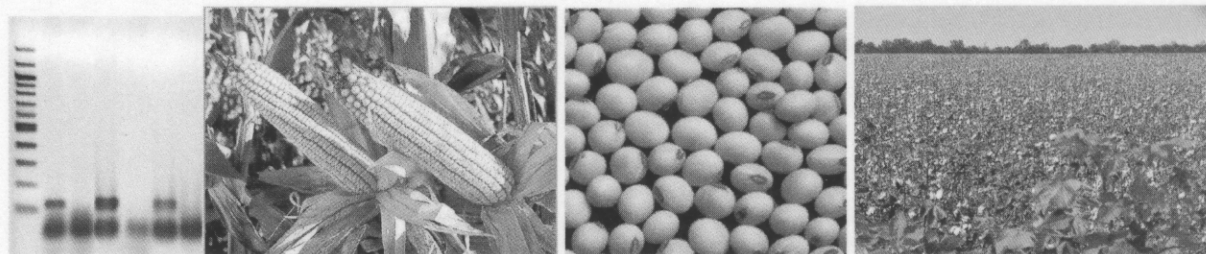


Collaborative Research



Detection Methods and Survey of GM Crops in Thailand

Faculty of Natural Resources

Prince of Songkla University, Hat Yai, Songkhla



Detection Methods and Survey of GM Crops in Thailand

Abstract

Commercialization of several genetically modified crops has been approved in many countries to date. However, in Thailand GM crops are still prohibited for commercial use. The present research aimed to survey the status of GM crops in Thailand. One hundred and ninety three samples of corn, soybean and cotton were collected from fields in various places in Thailand, and also 11 soybean grain samples purchased from local markets were included. DNA extraction was performed using CTAB. The analysis involved first amplification of specific corn (*Zein* gene) and soybean (*Lectin* gene) sequences from plant DNA to ensure the quality of DNA, followed by amplification of GMO-specific sequences, represented by the 35 S promoter and Nos terminator genes, to screen for the presence of transgenic material in the plant samples. Of 204 samples examined, 1 cotton sample grown in the northern part of Thailand and 2 soybean grain samples were positive. The results demonstrate that no GM corn or soybean were grown in the areas of sample collection.

Keywords: corn, cotton, genetically modified organism, PCR-based method , soybean