GM Crops Benefit Small Farmers In Spain

Commercially grown Bt maize poses no problem to food and feed chain

A new socio-economic study presented by EuropaBio in Brussels on 27 September 02, that small farmers in North East Spain are achieving environmental benefits as well as higher yields, better quality and increased income by growing genetically modified maize (Bt Maize). Bt Maize protects the crop against attack by the European Corn Borer (ECB), which can lead to yield losses of 15% or more and has plagued Southern European farmers for generations.

Spain is the only country in the European Union where GM crops are grown commercially and is therefore the best European example of the benefits Bt Maize offers, although the Bt Maize crops only account for 4% of the total Spanish maize output.

Most Spanish farmers do not use any active form of treatment for dealing with the pest. This is mainly because the larval damage is hidden, heavy infestations are unpredictable, checking the fields multiple times each summer takes time and skill, the difficulty of timing spraying and the perceived high costs of the treatment. Genetically modified insect resistant maize provides a new management tool for all corn producers to increase yields where ECB is a problem, says the report.

The average farm size in North East Spain is just 50 hectares, with maize only being grown on part of the area. On average, these small scale farmers received an increased income of €150 (per hectare) compared with growing conventional maize. Their enthusiastic uptake of the GM maize confirms that the benefits of this technology are not limited to large farmlands, in fact delivering pest control can benefit all scales of farming.

Graham Brookes, of Brookes West consultancy, author of the report and former agricultural economist at Wye College, London University, said “Many people don’t realise that GM crops are being successfully grown in the EU. In this North Eastern region of Spain, over 20,000 hectares of Bt maize has been grown every year since 1998”. It is estimated that the current 4% would rise to 36% if the Bt trait were to be freely available in all major maize varieties. “My conclusion is that the use of Bt maize is positive for farmers who have used it. It has produced higher yields and lower costs,” said Brookes. His report was sponsored by the agbio industry body, Agricultural Biotechnology in Europe. Bookes was given ‘total freedom’ in compiling his report he says. He also works for groups campaigning against GM foods.

Commenting on the scientific implications of the Spanish GM maize crop, Professor Vivian Moses, chairman of the CropGen panel, which serves as the agbio industry’s information source on GM crops, said, “This Bt maize incorporates a bacterium found in the soil which is toxic specifically to the corn borer. The same bacterium is permitted in sprays in organic farming but a spray on the surface of the plant is less effective than if it is integral to the plant. Another pesticide alternative is to use organophosphates. The corn borer prefers the warm, humid conditions found in southern Europe”.

Richard Gueterbock of Foodchains, advisers to the food and agriculture industries, comments, “ What is exciting about projects such as the Spanish one is that science is working to reduce the reliance on pesticides, whether it’s through GM enhanced crops or other methods. Whether the GM industry will manage to transition into mainstream agriculture remains unsure. This is a step in the right direction but the industry still needs to show that GM crops benefit the consumer and the farmer and there is not enough evidence of that yet“.

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