

## **CIMMYT RESPONSE TO DISCOVERY OF TRANSGENIC MAIZE GROWING IN MEXICO**

**October 4, 2001**

El Batán, Texcoco, Mexico—Technical and political issues surrounding transgenic maize ran headlong into environmental and cultural concerns when an article in the September 27, 2001 issue of *Nature* (Vol 413) reported that transgenic corn had been found growing in the Mexican states of Oaxaca and Puebla. This followed on the heels of similar reports in the local media.

The International Maize and Wheat Improvement Center (CIMMYT), headquartered in Texcoco, Mexico, regards this as a serious development and offers its considerable expertise to the appropriate Mexican institutions to (1) help identify the type and source of the introduced gene(s), (2) assess potential impacts to biodiversity, the ecology, and the socioeconomic environment, and (3) to explore possible responses.

Recognizing the importance of Mexico's role as a center of origin and domestication of maize, CIMMYT has devoted significant resources to helping conserve the genetic diversity of the nation's maize landraces. It has done this through its gene bank, which maintains one of the world's most extensive collections of maize varieties, landraces, and wild relatives, and by working to maintain diversity in natural settings.

Since 1997, CIMMYT has worked directly with farmers in Oaxaca and elsewhere in Mexico, training them and refining management practices that allow them to increase their productivity, while at the same time preserving or enhancing genetic diversity at the farm and community levels. Research has also been undertaken to examine the flow of maize genes amongst farmers and communities and the impact these flows have on the genetic diversity of maize and its wild relatives (teosinte and *Tripsacum*).

In its own transgenic work with maize, CIMMYT has strictly adhered to the Mexican biosafety regulations and protocols. CIMMYT's last on-station field trial of transgenic maize concluded in September 1999, at the Tlaltizapán Experiment Station, in the state of Morelos. Although the Mexican authorities announced a *de facto* moratorium in 1998, this applied primarily to scaling-up research to commercial levels and to applications for new research. In January 1999, the Directorate of Plant Health, a branch of the Ministry of Agriculture, approved the application for this final on-station trial, to enable CIMMYT to complete the final component of a series of experiments.

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A delegate from the Directorate of Plant Health closely monitored the implementation of the research plan and trials. A minimum of 200 meters of barrier plantings was maintained between the transgenic experimental plot and other conventional trial plots. All tassels were removed from the transgenic plants to keep them from pollinating other plants. In addition, planting times for the transgenic maize, the barrier maize, and other maize plots were staggered to further preclude inadvertent pollination. Harvesting was strictly controlled and all transgenic kernels (seed) were securely transported to CIMMYT headquarters. All vegetative transgenic plant material and all barrier plants were incinerated. The experimental plots were plowed, tilled, and monitored for the emergence of any maize plants, which were immediately destroyed.

Today, CIMMYT continues research on transgenic maize within the confines of its biotechnology laboratories and its Level 3 Biosafety Greenhouses (as designated by the U.S. National Institute of Health; Level 1 being the lowest level of biocontainment and Level 4 the highest). Absolutely no CIMMYT transgenic maize is grown outside of these secure facilities.

To date, details of the studies referred to in Nature (Vol. 413) about the discovery of transgenes in Mexican landraces have not been released to the public. CIMMYT looks forward to obtaining and reviewing the data and determining the implications both for Mexico and for CIMMYT's work. The Center is in a unique position to assist in such investigations, and, given our mandate to serve the resource poor of the developing world, to work on approaches to maize improvement that benefit poor farmers while protecting valuable genetic resources and the environment.

**This document was prepared in English, and a Spanish translation has been prepared for informational purposes. In the event of any inconsistency between the different versions, however, the English version should be considered the authoritative text.**