

## **LATEST CIMMYT SCREENS OF MEXICAN MAIZE LANDRACE MATERIALS FIND NO PRESENCE OF PROMOTER ASSOCIATED WITH TRANSGENES**

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El Batán, Texcoco, Mexico—As part of their continuing effort to characterize maize gene bank accessions and breeding materials, scientists from CIMMYT's Applied Biotechnology Center and Maize Program recently conducted another set of screens aimed at detecting the presence of transgenes in an additional 28 Mexican landraces. None of the materials tested were positive for the common transgenic promoter (cauliflower mosaic virus 35S, abbreviated as CaMV 35S) associated with transgenic maize. If the promoter had been found and those results verified, it would have indicated that a transgenic maize plant had crossed with the sampled maize or a direct ancestor.

Seed for all 28 landraces was collected in the Mexican state of Oaxaca during 1997–99; 18 of the samples come from accessions maintained in CIMMYT's maize germplasm bank—part of the Wellhausen-Anderson Plant Genetic Resources Center—and are designated as being held "in trust" for the benefit of humanity under a 1997 agreement with FAO, which means they must be kept free from any intellectual property restrictions (such as patents). The other 10 samples represent varied maize races from the Mixteca, a region in southeast Mexico that includes parts of Oaxaca and Puebla states. To date, CIMMYT specialists have screened 152 Mexican landraces and failed to detect the presence of the CaMV 35S promoter

Seeds of 28 Mexican maize accessions were received from Dr. Suketoshi Taba, head of the CIMMYT Maize Gene Bank. These seeds were germinated and DNA extracted according to the standard protocols of CIMMYT's Applied Biotechnology Center (ABC). DNA was amplified using a primer corresponding to the CaMV 35S promoter, a fragment of DNA found in most commercial transgenic maize and not known to exist naturally in the maize genome (sequence available upon request). DNA was extracted in a bulk of 10 plants, and a total of 10 plants were tested per population. DNA isolated from a known transformed plant containing the CaMV 35S promoter was run as a positive control. To further ensure that the reactions were working correctly, all DNA samples were amplified using a primer corresponding to a fragment of DNA known to exist naturally in the maize genome. All positive controls amplified correctly, and no bulk of gene bank maize amplified the CaMV 35S promoter sequence, indicating that, in the samples tested, there is no CaMV 35S promoter sequence.

**For more information**, contact the Director of CIMMYT's Applied Biotechnology Center, **Dr. David Hoisington**, at [d.hoisington@cgiar.org](mailto:d.hoisington@cgiar.org)

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.