Contaminated Corn and Tainted Tortillas: Genetic Pollution in Mexico’s Centre of Maize Diversity

This week, Mexico’s indigenous farmers and civil society organizations will meet in Mexico City (Jan. 23-24) to decide what to do about GM contamination in one of the world’s mega-centres of agricultural biodiversity. Meanwhile, the scientific community is imploding with angst and accusations as the “Peers” of the Plant Realm squabble over the implications for global food security.

The ETC group (formerly RAFI) is releasing a new Communiqué today in an attempt to summarize the fractious scientific and political debate surrounding GM maize contamination in Mexico. The full text is available at www.etcgroup.org. The Communiqué is also a contribution to the Mexico City seminar of which ETC group is among the sponsoring organizations.¹ For further background on the seminar, contact Silvia Ribeiro in Mexico City: silvia@etcgroup.org

After months of behind the scenes debate, both the Mexican Ministry of Environment and a peer-reviewed article in Nature confirmed last year that farmers’ maize varieties in the states of Oaxaca and Puebla in Mexico, have been polluted with DNA from genetically modified (GM) maize. Mexico is the primary centre of maize genetic diversity. For years, scientists have warned that genes from GM plants could invade conventional varieties and their weedy relatives leading to superweeds and/or loss of biodiversity. The danger increases, scientists opined, if this takes place within the center of genetic diversity of a crop. However, now that GM contamination is a reality, some biotech scientists have undergone their own modification to become “spin doctors” for a frightened biotech industry. In the wake of the Nature revelation, GM apologists are implying that “if” contamination has taken place – and some challenge the peer-reviewed article on this point – then the menace is really a bonanza for local farmers. GM pollution means free technology transfer and increased biodiversity.

Civil society organizations in Mexico find such assumptions suspect. Last year, after all, the Bush Administration’s less-than-militant Environmental Protection Agency (EPA) banned the planting of genetically modified Bt cotton in parts of southern Florida and now prohibits cultivation of commercial Bt cotton in Hawai, the US Virgin Islands and Puerto Rico for fear that the transgenic material would cross into wild or feral cotton populations. “Until thorough research on the impacts of gene flow can be completed, restriction on where Bt cotton can be planted are being implemented,” concluded EPA.² Maize is much more prone to outbreeding than cotton. The United States is not a centre of diversity for cotton while Mexico is a major centre of maize diversity.

¹ The seminar, “In defense of maize” is sponsored by CASIFOP, CECCAM, Grupo ETC, ANEC,CENAMI, COMPITCH, FDCCH, FZLN, Greenpeace, Instituto Maya, SER Mixe, UNORCA, UNOSIO y RMALC.
The flip-flop has stirred an unseemly public debate within the scientific community. Some researchers are attacking Dr. Ignacio Chapela, a Mexican scientist at UC Berkeley’s Department of Environmental Science, Policy and Management and one of the authors of the Nature article. Chapela, in turn, according to an article in Nature Biotechnology (January, 2002) is warning that the maize gene bank at the International Center for Maize and Wheat Improvement (CIMMYT) outside of Mexico City is already contaminated with GM material. This is no small matter since the CIMMYT seed bank is the world’s most important storage facility for endangered maize seed diversity. CIMMYT, however, has undertaken its own investigation and insists that they have found no contamination. Meanwhile, some Mexican authorities and scientists are arguing that contamination could be beneficial for Mexican biodiversity, ignoring or contradicting other government studies.

Outside of Mexico, biotech advocates and activists are looking on with alarm. Last year, severe drought in parts of Mexico and Central America led to large shipments of maize to peasant farmers as food aid. In desperation, many farmers saved some of the maize for planting. Since much of the food aid came from Canada and the USA — where GM maize is legal — many fear that all of Mesoamerica is now contaminated. As the corporations rev up GM wheat, rice and potatoes, the potential for similar scandals in Africa, Asia and the rest of Latin America also loom. Already, biotech meetings from Florence to The Hague to Alexandria are adjusting their agendas to address the issue.

If the biotech industry is panicked by this most recent debacle, the cloud of diminished biodiversity offers them a very silver lining. Don Westfall, a biotech industry consultant and vice-president of Promar International, summed up the plus side for the Toronto Star a year ago (January 9, 2001) when he told Canada’s largest daily newspaper, “The hope of the industry is that over time the market is so flooded [with genetically modified organisms] that there’s nothing you can do about it. You just sort of surrender.”

Mexican farmers and civil society organizations meeting in Mexico City this week will discuss the situation and make clear their concerns and demands. The option to “surrender” is not on the agenda.

For more information:

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The Action Group on Erosion, Technology and Concentration, formerly RAFL, is an international civil society organization headquartered in Canada. The ETC group (pronounced Etcetera group) is dedicated to the advancement of cultural and ecological diversity and human rights. www.etcgroup.org

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