

The Great Mexican Maize Massacre: Gene Giants Prepare the Genetic Wipe-out of One of the World's Most Important Food Crops

Agribusiness giants Monsanto, DuPont and Dow are plotting the boldest coup of a global food crop in history. If their requests to allow a massive commercial planting of genetically modified (GM) maize are approved in the next two weeks by the government of outgoing president Felipe Calderón, this parting gift to the gene giants will amount to a knife in the heart of the center of origin and diversity for maize. The consequences will be grave – and global. With the approvals and December planting deadlines looming, social movements and civil society organizations have called for an end to all GM maize in Mexico. Mexico's Union of Concerned Scientists (UCCS) has called on the Mexican government to stop the processing of any application for open-field release of GM maize in Mexico.¹ ETC Group joins these calls, and appeals to the UN Food and Agriculture Organization (FAO) and to the UN Convention on Biological Diversity (CBD) – intergovernmental bodies mandated to support food security and biodiversity – to take immediate action.

Outrage and alarm rang out through Mexico when the world's two largest commercial seed companies, Monsanto and DuPont (whose seed business is known as DuPont Pioneer Hi-Bred International, Inc.), and Dow AgroSciences (the world's 8th largest seed company) applied to the government for the planting of 2,500,000 hectares (more than 6 million acres) of transgenic maize in Mexico.² The land area is massive – about the size of El Salvador. Scientists have identified thousands of peasant varieties of maize, making Mexico the global repository of maize genetic diversity. If the agribusiness applications are approved, it will mark the world's first commercial-scale planting of genetically modified varieties of a major food crop in its center of origin.

“If Mexico's government allows this crime of historic significance to happen, GMOs will soon be in the food of the entire Mexican population, and genetic contamination of Mexican peasant varieties will be inevitable. We are talking about damaging more than 7,000 years of indigenous and peasant work that created maize – one of the world's three most widely eaten crops,” said Verónica Villa from ETC's Mexico office. “As if this weren't bad enough, the companies want to plant Monsanto's herbicide-tolerant maize

¹ UCCS (Unión de Científicos Comprometidos con la Sociedad), “Statement: Call to action vs the planting of GMO corn in open field situations in Mexico,” November 2012, available online: <http://www.uccs.mx/doc/g/planting-gmo-corn>.

² The list of commercial applications for environmental release of GMOs is available here: <http://www.senasica.gob.mx/?id=4443>. (In Mexico, DuPont Pioneer Hi-Bred International, Inc., is known by the name PHI México.)

[Mon603] on more than 1,400,000 hectares. This is the same type of GM maize that has been linked to cancer in rats according to a recently published peer-reviewed study.”³

The poor in Latin America, but also in Asia and Africa, will particularly feel the effects, where breeding from maize diversity supports their subsistence and helps them cope with impacts of climate chaos. Along with Mexico, southern African countries Lesotho, Zambia, and Malawi have the highest per capita maize consumption in the world.⁴

The Mexican government insists that the target areas in the north are not part of the center of origin for maize, as traditional varieties weren't found there. But this is not true: peasant varieties have been collected in these states, although to a lesser degree than in areas to the south. Many scientists as well as the National Biodiversity Commission (Conabio) consider the whole Mexican territory to be the center of origin for maize.⁵ According to a review made by Ceccam (Center for Study of Change in Rural Mexico), the government's newly drawn 'center of origin' map is historically and scientifically wrong, designed in order to justify the planting of GM maize by transnational companies.⁶

Commercial-scale planting (and subsequent re-planting) of GM maize will contaminate peasant varieties beyond the target regions, via the dispersal of GM pollen by insects and wind, as well as via grain elevators and accidental escape from trucks that transport maize all over Mexico. Scientists expect that contamination's negative effects on peasant varieties might be irreversible and progressive, thanks to the accumulation of transgenes in its genome, leading to an erosion of biodiversity.⁷

Hundreds of Mexican agronomists and other scientists as well as Mexico's peasant, farmers' and consumers' organizations have voiced their opposition to the proposed planting, but the outgoing administration of President Calderón – with nothing to lose before his term ends on December 1 – is expected to side with agribusiness. Mounting pressure, both inside and outside the country, may complicate matters.

³ Gilles-Eric Séralini et al., “Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize,” *Food and Chemical Toxicology*, Volume 50, Issue 11, November 2012, pp. 4221–4231. See also, John Vidal, “Study linking GM maize to cancer must be taken seriously by regulators,” *The Guardian*, 28 September 2012, available online:

<http://www.guardian.co.uk/environment/2012/sep/28/study-gm-maize-cancer>.

⁴ Alfred W. Crosby, review of James C. McCann, *Maize and Grace: Africa's Encounter with a New World Crop, 1500-2000* in *Technology and Culture*, Vol. 47, No. 1, January 2006, pp. 190-191.

⁵ A. Serratos, *El origen y la diversidad del maíz en el continente Americano*, 2nd edition, September 2012, Mexico City Autonomous University and Greenpeace, available online: <http://www.greenpeace.org/mexico/es/Footer/Descargas/reports/Agricultura-sustentable-y-transgenicos/El-origen-y-la-diversidad-del-maiz-2a-edicion/>; National Commission for Biodiversity, Project Centers of Origin and diversification.

http://www.biodiversidad.gob.mx/v_ingles/genes/centers_origin/centers_origin.html.

⁶ Ceccam, *La determinación de los centros de origen y diversidad genética del maíz*, Mexico, 2012, available online: <http://www.ceccam.org/publicaciones?page=1>.

⁷ UCCS, “Transgenic Maize Estrangement,” México, 2009, available online: <http://www.unionccs.net/comunicados/index.php?doc=sciencetrmaize>.

If the planting is allowed, however, farmers growing maize may become unwitting patent infringers, guilty of using “patented genes” and may be forced to pay royalties to the patent owners, as has already happened in hundreds of cases in North America.

“It would be a monumental injustice for the creators of maize – who have so benefited humankind – to be obliged to pay royalties to a transnational corporation that exploited their knowledge in the first place,” said Silvia Ribeiro, ETC Group’s Latin America Director.

In 1999, the Mexican National Agricultural Biosafety Commission established a moratorium on GM maize trials and commercial planting because of Mexico’s unique position as the center of origin and genetic diversity for maize. Calderón’s government arbitrarily broke the moratorium in 2009, although the conditions that motivated the moratorium were unchanged. Since then, the new biosafety commission (CIBIOGEM) has given its approval of 177 small GM maize field trials to 4 transnational companies (Dow AgroSciences, DuPont, Monsanto and Syngenta). The GM field trials themselves have been criticized for lacking biosafety rigour – failing to comply even with Mexico’s weak biosafety law.

Silvia Ribeiro argues: “The so-called public consultations have been a charade, since the trials were approved without taking into account critical comments – even when they represented the majority of comments, many of them from well-known agronomists and other scientists. On top of that, the results of the trials were kept confidential, but are now providing the justification to allow commercial planting.”

After his official visit to Mexico in 2011, the UN Special Rapporteur on the Right to Food, Olivier de Schutter, recommended that the Mexican government reinstate the moratorium on GM maize, both because of its impact on biodiversity and on Farmers’ Rights.⁸ The Mexican government ignored the recommendation.

Ana de Ita of Ceccam points out that the area applied for in the Sinaloa and Tamaulipas (Mexican states in the North of Mexico) exceeds the area currently planted to irrigated maize there. “So it appears the companies are planning to replace the whole area of maize as well as other crops,” she says. “This is outrageous, as there is no reason for Mexico to risk its own history and biodiversity with GM maize. Mexico already produces enough maize to exceed the human consumption needs in the country, and it could produce much more by supporting peasants and small-scale farmers without handing over its food sovereignty to transnational companies.”

Maize is central to the cultures, economies and livelihoods of the Mexican population, where most people eat maize in different forms every day. The amount of maize that Mexicans consume far exceeds the average per capita consumption of most other countries (115 kg/year). 85% of the Mexican maize producers are peasants and small

⁸ Olivier de Schutter report on Mexico, paragraphs 53-55. See Mission to Mexico, 2011, available online: <http://www.srfood.org/index.php/en/country-missions>.

farmers, with fields smaller than 5 hectares. These producers have an essential role in providing more than half the food for the population, particularly the poor. At the same time, they are caring for and increasing the crop's genetic diversity because of the decentralized way they grow maize – planting many different varieties, adapted at local levels, along with a number of other crops and wild species.

In 2009, the Network in Defense of Maize,⁹ together with La Via Campesina North America, sent an open letter signed by thousands of other organizations and individuals to FAO and the CBD, asking them to take action to prevent GM maize contamination in Mexico.¹⁰ The former directors of both international organizations dodged the request, even though both institutions have committed to protect agricultural centers of origin.¹¹ We now ask the new directors of FAO and the CBD to take immediate action to protect the center of origin and diversity of maize.

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⁹ The Network in Defense of Maize includes more than 1000 indigenous communities and civil society organizations. It was created in 2001, when it was first discovered that native Mexican maize had been contaminated by GM maize. Since then, the Network has resisted the advance of GM maize contamination at the local level, particularly in rural areas. Both ETC Group and Ceccam are members of the Network (<http://endefensadelmaiz.org>).

¹⁰ The letter is available online: <http://www.etcgroup.org/content/open-letter-international-civil-society-organizations-transgenic-contamination-centers>.

¹¹ The CBD's former Secretary General, Ahmed Djoghlaif, did not reply to the open letter. The former FAO Director General Jacques Diouf did not reply either, but delegated Shivaji Pandey, Director of FAO's Plant Production and Protection Division, to respond. Pandey, a well-known advocate of genetically modified crops, wrote that FAO could offer advice, but that biosafety was a Mexican issue.