

December 9, 2014

City Council of the City of Los Angeles
200 N. Spring Street
Los Angeles, CA 90012



Re: GMO-Free Zone, City Clerk's File 13-1374

Dear Council Members:

Our coalition is made up of your constituents, the citizens you have sworn to protect and serve. Our coalition includes people and organizations from all 15 Council districts of Los Angeles. This Ordinance has been endorsed by five Neighborhood Councils. You are our representatives, which means you need to reflect our position when you vote.

We are not paid to promote this initiative. We do not do this for profits. We have an even higher calling: we care about our children and future generations. Our credentials are that we are standing up for what is right, because we care about people's health, the future of the food supply, and the future of the earth.

The Ordinance before you protects the right of all people to have access to clean, safe, affordable, fair food. That means not just people who can afford fancy stores, but also people who grow their own food in self-sufficiency. That means not just people who are here today, when there are still a few varieties of untainted corn remaining, but also preserving for people into future generations.

Additionally, we assert that a human life is about much more than science. A human life is also about culture, security, nature and the hope and happiness of healthy grandchildren and great-grandchildren. The Seed Freedom LA coalition takes into account the full spectrum of impacts that we would suffer without this Ordinance.

Refuting the biotech industry

Despite the claims of Manatt law firm, the representatives of the Biotechnology Industry Organization, **there is no scientific consensus about the safety genetically modified organisms (GMOs)**. The only pseudo-"consensus" is in the studies that the biotech industry has bought and paid for.

1. The position of the Biotechnology Industry is about preservation of their profits, rather than what is right for the citizens of this City and for mankind into the future.
2. The City is the only government entity courageous enough to take a stand on GMOs with respect to Southern California lands. All other government entities have failed us and sidestepped regulating GMOs.
3. Representatives of the Biotechnology Industry Organization claim that the Ordinance before you is "anti-science," yet they use blog posts, popular press, and the New Yorker as their footnotes. By contrast, the Seed Freedom LA coalition puts before you extensive references to scientific studies, research reports, and industry professionals from around the globe.
4. The position of the Biotechnology Industry Organization completely disregards input from L.A.'s local small business, urban agriculture, seedsavers, home gardeners, environmental organizations, the Latino community, and the impact on future generations.

No scientific consensus

If science has supposedly proven GMOs to be "safe", what about the findings of studies like the following:

- Carman et al., who found “gastric and uterine differences” and “higher rate of severe stomach inflammation” in pigs fed a GMO diet;¹
- Ewen SW et al, who found “variable effects on different parts of the rat gastrointestinal tract”²
- Alberto Finamore, et al, who found “alterations in intestinal and peripheral immune response of weaning and old mice”³
- Séralini et al., who linked GMOs to tumors, cancers, endocrine disruptions and hormone disruptions in rats⁴

And, given the adverse effects on health that each of these studies revealed, where are the followup studies? If the Biotechnology Industry Organization were truly interested in human safety – rather than preserving monopolies and corporate profits – they would have jumped forward to fund studies to examine every point. Instead of doing diligence, the biotech industry has launched a concerted effort to bury these adverse studies and attempted to discredit some of the scientists involved.⁵

Respected organizations find problems with GMOs

It is false for the Biotechnology Industry Organization to claim that “every respected organization” has endorsed the GMO technology:

- Kaiser Permanente recommends that consumers eat organic or non-GMO, saying: “Despite what the biotech industry might say, there is little research on the long-term effects of GMOs on human health. Independent research has found several varieties of GMO corn caused organ damage in rats. Other studies have found that GMOs may lead to an inability in animals to reproduce.”⁶;
- The Union of Concerned Scientists published their findings with “Failure to Yield: Evaluating the performance of Genetically Engineered Crops”⁷;
- Food and Water Watch published their findings with “Superweeds: How Biotech Crops Bolster the Pesticide Industry”⁸;
- United Nations is very vocal in promoting Agroecology, which does not include biotechnology. Hilal Elver, the new United Nations Special Rapporteur on the Right to Food, calls on governments to support a transition to “agricultural democracy” which would empower small farmers. “Modern agriculture, which began in the 1950s, is more resource intensive, very fossil fuel dependent, using fertilizers, and based on

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- 1 Carman et al., “A long-term toxicology study on pigs fed a combined genetically modified (GM) soy and GM maize diet” in the Journal of Organic Systems 8 (1): 38-54; Open access full text: <http://www.organic-systems.org/journal/81/8106.pdf>
 - 2 Ewen SW, Pusztai A (October 1999) “Effect of diets containing genetically modified potatoes expressing Galanthus nivalis lectin on rat small intestine” Lancet 354 (9187): 1353–4. doi:10.1016/S0140-6736(98)05860-7. PMID 10533866
 - 3 Alberto Finamore, et al, “Intestinal and Peripheral Immune Response to MON810 Maize Ingestion in Weaning and Old Mice,” J. Agric. Food Chem., 2008, 56 (23), pp 11533–11539, November 14, 2008 http://www.cyberacteurs.org/sans_ogm/fichiers/finamore08-jf802059w.pdf
 - 4 Séralini et al, “Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize” in Food and Chemical Toxicology 50:4221-4231
 - 5 This statement by Seed Freedom LA coalition paraphrases information from Belinda Martineau, PhD, and the Union of Concerned Scientists.
 - 6 Kaiser Permanente, Northwest Fall 2012 newsletter, quoted online <http://www.examiner.com/article/kaiser-permanente-advises-members-against-gmos> and commented upon online <http://news.health.com/2012/12/03/kaiser-permanente-says-gmo-controversy-misleading/>
 - 7 Gurian-Sherman, Doug, “Failure to Yield: Evaluating the performance of Genetically Engineered Crops,” Union of Concerned Scientists, April 2009, available online http://www.ucsusa.org/sites/default/files/legacy/assets/documents/food_and_agriculture/failure-to-yield.pdf
 - 8 Food and Water Watch, “Superweeds: How Biotech Crops Bolster the Pesticide Industry,” July 2013. available online <http://www.foodandwaterwatch.org/reports/superweeds/>

massive production. This policy has to change.”⁹;

- *Scientific American*, a quasi-scientific publication, explained that “Scientists must ask corporations for permission before publishing independent research on genetically modified crops. That restriction must end.”¹⁰;
- The US Fish and Wildlife Service has quit using GMOs for any wildlife objectives across the nation.¹¹

Far from declaring GMOs to be “safe,” the World Health Organization position on GMOs is delicately worded, and anyone can plainly see the politicking between the lines.

GMOs harm the environment

Other important scientific studies that the Biotechnology Industry Organization would rather you didn't learn about:

- Benbrook, Charles M., who found that “Contrary to often-repeated claims that today’s genetically-engineered crops have, and are reducing pesticide use, the spread of glyphosate-resistant weeds in herbicide-resistant weed management systems has brought about substantial increases in the number and volume of herbicides applied”¹²;
- Sirinathsinghji, Eva, who found antibiotic resistance marker genes used in genetically modified crops in bacteria isolated from all China's rivers¹³;
- Altieri, M. A. , a meta-study which found that transgenes (genetically altered genes) cannot “be retracted once they have escaped, thus the damage to the purity of non-GM seeds is permanent”¹⁴;
- Pleasants, J.M. et al, who found that GMO-growing practices wiped out 81% of the Monarch butterflies⁵;
- Latham, who found that “engineering genes into a recipient plant’s DNA is nearly always accompanied by small or substantial deletions or rearrangements of recipient plant DNA, insertions of DNA sequences not intended for insertion,”¹⁶ in other words: unintentional mutations are common;
- Mulvaney, P, who found that “the past decade has been marked by exceptional concentration and privatisation of seeds in the hands of a few transnational corporations”¹⁷;
- There is the emerging soil science work of Dr. Whendee Silver and the Marin Carbon Project⁸ who are finding that organic soils can sequester carbon, reducing global warming. Yet GMO-growing practices are

9 Hilal Elver quoted in <http://www.yesmagazine.org/planet/un-only-small-farmers-and-agroecology-can-feed-the-world>

10 Scientific American, “Do Seed Companies Control GM Crop Research?” July 2009, <http://www.scientificamerican.com/article/do-seed-companies-control-gm-crop-research/>

11 US Fish and Wildlife Service memo, July 2014 http://www.centerforfoodsafety.org/files/agricultural-practices-in-wildlife-management_20849.pdf

12 Benbrook, Charles M., “Impacts of genetically engineered crops on pesticide use in the U.S. – the first sixteen years”, Published in Environmental Sciences Europe, Vol. 24:24 doi:10.1186/2190-4715-24-24, 28 September 2012. <http://www.enveurope.com/content/24/1/24/abstract>

13 Eva Sirinathsinghji, “GM Antibiotic Resistance in China's Rivers”, ISIS Report 13/02/13, available online http://www.isis.org.uk/GM_antibiotic_resistance_in_Chinas_rivers.php

14 Altieri, M. A. (2005) “The Myth of Coexistence: Why Transgenic Crops are not Compatible with Agroecologically Based Systems of Production.”, Bulletin of Science, Technology & Society, 25, 4: 366. http://www.organicconsumers.org/articles/article_875.cfm

15 PLEASANTS, J. M. and OBERHAUSER, K. S. (2013), Milkweed loss in agricultural fields because of herbicide use: effect on the monarch butterfly population. Insect Conservation and Diversity, 6:135–144. doi: 10.1111/j.1752-4598.2012.00196.x <http://onlinelibrary.wiley.com/doi/10.1111/j.1752-4598.2012.00196.x/abstract>

16 Latham 2006, paraphrased by Belinda Martineau, PhD

17 Mulvaney, P, “Corporate Control of Seeds: Limiting Access and Farmers Rights” IDS Bulletin (Impact Factor: 0.54). 02/2009; 36(2):68 - 73. DOI: 10.1111/j.1759-5436.2005.tb00199.x

18 See scientific papers at MarinCarbonProject.org

the antithesis of this.

About enforcement

The Biotechnology Industry Organization makes wild and unfounded assertions about enforcement in Los Angeles:

- As discussed in the Arts and Parks Committee meeting on December 8, enforcement of the City of L.A.'s Ordinance could easily be subcontracted to the L.A. County Agricultural Commissioner, who already performs inspections in all pertinent locations. There would be no additional work for the City.
- Cost information from Santa Cruz County, Marin County, Mendocino County, and San Juan County (Washington), each far larger areas than the City of L.A., reveal that their GMO-free Zones have cost them next-to-nothing to enforce.¹⁹
- If any "conflicts with or [preemptions] by federal or state law"²⁰ were indeed discovered, the City would have several other California counties and municipalities at its side in fighting such legal challenges.²¹
- AB 2470 is the state's "implementation of less stringent environmental controls."²² It is protectionism for the biotech industry.

The facts about GMOs in L.A.

The Biotechnology Industry Organization attempts to blur the facts about GMOs in L.A.:

- There are currently no locations growing GMOs in L.A., but the biotech industry has full intention of bringing them here. First to arrive large-scale will probably be GMO turfgrasses, marketed to parks and golf courses, of which L.A. has plenty.
- In our City, there is a blossoming urban agriculture movement. GMO pollen drift hurts them economically.
- In our City, there are plenty of people who are growing food organically. GMO pollen drift pollutes their gardens.
- There are plenty of people who are seedsavers, working to conserve heirloom and culturally-important food crop varieties - including Mother Corn. GMO pollen drift destroys their work.
- There are plenty of people who care about our birds, fish, butterflies, bees, soil, rivers and waterways. GMO pollution will desecrate this.

The Biotechnology Industry Organization would have you disregard all of this local goodness, in favor of biotech profits, to further their monopoly.

A "no action" scenario would mean that here in L.A. there are no governmental restrictions (federal, state, or local) on growing GMOs in our city; that there are no governmental oversights to protect human health; that genetically engineered grasses, citrus trees, and vegetables could soon be grown here, together with their inextricable chemical load; that our wildlands and rivers and wildlife could soon be infiltrated with GM contamination; and that 502 square miles of potential "safe zone" for growing out GMO-Free seeds is eliminated to the detriment of the future

19 Fact sheet for "Family Farms Measure 15-110" compiled by Our Family Farms Coalition

20 Quote from Manatt letter of December 8, 2014 in City Clerk's file

21 Marin, Mendocino, Santa Cruz, Humboldt, Trinity counties, and the cities of Arcata and Point Arena

22 Quote from the L.A. City attorney's urgency clause

of our food supply and the detriment of humanity as a whole.

Follow the Precautionary Principle

Overwhelmingly, the Biotechnology Industry Organization is asking you to lay aside the Precautionary Principle:

"When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action."²³

We, your constituents – the people you have sworn to protect and serve – ask you to take up the mantle of the Precautionary Principle and vote YES to approve this Ordinance.

Sincerely,

Joanne Poyourow

a volunteer writing for the Seed Freedom LA coalition

encl: 21 Reasons it is important to have a GMO-Free Zone in Los Angeles

23 Wingspread definition of "Precautionary Principle" <http://www.sehn.org/wing.html>

21 Reasons it is important to have a GMO-Free Zone in Los Angeles

From children in the inner city, to wildlife in the mountains, to the economics of urban agriculture, creating a GMO-Free Zone would positively impact multiple sectors of Los Angeles society.

(issues in alphabetical order)

- 1. Bees** – Bees are critical to our food supply because they pollinate the majority of our food crops. Our urban bees would benefit from a GMO-Free Zone. While the definitive cause of Colony Collapse Disorder has not yet been scientifically proven, “chemical toxins in the environment” remains on the short list of suspected causes.¹ The increased chemical load which accompanies GMO-growing is not helpful to a weakened bee population, and as science progresses, chemicals and GMOs may eventually prove to be part of a deadly cocktail which is killing off bees. As GMO grasses come to the market,² this threatens to bring increased chemical pollution into L.A. Additionally, bioengineers are working to create genetically-engineered bees, and have proven that the GMO traits can carry to bees' offspring.³
A GMO-Free Zone would support L.A. efforts to protect our bee populations (Council Files 12-0785 and 13-1660). A GMO-Free Zone would join the growing movement to create areas where genetic engineering is not permitted.
- 2. Biodiversity** - In past generations humanity developed considerable diversity in vegetable crop varieties: plants had been developed to grow in a wide variety of climates, and produce a great variety of flavors. Over the past century, a vast number of these varieties have been lost. For instance, in 1903 there were 307 varieties of sweet corn available on the commercial market; by 1983 only 12 existed.⁴ Large-scale seed producers have actively discouraged the preservation of vegetable crop diversity.⁵ Large-scale seed producers have consolidated the crop varieties available, and have used patent law to further control the global food supply.⁶
Here in Los Angeles, local gardeners are actively working to preserve heirloom vegetable varieties. A GMO-Free Zone would support preservation efforts, and would create a safe zone --free of GMO contamination-- where seeds could be saved.
- 3. Chemical pollution** - GMO crops are developed specifically to work in tandem with chemicals. Studies reveal that growing GMOs brings with it increased pesticide and herbicide use.⁷ Additional studies link exposure to agricultural chemicals to autism and developmental disorders.⁸ As GMO grasses come to the market,⁹ this threatens to bring increased chemical pollution into our parks and neighborhoods.
Declaring a GMO-Free Zone would help keep this increased chemical threat out of our city lands, waterways, air, parks and neighborhoods.
- 4. Cost of food** - GMO seeds cost farmers more money¹⁰, and as more and more crops become genetically engineered we can be sure this cost will be passed through to consumers. On an individual family level, in economic hard times many people turn to growing their own food.
A GMO-Free Zone would empower local self-sufficiency. A GMO-Free Zone would help with affordable access to clean, safe food. A GMO-Free Zone would create a safe zone where urban ag farmers and individual citizens could save their own seeds --for free.
- 5. Cultural resources** - Maize / corn holds a very special place within Latino cultures, and humanity has already lost or destroyed many of the heirloom varieties which were entrusted to us by generations of ancestors.¹¹ Corn is a wind-pollinated plant, which means it is particularly vulnerable to pollution from escaped GMO pollen, and GMO growers do little to prevent this pollen spread.

Heirloom corn varieties are currently being grown for preservation within the City of Los Angeles. A GMO-Free Zone would create a safe space --free of GMO contamination-- for local people to grow out and preserve these precious heirloom corn varieties.

6. **Drought-tolerance** - GMO crops aren't drought-tolerant even though company publicity promises that their labs are working on it. Drought-tolerance is a highly complex trait that doesn't lend itself well to genetic manipulation. In reality, genetic engineering is many years away from developing drought-tolerant food plants (some sources say 10 years). By contrast, traditional plant breeding has developed hundreds of drought-tolerant varieties which already thrive,¹² and one study is currently examining 153 varieties of traditionally-bred, drought-tolerant corn.¹³

Drought-tolerant food plant varieties are currently being grown for preservation within the City of Los Angeles. For a climate-changed future we need to preserve the diversity of drought-tolerant food plant varieties, and a GMO-Free Zone sets aside physical space where we can do so.

7. **Economics and Urban Agriculture** - Here in L.A. the urban agriculture business sector is growing. A GMO-Free Zone in L.A. would support local urban agriculture, truck gardening, cottage industries, and small businesses. The Public Health Commission of Santa Cruz County found that the threat of GMO contamination places small local growers at economic risk in several ways, including potential loss of organic certification, loss of market reputation, and loss of market due to consumer rejection.¹⁴ "GM crops are not compatible with organic farming or other alternative forms of production."¹⁵

A GMO-Free Zone would support and protect L.A.'s urban agriculture sector. A GMO-Free Zone would work in tandem with initiatives such as the California Homemade Food Act (AB 1616, Council File 12-0002-S79), Edible Landscaping in parkways (Council File 13-0478), Rooftop garden program (Council File 13-0546), and the Urban Agriculture Incentive Zones (AB 551, Council File 14-1378). With a GMO-Free Zone L.A.'s urban agriculture gains a unique and precious branding opportunity: "Grown in L.A." will mean GMO-Free.

8. **Future of the food supply** - The policies of modern agriculture must change, and the future of food is in small-scale agriculture, United Nations officials say.¹⁶ Meanwhile, "GE research is currently being performed on a number of crops ... including ... strawberries, raspberries, broccoli, lettuce, apples, and various ornamental flowers ... cucumbers, onions, peas, peppers, pumpkins, grapes, squash, sweet corn, tomatoes, avocados, persimmons, plums, and walnuts."¹⁷ All of these are being altered to be dependent upon chemicals, subjected to a mutagenic process¹⁸, and pulled within the umbrella of corporate control¹⁹.

A GMO-Free Zone would join the movement to protect open-pollinated seeds (the seed world's equivalent to "open source" software). Open-pollinated seeds are not controlled by patents nor proprietary to corporate interests; thus individual gardeners and urban farmers can save their own seeds. These are the seeds which are necessary for small-scale agriculture. A GMO-Free Zone preserves a clean space --free of GMO contamination-- where local seedsavers can preserve and expand the supply of these "open source" seeds for the future of food.

9. **Grasses** - Corporate interests are now testing genetically modified grasses, aimed at the park and golf course market,²⁰ and these grasses are currently being tested in home gardens in other states.²¹ Genetically modified grasses are specifically designed to work in concert with herbicides and other chemicals, which means if they came to L.A., chemical applications would increase. Additionally, these GMO grasses fit the USDA's own criteria of a noxious weed, yet USDA has refused to regulate them.²² They could easily spread into wildlands as invasive plants, or transfer herbicide-resistant traits to local weeds through cross-pollination.²³ *Declaring a GMO-Free zone keeps genetically modified grasses out of our City neighborhoods, parks, and wildlands.*