**Researchers Keep Finding More Ways Our Flawed Agriculture Model Breeds Antibiotic Resistance**

**April 14, 2015** And Family

**By Dr. Mercola**

American farmers routinely use antibiotics to make their livestock grow bigger and faster (in addition to preventing disease caused by cramped, filthy quarters, and an unnatural diet). As a result of decades of this practice, antibiotic-resistance in humans has dramatically risen.

According to the US Centers for Disease Control and Prevention[1](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn1" \o ") (CDC), two million American adults and children become infected with antibiotic-resistant bacteria each year, and at least 23,000 of them die as a direct result.

A recent report commissioned by UK Prime Minister, David Cameron, estimates that by 2050 [antibiotic resistance](http://articles.mercola.com/sites/articles/archive/2015/02/17/antibiotic-resistance-food-production.aspx) will have killed 300 million people; the annual global death toll reaching 10 million. Experts are now warning that we may soon be at a point where ALL antibiotics fail, and once that happens, it will be the end of modern medicine as we know it.

Common illnesses such as bronchitis or strep throat can then turn deadly, and even routine, low-risk surgeries become risky. More high-stakes surgeries like organ transplants may no longer be survivable.

**Flawed Agriculture Model Has Bred Out-of-Control Drug Resistance**

The routine use of antibiotics in agriculture is at the very heart of this urgent public health threat. First of all, agriculture accounts for about 80 percent of all antibiotics used in the US, so it’s really a primary source of antibiotic exposure.

Second, it is the continuous use of *low dose* antibiotics that really allows the bacteria to survive and become increasingly hardy and drug resistant. But while [confined animal feeding operations](http://www.mercola.com/infographics/truth-about-factory-farms.htm) (CAFOs) tend to get blamed the most, other aspects of agriculture contribute to the scourge of antibiotic resistance as well, and in some surprising ways.

In the first study[2](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn2" \o "),[3](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn3" \o "),[4](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn4" \o ") of its kind, researchers found that commonly used herbicides actually promote antibiotic resistance by priming pathogens to more readily become resistant to antibiotics. This includes Roundup, which was shown to increase the antibiotic-resistance of *E. coli* and *Salmonella*.

As reported by Rodale News:[5](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn5" \o ")

*“The way Roundup causes this effect is likely by causing the bacteria to turn on a set of genes that are normally off, [study author] Heinemann says. ‘These genes are for 'pumps' or 'porins,' proteins that pump out toxic compounds or reduce the rate at which they get inside of the bacteria...’*

*Once these genes are turned on by the herbicide, then the bacteria can also resist antibiotics. If bacteria were to encounter only the antibiotic, they would instead have been killed.*

***In a sense, the herbicide is 'immunizing' the bacteria to the antibiotic****...This change occurs at levels commonly used on farm field crops, lawns, gardens, and parks.”*[Emphasis mine]

Other herbicides scrutinized in the study include dicamba and 2,4-D, which is particularly relevant in light of the recent approval of a [new generation of GE crops](http://articles.mercola.com/sites/articles/archive/2014/10/28/new-toxic-genetically-engineered-crops.aspx) resistant not only to glyphosate, but also to dicamba and/or  2,4-D.

**Glyphosate Contamination May Be a Significant Yet Largely Ignored Health Risk**

German researchers[6](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn6" \o ") have noted that:

*“Glyphosate residues cannot be removed by washing and they are not broken down by cooking.****Glyphosate residues can remain stable in foods for a year or more, even if the foods are frozen, dried, or processed***.” [Emphasis mine]

This then means that if you’re frequently eating foods contaminated with glyphosate, you’re continually exposing your gut bacteria to a chemical that threatens your health by:

1. Acting as an antibiotic ([glyphosate](http://articles.mercola.com/sites/articles/archive/2013/10/06/dr-huber-gmo-foods.aspx) is in fact patented as an antibiotic); preferentially affecting beneficial bacteria, allowing pathogens to overgrow
2. Inhibiting enzymes that catalyze the oxidation of organic substances and detoxify chemical compounds.

This appears to be one of the previously hidden mechanisms of harm, because by limiting the ability of these enzymes to detoxify chemicals, [glyphosate enhances the damaging effects of chemicals](http://articles.mercola.com/sites/articles/archive/2013/06/09/monsanto-roundup-herbicide.aspx) and environmental toxins you may be exposed to.

1. Readily promoting antibiotic resistance by activating certain genes in the bacteria, as demonstrated in the study above
2. Glyphosate also decimates your microflora and its ability to produce essential amino acids like tryptophan that converts to serotonin, an important neurotransmitter, 90 percent of which is produced in your gut

**How Toxic Agriculture Is Swirling Its Way into Your Home**

Another surprise finding: researchers recently discovered that DNA from antibiotic-resistant bacteria found in American cattle yards are also airborne.[7](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn7" \o "),[8](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn8" \o "),[9](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn9" \o "),[10](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn10" \o ") They’re literally blowing in the wind, and this is yet another route of exposure for animals and humans alike.

As reported by *Time Magazine*:[11](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn11" \o ")

*“Researchers gathered airborne particulate matter (PM) from around 10 commercial cattle yards within a 200-mile radius of Lubbock, Texas over a period of six months.*

*They found the air downwind of the yards contained antibiotics, bacteria, and a ‘significantly greater’ number of microbial communities containing antibiotic-resistant genes...*

*The genes that have gone airborne are contained in dried fecal matter that has become dust and gets picked up by winds... Co-author Phil Smith told the Texas Tribune that the bacteria could be active for a long time and ‘could be traveling for long distances.’”*

The study estimates that the amount of potentially contaminated dust particles released by cattle yards in Colorado, Kansas, Nebraska, Oklahoma, and Texas exceeds 46,000 pounds (21,000 kg) per day. You can be exposed to DNA from antibiotic-resistant bacteria via water and [contaminated meat](http://articles.mercola.com/sites/articles/archive/2011/05/07/nearly-half-of-us-meat-tainted-with-drugresistant-bacteria.aspx), and depending on where you live, simply breathing could be a route of exposure... According to the authors:[12](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn12" \o ")

*“‘This is the first test to open our eyes to the fact that we could be breathing these things...’*’*The 'aha' moment came when we saw how much more prevalent resistant sequences were downwind than upwind,’ said Mayer, a molecular biologist at Texas Tech. ‘It was not just higher in some of them – it was 4,000**percent more. It made me not want to breathe.’”*

**Other Factors Contributing to Rising Antibiotic Resistance...**

Researchers have also identified antibiotic-resistant genes in hog farms in China.[13](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn13" \o ") Interestingly, this study also discovered that metals added to feed as growth promoters contribute to antibiotic resistance as well, noting that:

*“[A]bundance of antibiotic-resistant genes (ARGs) correlated directly with antibiotic and metal concentrations, indicating their importance in selection of resistance genes. Diverse, abundant, and potentially mobile ARGs in farm samples suggest that unmonitored use of antibiotics and metals is causing the emergence and release of ARGs to the environment.”*

And, as if all of this wasn’t enough, there’s the issue of drug companies dumping [antibiotics directly into waste water](http://articles.mercola.com/sites/articles/archive/2015/02/04/3-sources-antibiotics.aspx) as well, which is routinely done by some manufacturing facilities in India and China. Aside from direct ingestion, this contaminated wastewater also finds its way onto crop fields via irrigation and sludge ([biosolids](http://articles.mercola.com/sites/articles/archive/2009/12/17/toxic-sewage-sludge-in-your-food.aspx)) used as fertilizer. Chlorine, which is used in waste water treatment, may *also*exacerbate the situation. As recently reported by *Forbes*:[14](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn14" \o ")

*“[I]n the lab, chlorine can combine with antibiotics, changing its antibacterial activity and making new compounds.*[15](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn15" \o ")*[Olya Keen, Ph.D., of the University of North Carolina] used doxycycline for her tests. It is not yet known how other antibiotics might be affected by prolonged exposure to chlorine, but Keen is concerned that this might be another mechanism promoting antibiotic resistance. Keen recommends collecting and incinerating antibiotics, rather than dumping them into wastewater.”*

**What’s Being Done to Address This Growing Health Threat?**

It would be nice if politicians and health officials were as aggressive in tackling antibiotic-resistance as they are toward a typically non-lethal childhood disease like measles... After all, antibiotic-resistant disease kills an estimated *23,000 Americans per year,*or more; while no deaths have been reported from [acute measles](http://articles.mercola.com/sites/articles/archive/2015/03/24/dissolving-illusions-measles-vaccine.aspx) since 2003.

According to Reuters,[16](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn16" \o ") the US government is planning to begin collecting data on antibiotic use on farms as of next year, in order to set targets for reduced use in livestock. The problem with this is that it’s going to take time to collect and analyze such data, and it’s time we don’t necessarily have. The problem is growing exponentially, and tens of thousands of people are dying with each passing year. Agricultural use of antibiotics needs to be curbed as much as possible, as quickly as possible, period. And other countries have already shown that it’s quite possible to run a profitable livestock business without routine [use of antibiotics](http://articles.mercola.com/sites/articles/archive/2013/07/30/animal-feed-antibiotics.aspx).

**Hospitals Combating Superbugs**

As for combating antibiotic-resistant superbugs in hospitals, a group of four long-term acute care hospitals in Chicago, IL, have developed a treatment plan that has cut their rates of *carbapenem* (a potent IV beta lactam antibiotic*)-resistantEnterobacteriaceae* (CRE) infections in half. As reported by Reuters:[17](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn17" \o ")

*“The program involved testing all patients for CRE infections at the time of admission and again two weeks later. Patients who developed CRE were isolated in a private room or in a ward with other CRE-infected patients. Healthcare workers wore protective gowns while tending to them, using some of the procedures used when caring for patients with Ebola. All infected patients were bathed in chlorhexidine gluconate, an antiseptic commonly used in hospitals.”*

The White House has called on the CDC to come up with a comprehensive plan to cut CRE infections by 60 percent by the end of this decade, and to slash *clostridium difficile-*and*methicillin-resistant Staphylococcus aureus* (MRSA) infections in half. To do that, the CDC intends to take a stronger stance against the practice of prescribing unnecessary antibiotics. Part of the CDC’s 2016 budget includes money to develop prescription surveillance programs in each state, as many states currently do not even collect data on antimicrobial resistance. As noted in the article:

*“More than half of all hospitalized patients will get an antibiotic at some point during their stay, but studies have shown that 30 to 50 percent of antibiotics prescribed in hospitals are unnecessary or incorrect, contributing to antibiotic resistance. Recognizing that much of the misuse of antibiotics occurs outside of hospitals, the White House plan gives doctors who take part in Medicare or Medicaid three years to start reporting their antibiotics prescriptions, with financial incentives and penalties attached.”*

**1,000-Year Old Remedy Kills MRSA**

As more and more antibiotics fail, we’re in dire need of new alternatives, and many of the immediately-available life savers are not drugs. For example, one of the most effective treatments against clostridium difficile infections is a [fecal transplant](http://articles.mercola.com/sites/articles/archive/2013/10/21/fecal-transplant.aspx), and Canada recently decided to allow this procedure to be used outside of clinical trials.[18](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn18" \o ")

Another interesting intervention that took researchers completely by surprise is a 1,000-year old remedy against eye infections. As reported by BBC News,[19](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn19" \o ") the recipe calls for garlic, leeks, wine, and cow bile, and when scientists recreated this ancient remedy, “they were 'astonished' to find it almost completely wiped out methicillin-resistant staphylococcus aureus.” The findings will be presented at the Annual Conference of the Society for General Microbiology in Birmingham.

The recipe, found in the Anglo-Saxon manuscript *Bald's Leechbook* is as follows:

* Equal amounts of garlic and another allium (onion or leek), finely chopped and crushed in a mortar for two minutes.
* Add 25ml (0.87 fl oz) of English wine - taken from a historic vineyard near Glastonbury.
* Dissolve bovine salts in distilled water, add and then keep chilled for nine days at 4°C.

**There Are Solutions, But We Cannot Let Industry Write the Rules**

There are solutions. But in order to really curb this runaway train that is antibiotic-resistance, we need to implement a multi-prong approach. The medical industry needs to do its part, farmers need to do theirs, and you need to participate too. The quickest changes are usually driven by consumer choice. So please remember, you can vote with your pocketbook by supporting the chemical-based system that is driving drug-resistance, or supporting a system that can [regenerate and revitalize our agricultural system](http://articles.mercola.com/sites/articles/archive/2014/10/14/regenerative-agriculture.aspx) so that we can all have healthier, less contaminated food, water, and air.

This is in part why GMO labeling is so crucial, as GE crops further aggravate the many ills caused by chemical agriculture and CAFOs. Also, remember that eating a healthy diet of whole, ideally organic food is a cornerstone that will allow you to optimize your immune function so that you can naturally fight off any potential infection. Avoiding unnecessary antibiotics is also important, as they decimate your gut flora, thereby leaving you more vulnerable to health problems. The same goes for antibacterial cleansers. All you really need is mild soap and warm water to effectively de-germ your hands. [Antibacterial products containing triclosan](http://articles.mercola.com/sites/articles/archive/2014/12/03/triclosan-antibacterial-soap.aspx) only promote antibiotic-resistance.

**Non-Drug Immune Boosters**

There are many non-drug alternatives you can try, should you come down with an infection. There are also effective preventive strategies beyond a healthy diet. For example, studies have shown that inadequate vitamin D can increase your risk for [MRSA](http://articles.mercola.com/sites/articles/archive/2010/04/13/sunshine-can-help-prevent-antibiotic-resistant-bacteria.aspx) and other infections, which can likely be extended to other superbugs. So monitor your vitamin D levels to confirm they’re in the therapeutic range, 50-70 ng/ml. If you can’t get sufficient sun exposure, consider taking an oral vitamin D supplement. Other agents that have natural antibacterial action include (but is not limited to) the following:

* **Vitamin C.** Vitamin C’s role in preventing and treating infectious disease is well established. Intravenous vitamin C is an option, but if you don’t have access to a practitioner who can administer it, liposomal vitamin C is the most potent oral form. For more information on vitamin C, listen to my interview with Dr. Ronald Hunninghake, an internationally recognized [vitamin C](http://articles.mercola.com/sites/articles/archive/2010/11/20/ronald-hunninghake-on-vitamin-c.aspx) expert. If you choose to supplement with vitamin C, liposomal C seems to be the best oral form to use and may be as effective as intravenous forms.
* [**Garlic**](http://articles.mercola.com/sites/articles/archive/2011/09/28/this-common-kitchen-spice-has-over-150-health-benefits.aspx)**.**Garlic is a powerful antibacterial, antiviral, and antifungal. It can stimulate your immune system, help wounds heal, and kill antibiotic-resistant bacteria (including MRSA and multi-drug resistant tuberculosis), plus it has shown more than 100 other health promoting properties. For highest potency, the garlic should be eaten fresh and raw (chopped or smashed).
* **Colloidal Silver**.Colloidal silver has been regarded as an effective natural antibiotic for centuries, and research[20](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn20" \o "),[21](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn21" \o "),[22](http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666" \l "_edn22" \o ")shows it can even be helpful against some antibiotic-resistant pathogens. If you are interested in this treatment, make sure you read the latest guidelines for safe usage of colloidal silver as there are risks with using it improperly.
* [**Olive leaf extract**](http://articles.mercola.com/sites/articles/archive/2008/09/25/olive-leaf-extract-lowers-blood-pressure.aspx)**.** In vitro studies show olive leaf extract is effective against *Klebsiella*, a gram-negative bacteria, inhibiting its replication, in addition to being toxic to other pathogenic microbes.
* [**Manuka honey**](http://articles.mercola.com/sites/articles/archive/2012/02/20/the-natural-way-to-speed-wound-healing.aspx)**.**  Manuka honey, made from the flowers and pollen of the Manuka bush, has been shown to be more effective than antibiotics in the treatment of serious, hard-to-heal skin infections. Clinical trials have found Manuka honey can effectively eradicate more than 250 clinical strains of bacteria, including resistant varieties such as MRSA.
* [**Tea tree oil**](http://articles.mercola.com/sites/articles/archive/2009/01/20/can-tea-tree-oil-body-wash-prevent-mrsa.aspx)**.** Tea tree oil is a natural antiseptic proven to kill many bacterial strains (including MRSA).



**What Are GMOs?**

From April 19th through April 25th we launch GMO Awareness Week. We set aside an entire week dedicated to providing you with information on GMOs and labeling initiatives.

GMOs are a product of genetic engineering, meaning their genetic makeup has been altered to induce a variety of “unique” traits to crops, such as making them drought-resistant or giving them “more nutrients.” GMO proponents claim that genetic engineering is “safe and beneficial,” and that it advances the agricultural industry. They also say that GMOs help ensure the global food supply and sustainability. But is there any truth to these claims? I believe not. For years, I've stated the belief that GMOs pose one of the greatest threats to life on the planet. Genetic engineering is NOT the safe and beneficial technology that it is touted to be.

**Help Support GMO Labeling**

The Grocery Manufacturers Association (GMA)—Monsanto’s Evil Twin—is pulling out all the stops to keep you in the dark about what’s in your food. For nearly two decades, Monsanto and corporate agribusiness have exercised near-dictatorial control over American agriculture. For example, Monsanto has made many claims that glyphosate in Roundup is harmless to animals and humans. However, recently the World Health Organization (WHO) had their research team test glyphosate and have labeled it a probable carcinogen.

Public opinion around the biotech industry's contamination of our food supply and destruction of our environment has reached the tipping point. We're fighting back. That's why I was the first to push for GMO labeling. I donated a significant sum to the first ballot initiative in California in 2012, which inspired others to donate to the campaign as well. We technically "lost the vote, but we are winning the war, as these labeling initiatives have raised a considerable amount of public awareness.

The insanity has gone far enough, which is why I encourage you to boycott every single product owned by members of the GMA, including natural and organic brands. More than 80 percent of our support comes from individual consumers like you, who understand that real change comes from the grassroots.

Thankfully, we have organizations like the Organic Consumers Association (OCA) to fight back against these junk food manufacturers, pesticide producers, and corporate giants.

**Internet Resources Where You Can Learn More**

* [Non-GMO Shopping Guide](http://www.nongmoshoppingguide.com/download.html)
* [GMA Boycott List](http://www.theboycottlist.org/)
* [GMA Traitor Brands](http://salsa3.salsalabs.com/o/50865/p/dia/action3/common/public/?action_KEY=8959)

**Together, Let's Help OCA Get The Funding They Deserve**

Let’s Help OCA get the funding it deserves. I have found very few organizations who are as effective and efficient as OCA. It’s a public interest organization dedicated to promoting health justice and sustainability. A central focus of the OCA is building a healthy, equitable, and sustainable system of food production and consumption. That's why I'm proud to announce I will be matching donations up to $250,000 this week.

Please make a donation to help OCA fight for GMO labeling.

<http://articles.mercola.com/sites/articles/archive/2015/04/14/antibiotic-resistant-bacteria-airborne.aspx?e_cid=20150414Z1_DNL_NB_art_1&utm_source=dnl&utm_medium=email&utm_content=art1&utm_campaign=20150414Z1_DNL_NB&et_cid=DM72333&et_rid=915207666>