# GMO FACTS: WHY WE NEED TO DIG DEEPER

FREE PDF

WHY WE ABSOLUTELY MUST DIG DEEPER INTO THE GMO CONTROVERSY...

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# #WhyDigDeeper

This PDF is a more concise version of the #WhyDigDeeper sequence at The Walk a Mile Project. If you'd like to learn even more, you can view all this information in its entirety (including all reference) at WalkaMileProject.com by clicking here: GMO Facts – Why Dig Deeper

# ABOUT THE WALK A MILE PROJECT

The Walk a Mile Project is a long-term film project, dedicated to addressing one very important, worldwide issue at a time. Brought to you by Change The World Films (a nonprofit 501(c)(3)-approved organization), the project delivers truth and solutions, in both a trust and community-building environment. How? We follow the core philosophical principle, *don't judge another person until you've walked a mile in his/her shoes.* Bringing that perspective to each important issue, we find truth and answers that everyone can understand and agree with. Join us now, and we'll walk a mile together.

Learn how you can help here: http://www.walkamileproject.com/join-project/.

# GMO FACTS:
# Why We Need To Dig Deeper

## STARTING AT SQUARE ONE

If this PDF is your introduction to The Walk a Mile Project, then first off let me say "Welcome!" When you're done reading here, it will be pretty obvious that we absolutely must look for more definitive answers than we currently have regarding the GMOs in our food supply. You'll see that in the past we've gone down paths eerily similar to this before, and it hasn't always ended well.

The Walk a Mile Project's mission is to discover the truth in every issue we tackle, and that requires long, meticulous, multi-phased research. It also means starting from the beginning and overturning every stone necessary in the process. For our #WhyDigDeeper sequence here, we go pretty far back... far enough to learn more about Monsanto, the godfathers of GMO crops. Why go so far back? It's crucial that we never ignore the past, because we can't afford to make the same mistakes again.

When we've finished off this #WhyDigDeeper sequence, I'm 100% confident in two important things:

#1 – You'll have a complete understanding of why we need to go down the path for better answers and more information when it comes to the GMO Controversy.

#2 – As part of our core goal to empower everyone involved here to help, you'll have the ability to clearly communicate that understanding to anyone you talk to, who may think "Ahh, there's nothing to see here. It's all good!" And every

person that has that ability and uses it, will be making a big difference. That's The Walk a Mile Project in action.

Now in order to get crystal clear on everything, we'll be talking mostly about Monsanto throughout this thread, because although Monsanto is by no means the only player in the GMO game today, they were most certainly the pioneers. There was a bit of a GMO arms race underway in the 1980s, and when Monsanto essentially won it with their Roundup Ready soybeans (which they actually sought authorization to market in 1994 by the way), the dawn of GMOs officially arrived.

The whole concept of taking something as complex as genetic manipulation and putting that into our ecosystem and food supply, it's obviously a giant endeavor and a huge responsibility. So let's take a look at the company that shouldered that responsibility from the start…

## TAKING A LOOK AT MONSANTO

As you'll start to notice pretty quickly, you can't talk much about GMOs without also talking about Monsanto.  And you've very likely heard some negative press on Monsanto, as they've received their fair share of it over the past few decades. They're famous for manufacturing Agent Orange – and the dioxin contaminant within it – that's been blamed for so much damage to American troops and Vietnamese people alike.  They manufactured DDT, the controversial substance that saved millions of lives by reducing or even eliminating diseases like Malaria, because it knocked out the insect populations that transmitted them, but was later vilified for its potential effects on the environment, wildlife, and even people.  And perhaps the most far-reaching "product" in their history, Monsanto also created PCBs, which they manufactured all the way from 1931 until roughly around the time PCBs were banned in the US in 1979.

We'll talk briefly about Agent Orange and DDT later, but for this PDF we'll mostly focus on PCBs, a Monsanto controversy still in flux today.

As I read through one internal Monsanto document after another, I swear I felt like I was in a movie or a video game – because it all seemed way too surreal and bizarre to actually be real life. And unfortunately for every living thing who's suffered courtesy of PCBs, it's all truth. Let's take a look at what happened…

## PBCS DEFINED

If you're not familiar with PCBs, it's not a pretty episode in corporate American history. PCB stands for Polychlorinated biphenyl. Here's a quick summary from the EPA:

"PCBs are synthetic organic chemicals comprising 209 individual chlorinated biphenyl compounds. Exposure to each of these compounds is associated with different levels of risk for harmful effects. There are no known natural sources of PCBs. Although PCBs are no longer manufactured in the United States, people can still be exposed to them. The two main sources of exposure to PCBs are the environment and the workplace. Due to resistance to degradation, PCBs persist in the environment for decades."

In fact, you very likely have detectable levels of PCBs in your blood, that's how far-reaching and long-lasting they are. Now Monsanto manufactured PCBs (which for the most part went by their product name Aroclor) at two main locations in the US – The Krummrich Plant in Sauget, IL, not far from St. Louis, and a factory in Anniston, AL. The company has been dealing with lawsuits related to these two facilities for years on end now, even though PCB production stopped in 1971 in Anniston, and then later in the '70s at Sauget. And it's also been dealing with PCB contamination all over the planet, because

as you'll see here in a minute, the EPA isn't kidding when it says this stuff doesn't degrade very easily.

Part of the reason it's so widespread is that Monsanto's PCBs went into so many different things, some of which they never, ever should have been allowed into. Here are a few of the key products:

Transformers and capacitors
Oil used in motors and hydraulic systems
Thermal insulation material including fiberglass, felt, foam, and cork
Adhesives and tapes
Oil-based paint
Caulking
Plastics
Floor finish

And I noticed Monsanto themselves even mentioned a particularly disturbing use of PCBs in highway paints, for which they said in a 1969 internal document that "one million lbs/year are used" and "through abrasion and leaching we can assume that nearly all of this Aroclor winds up in the environment."

And one final note, PCBs were actually considered a godsend for some of those uses, particularly in transformers for example, because they were a much more stable alternative to things like mineral oil that were being used previously.

## A SURREAL INVESTIGATION

So that's a really quick and somewhat dry summary of what PCBs are, but bear with me… because now we'll go down the rabbit hole together for a bit, and although nothing in here is about GMOs directly, when we come out the other side you'll start to understand exactly why we're doing this. And for the vast majority of content here, we're only dealing in facts, so no matter how crazy some of it may sound, it's all stamped in black and white, literally, as court evidence (at The Walk a Mile Project you'll see links for every single document referenced here). Here we go…

Now Monsanto enjoyed great prosperity from PCBs. They became the bread and butter of the company because as chemicals, they had so many uses and applications. But there were questions that had to be answered before something this big and far-reaching went into production right?

And the questions were, how toxic were these chemicals? How well-tested were they? Monsanto knew from square one that PCBs would wind up in the environment in some capacity, because their own factories were putting them there. So how much did they account for that? Well, they spent the majority of those almost 50 PCB-producing years publicly acting like there really was no concern.

In fact they're on record as saying:
"And the truth is that in 1966 when we found out that PCBs were in the environment, we started an investigation journey and we tried to gather information and we acted responsibly."

So their hypothesis there is that, hey, yeah we were making this chemical for 35 years, but we had no idea how bad or prevalent it was. Unfortunately for them,

at a trial where the plaintiffs were the people of Anniston, AL, their internal documents proved otherwise. And it started all the way back in 1937 with a Monsanto document that stated:
"Experimental work in animals shows that prolonged exposure to Aroclor vapors evolved at high temperatures or by repeated oral ingestion will lead to systemic toxic effects."

Then in 1938 they received test information from a doctor, indicating just how toxic 2 of their PCB formulas could be to the liver. This is a direct quote from the doctor at the end of his comments:
"In view of the fact that #5460 in such low concentration proved so definitely toxic, no higher concentrations were tested. It seems imperative that whenever this compound is used in industry, great care be taken to keep concentrations in the air at an extremely low level. No liberties can be taken with it, as with #1268."

Those #s refer to specific Aroclor/PCB compounds. Now fast forward to 1954, we're popping the timeline up 16 years already, and an unidentified document from Monsanto discusses an incident where seven workers in an organic acid manufacturing plant developed lesions of chloracne. Chloracne is a really nasty skin condition you can get from PCB exposure. If you'd like to get seriously grossed out, just google a picture of chloracne… but I'll leave that up to you as it is not a pretty sight.

The final paragraph of the document notes the following:
"The fact that air tests, even in the presence of vapors, showed only negligible amounts of chlorinated hydrocarbons indicates that this type of intermittent but fairly long continued mild exposure is not innocuous."

## MAC – MAXIMUM ALLOWABLE CONCENTRATION

And then that same year, 1954, a more disturbing memo written by Monsanto's Dr. R. Emmet Kelly, states:

"We do not know what the maximum allowable concentration of Aroclor is. One milligram per cubic meter has been set up. We have run animals for about 60 days at 7 times this and found some liver damage. We are now running this at a lower level."

And this nearly 25 years after PCBs started production. Now granted, this all took place before the EPA even existed, but let's wrap our heads around that: nearly 25 years AFTER your company started producing a substance used around the world, and in a multitude of applications, you're making statements like:

"We do not know what the maximum allowable concentration… is."

Another document from September 20, 1955, titled Aroclor Toxicity and again written by Dr. Kelly, contains this gem near the end:

"If, however, it[Aroclor] is distributed to householders where it can be used in almost any shape and form and we are never able to know how much of the concentration they are exposed to, we are much more strict. No amount of toxicity testing will obviate this last dilemma and therefore I do not believe any more testing would be justified."

OK so this about trying to limit Aroclor exposure in consumers, people who get PCB containing products in their homes. Now can you really be more strict in the concentrations you allow in those products, if you don't even know your maximum allowable concentration? How can you put a warning label on anything destined for household use, if you don't even know what usage level requires a warning? But either way, should your response ever be, "yeah, let's

just NOT test it?"  We we won't be able to do anything about it anyway, so let's just put it out there as is?  That's basically what Monsanto's doctor meant when he said "I do not believe any more testing would be justified."

Then that same year, a document from Monsanto's Medical Department (on November 14, 1955) offers the opinion to their Illinois plant that "eating of lunches should not be allowed in this department [Department 246 – Aroclors] for a number of reasons…

1) Aroclor vapors and other process vapors could contaminate the lunches unless they were properly protected.

2) When working with this material, the chance of contaminating hands and subsequently contaminating the food is a definite possibility.

3) It has long been the opinion of the Medical Department that eating in process departments is a potentially hazardous procedure that could lead to serious difficulties.  While the Aroclors are not particularly hazardous from our own experience… this is a difficult problem to define because early literature work claimed that chlorinated biphenyls were quite toxic materials by ingestion or inhalation.  In any case where a workman claimed physical harm from any contaminated food, it would be extremely difficult on the basis of past literature reports to counter such claims."

Now just remember, this is 1955.  And it's interesting… I wonder how they expected that to pan out when they found PCBs in fish, and cow's milk, and water… which is what they ran into later, but let's move forward to 1956, in what has got to be one of the most bizarre examples of corporate negligence I've ever seen, but thankfully it didn't turn into the catastrophe it was likely

headed for, as the US Navy was smart enough to prevent it.

## WE ALL LIVE IN A PCB SUBMARINE

In 1956, Monsanto was frustrated over a contract they were trying to secure with the Navy, for a PCB fluid called Pydraul 150, which they wanted the Navy to use in the close confines of a submarine. Yeah, I'm not making this up. Around Christmas 1956 things were getting a little chippy because the Navy decided to do some of their own testing, instead of simply taking Monsanto's word for PCB safety. Less than a month later, on January 21, 1957, Monsanto's Dr. Kelly sent out this memo:

"Dr. Treon and I spent an afternoon with the Navy people… They discussed their information concerning Pydraul 150 which was obtained at the Naval Institute of Medical Research. While reports were not available, they had the following general data:

Skin applications of Pydraul 150 caused death in all of the rabbits tested. (The amount administered was not given)… The inhalation of 10 milligrams of Pydraul 150 per cubic meter or approximately 2 tenths of a part per million for 24 hours a day for 50 days caused, statistically, definite liver damage. No matter how we discussed the situation, it was impossible to change their thinking that Pydraul 150 is just too toxic for use in a submarine. It may be that such concentrations would never be reached in the submarine, but the Navy does not appear willing to even put the material in a trial run to see if it will work."

In a follow up report from September 25 of that same year, Elmer Wheeler closed the book on this by saying:
"The Navy convinces us that they would not accept Pydraul 150 and probably no other fluid containing chlorine or chlorinated diphenyls. We have not

attempted to dissuade [them] since it appears to be hopeless.  Since the interpretation of toxicity data is quite relative, our interpretation of facts and data would not be sufficient to change their opinions."

I am still trying to wrap my head around that one, but you can bet I've made a note of that statement, and we'll be touching on it more later.

## FISH KILL

Ok we're getting there… let's fast forward to November 2, 1966 and a memo from Mississippi State's  Professor of Zoology to Monsanto.  The scientist explains results of tests that involved placing cages filled with 25 live bluegill fish at 13 different locations in the Choccolocco Creek Drainage – the waterway system that accepted wastes from the Monsanto plant in Alabama.  The tests that took place in the Snow Creek areas did not end well for the fish:

"A branch of Snow Creek originating in the Monsanto plant… All 25 fish lost equilibrium and turned on their sides in 10 seconds and all were dead in 3 minutes. The gill covers immediately assumed a flared position, and blood issued from the gills after 3-minutes exposure."

In another part of Snow Creek:
"10 fish were down after 1 hour and 40 minutes; all were down in 2 hours and 25 minutes.  All were dead in 2 hours and 35 minutes."

In his conclusion, the professor stated the following:
"The outflow to Snow Creek from the east side of the Monsanto Plant… contains some extremely toxic materials and kills fish in less than 24 hours when diluted 300 times.  In a flowing system (as opposed to our static tests) and under conditions of constant exposure, this effluent would probably kill

fish when diluted 1000 times or so. Since this is a surface stream that passes through residential areas, it may represent a potential source of danger to children, domestic animals, etc.

Prolonged exposures of weeks and months to these substances could very likely kill fish at all points in Choccolocco Creek below the mouth of Snow Creek."

Then at the start of his final paragraph, he asks pointedly to Monsanto:
"Can your people tell us what is going into Snow Creek?"

## THE LATE 1960'S TURNING POINT

Thankfully 1966 was a big year for people finally starting to ask questions like this, and the answer of course, among other things, was PCBs. That professor's letter was by no means an isolated one, as Monsanto was contacted from other parts of the world even regarding damage from PCBs. Press coverage started to pour in as well.

Now let's move forward to September 1969, and a document from W.R. Richard. This is actually the first time in my research when I actually saw talk of extensive action, but unfortunately it occurred 80% of the way into PCBs production run. The document mentions varying actions for multiple customers using Aroclor in different capacities, but it starts with this fun statement:

"Make the Govt, States and Universities prove their case, but avoid as much confrontation as possible. Comply and work with public officials to meet or exceed requirements ahead of time. Adverse publicity and competition are the real weapons."

So just to be clear, the epic toxin that Monsanto had been contaminating the planet with for the past 40 years, THAT was not the real weapon. Adverse publicity, however, was a killer.

Just a bit further down in that same document, there's a Probable Outcome section, and it said:
"We can prove some things are OK at low concentration. Give Monsanto some defense.
We can't defend vs. everything. Some animals or fish or insects will be harmed.
Aroclor degradation rate will be slow. Tough to defend against."

Then a little further in, they again discuss the Monsanto plants in Illinois and Alabama:
"The Dept. of Interior and/or State authorities could monitor plant outfall and find ppm of chlorinated biphenyls at Krummrich or Anniston anytime they choose to do so. This would shut us down depending on what plants or animals they choose to find harmed."

They do at least finally talk about trying to fix things at Anniston and Krummrich though:
"Take steps to see that every precaution is taken to prevent Aroclor from entering water streams. Try to reduce ppb level."

## 40 YEARS LATER

And then in that document, there are beginning steps and initial plans noted for different customers, and it goes on for the majority of the document, which is actually 10 pages. On p.8, however, there's a section referencing Chronic

Toxicity Studies, indicating work to be done by Wheeler and Keller. It states:

"Continue studies to establish FDA type limits of toxicity on Aroclor 1242, Aroclor 1254 and Aroclor 1260."

So understand, 40 years down the road, after dumping millions and millions of pounds of PCBs into the world, hey I think we should really establish some toxicity limits. Just throwing that out there, might be a good idea. They also mention setting up biodegradation studies as well. Again, 40 years later, after dumping millions and millions of pounds into the environment.

## MONSANTO'S WATERSHED MOMENT?

Now although that September 1969 document does sound disturbing in some ways, on the bright side, it sounded like Monsanto was finally paying serious attention to what was happening. So as I was chronologically researching, I started to feel as if September 1969 was kind of a watershed moment for Monsanto, and that until the nail finally hit the PCB coffin ten years later… they would take things down a significantly different path.

But then there's this document labeled "Report of Aroclor Ad Hoc Committee", dated October 2, 1969, less than a month after that "watershed moment". And the strange thing about this typed report is that it has August 25th handwritten in as a reference to the date of the actual meeting these notes were about. It looks as if whoever updated the document was trying to suggest that these notes were written up almost a month and a half AFTER the actual meeting. And then on p.7, there's a reference to a frequently-cited San Francisco Chronicle article from September 24, 1969, but September is crossed off and February is handwritten in its place.

## PROTECTING PCBS

The scratched off and then handwritten changes make it seem like they wanted to at least pretend that September 1969 was the watershed moment I mentioned… as if "Oh no this document wasn't from October, it was earlier, it was before we knew all this!" But regardless of any handwritten discrepancies, the document is clearly dated October 2, 1969, and it says the following:
"The objective of the committee was to recommend action that will:

1. Protect continued sales and profits of Aroclors;

2. Permit continued development of new uses and sales, and

3. Protect the image of the Organic Division and the Corporation as members of the business community, recognizing their responsibilities to prevent and/or control contamination of the global ecosystem."

If you think that sounds somewhat badly, let's look at p.4, with the heading "Probability of Success":
"The committee believes there is little probability that any action that can be taken will prevent the growing incrimination of specific polychlorinated biphenyls (the higher chlorinated e.g. Aroclors 1254 and 1260) as nearly global environmental contaminants leading to contamination of human food (particularly fish), the killing of some marine species (shrimp), and the possible extinction of fish eating birds.

Secondly, the committee believes that there is no possible (wait, "possible" was crossed out to then say "practical", so) – no practical course of action that can so effectively police the uses of these products as to prevent environmental contamination (WAIT – "to prevent environmental contamination" was actually

changed to "prevent completely some environmental contamination")."

Now this is where you'd probably expect talk of possibly phasing out at least the most dangerous PCBs and going down a different path as a company, right? Something along those lines… I mean that's what you'd logically think to see next in light of all the other information that had come out in recent days. But instead, Monsanto said this:
"There are, however, a number of actions which must be undertaken in order to prolong the manufacture, sale and use of these particular Aroclors as well as to protect the continued use of other members of the Aroclor series."

Then finally a few handwritten notes on the bottom of that same page:
"Toxicity towards certain species is high.
Persistence is high.
Likely hood of natural origin or degradation is remote."

The document also references some more potential action plans, and that's then followed by a list of reported problems, like PCBs found in milk in both Maryland and Georgia, and just more and more instances of PCB discovery. Finally (and this is the last thing I'll leave you with from this absolute mountain of court documents), they also make the following disturbing statement in discussion of the Anniston Plant:
"It is impossible to establish a limit as to what can be discharged 'safely'. Investigation has shown that the waters in receiving streams below the Anniston Plant contain significant (parts per million) concentrations of PCB. More ominous perhaps is the fact that sediment in the bottom of these streams miles below our plants may contain up to 2% Aroclor."

Alright I'm not gonna drudge though anymore of the Monsanto documents, many of which by the way have notations on them like "Read then destroy".

I read through almost everything, and I had no idea it would be as deep and as ugly as it was.

You know we're focused on being the voice of reason here at The Walk a Mile Project, and we are never going to lose that, but I will tell you – good luck reading through all these court documents and not feeling mad, or sad, or just flat out disgusted in people behaving so badly… and also with such negligence and at times just flat out disdain for their fellow man – or any other living thing for that matter.

Again at WalkaMileProject.com, every quote has an official document to reference, so please feel free to replicate my journey if you want to see just how bad PCBs and Monsanto really were. There are many more documents to look through than what I've even referenced here. But I will move forward now to the final part of this whole PCB situation we're touching on today, which is what happened to that town of Anniston, AL as a result of all this? So hang in there, we are now on our way back UP and out of the rabbit hole…

## MONSANTO ANNISTON

Now in addition to all the general PCB hazards we've gone over, Monsanto had been dumping PCBs into the environment directly around around their two plants for decades, as we saw in those Snow Creek experiments where the fish died so quickly. That was in the 1960s when it quickly became apparent to Monsanto just how serious the issue was.

Here's the real problem though. The big warnings went off in the mid '60s, and Monsanto even stopped PCB production at the Anniston plant in 1971 (although contamination persisted decades past that date). So guess when they warned the people of Anniston about the toxins in their creek?  And by the way, it wasn't just in their creek, because Monsanto had landfills right there filled

with PCB waste as well, and other PCB jailbreaks around the area.

So when did Monsanto warn Anniston? Well, that answer is very simple. NEVER. Instead, for the entire 1970s… nothing. For the entire 1980s… zero. Then finally, in 1993, 27 years after they found out about the fish going belly up when placed in the water, a contractor found deformed fish in Choccolocco Creek and had the fish tested for PCBs. He gave those test results to regulators, and the results showed enough contamination to spur a state investigation. Then finally, on November 2, 1993, the Alabama Dept of Public Health issued the very first fish consumption advisory, warning the people of Anniston not to eat fish caught from that creek. Monsanto stayed silent for the entire time. Even though they were the ones doing the contamination, they never felt responsible to tell anyone… to ever say a word.

Eventually people in Anniston finally hit Monsanto with lawsuits, and in 2002, thanks in part to the court-obtained documents that I've referenced, Anniston gave Monsanto a beatdown at trial. The legal grounds for the verdict were "negligence, wantonness, fraud, trespass, nuisance, and outrage," and outrage is a term you don't hear very often. It also included the following judgment of Monsanto's conduct, which was deemed, and I quote:
"So outrageous in character and extreme in degree as to go beyond all possible bounds of decency, so as to be regarded as atrocious and utterly intolerable in civilized society."
That's one to remember for later…

## MONSANTO LAWSUITS

Now in addition to all the incriminating documents, the attitude from some high-level Monsanto employees who gave testimony certainly didn't help their case.  Here are a couple of excerpts from the March 31, 1998 testimony of William Papageorge, whose name I saw several times in the court documents

I reviewed.

The attorney asked him, "To your knowledge, sir, did Monsanto ever disclose to the residents of Anniston in 1968 or 1969 that twenty-seven pounds of organics and acid waste from
the Aroclor and HCl departments were being lost from the plant?"

He replied, "There was no reason to talk those numbers. They were meaningless,"
"But the answer is no?"
"That is correct."

The attorney also asked, "Did anyone ever tell the residents of Anniston at that time that Monsanto was visually checking Snow Creek and Choccolocco Creek to determine the effects of the PCBs in the plant effluent water?"

He replied, "Sir, this is no different than a service station man telling his neighbors he has got motor oil on the curb by his service station. Those things are just nonproductive comments that one can make to others."

And for the last question I'll share, the counsel asked, "Did Monsanto ever provide the residents of Anniston with any data concerning the health hazards of PCBs in humans?"

Papageorge's response – "Uh-uh (indicating no). Why would they?"

So the people of Anniston, at least those involved in that exact suit (because there were more), scored a decisive victory in court. But 3 weeks later, while details of compensation were still being worked out in court, the EPA and Monsanto reached a consent decree. As a State Regulator testified during the

trial, EPA officials anticipated that a consent decree would preempt the State Court cleanup ruling. Now those consent decree negotiations started in January 2001, but they were finished 3 weeks AFTER the court case was decided. In excerpts from a Senate Subcommittee Hearing that took place shortly after, the following was revealed:

"The record shows EPA cut corners, ignored its own standards and had several last-minute closed-door meetings with Monsanto so that the decision could be filed before the court finished its proceedings. The decree was signed by Monsanto on March 19 and they filed a petition to dismiss the claims of 3,500 plaintiffs on March 22nd, 3 days before the decree was lodged. In fact, Judge Laird had to subpoena the decree to make it public."

A bit further in, we learn that "EPA documents show that EPA regional staff did not feel that this final decision would pass muster with national standards." And in a letter to Monsanto's attorney in September 2001, the EPA wrote that "the form of the consent decree is such a significant deviation from the models that we may not be able to get it approved in the current form."

And the day after the consent decree was announced by the EPA, its regional officials even commented that the "timing of everything has been strange."

Monsanto then informed shareholders that their cleanup cost wouldn't be any higher than the normal range of $30 to $40 million, nowhere near the estimated costs coming out of the trial, and much less than the $460 million the EPA had negotiated to clean up the Hudson River, which by the way had a TENTH of the PCB contamination present in Anniston.

Now the Anniston situation wasn't resolved just by that trial and consent decree, because there were more lawsuits, including a huge class action that

involved Johnnie Cochran, but, that's enough on PCBs, as I'm already blown away at the level to which things sunk for Monsanto.  Next, let's tie this tragic PCB story in with Agent Orange.

## AGENT ORANGE HISTORY

Agent Orange was one of several herbicides commissioned by the US government during the Vietnam War for what they called Operation Ranch Hand, a military operation that officially began on January 13, 1962. Ranch Hand's objective was to clear foliage from key strategic areas in Vietnam, in an effort to control the movements of the Viet Cong army, and also to weaken the enemy's food supply – to destroy their harvests.

A quick fyi – we sprayed millions of gallons of these herbicides across Vietnam. It was by no means subtle, and both the Vietnamese and American soldiers were readily exposed to the chemicals, which at the time the US government's official, publicized take on was that they were not toxic to humans. After all, these were the same chemicals our farmers were using on crops back home, so how could they be toxic?  Well… the concentrations used on Vietnam were significantly different from what we used in agriculture back home.  From a sheer concentration and volume standpoint, this looked nothing like American farming. To put it bluntly, Operation Ranch Hand was essentially weed, foliage and crop assassination.

Although Agent Orange actually wasn't thrown into the mix until 1965, three years into the operation, it accounted for roughly 60% of the herbicide use in Operation Ranch Hand when all was said and done. Other mixtures in the US arsenal included Agent Pink, Agent White, Agent Blue… and a few others that all earned their color designations simply from the colored stripes placed on the 55 gallon drums that the products were shipped in.  Each color signified a different herbicide, and Agent Orange was actually a mixture of two – it was

half 2,4,5-T and half 2,4-D. Both of those will mean something later, but for now understand that 2,4,5-T was considered the main culprit in all the Agent Orange controversy. And why is that? Well one word: dioxin.

## DIOXIN

Although the regular grade version of Agent Orange did not have a dioxin issue, the military grade version of it did. That's because the military needed the herbicide produced faster than normal, and speeding up the process is what caused the dioxin contamination. Unfortunately, the contaminant wasn't just any dioxin, as it turned out to be the one referred to as TCDD, considered the most toxic of them all.

Here's a quick summary from the EPA's Enivronmental Assessment page on Dioxin:
"Almost every living creature has been exposed to dioxins. Studies have shown that exposure to dioxins at high enough levels may cause a number of adverse health effects, including cancer. The health effects associated with dioxins depend on a variety of factors including: the level of exposure, when someone was exposed, and for how long and how often someone is exposed."

It's ironic that the EPA mentions cancer, because although they've documented thorough research on the analysis of non-cancer health effects from TCDD exposure, analyzing the cancer side of that equation seems to be an issue for them and almost everyone else. And oddly enough, the EPA just doesn't seem to be in a hurry to finish the process. They published their final "non-cancer health effects" analysis in February 2012, and then publicly stated the following:

"EPA will complete Reanalysis, Volume 2, containing the full dioxin cancer assessment, as expeditiously as possible."

It's now been almost a full 3 years, almost to the day, and well I guess expeditiously must mean more than 3 years to the EPA. Regardless of the in-depth analysis, again they've clearly stated that "exposure to dioxins at high enough levels may cause a number of adverse health effects, including cancer."

But as you'll see in a minute, no one seems to want to make a clear connection between cancer and dioxin. I've read conflicting studies, conflicting peer reviews of studies, and a big part of the problem is that dioxins are already prevalent in our environment, so there hasn't been a real dioxin-free control group.  We've pretty much all been exposed to dioxin at this point. Perhaps the best chance at a control group came from some Monsanto studies of their own workers, and we'll go into that in a few…

## AILING VETERANS

Before we dig deeper into Monsanto's role in any of this though, let me make it crystal clear that, regardless of any conflicting studies, etc, it's no secret that our Vietnam veterans suffer from a wide array of ailments. That's very well-documented, and for the ailments themselves we're talking facts, not fiction. Here is a list of the diseases considered related to Agent Orange. Veterans who meet the criteria for Agent Orange exposure AND have one of these diseases are eligible for Disability compensation.

First off, the cancers, which are:

Hodgkin disease
Multiple myeloma
Non-Hodgkin lymphoma
Prostate cancer
Cancer of the lung, bronchus, larynx (voice box), or trachea (windpipe)
Certain Soft tissue sarcomas

And 3 different leukemias

And there are several non-cancer conditions as well, including Type 2 diabetes and Parkinson disease. Spina Bifida and certain other birth defects in the children of veterans are also included.

## MONSANTO AGENT ORANGE

Now you can argue, in relation to Agent Orange, that because its primary use was a direct result of a US government request during the War, that Monsanto can only be held responsible to a certain degree. And as you'll see, that's kind of how the courts look at it now. Also, Monsanto was by no means alone in manufacturing the substance. There were 7 total companies making Agent Orange, and pretty much all of it was, at least to some extent, contaminated with dioxin.

For us here today, the three big questions we need to answer are:

1. Was Monsanto's Agent Orange dioxin contamination any worse than the other companies?
2. Did dioxin even cause the veterans harm in the first place?
3. Did Monsanto know about the dioxin contamination and its dangers upfront?

Well how this whole ugly episode first came to light was that once all these Vietnam veterans started falling ill, lawsuits soon followed. In 1984, Agent Orange manufacturers Dow Chemical, Monsanto, Uniroyal, and the four other companies all agreed to a class action settlement of $180 million – to be paid to Vietnam veterans exposed to Agent Orange. The funds were distributed between 1988 and 1996, and even though Monsanto was only one of several defendants, they were ordered by the Judge to pay 45.5% of that $180 million.

Now why the heck would Monsanto be required to foot nearly half the bill? Because not only did they supply the most Agent Orange (although only slightly more than Dow Chemical), but Monsanto's 2,4,5-T had the highest dioxin content of any Agent Orange manufacturer. In fact, some of its supplies contained 47 times as much dioxin as those from Dow, which actually resulted in Dow paying significantly less in the settlement than Monsanto did, despite the two companies supplying similar amounts of the herbicide. In other words, the biggest manufacturer of Agent Orange, Monsanto, was also deemed the most reckless in its production.

So there's your answer to question #1. Was Monsanto's Agent Orange dioxin contamination any worse than the other companies?  Yes it was. Much worse.

As for question #2, did dioxin actually cause harm, well, that's where all these conflicting studies come into play and in a similar fashion to researching GMOs, it can make your head spin. But to get a clear picture of Monsanto's involvement, we've got to go back to that 1984 settlement, which, as one of the veterans' attorneys called it, was "a pittance".  40,000 veterans received amounts as low $256 and the amounts maxed at $12,800. So with the amounts being so low, why did they settle?

Well I mentioned that Monsanto had perhaps the best chance at a control group for dioxin testing, because they had data going all the way back to 1949, when there was an accident at their factory in Nitro, WV.  In 1980, 1983, and 1984, Monsanto published 3 separate studies on dioxin, studies supervised by Raymond Suskind in collaboration with two of Monsanto's scientists.  Those 3 peer-reviewed studies showed no connection between the dioxin exposure and cancer, and the final one in 1984 dealt a serious blow to the trial hopes of the veterans.

But… that's not quite how the story ends, because a few months before that settlement hit, another trial began in Illinois – Kemner vs. Monsanto. Kemner, a farmer in Sturgeon, MO and 21 other families from Sturgeon, were suing Monsanto over a chemical spill that released what amounted to just a teaspoonful of the TCDD dioxin (yes that's how toxic the stuff is). The trial garnered national attention because it took about 3.5 years to complete! In fact on the day when Rex Carr, the Kemner attorney, finally spoke his closing arguments to the jury, he said "Once you sign your verdict sheets, this case will go down in the Guinness Book of World Records."

## ANOTHER MONSANTO CONTROVERSY

What came to light during the trial, however, was the truth about those 3 Monsanto studies I mentioned, from 1980, '83 and '84, where Monsanto said they proved there was no connection between dioxin exposure and cancer. And that held up… for about one whole year, until the studies were more closely examined, and then Monsanto's Dr. George Roush, who had helped published the studies, was cross-examined during the trial.

It turns out Suskind, the man responsible for supervising, was caught manipulating key data in all 3 studies. In the first two, the studies manipulated who was considered "exposed" to the dioxin vs. "not exposed", so the rates of cancer appeared significantly lower than they really were. The number of cancer deaths was actually double what they reported. As for the final study in 1984, again, roughly twice as many cancers occurred as were actually reported, and in that study, Suskind just flat out omitted half the people. And these were small studies, so those kinds of fluctuations had a huge impact on the data, and of course the conclusions drawn from the data.

Now I will say – we are requesting court documents on this exact trial because I've read this same report in several places, but have seen variances in the

numbers every single time – which to me is a red flag and needs to be confirmed.  As soon as we have the documents in hand I will confirm exact numbers right here accordingly.

One of those studies is directly mentioned in ENVIRONMENTAL EPIDEMIOLOGY, Volume 1: Public Health and Hazardous Wastes from the National Research Council.  And it references this exact study from the New England Journal of Medicine 1991 as well, titled Cancer Mortality In Workers Exposed to 2,3,7,8-Tetrachlorodibenzo-p-Dioxin

So Dr. Roush admitted that in those three early 1980s studies, Raymond Suskind fudged the data, and that is not a good precedent for Monsanto to set, especially when we're way past the "pleading chemical ignorance" of the 1950s and early '60s that we saw with PCBs.

So to finish off question #2, did dioxin, and specifically TCDD, cause Vietnam veterans harm?  Well, it seems that's a question no one of authority wants to definitively answer.  We've got multiple places that clearly consider TCDD to be a human carcinogen, like the EPA as I mentioned earlier: "Exposure to dioxins at high enough levels may cause a number of adverse health effects, including cancer."

Then the US Dept. of Veteran Affairs says:
"Dioxin is a highly toxic substance found in Agent Orange and some other herbicides. Studies suggest that this chemical may be related to a number of cancers and other health effects in humans."

And then there's this from "Mortality patterns of Army Chemical Corps veterans who were occupationally exposed to herbicides in Vietnam", which states in its conclusion that:

"The risk of mortality from respiratory disease (malignant or nonmalignant) was significantly greater for Army Chemical Corps Vietnam veterans in comparison with their non-Vietnam veteran peers and U.S. men. Herbicide exposure could be contributing to the patterns observed."

Finally, from that aforementioned report from The National Research Council: "A study of the largest cohort of exposed workers ever studied finds that workers exposed to dioxin have increased death rates from overall cancer, as well as from soft-tissue sarcoma and non-Hodgkin's lymphoma."

Now in all the studies I reviewed, soft-tissue sarcoma was the most frequently occurring cancer. If you're not familiar with what that is, soft tissue sarcoma is a type of cancer that begins in the soft tissues of your body, and the most common types occur in the abdomen and in the arms and legs.

That reminds me, just one more… in a study based on a 1976 accident in a plant near Seveso, Italy, that exposed the local population to TCDD. Increased cancer rates were found, and again, an increase in soft-tissue sarcoma.

So the pattern is this – everyone says "It may be carcinogenic," but no one seems to feel they can unequivocally say it IS carcinogenic. We call the stuff undeniably toxic, we see these elevated cancer numbers in Vietnam vets and some other populations, and we say it's most definitely a carcinogen in animal studies… but it's not like we can ethically run a dioxin study on human beings… so we're left sifting through data, and trying to draw sound conclusions from that. In all fairness, no it's not an easy task because of all the variables that introduces. But what we do know, is that we've got a bunch of ailing people, particularly in the US and in Vietnam where it's even worse in some areas, and something obviously went very, very wrong.

Meanwhile, if you visit Monsanto's corporate page on Agent Orange, the company says this:
"Research on Agent Orange has been conducted for decades and continues today. While a causal connection linking Agent Orange to chronic disease in humans has not been established, some governments have made the decision to provide certain medical benefits to veterans and their families even though there has not been a determination that an individual's health problem was caused by Agent Orange."

So maybe I'm missing something here, but we KNOW that dioxin was in Agent Orange, and we know that thousands of people were exposed to high levels of it, so for all intents and purposes, Monsanto's statement is basically saying:
"Research on DIOXIN has been conducted for decades and continues today."
and
"…a causal connection linking DIOXIN to chronic disease in humans has not been established…"

Which is really a bit of a stretch, especially in regards to soft tissue sarcoma, and considering all the other evidence.  But I'll tell you what, since the law protects government contractors in special circumstances, there's just no fight left against Monsanto for Agent Orange, even if the EPA comes out and says TCDD is the most potent carcinogen on earth. It doesn't matter, Monsanto's still off the hook. And here's a court statement that sums it up:

"The court concluded that the 'uniquely federal interest' of 'getting the government's work done' requires that, under some circumstances, independent contractors be protected from tort liability associated with their performance of government procurement contracts."

That's a legal defense known as the Military Contractors Doctrine. So adding all that together with the rest of the evidence, we'll answer that 2nd question – "Did dioxin cause Vietnam veterans harm?" – with a very solid "most likely", and we'll move on…

## WHO KNEW ABOUT DIOXIN?

Which brings us to the final loaded question here, "Did Monsanto know about the dioxin contamination and its dangers upfront?" We know their "official" take is essentially that there is no danger, but were there any red flags popping up indicating that dioxin existed in their 2,4,5-T, and that maybe more testing should've been done?

Well, they most certainly had an idea way back in 1965, the year Agent Orange first landed in Vietnam.

Because on March 19th of that year, Dow Chemical actually invited representatives of Monsanto and three other companies to Midland, MI to discuss "problems of health" associated with findings of "highly toxic impurities" in 2,4,5-T and related materials.

The meeting took place on March 24th and Dow discussed a recent chloracne outbreak and its 25 years of experience testing chemicals on rabbits' ears. The meeting, according to one of the other company representatives attending, "was obviously designed to help us solve this problem before outsiders confuse the issue and cause us no end of grief."

Monsanto never attended that meeting, although they were informed of what took place, which included a discussion on whether or not the government should be informed of the findings.

Then there's Gerson Smoger, a well-respected lawyer for some Vietnam veterans, and Gerson claims he has a copy of a letter which "proves Monsanto criticized Dow for wanting to reveal the secret. And the secret was kept for at least four years, the years when the spraying of Agent Orange reached a peak in Vietnam."

And Gerson also said, in reference to both Dow Chemical and Monsanto, that "…contrary to what their executives said, they regularly tested the dioxin content of their products, but they never transmitted their results to the public health or military authorities."

So we've got fingers pointed at the chemical companies saying they knew about the dioxin contamination from the start, they knew it was risky, and maybe they did… but it also begs the question, what did the US government really know then?

## TO BE USED ON THE ENEMY

Here's a few words from an Air Force officer and scientist named James Clary, who was instrumental in designing the spray tank that cargo planes used to dispense Agent Orange in Vietnam. This comes from a letter he wrote to then Senator Tom Daschle back in 1988:

"When we (military scientists) initiated the herbicide program in the 1960's, we were aware of the potential for damage due to dioxin contamination in the herbicide. We were even aware that the 'military formulation had a higher dioxin concentration than the 'civilian' version due to the lower cost and speed of manufacture. However, because the material was to be used on the 'enemy', none of us were overly concerned. We never considered a scenario in which our own personnel would become contaminated with the herbicide. And, if we had, we would have expected our own government to give assistance to veterans so

contaminated."

We'll wrap up Agent Orange right here, but understand this still lives on for Monsanto… other lawsuits lingered much later. Just over 2 years ago, in a January 2013 settlement in good old Nitro, WV, where Monsanto was dealing with dioxin problems for decades on end, the company agreed to pay up to $84 million for medical expenses and $9 million to clean up 4,500 homes. And that litigation began with a class-action case by plant workers back in the 1980s, that's how long poor Nitro dealt with the situation…

So for Monsanto and Agent Orange, there were too many other players involved, including the US government, for it to be anywhere near as atrocious as their PCBs negligence. But their steadfast denial of any health issues, the fact that they created by far the most contaminated Agent Orange, and the fact that they then manipulated scientific studies, which were peer-reviewed and helped seal the fate of the original Agent Orange plaintiffs… well… yeah, not exactly building trust after the PCBs debacle.

## DDT

Last of all, let's talk DDT for a moment – is it as bad as you've heard? I mean Joni Mitchell even pleaded for farmers not to use it in her song Big Yellow Taxi for crying out loud, right? And truth is, there were crossover years when Monsanto was literally producing ALL THREE of the substances we've discussed – PCBs, Agent Orange, and DDT.

Now this may surprise everyone, but for what we're looking at with The Walk a Mile Project here, I'm not dropping the hammer on Monsanto when it comes to DDT. And believe me, after having my head run in circles down a dark rabbit hole for nearly 3 straight weeks (courtesy of Monsanto's many questionable actions), it's not easy for me to say that. But the truth is this:

First, Monsanto was only one of well over a dozen companies that made DDT. So DDT was nowhere near as Monsanto-centric as say, PCBs, and they weren't known for making some extra-terrible version of it like they were with Agent Orange.

Second, despite its near complete ban as a toxic substance and probable human carcinogen, DDT has also saved millions of lives by helping to eliminate insect-borne human diseases.

In fact even though the 2001 Stockholm Convention banned its use for almost everything, it still included an exemption for the use of DDT to control mosquitoes for the purpose of preventing malaria.  If you weren't aware of that and think it sounds crazy, here's a direct quote from Greenpeace: "We support the continued use of DDT in malaria control programmes where there are no effective alternatives."

So for what we're looking at here regarding Monsanto, diving any further into DDT just is not worth the time.  All I really will say is that, yes, once again, regardless of whatever their reasons were, whatever tests they did or didn't do regarding DDT… the fact remains Monsanto produced yet another substance that became prevalent in our environment and then was subsequently banned for its toxic effects. That's a cold hard fact – it cannot be ignored – and I'll leave it at that.

We've seen enough between Agent Orange and particularly PCBs, to have a really clear look into Monsanto's past, even if DDT was never in the mix at all. Which brings me to...

## THE FIRST GMO TRUTH

There is a segment of the world right now that thinks we have absolutely nothing to see here… that all this talk about any potential dangers of GMO crops is just a bunch of drama.

But here's the thing: Monsanto is the godfather of GMOs, and they have by no stretch of the imagination earned a free pass from what they did before. This right here is where, for all of you following The Walk a Mile Project, it's the first place where you can step in and make a big difference.

Anytime this is relevant in a conversation, it's your time to speak up. That's how we spread the truth, you and me and all of us, it's our responsibility – this is what The Walk a Mile Project is all about, it's about empowering each one of us, and arming us with the truth.

## #WHYDIGDEEPER?

And here's what that truth is for our first sequence here, for the #whydigdeeper sequence. The truth is:

Monsanto started GMOs.  GMOs are yet another product that Monsanto's managed to get into the world nearly everywhere. So we know that, from a prevalence standpoint, like some of their previous products we just went over, they've done it again. They've introduced something that is pretty close to everywhere.

And when you look diligently at Monsanto's past behavior… which includes everything from lying, to hiding important information that could have saved lives, to falsifying data in scientific studies that affected court actions, to just sheer negligence – the company's past can be summed up in one word:

# DISTRUST

So for The Walk a Mile Project, in this early stage of our GMO Controversy work, I'm not saying anything about GMOs being good or bad, it's not the time. I hear a bunch of people yelling on both sides, and what matters here is that, regardless of what side you're on right now, we absolutely, positively cannot afford to sit back without digging deeper to make sure we know the real answer here. Is this stuff good or bad? Will it be like PCBs all over again?

And if you're a pro-GMO person, let me ask you this. If you invited a person into your home, and they poisoned and killed someone in your family, would you invite them in again? What if they swore it was an accident? And you know what, let's say you believed them, and you invited them back in… and they did it again? You lost another loved one. How many of you would invite them back a third time?

Because that's PCBs and Agent Orange folks. This isn't some fairy tale or a conspiracy theory.  We don't know everything that happened, but we sure as heck know a lot, and we know enough that if we invite that into the world again, without performing our own due diligence this time with something as crucial as our food supply, the consequences could be absolutely devastating.

Yes, it could be nothing.  But what if it's another PCB or dioxin type problem that we just didn't see coming because of the relatively new technology, and again, for yet another time, we let all that damage be done?

From a philosophical standpoint there is no question as to whether or not we should go the extra mile to investigate GMOs.  If you invite someone into your home, and they poison you… then they convince you that it was just an

accident, and through the kindness of your heart you invite them in again, and they poison you… you don't easily invite them in a third time. You don't do it.

And at The Walk a Mile Project, we're not going to let that happen with our food supply.  We'll find the truth over the next several months here and then we'll see where things are. So no, I'm sorry Monsanto, but our first GMO TRUTH is this:

**Because of Monsanto's tainted, ugly past, and their questionable previous actions, we absolutely must dig deeper into the GMO Controversy until we are certain that we know the truth.**

And with that first stone unturned, it's time to really get into this.  Let's start on that next one…