



---

# The Solari Report

February 1, 2018

---

**Solari Food Series**  
**Dr. Don M. Huber,**  
**Food Patriot**  
**With**  
**Harry Blazer**



An Urban Homestead



# Solari Food Series

## Dr. Don M. Huber, Food Patriot With Harry Blazer

### February 1, 2018

---

**Harry Blazer:** Hello everyone. This is Harry Blazer, and I have the honor of talking to Don M. Huber. The first thing that I am going to do is ask Don to take a few minutes to talk about who you are.

**Don Huber:** I have worn two hats much of my 55 to 60-year career. I'm a plant pathologist and a retired professor at Purdue University (emeritus professor). I'm also a retired colonel from the US Army, Medical Intelligence. My last assignment before retirement was Associate Director of the Armed Forces Medical Intelligence Center.

I've had both of those roles interact through human health as well as the crops and soils and animal health that support our human health.

I was raised on a farm, and I have a number of degrees and qualifications in preparation for those very enlightening and challenging assignments that I have been privileged to have throughout my career.



**Blazer:** You were associated with the infamous Ft. Detrick Biological Laboratories for quite a while, weren't you?

**Huber:** Yes. We had a lot of defensive research and activities involved there, and we knew that many of our potential adversaries were looking at biological warfare or chemical warfare. Those were areas that we were actively looking at how to defend ourselves and protect ourselves and our population and troops from the potential and very devastating impact of those products.

**Blazer:** And a threat to our food supply as well, correct?

**Huber:** Right. It's like Napoleon said, "An army still moves on its stomach." If you want to create total chaos in a society, you have people going hungry.

Biological warfare against crops is a very serious concern. We have enough actual native or natural events that keep us on our toes and keep us actively researching to develop new resistant varieties and better controls for many of those natural diseases that occur.

**Blazer:** Were you the main expert at Fort Detrick who the government was depending on regarding looking at the effects of these agents on plants and our food supply?

**Huber:** No, we had some very dedicated, really great people. The USDA still has that role, and there were really highly qualified people. I was just one of the teams that was privileged to be involved in the research and those activities.



**Blazer:** Along the way, you became introduced to GMOs – glyphosate (roundup) in particular. When did you become exposed to those things and become interested in it and start doing research associated with it?

**Huber:** I started seeing things happening disease-wise soon after glyphosate was registered in 1974 as a herbicide. We were seeing the increase in several diseases that I thought I knew or had a pretty good understanding on what the modes of action on those diseases were – their mode of pathogenesis and the environmental factors that would influence or predispose for those diseases.

When glyphosate was released and commercially available, we started seeing an increase in these diseases that didn't match the information that we were getting from the companies as far as a mode of action and activity. We saw that it started out as a curiosity factor. Realizing that science is always an expanding experience, I was curious as to whether I had missed something or whether – for these particular diseases – it fit the information that we knew, but it just wasn't generally recognized as part of that mode of action.

The further I got into my research, the more involved I became and the more concerned I became because of the broad-spectrum activity of this very simple compound. It is just a glycine amino acid and a phosphonate, a PO<sub>3</sub>, with a methyl group.\* So it's a very small, very simple compound, but it has some really profound effects on essentially everything that we deal with in the environment.



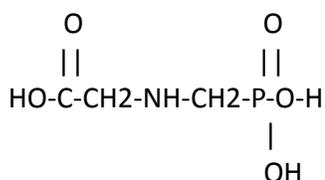
It's a very strong mineral chelator to immobilize a lot of the essential nutrients that are needed for plant growth and human health and function, but it is also a very powerful antibiotic against many of the beneficial organisms within the soil and also in our GI tract. They are all very susceptible to this antibiotic, but the pathogens are quite resistant to.

We get a dysbiosis in our GI tract. In other words, we get a change in the balance of organisms in favor of the pathogens – the disease organisms. The same thing happens in the soil so that our plant pathogens are increased in their virulence and overall activity and survival.

Many of the normal organisms that would control or suppress those pathogens in nature are sensitive to glyphosate so that they are eliminated or suppressed. So we see a combination of factors that are involved here favoring the pathogen, but also shutting down the resistance mechanisms of the plant to make them much more susceptible. The same thing is happening with humans and animals. We are becoming much more susceptible because our immune system is compromised ~~in that~~.

Then you add the GMO component, which 85% of our plants are engineered to tolerate or accumulate this herbicide/antibiotic, and you see a system that is then essentially designed for failure from a health and nutrition standpoint.

\*Glyphosate is chemically N-(Phosphonomethyl) glycine with a molecular formula of C<sub>3</sub>H<sub>8</sub>NO<sub>5</sub>P.  
'Structurally', it is written as:



Glycine --- Methyl -- Phosphonate



The methyl (CH<sub>2</sub>) is between (connecting) the PO<sub>3</sub> (phosphonate group) with the amine (NH) part of the glycine amino acid . The two carbons, two oxygens, 4 hydrogens and one nitrogen (to the left) are the amino acid glycine that is connected to the methyl phosphonate through its amine (versus its acid 'side'). Thus, it is simply the (phosphonomethyl group) connected to the amine (N) of the glycine amino acid.

Glycine is the simplest amino acid (two carbons) and can be represented various ways. The above is the more common.

**Blazer:** Let me ask this question: You said that the industry basically put out there what the mechanism was for how glyphosate worked, and then you did your own research and found out that it wasn't quite what they claimed.

What did they claim the mechanism was?

**Huber:** They claimed it only inhibited one enzyme – a very specific enzyme – and mammals were the only living things that didn't have that particular enzyme in our cells. That is the EPSPS enzyme in the shikimate pathway. However, our beneficial gut microorganisms and many of those natural disease suppressive organisms in the soil are all highly dependent on that enzyme and on that pathway for their own survival. In fact, that is how we get our aromatic amino acids like tryptophan and phenylalanine and tyrosine. They are all produced by those organisms in our GI tract, and they are very susceptible to this antibiotic glyphosate.

**Blazer:** It doesn't affect mammals; it just affects the bacteria, which we're 90% made up of, right?

**Huber:** There are ten times more bacterial cells in our GI tract than there are cells in our body. If it weren't for those organisms, we would be in really tough shape.



In fact, when you see the shift from the antibiotic activity on the beneficials and the favoring of the pathogens like E. coli or salmonella or listeria or clostridium, then you see the tremendous impact that glyphosate has on our health and well-being, and you see the same thing with the suppression of pseudomonas and bacillus and many other beneficial organisms in the soil impacting the health of plants.

It's a total environmental impact-type situation that is involved here, not just a specific enzyme that mammals don't contain that is inhibited or limited in this process.

**Blazer:** You did a very brief introduction of yourself, but it is important for people to understand – and correct me if I am saying anything wrong – that Purdue is one of the foremost agricultural research facilities in the world.

**Huber:** It's a very active research program, yes.

**Blazer:** And you weren't just some ordinary guy; you had a 50-year career. You had an opportunity to see from two perspectives – the academic world and the USDA world, and also the military world – studying pathogens and beneficials from those two contexts for many, many years. Actually, many people refer to you as one of the foremost experts in this area.

**Huber:** I didn't quite follow that.



**Blazer:** What I'm saying is that you aren't just an ordinary professor; people regard you as one of the foremost experts in the world on these subjects. Isn't that true?

**Huber:** I've 55 or 60 years of research, and I'm still very active in a lot of these areas. I'm still trying to satisfy my curiosity. I have some areas of expertise, primarily through hard work and research and study. I don't know how to categorize myself as an expert except as one who is familiar with the ins and outs of some of these diseases.

I don't know if that answers your question.

**Blazer:** You are being very modest. The reason I'm raising this point is for the following reason: You are incredibly well-respected; you were relied on by both the military, the USDA, industry, and so on to provide very insightful information because of your great research and knowledge and experience. Then suddenly, especially since you're retired, certain people think that you took a 'stupid pill', and you took a 'fraud pill'.

What I'm getting at is that suddenly when you started to become more vocal about the dangers of glyphosate, the dangers of GMO, and in particular, the dangers of Roundup Ready alfalfa that got approved - because you took a position against that; you advised the Secretary of Agriculture that he should not move ahead for other reasons, which I want to get into - then all of a sudden, the gates of hell opened up, and even members of your own faculty and other agents out there started to attack you as a 'quack'. Is this right?



**Huber:** You have to follow the dollars. When I wrote that very private-confidential letter to Secretary Vilsack, I was also Co-chairman of the USDA National Plant Disease Recovery Program. One of our responsibilities was to alert the Secretary and others of emerging diseases that could threaten the viability of our agricultural production.

I felt an obligation when I was seeing some of these things happen to alert the Secretary, and the purpose of the letter was to request the release of USDA people to be able to publish their research in this area, which they had been muzzled and prohibited from talking about, and also to point out some of the new things that were being observed and asked for specific research to be conducted in those areas.

It was that request when that very private, confidential letter was leaked to the public that got everybody concerned because of the dollars that were involved and the concerns that were raised relative to this new technology we had and still have. There was very limited evidence as to its safety and overall ramifications for agriculture and human health.

That letter to Secretary Vilsack was a request, “Let’s do the research before we put ourselves in a hole and find that we have some concerns that may be irreversible from an agricultural standpoint.”

I think that we are seeing a lot of that now, but that request – as you are probably aware – fell on deaf ears. Again, I think it was because of the dollars that were involved and the ideology that was also being promoted.



**Blazer:** In that letter, you were referring to something beyond just the chelation and the other antibiotic aspects of glyphosate, which creates a tremendous imbalance in the soils and also in our gut, which is a metaphor of the soil, you might say - and also the GMO technology itself.

You were saying that researchers were finding a new organism that had the potential to wreak incredible havoc to our ecosystem. Is that correct?

**Huber:** That is correct. We are seeing that. That was my plea or request to the Secretary – to release the scientists so that they could do the research to identify some of these new proteins that are being produced through the genetic engineering process that we have never seen in science before.

**Blazer:** By the way, that was something that was predicted by researchers, and one of the concerns they had about GMOs that was pooh-poohed by the industry and their advocates. So what you are saying is that we are starting to see that now.

**Huber:** Right. We know that any time we disrupt the integrity of the genetic code, there are many changes that take place in functional relationships. There are anywhere from 40-200 new proteins that are produced, and we have no idea what they are because we've never seen them in the scientific database before; they're not natural products.



We saw that with the genetically engineered production of L-tryptophan as a health aid or as a nutrient supplement to the diet because tryptophan is one of those aromatic amino acids that we can be very deficient in. It's one of the amino acids that is reduced dramatically by the glyphosate.

In the genetic engineering of L-tryptophan production by a particular bacterium, there was also a new protein that was produced. It took 12 years to identify it, but within two weeks after the release of the commercialization of that L-tryptophan, 80 people were dead, and it is estimated now that between 5,000 and 10,000 people are permanently incapacitated as a result of that new protein produced by genetic engineering. We had no way of anticipating it at the time because we had never seen it before.

We see many of those new products that are produced but are never tested. We had one that I specifically mentioned to the Secretary in that letter that was associated with abortions and infertility and miscarriages. I had hoped he would permit several scientists to work on this who I knew had the capability and equipment to do that particular research and had asked that the Secretary provide them permission because they were prohibited from working on the genetic engineering proteins.

Anyone who might find anything of a negative nature was prohibited from pursuing it. Genetic engineering was supposed to solve all of the world's problems. So they couldn't afford to have anyone pointing out that there might be potential problems with it for fear that it would stifle its development. Consequently, that new entity that was then being seen as associated with the higher rate of miscarriage and abortions that were occurring in our animals – and that was happening in people as well –



(could not be definitively identified).

We didn't get the funding that was needed to fully characterize that and identify it.

**Blazer:** You also had a particular concern at the time when alfalfa was being considered - Roundup Ready, genetically modified alfalfa - to be allowed to exist, which it has been (allowed) because basically, that is a primary feed for animals. Was that one of your major concerns?

**Huber:** Yes. That is our number four economic crop for agriculture, and if what we saw happen in corn with the genetic engineering increasing the susceptibility to Goss's wilt, a bacterial disease that now costs us literally millions of dollars a year in lost production and deteriorated quality, we saw that disease go from essentially a non-disease or a very rare disease to one that now you can find anywhere that corn is grown in North America.

If that same thing happens with the Roundup Ready alfalfa, where the genetic engineering process predisposes the plants to increased susceptibility to a sister bacteria to the Goss's wilt organism, then we could very easily lose a very valuable resource that we rely on for our animal production, and that is alfalfa.

We have the organism readily available in the environment. It's a matter of whether we can maintain resistance to it. One of the things that glyphosate does is it reduces the resistance to this particular disease. So it's just a matter of 8-10 years that our ability to produce that crop economically could be very seriously impaired.



**Blazer:** Just for clarification, when we talk about Roundup Ready, we're talking about glyphosate because that is the active ingredient in Roundup.

One thing that I would like to address with you is that on the internet there is a lot of crap about this guy, Kevin Folta, who supposedly made an offer to do DNA sequencing of this organism you guys are finding and complaining about in your letter to the Secretary of Agriculture. They are making a big deal over the fact that you didn't take up his offer.

Do you want to take a minute to talk about what that is all about?

**Huber:** I would be happy also. A *New York Times* investigative reporter found that Kevin Folta had not only solicited what appeared to be a bribe from the company to discredit anyone who challenged genetic engineering or any of their products, but his approach here was he said, "You give it to me. You do all the work, and then I'll show that you are a fraud."

That is not the way that you have cooperation in science. The objective is to find out what the truth is, not to prove that somebody is taking a stand one way or another.

He was asking me to do all of the work. I told him that wasn't my call. Other scientists were involved here in the research. They were working on it to start with. These proteins don't necessarily have DNA and RNA in them. So he would have had the incapability of doing that to start with.



The approach wasn't the type of cooperation that you want; you want someone who is objective and someone who is a scientist, not someone who is being paid to discredit. It would appear from the *New York Time* article what Mr. Folta's objective was, and that he was receiving \$25,000 to discredit anyone who challenged genetic engineering.

It was hardly an honest approach from our standpoint. It was merely a challenge to disrupt. My opinion was that he had no capability of doing it because of his perceived bias and assumption that just because something is able to grow and multiply and reproduce itself it has to have DNA or RNA. That is part of the failing of our knowledge of what happens genetically.

Certainly, a prion doesn't have DNA or RNA, but it self-replicates wasting disease, mad cow disease, Creutzfeldt-Jakob disease, and kuru. All of those diseases don't involve DNA or RNA but are very serious terminal diseases for the entity that those self-replicating proteins develop in.

Mr. Folta made that challenge, and he also defamed me in letters to the university beforehand, preventing a workshop on nutrition. He took the stand that would discredit the university to even have me as a speaker on it.

He had already presented his case to me of being there to disrupt and destroy rather than to complement and add additional knowledge and understanding to the process that we have such a limited understanding of.



So it was not accepted – not because I had any concern about his doing it, but I had a concern about his scientific ethics that had already been questioned through his letters, and through his statements that he had made to university people and organizers of different meetings, challenging my ability to speak. It's not scientific as I understand the scientific principle, and as I have practiced it throughout my 60-year career.

I have no objections to him raising questions or anyone else, but that is not the way that you get the answer to the question – to receive what appears to be a bribe to discredit rather than an honest scientific approach where you have the credibility to do the research that you're stating you will do.

I noticed in one of his professor blogs he stated that he was having to work on a four-day weekend and spend it in the office rather than being out on a bike ride or some other activity because he had a really great paper that had been rejected by three or four scientific journals, and he was trying to get it rewritten so that it might be acceptable by somebody.

Well, that is not the kind of credibility that you want for a cooperator in your science. So I didn't follow up there.

That research is continuing. It's on a bootleg basis with the dedicated scientists. There is a tremendous amount of information that is available on it, and it will be published when the proper ID can be placed on that particular entity. But there are many other new proteins that we see as a result of the genetic engineering process that we have no idea what their chronic exposure can do or what health risks are involved there.



We have abandoned the precautionary principle, and that just happens to be one of the entities that has been developed far enough along you could see that constant association that said, “Hey, there’s a red flag here we need to pursue and see whether this is cause or correlation,” and resolve this issue to at least find out what is causing this very high rate of abortion and infertility we are experiencing now, which we didn’t see prior to the GMOs.

**Blazer:** While I’m at it, I’m going to address one other attack on you. These are guys from your university here, Jim Camberato, who is a soil fertility specialist, and Shaun Casteel, who is a soybean agronomist at Purdue, Peter Goldsbrough, Department Head for Botany and Plant Pathology, Bill Johnson, an extension weed scientists at Purdue University, and Kiersten Wise, extension field crop pathologist also at Purdue, and Charles Woloshuk.

Basically, these guys put out an article in a journal, and it says, “The overall claims that glyphosate is having a widespread effect on plant health are largely unsubstantiated. To date, there is limited scientific research data that suggests that plant diseases have increased in GM crops due to the use of glyphosate. Most importantly, the impact of these interactions on yield has not been demonstrated. Therefore, we maintain our recommendations of judicious glyphosate use for weed control. We encourage crop producers, agribusiness personnel, and the general public to speak with university extension personnel before making changes in crop production practices that are based on sensationalist claims instead of facts,” and, of course, those ‘sensationalist claims’ are coming from you.



What do you think of the fact that these guys – right from your university with some pedigree, and even the head of the botany department – say that you are full of crap?

**Huber:** Again, you have to follow the dollars. You also have to consider what their association was with me and their familiarity with my research over that 35-year period. Half of those people had no idea what my research was. I don't know why they would sign on to a statement in the public release of that information because they had no idea what my research had been the previous 35 years where I had extensive research.

My last 20 years was focused on how we remediate the damage that is being done and how we can offset the effects. We know that all the herbicides are mineral chelators. That is how they work. That is how you shut down a physiological pathway. You chelate or immobilize that critical micronutrient that is the cofactor for those enzymes. If you immobilize that, you turn the motor off. You turn the engine off there as well as that enzyme function.

You get into the Pacific Northwest: you get into the Canadian prairies where we use the fenoxaprop type of herbicides. Ian Evans, agronomist, for Ag Canada would tell all of his growers, “Make sure you get copper out to make a full sufficiency on these low copper soils. You're going to have very severe ergot disease and very poor crops because copper deficiency changes the susceptibility to that particular disease.”

Barney Gordon at Kansas State University said that if you are going to grow Roundup-ready soybeans, make sure that you have your manganese levels at full sufficiency, and it may take 2.5 to 5 pounds —



more manganese per acre to meet the sufficiency needs of the Roundup Ready compared with the non-Roundup Ready parent.

That research is the same as what I was sharing with my growers in Indiana, was that there is a reduced nutrient efficiency, reduced nutrient availability, which is very well documented in the literature. We used to talk about yield drag with the genetically engineered crops. Once the GMO companies prohibited any of that research being done, then people forgot about the yield drag because they didn't have any way to verify it and compare it.

That is a very common well-recognized phenomena, and these are young enough people that apparently didn't ask to read the older literature or didn't take the time to search the older literature to understand what 'normal' used to be compared to what 'normal' today is.

**Blazer:** I would like to tell the listeners the following. There is a new book out by Carey Gillam called *Whitewash: The Story of a Weed Killer, Cancer, and the Corruption of Science*. This is a very reputable researcher and journalist who spent a lot of time going through documents that had become available not only through the Freedom of Information Act, but also lawsuits against Monsanto. She shows the shenanigans going on.

You have the face of Monsanto and what they say, and then you have the emails and other documentation that show what they are really thinking and doing, and how they go out of their way to stack the deck, to recruit people like Folta, to create noise, and —



go after people like Dr. Huber to destroy their image, their character and years and years of research based on great intelligence and great integrity.

But then also when you go to Wikipedia, you can see what it says about Vilsack: “Vilsack has repeatedly demonstrated a preference for large industrial farms and genetically modified crops. As Iowa state governor, he originated the seed pre-emption bill in 2005, effectively blocking local communities from regulating where genetically engineered crops would be grown. Additionally, Vilsack was the founder and former chair of the Governor's Biotechnology Partnership, and was named Governor of the Year by the Biotechnology Industry Organization.”

What I see here, Dr. Huber, and the reason I wanted to talk to you is that, to me, you are one of my heroes. You are also somebody who really knows what they are talking about. Not only that, but common sense would tell you that if this thing is a chelator and antibiotic – and by the way, Monsanto has patents for it being these things among other things – how could it not disrupt your soil? How could it not disrupt the bacteria in your gut?

You don't have to be a scientist to understand that of course, it's going to do that; that is how it operates.

What I see here is that we have got a crime scene. We've got crimes being committed that are ending up in the destruction of our ecology and the destruction of human lives, and that actually causes death. The government with the cooperation of industry and the cooperation of media is basically covering it up.



Do you think that is an apt description of what we are seeing here?

**Huber:** Yes. When we would evaluate the potential for various agents as biological warfare agents against us, this approach probably meets all the vulnerability aspects that we would be concerned about, and yet they are totally ignored by people who have been entrusted to protect us. It has been a total betrayal of that trust that we have placed in them, all for the almighty dollar.

**Blazer:** Do you think that is the only reason?

**Huber:** There are a number of speculations out there as to why people might be willing to accept a major health epidemic or pandemic. I guess I don't get involved in those. I read them, look at them, and I have been involved in a number of cases with the desire for population control. That was probably one of my black marks in certain groups in challenging some of those approaches for mass genocide that were essentially being proposed from a governmental standpoint. I'm happy to say that I think my opposition had an impact in reducing it and putting it in a different perspective. It was just one of those things that you do because it's the right thing to do, and you have to challenge those things.

**Blazer:** Are you saying that you were in a position at one point to see certain proposals and plans being put forward for mass genocide - for population reduction - and you were a force against that?



**Huber:** I took a very definite stand that is not the role of government or anyone else. It violates our anti-genocide treaties, our UN stand and a number of other things. I could work with people in key places in our government as well as other governments to make that point that it was a betrayal of the public trust.

I have some very serious concerns that those ideas still flourish in some avenues. Certainly if you just look at it from a straight vulnerability standpoint and an agricultural sustainability standpoint, you have to raise the question of: Why would we essentially do everything that we have plenty of experience in the past that would jeopardize our agricultural sustainability and defense against both natural as well as offensive agents and expose ourselves to that kind of a problem?

In the Cold War, we did everything we could to minimize that genetic vulnerability in our crops. Now we have 98% of our number-two crop that is all one genetic base - Roundup Ready. We learned during the 1970-1971 corn leaf blight epidemic what happens when you have 70% of your agricultural production with a single genetic characteristic, and that was the Texas male sterile. Our advantage there and our ability to recover quickly and maintain our production with that natural mutation was that we had the ability then, with 30% of our commercial crops not being Texas male sterile. And also we had literally hundreds of private seed companies – small seed companies – that could rally their production and move away from the Texas male sterile to restore resistance to that particular disease.



None of those conditions exist today. Four or five companies control essentially all of our major seed supply. None of them, to my knowledge, are really paying a whole lot of attention to making sure that we have that diversity from a genetic standpoint that would buffer against either a natural or a man-made epidemic and its impact on politics as well as human suffering from an agricultural standpoint. It's not just an army that still moves on its stomach; society moves on its stomach, and agriculture is the basic infrastructure for any society.

When you destroy your infrastructure, or you increase its vulnerability, you essentially have rendered the system extremely vulnerable to severe casualties along the way.

**Blazer:** So in addition to everything else that is bad about GMOs and the associated chemicals that are used, one of the reasons that GMOs were invented was so that you could use those chemicals without destroying the crop – as though that was going to be good for us to eat many more of those chemicals.

One of the other major themes that you are talking about is the destruction of diversity, which is the foundation for vitality in ecological systems.

**Huber:** Right. With a lot of those systems, it's not like turning on a faucet and reversing them. Many of those are long-term effects that we have to work at to reverse the damage that is done. You can set up an experiment that gets the results you want, but it doesn't mean that is the impact and the full story that should be told and should be evaluated and analyzed.



**Blazer:** So it's clear that there are powerful forces pushing for an agenda that is not good for our soil, good for our world or good for our health. It's not good for people; it's not good for animals; it's not good for bacteria, and it's not good for GAIA.

What is the way to stop this?

**Huber:** I think that is a correct statement, whether you are looking at it from an overt or just a natural biology. Biology is always changing, and before we could register a pesticide or a herbicide or any of them earlier, we used to have to identify what the degradation process was and what the overall environmental impact was.

With glyphosate, for some reason, those requirements were not initiated or maintained. It was given a pass just because of the statement, "well, it only affects one enzyme, and it can never be toxic to mammals because mammals don't have that particular enzyme". So it was given a pass on the safety, but there are many other things – as we've already discussed – like the antibiotics, and the fact that it's a synthetic amino acid that is basic to many of our proteins. Probably 50% of our proteins contain glycine. So if it starts substituting for any of those proteins, whether it's an enzyme or whether it's a structural protein, you change the activity and behavior.

All of those aspects need to be considered when you consider something that's used on 90+% of your agricultural acreage. That was never permitted before.

One example would be with the herbicide Tordon. We knew that it took four years for full degradation.



It could only be used on a maximum of 20% of the potential acreage in any one year to give it time for breakdown. We rotated those herbicides with the different crops.

Now you have one herbicide primarily that is used on 98% of your acreage that has a very broad-spectrum impact on the environment as you've discussed. So there is no relief. We find ourselves in a hole, and we just keep digging.

**Blazer:** We'll leave here shortly, but I just wanted to ask this question: In your opinion, what are the most effective ways to reverse these negative, deadly trends?

**Huber:** : One of the first aspects of my research was in counteracting these effects. How do we use the technology? How do we use the technology without taking a beating? One way was to recognize that it reduces nutrient efficiency and nutrient availability – both biologically as well as soil-wise. We need to recognize that it takes more available nutrients to compensate for and offset some of these effects.

That is a short-term response. Long-term we need to build our soil biology back up. Everything starts there. If you have healthy soils, then you have healthy and nutritious plants. This is the year of the soil microbiome. We need to look at that biology that is the basis for much of our nutrient availability.

We need to change what we're doing. We can't keep dumping this material on it – half a billion pounds per year in the US, about half of it for agricultural and half of it for non-agricultural use –



and expect a different result from year to year. We have to start using some common sense and some reasoning. We need to look at other approaches for weed control or disease control.

If we get nutrition back so that the plant is competitive, we will see a very significant move towards that improved health and vigor of our plants and nutritional value. We'll see that reflected in our children and our people.

I think that future historians will look back, as I've made this statement before, and write about our time. They won't write about how many pounds of pesticide we did or didn't apply, but about how willing we are to sacrifice our children and jeopardize future generations for this massive experiment that we call genetic engineering that is based on flawed science and failed promises just to benefit the bottom line of a commercial enterprise. We see that same philosophy being promoted now.

They say, "Now we have resistant weeds to glyphosate, to the Roundup, and now we have to add another one. So we do it with dicamba, a very toxic compound. Dicamba is not enough, so we'll also do it with 2,4-D (one of the ingredients in Agent Orange – another Monsanto product).

You look at our legacy from Agent Orange and the birth defects and that from the Vietnam era, and we just keep multiplying the damage rather than stepping back and saying, "Hey, this got us into some pretty serious problems. Let's take another approach."



Let's go back to some of the techniques and some of the approaches that we had or were working on in the 1950s and 1960s, or even the 1940s that I can remember as being very effective from a crop production standpoint. It's not always easier, but it's very effective from a production standpoint and a quality standpoint.

Hopefully, we'll do that. Sometimes we do it only after we've really exhausted all other means, but I think our health problems are reaching the magnitude that no society can sustain the damage that we are doing to our children and grandchildren.

**Blazer:** So in the meantime, ordinary people can eat organic, they can support local farmers they can verify are using truly sustainable practices that are not using GMOs or using these terrible toxic chemicals that are creating huge imbalances, and they can- not buy products at their grocery stores that use GMOs and that have GMOs in them. They could not buy meat and so on that are fed GMOs – even farmed fish.

Would you agree that is a way that the individual could help turn the tide?

**Huber:** I think that is what will turn it and is turning it. I think that if you look at the market share, it is starting to shift now. People are recognizing that what we've been doing here in the recent past isn't working. It's creating tremendous problems.

It's a little more expensive now to purchase just the organic sometimes – not necessarily, but sometimes – but you either pay a bit more for that quality food, or you pay it in the doctor's office with a lot of heartache and damage that is done on a long-term basis with our children.



I fully agree with you that getting that healthy, clean food is critical for the survival and maintenance of our society.

**Blazer:** So how old are you now, doctor?

**Huber:** I'm 82.

**Blazer:** I want to thank you so much for taking this time. Again, you are one of my heroes. You have incredible knowledge, incredible experience; you've been on the front lines for many, many decades; you have incredible integrity, and the world owes you a debt for your courage in speaking out on these very, very critical matters.

I want to thank you so much for taking the time to do it with us.

**Huber:** Thank you, Harry. I appreciate the opportunity to share. If I can be of any help, I welcome that opportunity. I think there are some things coming up on the horizon that will certainly clarify a lot of the gray areas that the companies try to throw out there to confuse people rather than to enlighten.

I have enough optimism that we are going to get through this, but I see the damage to our children and grandchildren, and my great-grandchildren that I have a serious concern for. I hope that we can turn it for their sake in a shorter time period rather than a longer one.

I appreciate your sharing the word and getting the information out to people. It's critical for those to make those changes.



**Blazer:** Thank you so much, sir.

**Huber:** You're welcome and, again, Happy New Year. We have a new start. I hope that we can use this time effectively to benefit society as a whole, and certainly to strengthen our families and our communities. That starts with a healthy population as we go along.

Thanks to you. I appreciate you letting me ramble here a bit.

**Blazer:** It's hardly rambling! Thank you so much, sir and best to you and your family.

**Huber:** Thanks, Harry.



## **MODIFICATION**

Transcripts are not always verbatim. Modifications are sometimes made to improve clarity, usefulness and readability, while staying true to the original intent.

## **DISCLAIMER**

Nothing on The Solari Report should be taken as individual investment advice. Anyone seeking investment advice for his or her personal financial situation is advised to seek out a qualified advisor or advisors and provide as much information as possible to the advisor in order that such advisor can take into account all relevant circumstances, objectives, and risks before rendering an opinion as to the appropriate investment strategy.