

Shaun Hamlin

Dr. Galik-English 122

Creative Non-Fiction

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The Fall of Farming

I recall a brief conversation with a farmer in Knox, Indiana in the year 2012. I asked him what he thought about transitioning into fully sustainable farming practices. He answered, “It costs a lot more money and requires a lot more work. I am not real interested in it, to tell you the truth” (Lawrence).

I would love to speak with him now to find out how his attitude toward organic agriculture has affected him today. If his situation is like a lot of producers' that chose to ignore all warning signs of infertile soil, then he has forfeited his farm to the government. He has probably found work at a government-owned packing or curing plant.

Many producers already are, or will be, packing meat or curing crops raised on the land the government seized from them. Did the Fed plan for this to happen? Yes, in my opinion, they absolutely planned the recent happenings. Whether they will admit it or not, the vast majority of producers were warned for many years before this actually happened. Unfortunately, most farmers thought that sustainable agriculture advocates were “off their rocker” a bit, so they refused to receive advice with an open mind.

I was—and I still am—one of those sustainable agriculture advocates that a lot of farmers thought was crazy. Many of them probably still think I am crazy, but that’s okay. I hate to be boastful,

but I still have the farms I had forty years ago and I have expanded continuously since then. No packing meat or curing crops raised on my government-seized farm going on here.

Although it saddens my heart to see what is happening to so many producers, I do not feel guilty in the least bit. I did my best to convey the evidence that revealed to me what was going to happen in the times to come, but many refused to listen. Looking back, the signs were so clear, even thirty years ago, that I cannot help but to think that plain old stubbornness landed many producers in their current situation.

Time and time again, researchers discovered ways to produce the same amount of crop yield and livestock density without using nitrate fertilizers (Reddy, 2009). With nitrate runoff being one of the largest contributors to water pollution, one would assume it would be outlawed as soon as researchers found ways to replace it. In America, one would have assumed incorrectly about this, because nitrate fertilizers such as Urea and Anhydrous Ammonia were never outlawed from agriculture production, despite their harmful effects on the environment and human health.

Naturally, you may be wondering why the former would display preliminary evidence to what was going to happen and is happening now. The answer is this: the government knew that nitrate fertilizer was weakening soil fertility each season it was applied, so they refused to outlaw it not because of tax dollars, but because it would provide an excuse for them to “take control” of the agriculture industry in the future, which we are now a part of. Tax dollars were never the real reason for the fed’s refusal to outlaw nitrate fertilizer. In fact, the products discovered and reproduced to replace it were usually much more expensive than nitrate fertilizers, so tax dollars would have increased. For example, Sumagrow products are microbial formulations that reduce and replace the need for chemical fertilizers and they are priced at about \$6.90 per liquid pound (“Tall Harvest”). On the other hand, according to USDA statistics, chemical synthetics such as urea are priced at just \$0.28 per granular pound (USDA) . It

is also important to keep in mind that most non-phosphate synthetic fertilizers are not even produced in America ("Statistics FAQs"). Thus, my question to producers has been: How did you not see this coming?

Prior to the recent happenings within the American agriculture industry, many farms believed they were "too big to fail." Recently, those farms have discovered that their size only meant that they would fall even harder. Unfortunately, one of those farms happens to be the farm of one of my lifelong friends.

I recently had a chance to speak with him about what led up to the forfeit of his 11,000 acre farming operation and how neglecting the warning signs affected him and his family today. First, I asked him what he thought about all that has gone on in regards to his farming operation over the last year. He replied:

Well, I wish I had not been so stubborn. They predicted this would happen in the 2009 FOA Conference on *Feeding the World in 2050*, but everybody thought they were nuts. It just sounded like another one of those new theories some scientists had found minute evidence to support. During a time when some people thought the world was going to end in 2012, it made me skeptical of any hocus pocus idea like the conclusion of that FOA conference. Now that I can look back on it, they had a lot more than minute evidence to support their theory. The 2009 predictions were based on simple population growth versus production decline statistics, which were available to the public.

At this point in our conversation, I nearly blurted out an "I told you so," but I couldn't. This guy had been my friend since the fourth grade. I felt terrible for him and his family. I interrupted him only to lead into an open-end question that would allow him to really tell his story, which happens to be the story of a large percentage of American farmers currently. I asked Doug what the true story was behind

the events that led up to what had happened to his farm, along with many others, in the past year. This is the story of Doug, a fifth generation American Corn Belt farmer:

In about 2020, I finally recognized that there was more to consistent increases in production costs than just inflation. Prior to that time, I had never really investigated my cost of production too much. I had always expected a gradual increase in production costs because of the rate of inflation in America. In pre-season 2020, I decided to look a little closer at all of my expenses because I had been hearing so much about the price of urea falling to an all-time low, but my production costs did not reflect that.

After a little file-digging, I reached the conclusion that inflation was not what caused the gradual increase in expenses around the farm. My fertilizer and nutrient requirements were increasing annually. Each year I was applying more and more of each. Funny thing was that my yields did not reflect an increase in fertilization. I had maintained fairly steady production levels for quite some time at that point in time. I was never an engineer, but I could add that up in my head easily. If one end of the line was rising and the other was stagnant, then sooner or later the ends would collide. The collision would be at my break-even point. I remember the worry that came over me that year. I did not know what exactly I was going to do, but I knew something had to be done.

My first thoughts were that maybe I had been wrong all along. Maybe my practices weren't really sustainable. I did not know much about organic farming transitions, but I knew they were tough. I had heard not to count on much of anything for the first three years of the process. Of course I had you telling me otherwise, but I couldn't let you run my operation. We have been friends for too long and that would have felt like me telling you that you were right.

I could not refrain from laughing out loud from Doug's prior statement. He laughed a little, too, but we were recording the interview, so I winked and told him to continue with his story.

As an 11,000 acre operation, we had a very detailed contract with the distillery I was growing for. When I mentioned my initiative to transition to organic production, they told me that if my yields dropped too much during the first transitional season, then I would have to make a decision. I would either lose my contract (because production practices were actually included) or return to conventional farming. Being the stubborn man I am, I attempted to try transitioning in my own fashion because I believed I could do better than the systems you had developed for transitions.

During that first transitional season, my yields dropped by 50-60 bushels per acre. My buyer warned me that I had to make a choice. With a family to support, I chose to go back to conventional production. Things really went downhill on the farm from that point on.

After a season of little-to-no nitrate fertilizer, my agronomist recommended a 140% application of urea in comparison to what I applied just two seasons before. He wanted to ensure my yield numbers would be sufficient to maintain contract. I took his advice and my performance was good enough to keep the contract, but the years that followed got rougher and rougher.

In 2023, my nutrient requirements were almost exactly the same as that of my 2022 requirements. Our agronomist assured me that after a year or two my applications would fall back to average levels. He said I just had to get my soil strength back to where it was before I attempted the cold-turkey transition. In fact, the agronomist could not have been more incorrect with his statements.

Every year after 2020, my rates increased while my yields maintained. With fewer profits, our budget continued to get tighter and tighter. By 2035, I could only afford to apply 75% of what my agronomist recommended and my yields were affected. The same things were happening to so many producers that I was able to hold my contract with the distillery because they needed all the producers they could find on contract. Unfortunately, after five seasons, almost every distillery shut down because of the new laws that left them with only the leftovers of each year's corn crop. The food crisis earned mills the rights to the corn harvest.

For two years following the distillery shutting down, I grew corn and soybeans for one of the government-owned cereal companies that had spread its dominance throughout the country by that time. Those two years growing for the government led up to the worst year of my life to this point.

Last year, after the 2042 growing season had come to an end, a USDA official showed up at the farm. He told me that America was facing the biggest food crisis in history. He informed me that the government would be forced to seize my land and rehabilitate it for better production if I could not increase my productivity by 70% within the next three growing seasons. I tried to dispute his statement at first, but he quickly let me know that I could be indicted if I were to refuse to leave my farm after the three-year trial period.

I had no choice but to think logically about the situation. I knew that 70% increase was nothing short of impossible in three years, and it would soak all of the money we still had trying to reach that goal. With that in mind, I agreed to sign off and forfeited my farm to the government the following week.

Today, Doug is working as a diesel mechanic. He repairs damaged farm equipment just like the equipment he used to repair for the betterment of his own operation, except now he repairs equipment for the government on farm-seized land.

Doug's story is one that has many similar authors throughout America. With a major food crisis at hand and a lack of food promised for the future, the government is seizing farms one after another, claiming that they will be rehabilitating them for optimal production. I find it more than coincidental that the main factor the government is using for rehabilitation is cutting out nitrate fertilizer from the farms' input formulas and replacing it with natural, biological supplements. For the past 33 years, I have been trying to convince producers to apply the techniques the government is using to rehabilitate seized farms. For the past 33 years, many producers have believed me to be crazy or just another hustler trying to get in their pockets. Unfortunately, no one thinks I am crazy anymore, because they are experiencing first-hand what sustainable agriculture advocates warned them of as many as 35 years ago.

ENDNOTE: All of what you have just read is a fast forwarded glimpse of what we can expect to see in the times to come if we continue to ignore the effects of unsustainable production practices, based on the 2009 FOA conclusions at the Rome conference.

Works Cited

- Food and Agriculture Organization of the United Nations. *How to Feed the World in 2050*. Proc. of How to Feed The World In 2050, Italy, Rome. Vol. 1. Rome: Food and Agriculture Organization of the United Nations, 2009. Web.
- Lawrence, Brad. "Sustainable Production Transition." Telephone interview. Mar. 2012.
- Reddy, C. A. *Polymicrobial Formulations for Enhanced Productivity of a Broad Spectrum of Crops*. 4th World Congress on Conservation Agriculture [WWCCA]: Innovations for Improving Efficiency, Equity and Environment; 2009 Feb. 4; New Delhi, India: 4th World Congress on Conservation Agriculture; 2009, 94-101 p.
- "Statistics FAQs." *The Fertilizer Institute*. N.d. Web. 17 July 2012.
- "Tall Harvest Organic." *GreenGenesis*. 2012. Web. 20 July 2012.
- United States Department of Agriculture. "Fertilizer Use and Price." *USDA Economic Research Service*. 05 July 2012. Web. 17 July 2012.

Green Genesis, LLC
271 West Short Street, Suite 412
Lexington, KY 40507
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Administrator
Agricultural Marketing Service
USDA

STOP Code 0201,

1400 Independence Avenue,

S.W., Washington, D.C. 20250-0201

Dear Administrator:

Due to the harmful effects of excessive use of chemical fertilizer in agricultural production and the population growing faster than production growth, at Green Genesis, LLC we take our mission statement very seriously: to provide eco-friendly land nutrition plans and products, to a wide-range of farms, that offer a smooth transition into a healthier, more-profitable, and sustainable way of production to feed a hungry world.

Due to the cost increases involved with transitioning into organic production, a majority of farmers resist initiating the transition. According to the 2007 USDA Agriculture Census, the average farm receives \$9,523.00 of government funds per year, but the average organic farm's production costs total \$171,978.00 versus all other farms' average production costs of \$109,359.00. Growing up on the farm, I know the views of most producers. American farmers want to do what is right, but they also understand the responsibility of providing for the family. While they would love to make the transition to become better stewards of the land, they simply cannot afford the production cost increases during the process.

Green Genesis, LLC's eco-friendly land nutrition plans and products have proven to:

- Improve nutrient and water uptake
- Improve root and plant growth and crop yield
- Improve plants' efficiency in using solar energy
- Reduce stress of transplanting and drought
- Increase Cation Exchange Capacity
- Reduce infestations of insects, harmful microbes, and nematodes

- Increase effects of beneficial microbes and organisms
- Improve soil health and water retention
- Stimulate balanced microflora populations
- Increase bioactive substances needed for plant growth and development
- Reduce reliance on chemical fertilizers and pesticides
- Improve the taste and quality of crops
- Help release micronutrients and trace elements
- Stimulate germination
- Reduce amount of toxins in soil associated with harmful organisms
- Increase healthy decomposition of organic matter

The efficacy of all of the former facts have proven key benefits to producers: increased dry matter yield in a wide-range of vegetable and fruit crops as well as hay and forage pastures; increased Brix (dissolvable sugar and nutrient content) levels in a wide-range of fruit and vegetable and fruit crops as well as hay and forage pastures; increased Average Daily Gain in livestock; and reduced need for chemical fertilizers, pesticides, and herbicides by 50% in the first season.

Thus, Green Genesis, LLC is requesting a grant of \$150,000.00 USD for conducting research field trials. Funds will be used for purchasing the necessary products and equipment to provide producers, in the state of Colorado, the opportunity to “see” a pathway to making a smooth transition toward organic production practices. Only producers who are willing to sign a contract and initiate a transition toward organic production, following the results of a research trial season with a designated test plot using Green Genesis, LLC-suggested nutritional input applications, will qualify to participate in a field trial.

The goal of this research project will be to begin replacing chemical fertilizer with all natural bio-fertilizer that functions by fixing nutrients naturally present in the soil, rather than attempting to put back synthetic nutrients that are harmful to the environment and consumer. The research participants will then set the trend for other producers in the state to make the same choices.

Possible Sources:

All non-organic producers in each of Colorado’s 64 counties will receive a direct mail application. One participant per county will be selected to participate in a field trial at no cost to them.

Guidelines & Qualifications for Applicants:

Each selected applicant will be offered the opportunity to participate in a field trial consisting of one designated plot up to, and no more than, 50 acres using the Sumagrow nutritional product determined by Green Genesis, LLC.

The selected applicant will also be required to reduce the applications of all chemical fertilizer by 50% of suggested amounts according to pre-application soil analysis.

The selected applicant must sign a contract stating that they will initiate a transition toward organic production following the results of the field trial if, and only if, the trial plot results prove dry matter yield numbers greater than or equal to a randomly selected control plot of the same dimensions, OR if, and only if, the trial plots crop proves to hold higher brix measurements upon harvest in comparison to the control plot crop.

TIMELINE FOR RESEARCH FIELD TRIALS

The time periods for this research will vary dependent upon the participating producer's specific crop type, but a general time frame will be conducted as follows:

Crop type	1st suggested input application	2nd suggested input application (if needed)
Barley, Spring	Apr 5-May 5	Jun 5- Jul 5
Beans, Dry	Jun 1- Jun 20	Jul 15- Aug 10
Corn, for grain	May 1- May15	July 5-July 25
Corn, for silage	May 1-May 15	July 5-July 25
Hay, Alfalfa	Spring-green-up	May 25-Jun 15
Hay, other	Spring-green-up	Jun 25-Jul 10
Oats, spring	Apr 5- May 5	May 20-Jul 5
Potatoes, fall	May 5-May 25	Jul 5-Jul 25
Potatoes, summer	Apr 15-May 10	Jun 15-Jul 20
Sorghum, for grain	Jun 1-Jun 20	Aug 5-Sept 15
Sorghum, for silage	Jun 1- Jun 20	Jul 15-Aug1
Sugar beats	Apr 10-Apr 25	Jul 10- Aug 5
Wheat, spring	Apr 20-May 10	Jun 10-Jul 1

Wheat, winter	Sep 10-Sep 25	Feb 10-Mar 20
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*All dates will be set to take place in 2013 upon Green Genesis, LLC selecting qualified applicants, from each of the 64 counties within the state of Colorado, to participate prior to 1/1/13. The time period between the selection of participants and given application dates will be needed for producers to make adjustments in their upcoming season's input purchases.

Significance of Research:

Many producers are fond of transitioning toward organic practices, but are resistant to the increase in cost of organic production. This research will shine a light on a smooth path toward organic production. By applying proven soil nutrition plans and products that actually increase production and decrease input costs during the transition process to compensate for increased expenses, producers will no longer feel the resistance of initiating the change. The key here will be allowing producers to see the light for themselves because the majority of them do not have the educational background to analyze the simple science behind the facts. I grew up on the farm. I know how farmers think. They have to see it first, and then they will act on it.

Follow-Up Plan for Expanding Organic Agricultural Production

Upon completion of the full trial season, if the result requirements to initiate a transition toward organic production are met, Green Genesis, LLC will provide a soil nutrition plan for the producer to make a full transition to organic production over a time frame of no more than five full growing seasons. The time frame of the transition will be dependent upon the producer's soil health following the trial season. The plan for reduction of chemical fertilizer will be as follows, unless soil health allows for a faster transition process:

- 1st growing season-50% reduction based upon soil-analysis recommendations
- 2nd growing season-60% reduction based upon soil-analysis recommendations
- 3rd growing season-70% reduction based upon soil-analysis recommendations
- 4th growing season-80% reduction based upon soil-analysis recommendations
- 5th growing season-90% reduction based upon soil-analysis recommendations
- 6th growing season-100% reduction of all chemical fertilizer

Projected Concerns:

- 1.) What if the producer is not willing to sign a contract to initiate a total transition toward organic production following the trial season?
 - a. The guidelines of the participating producer say that they must initiate a transition if the dry matter yield results of the trial plot are greater than or equal to those of

the control plot or the brix measurements of the crop from the trial plot are higher, at harvest, than that of the control plot's crop. Due to the decrease in input cost that our products allow, any of the former results would be of increased benefit to the producer. If a producer keeps the same yield figures, but reduces his or her input costs and/or increases his or her crop's brix levels, then the battle is still won. Decreased costs and increased brix levels increase the price of crop to buyer, which also benefits the producer. Thus, the research field trial will be a win-win situation for the producer, and the question would become: Why wouldn't they agree to the conditions of the trial that offers them an opportunity for higher yields, lower costs, and allows for a smooth transition into a more-profitable, eco-friendly, sustainable operation?

- b. Regardless of any of the former, Green Genesis, LLC has stated to only select applicants who agree to the given terms of the field trial to participate.
- 2.) What if the trial results do not prove to be of benefit to the producer's attempt to initiate a transition toward organic production?
- a. Agriculture is something that promises nothing. Those of us involved are dependent upon Mother Earth's natural reactions. Thus, I will not attempt to deceive you with a smooth-salesman type of response to this concern. My first suggestion would be to view the results we have accumulated from past field trials and client results to see what this research project is capable of accomplishing.
 - b. My second suggestion is to weigh the risk vs. reward factor involved with this research project.

The researchers conducting this project will be as follows:

Sam Whitehead- Corporate Attorney and Co-Founder of Green Genesis, LLC

Sam has been practicing Corporate Agriculture Law for 42 years in the state of Kentucky. He is an original member of Bio Soil Enhancers, Inc. manufacturing company and was one, of two, to form a company—Green Genesis, LLC—specializing in organic production transitions. Sam's expertise in the field does not come from a collegiate certificate degree. Rather, it comes from advising corporate farming operations for 42 years and operating a family farm for over 60 years. Sam will be in charge of the legal documentation of the field trials and contracts based upon the given guidelines of the research field trials.

Shaun Hamlin-Agricultural Engineering Student and Co-Founder of Green Genesis, LLC

Shaun is the great nephew of Sam Whitehead, with whom he worked side-by-side during business and research for Bio Soil Enhancers, Inc. Shaun grew up on a thoroughbred boarding and beef cattle farm near Shelbyville, KY. He began working on the farm at age five by helping older family members care for the livestock. At age 16 he leased his first plot of land from his father to plant 25 acres of corn and soy beans. Shaun is now 21 years of age and manages corn and soy bean production on 2,200 acres of his father's farm. Shaun's expertise in the field comes

from a life-long experience with agriculture practices and apprenticeships with experts such as Allen Williams, Ph.D., PAS, LMC of Tall Grass Beef Company, where he learned scientific techniques to support transitions toward organic production. Shaun Hamlin will be responsible for selecting the applicants to participate in the field trials and managing operations of the field trial itself.

Derek Ladd- Financier at CDM in San Diego, CA with a BS, Environmental and Soil Science from the University of Tennessee

Derek has been working in the Environmental Science field with CDM corporations for over ten years. He has earned his way to the top of the environmental solution corporation's finance department. Derek has gained much expertise in the field of Environmental and Soil Science throughout his studies at the University of Tennessee and his time in the working field with CDM Corporation. Derek will be conducting the finance report for each individual field trial and providing the recommended application rates for each field trial as well.

*Documentation of all statements in the above research proposal may be found by visiting www.agriculture-sustainable.com and viewing the results pages. Please contact the Green Genesis, LLC home office @ 859-231-4277 with any questions or additional information requests.

Additional Resources:

Reddy, C. A. *Innovations for Improving Efficiency, Equity and Environment*. Rep. 1st ed. Vol. 1. New Delhi, India: 4th World Congress on Conservation Agriculture, 2009. Print.
Polymicrobial Formulations for Enhanced Productivity of a Broad Spectrum of Crops.

USDA. *2007 Agriculture Census*. Rep. no. 1. Practices ed. Washington, D.C.: USDA, 2007. Print. Organic Farming.

USDA. *Agriculture Census*. Rep. Economics ed. Washington, D.C.: United States Department of Agriculture, 2007. Print. Economics Overview.