



# *The* Wonder Springs Chronicle

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## The Wonder Springs Chronicle

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## Doings in the Dirt

*Highly indebted governments, banks, or corporations can seem to be merrily rolling along for an extended period, when bang! — confidence collapses, lenders disappear, and a crisis hits.*

— Reinhart and Rogoff quoted in *This Time is Different*

I know the above quotation has to do with money and dollars, but money is really just a functional necessity of a somewhat artificial world of enterprise and finance. I suppose in reality we could eat dollars, but all they would really do is increase our daily fiber content, not much nutritional value there. We could also eat dirt, with much the same result. Furthermore both money and dirt are in some circles considered filthy, which is undoubtedly true in a biological context.

The point is both money and dirt are in theory used to grow something. Sadly in our economic world the over use of debt, through highly leveraged fractional reserve banking is in the process of bankrupting the world. In the case of real dirt, that same monetary leverage is leading to perhaps the final chapter in the Debt

Supercycle and we may go truly hungry as that deleveraging occurs.

In the United States there are currently over three hundred million people, of that total less than one percent, perhaps two million are directly involved in providing the food we eat. (Since as of this writing we still do not have an permanent Internet connection, that estimate will have to do.) Yet if something goes wrong with what that small minority does; either through natural climate changes, or world economic changes — well over three hundred million people in this country are going to go hungry — and much of the rest of the world will face a severe famine.

We don't like to think about dirt, after all it is dirty and we like to be clean. Yet the Bible says that we were created out of the dust of the ground, and formed into a likeness of the living God. Even



evolutionists believe that somehow, through great mega-faith, those dirty elements rearranged into some form of life.

Essentially we like to be dirt-free because we don't want to accept our humble roots, hence we can seem to be merrily rolling along for an extended period, when bang! — confidence collapses . . . and a crisis hits.

One of the conversations I had during my move to Reardan dealt with the precarious nature of our current food supply and how, if we really desired to “eat a healthy diet,” this probably was not possible, especially for those who could not be considered affluent. We no longer have the agricultural diversity required to produce sufficient “healthy” calories.

For the most part via government subsidies and agribusiness, the amorphous they, believe in “let them eat cake” as long as it is made from genetically modified corn and soybeans and for our other protein sources these grains are fed to mostly industrially produced chickens, but also pigs and cows,

The economic basis for all of this rests upon a dubious four-legged milk stool of cheap energy, abundant dirt-cheap water, excessive farm debt, and government subsidies to provide the difference between production costs and market prices. The problem with a four-legged milk stool, as opposed to the three-legged or the single leg variety, is that four legs need a perfectly flat floor to maintain balance. For the last generation we have created a national farm policy that would make an old school Russian Bolshevik proud.

In human nature, like our distain of dirt, there is always the propensity to believe if it “ain't broke don't fix it.” It seems that this is now the one and only law of the Federal government. This probably means that instead of leading, they will follow the common national discourse. So in that illumination let us look briefly at the four legs of the milk stool that keeps us, for the time being, from becoming a nation of caloric want.

### **Cheap Energy**

Our modern agricultural system is totally

dependent upon cheap energy. This is normally discussed in “sustainable circles” as the fact that foodstuffs are transported most of the time over thousands of miles before it gets to your local supermarket. That however is only part of the story, ammonia fertilizer is made from natural gas, as well as all the herbicides, pesticides and farm chemicals are made from fossil fuels. Furthermore it takes a lot of energy to operate the mega-scale farm machinery now required to cultivate and harvest large acreages. Added to that is the energy required to irrigate much of the semi-arid and arid lands now under cultivation.

World energy prices of fossil fuels are controlled by either cartels or price speculators, or some sort of cancerous collusion of the two. Neither of which really care about how much energy costs are associated with the production of a bushel of corn in Iowa. The only people with any direct understanding of these phenomena were the former corn farmers in Mexico, which are now because of NAFTA, probably working in a meat processing plant somewhere in the United States

### **Abundant Dirt-Cheap Water**

Around the world fresh water, not energy, is our most limited natural resource. Yet even more than petroleum we mine it from deep aquifers like they will never run dry. We divert streams and rivers to irrigate our deserts and so pollute the return flow that it truly requires significant treatment to be used again, or pollutes the aquifers from whence it returns.

As oft cited here, John Wesley Powell understood that the American grasslands, generally west of the one-hundredth meridian, ecologically semi-arid short grass prairie transitioning into true deserts, either require irrigation water or must be properly managed as grazing grasslands. That includes virtually all of what is called the Great Plains, and during a decade of drought during the 1930s became the American Dust Bowl. It could happen again, with or without man induced climate change.

### **Excessive Farm Debt**

Your tasteless chicken breast that has become the most economical form of protein in the American diet, is generally produced on a small acreage southern chicken farm where the average chicken farmer makes

around twenty thousand dollars (\$20,000) or less and is leverage through bank loans and industrial chicken marketing concerns into multi-millions of debt dollars. While the numbers are somewhat different, the same can be said for hogs and beef feedlot operations.

When you move from the meat protein producers to grains, the debt leverage continues. The prices for a piece of new industrial farm equipment begins at \$100,000 and can easily reach five times that and you need a lot of these implements just to stay in “business.” Much of these required implements are used only for brief periods per year, like days or a few weeks. This equipment is again leveraged by implement manufacturers and commercial debt — based upon the speculative value of farmlands.

Just as the illusion of home prices would continue to exceed the rates of inflation forever, as was followed by a similar bubble in commercial real estate, such a bubble would-should never happen for farm land, because the market really isn't large enough to be a market at all. While the acreages are vast, when you look at the yields per acre for corn, soybeans, wheat or other crops, what you find is returns on investment that make absolutely no business sense in any other human enterprise. Which leads us to our United States Federal Government.

### **The Federal Farm Bill**

In 2012 the Federal Farm Bill is up for renewal. These diverse and varying subsidies allow farmers and agribusiness to make a small profit on crops whose market price is less than the true cost of production.

Considering Congress has continued to kick the debt can down the road for it seems as forever, this renewal process should make for some interesting debates. Since this is also the presidential election year, after many months of grandstanding, pontifications and other types of manure producing rhetoric, the leadership of both political parties will probably kick this can into 2013 as well.

With so few people actually involved in farming, and the numbers of those concerned about

continuance of the status quo; even fewer, I would suspect anything that might be done — related to our nationalized, industrialized, cheap energy dependent, abundant dirt-cheap water, excessive farm debt, government subsidized agricultural economy — could best be described as a punt rather than can kicking. After all punts fly through the air for long distances, where as kicking the can is almost a continual process.

So what does this mean as it relates to “Doings in the Dirt?”

Since I moved out of Seattle in the summer of 2007, things, actually almost everything, has been on a downhill course of varying degrees. We have been told that the Great Recession is over, but that sure is not the case in Northeast Washington and there is no end in sight. All this is eventually leading to and Endgame of really the twentieth century's means of financing prosperity through excessive debt.

The problem with this particular Endgame is that all the important structural players, the economist-financial types, traders of all persuasions and politicians across the political spectrum seem to think that what is happening is just a glitch in the enlightened view of mankind creating our own utopia here on earth. From that perspective there is no need to make significant, or what I would call stupendous changes, because essentially dumb luck got us here, and by kicking the can some more, be it up a little steeper hill, has always worked before, not so much defined as *laissez faire*, but more what will be will be.

So to expand on the wisdom of Forrest Gump: Stupid is as stupid does; likewise lazy is as lazy doesn't!

If this continues, we will be eventually looking at a milk stool with no legs, which means many very hungry people and historically, social unrest we have not seen in the world in over a century.

No one, who seriously looks at American agriculture can call it market driven, but if this results in and Endgame, another game must begin in which markets and true wealth creating opportunities are created and made operational. These beginnings must account for risk as a means of reward, what we call at Wonder Springs — agricultural returns. Compound Interest on debt cannot adequately account for risk, hence the mess the world now currently finds itself.

Through our corporate structure of PREFER Ltd, we are currently looking at three areas of diverse investments. The first is our precious metals concentration and refining equipment. Updated designs from our 1980s models have been created and are ready for design-built prototypes. That was impossible to accomplish up in the woods with limited resources and even more limited opportunities to obtain financing.

As we began planning to move to the Reardan area we started seriously looking at alternatives to the current industrial food production schemes. We have written extensively that many of our current economic problems stem from trying to extend the life of the Industrial Age beyond its usefulness with excessive debt. American agriculture now totally follows that Industrial Age model.

For sake of simplicity we have named the future as the Individual Age, yet it is quite different from the narcissism of twentieth century individualism and well beyond the interactions of current social media.

What all that means in agricultural terms is that some basics of food production, from before the Earl Butz-Richard Nixon industrialization of agriculture, will again become economically viable. Contrary to the vegetarians and the vegans this must be focused on meat, because only ruminant animals can convert grass to meat in any viable means.

Without the dependent four legged agriculture milk stool, much of the land beyond the hundredth meridian will again become similar to when the buffalo roamed; only this time in addition to the bison, we will see cattle, sheep and goats, all grass fed and with the taste of real meat. We have begun seeking opportunities to help these producers market their critters.

Along that line, when I got out of graduate school at WSU, I moved to Seattle to work on the world's ultimate patented (now expired) sludge drying process. As the process chemist and the environmental guru on the project I got the opportunity to test the process on virtually all types of wet solid materials.

At the beginning of the program, before I arrived, an outside marketing study determined

that the biggest market for the process was effectively drying sewage sludge, turning it into organic fertilizer-compost. As time went on and corporate politics being real, the goal changed to where could we sell the first unit. By that time we knew that it's prime application was economically drying animal feeds.

The process was developed as part of the Boeing diversification efforts in conjunction with deep space exploration. The solvent used, triethylamine, is soluble in water below 19 degrees C and separates into water and solvent layers above that temperature. So the material to be dried was cooled and mixed with chilled solvent and the solids removed with only a small amount of residual water, greatly decreasing drying costs.

The deep space portion of the process was that chickens were to be used as the protein source for space explorers well beyond Mars. Triethylamine was able to remove the uric acid produced by chickens, allowing the chickens to essentially reuse much of their food, for the uric acid is toxic.

Today because of the wasted corn and poor utilization of feed by chickens, the cleanings from chicken houses is fed to cattle in feedlots. This contributes to not only the acidification of the cattle's digestive process it also is a source of e-coli cross contamination between cattle and chickens. Furthermore the triethylamine kills the bacteria, removes the uric acid, and is totally biodegradable, being found by analysis in minor levels in the feed before the drying process.

We have preliminarily renamed the process by the acrostic SAFER (Solvent Applications For Ecological Remedies) and once we get situated will begin to seek funding to build and operate these units based upon almost a decade of high level industrial research and development.

These three opportunities will produce agricultural returns that create real wealth, for really relatively limited venture funding. We are beginning to seek enterprise partners for any or all of these developing adventures.