

Fertilizers and Food Crisis

by Bill Herbst

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I'm not particularly well-versed in the topic at hand, so my writing about it, at least in the initial set-up, will probably be more of a Cliff Notes/Wikipedia summary than a thoughtful, in-depth essay. Of course, my weekly commentaries are never really in-depth. Hardly. If I wanted that, I'd write books. All I want is to make a point that I feel is worth sharing.

The Russian invasion of Ukraine and the subsequent ongoing War there are proving to have serious global repercussions, far beyond just the complex, localized troubles. First, the terrible specter of nuclear catastrophe has resurfaced again. This could occur in either (or both) of two ways: through bombing near a nuclear reactor that causes a meltdown, or from insane sabre-rattling brinkmanship between NATO and Russia that might trigger an all-out nuclear war. Either is unthinkable, but both are possible, given human folly. Second, Western Europe — Germany in particular — is reeling from energy concerns due to U.S. and E.U. sanctions against Russia that include an embargo on crude oil exports. Beyond inconvenience to Europeans, this development threatens the geopolitical stability of the entire region.

As if all of that weren't worrisome enough, we're now facing an impending global food crisis that's already jacking up food prices in U.S. grocery stores. The reason is that commodity prices for agricultural chemical fertilizers are way up, and the availability of those essential agricultural resources is way down.

The very basic fertilizers in question comprise three main types of natural, chemical elements: nitrogen (N), phosphorus (P), and potassium (K), all of which are essential to successful crop yields in modern industrial agriculture. The latter two of those fertilizers are derived primarily from potash and phosphates, which are mined, while most nitrogen is produced through a chemical transformation — typically what's called the Haber-Bosch process — using natural gas (methane) and sometimes coal to make anhydrous ammonia. Google "how fertilizers are made" if you want to know more about the industrial processes involved in the manufacture of chemical fertilizers.

Russia has been a major source of the world's agricultural fertilizer, particularly nitrogen and potassium. The economic sanctions that were imposed on Russia following its invasion of Ukraine by America and the West have put the kibosh

on those markets, leaving western farmers scrambling to find alternative sources of fertilizers. Russia has responded to these sanctions by further limiting its own exports of fertilizers (in a kind of fuck-you to the West), but also by blockading Ukraine's Black Sea ports, making shipments of Ukrainian natural resources unavailable to the rest of the world.

In a single year, prices of chemical fertilizers have risen by almost 80%, putting them financially out of reach of some farms, and making such fertilizers simply unavailable at any price for many others. This comes on the heels of the COVID-19 pandemic in 2020-2021, which had already put serious pressure on farmers through lost wages and supply disruptions. So, this is an unexpected back-to-back double-whammy for the entire agricultural sector of the economy.

Astrologically, I link both of these developments — the COVID-19 pandemic and the War in Ukraine — as well as many others not part of this commentary, to the terrible harshness of the new 33-year Saturn-Pluto cycle that began at 22° 47' of Capricorn in January of 2020. The sign Capricorn symbolizes government, all structural institutions (social, political, economic, religious, etc.), authority, and the will to leadership by commanding the reins of collective power. Capricorn is also patriarchal in nature and represents the status-quo pecking order. The current Saturn-Pluto cycle implies a three-decade period where government and institutions become more authoritarian, even draconian in their moral rigidity and amoral extremism.

While I wouldn't connect a global food crisis directly to the symbolism of the Saturn-Pluto cycle, I see the possibility as a consequence of governments overreaching and overreacting. If that perspective is accurate, then we may be in for a very bad time. Hell, I think we're in for a bad time even if that perspective is incorrect. As a civilization, we had our shot to change course when Uranus squared Pluto from 2007 to 2020. We didn't, though, and now we have to face some very unpleasant music. The Saturn-Pluto cycle just makes that much more blunt and, in many ways, more stupid.

One result of the recent fertilizer shortages has been a dramatic run on manure. And some farmers have resorted to using less fertilizer on their crops. In itself, that may have benefits, since industrial farming has shown a marked tendency over the past decades toward overuse of chemical fertilizers. That results in short-term gains for crop productivity, but the downside is reduced ecological viability of the soil. In other words, too much chemical fertilizer isn't good for the long-term health of the land. The debate about farming practices begun in the 1960s continues, but ecologically smart farming remains mostly a niche economy. Agribusiness, with its reliance on monoculture, mechanized farming, and giant scale, has shown little interest in switching to more traditional farming methods, which require much more human input through care and labor.

One way or another, the fertilizer crisis will cause crop yields to fall over the short term, which is serious, because global food stores have never been particularly robust or deep. Historically, societies are dependent on smooth farming operations. It doesn't take much disruption to provoke food shortages or even famine in some regions. Now that industrial-scale agriculture is a basic tenet of the global economy, we are all at risk of food shortages should anything go wrong.

When I was a child, almost no one in America knew anything about the massive famines in China that had been caused by mistakes in The Great Leap Forward. From 1959-1961, many millions of Chinese starved to death, mostly peasants in rural areas. Total famine deaths remain unknown, with estimates varying from a low of eight million to a high of 50 million. If the current fertilizer crisis worsens and seriously disrupts the world's food supply, large swaths of the world could be at risk.

Americans are accustomed to an abundant food supply and to paying very little for that food. Sure, "foodies" who are relatively well-off financially (and even those who aren't) are willing to pay much higher prices for better-quality food, and coastal elites may dine mainly at higher-end restaurants, but the majority of Americans — whose diet is either fast food or microwaved meals at home — have responded enthusiastically to the Wal-Mart business model of commerce: *Stock products that may not be great but look OK, and charge the cheapest price, as little as possible.* Where food is concerned, cutting corners is the American Way — keep costs to a minimum and prices low.

For consumers, that strategy works until it doesn't. Along with the recent surge of gas prices at the pump, food prices in American grocery stores are already up this year by an average of 10%, and they are likely to go considerably higher. Good food has always been more expensive, but soon even lousy, low quality, and unhealthy food could cost an arm and a leg.

Sure, depending on how severe this crisis becomes, Americans will probably do better than people in certain other regions. Our massive economic infrastructure and still-considerable wealth will insulate many of us from a food disaster longer than for people who live in say, parts of Africa and Latin America. Countries there could be running on empty in relatively short order.

OK, so that's the set-up for yet another dystopian scenario, as if we didn't have enough of those already. What's the point that I want to make? Well, it's one more of the seemingly endless variations on a theme that comprises the basic thrust in all of my writing — namely, trying to better understand the human fallibility that brought us here and to foster greater acceptance about the seeming inevitability of where we're headed.

I think back to my commune days that began in 1971 and stretched over more than a decade, into the mid-1980s. I was well-connected to local, small-scale organic farm movements in Missouri and Minnesota, and I was an enthusiastic supporter of the co-op systems in the Twin Cities (which were, and, as far as I know, still are terrific). But, along with so much of what I hoped to promote in America, I watched sadly as our country turned away from almost all the ideals I held dear. In many ways, I was an outcast in my own country. For that matter, I still am.

Now, everything is coming apart at the seams, the Empire is failing, and we're faced with not just the probability, but the inevitability of collapse. Not that the majority of Americans admit that yet, but more and more of us are becoming aware that our country is swirling around the drain and that's it's just a matter of time before the "Big Flush" gets us. Opinions differ about how long that will take and what it will look like, but most people who see the handwriting on the wall agree that it won't be pretty.

Interestingly, I don't feel much of that cynical "*I told you so*" vengeance. No, I'm unhappy to see the suffering that's already underway — suffering that is so far mostly masked or under the surface in alienation, unhappiness, and anger — and I'm not looking forward to the much greater and more obvious suffering that is to come.

Nonetheless, I understand much more now than I did 40 years ago about the profound difficulties of human nature and why we chose so badly. For instance, our susceptibility to absurd propaganda and how easily humans are convinced to fervently believe whacko illusions are both horrible problems, as is our tendency to assume that favorable conditions will continue, as if by magic, and despite the mountains of information to the contrary. For all our species' apparent brilliance, we are really quite foolish, and often downright stupid. I don't claim to be calm about any of this — I'm not, not by a long shot. Along with my sadness and weary acceptance of reality is a good deal of residual anger. The chances of my shucking that anger before I shuffle off this mortal coil seem to me either very slim or none.

While I'm still here, however, and for however much longer I'll be viable to live autonomously and express myself, I intend to continue to lobby for two quite personal orientations:

- 1. To change for the better whatever we can in ourselves, and*
- 2. To accept whatever we cannot change.*

In some ways, that's not much, especially since changing in any significant or meaningful way turns out to be so much harder than we imagined when we were young. Reality has pared down our grandiose dreams into very modest hopes. Despite how little we may be able to change, though, whatever small

amount we achieve is and has to be enough. The aim is to maximize whatever love and joy can to be found while minimizing hatred and despair.

I don't know if life is "graded." Does the Goddess give Report Cards? I tend to doubt that. I do believe that there are organizing principles in each human life (astrology taught me that), gravitational centers around which our lives are organized, either coherently or not. Where the species is concerned, however, I'm inclined to go with the philosophy of American novelist Kurt Vonnegut, who wrote that the purpose of homo sapiens was merely to "fart around," and anyone who told you differently was trying to sell you something.

But if Individual Life does indeed have a purpose, and if in some metaphysical afterlife we are judged for how well we did, we'd damn well better be graded on the curve, based not on some objective standard of excellence we're expected to achieve or live up to, but instead on how much improvement we made, given where we started, what happened to us along the way, and whatever resources we found or tools we developed to work with.