

The Anthropocene and the New Lysenkoism

by **Lorna Salzman** (May 2014)

Science in the service of ideology was epitomized in the Soviet Union under the iron fist of Stalin, who entrenched anti-evolutionary research thanks to the fawning manipulation of a minor agricultural scientist named Lysenko. It took the country decades to recover from Lysenkoism's disastrous adherence to Lamarckian evolutionary theory which supported the notion of the inheritance of acquired characteristics.

It also cost the life of the USSR's most talented plant breeder, Nikolai Vavilov. After a short lifetime of exhausting botanical travels around the world, over the rocky passes of Afghanistan and other remote places that took weeks and often human lives, receiving official honors and recognition, overseeing a brigade of dedicated researchers aspiring to modify foreign seeds and plants to adapt to northern climates, and study with leading geneticists like Thomas Morgan and William Bateson, Vavilov, formerly supported by Lenin, was shunted aside by Stalin with Lysenko's help, arrested and ultimately died in prison in 1943. Peter Pringle's "The Murder of Nikolai Vavilov" is one of the most compelling and instructive books extant and tells the full tragic story of Vavilov, unarguably one of the greatest scientists of the 20th century.

Lysenkoism appealed to Stalin and the Marxists because it conformed to the notion that all aspects of society could be designed by humans according to their social and political model. Just as Marxism regarded economic relations as determinants of other human relations, Lysenkoists saw Lamarckian theory as the parallel in science. Acquired characteristics – in this case human behavior – could be embedded and passed on to future generations according to the whim of whoever was in power. Nature, that is, evolution and genes, could be discarded as having no influence or relevance to humanity or society. Not surprisingly, this authoritarian view has been embraced within academia today by the post-modernists and cultural determinists in the social sciences (barely distinguishable from each other) who, antagonistic to Darwin while not rejecting him, insist that both human behavior AND science are "socially constructed". These views would have been quite at home in Russia under Stalin.

But Vavilov's history has a lesson for our time, when a new secular ideology threatens to undermine humanity's ability to construct ecologically sustainable and socially just food

systems. Socialist ideology killed Vavilov but today it is that embraced by the promoters of genetically modified food crops that threatens to send agrobiolgy back into the Dark Ages. This ideology is not anti-Darwin or anti-evolution but in its implications are subversive of both science and public policy. This new era, called the Anthropocene, diverges from the precept that human society's institutions should conform to ecological and evolutionary precepts and instead celebrates the power to manipulate and manage Nature and genes for purely human purposes. It takes its inspiration from Stewart Brand, who famously said: "We are as gods and might as well get good at it." Its current and strongest supporters include the Nordhaus/Shellenberger team behind the BreakThrough Institute and Peter Kareiva, chief scientist for The Nature Conservancy.

Recent NY Times Op-Eds by supporters of GMO food crops are not new or unexpected. Big Pharma and the agro-business conglomerates are churning out manifestos to charm consumers which alarm those who deplore famine and hunger and are committed to social justice, in the belief that human rights include the right to food. These are just demands but they are being sidelined by unsubstantiated promises and speculations about the capacity of genetic modification to meet the growing food needs of what is already a disastrously overpopulated world.

The unproven claims about GMO crops' ability to relieve world hunger are in some sense claims of desperation.

American consumers are demanding labels on GMO food, which would effectively end GMOS, and Europeans in one fit of wisdom are rejecting GMO imports from the US and elsewhere. As consumers clamor for chemical-free and locally sourced produce instead of mass food markets, GMOs have become anathema to informed consumers.

Big Pharma and Big Ag have their work cut out for them and their publicists are working 24/7 to present a smiley-faced technology that will appear healthy while relieving the guilt of affluent nations over the plight of starving Africans. There is nothing like a good liberal cause to soften the hearts of American consumers....but in this case the GMO purveyors are betting on the wrong horse.

Bluntly, agribusiness and the GMO proponents are the Lysenkos of our time, squashing science-based ecological solutions that threaten their control. Thus they busy themselves denigrating small-scale local agriculture, traditional hybridization (which has served humanity quite well for thousands of years without poisoning people), and labor-intensive naturally fertilized crops based on sound soil practices, all of which were, at least originally, developed to serve local and regional markets. Today, the importation of out-of-season produce

from thousands of miles away, monocrop culture, herbicide and pesticide dousing, and energy-intensive processing, packaging and distribution systems to serve mass markets have turned most of the developed world's food supply into artifacts. Real Food becomes rarer and more expensive, available only to the wealthy. What more damning conclusion could anyone reach about the failure of the industrial food supply?

The GMO defenders are doing what Lysenko and Stalin did to Russia. In the service of a corporate ideology in which they become the czars of the world's fundamental foods, rather than the farmers, peasants and subsistence communities struggling against all odds, the GMO people purvey not just genes for breakfast but a model that will put them in control of the very substance of life. It is a ruthless, merciless fight, this manipulation of science and human compassion, one that, if not rejected as Lysenkoism was, will set back and perhaps undermine everything we thought we had learned about evolution and ecology. GMO food technology must be stopped in its tracks as quickly as possible. The stakes – the health of humans and the planet as well as democracy – are too high to risk.

Lorna Salzman's career as an environmental activist and writer began when the late David Brower hired her to be the regional representative of Friends of the Earth in NYC. Later she worked as an editor on *National Audubon's American Birds* magazine and as director of Food & Water, an early opponent of food irradiation, and then spent three years as a natural resource specialist in the NYC Dept. of Environmental Protection. She co-founded the New York Green Party in 1984 and in 2004 she sought the U.S. Green Party's presidential nomination. She is the author of “