How carbon fuels kept the third horseman in check

Modern transportation and food security

By Pierre Desrochers
For The Drill

Laura Ingalls Wilder's "The Long Winter" is generally regarded as the most historically accurate book of her Little House on the Prairie series. It tells the story of how her family and the other inhabitants of DeSmet, S.D. — but then the Dakota Territory — narrowly avoided starvation during the severe winter of 1880-81. That year, after a lean harvest, a series of blizzards dumped more than 11 feet of snow and immobilized trains on their tracks, in the process cutting off the settlers from the rest of the United States.

As their meager supplies ran out, a rumor spread that a sizeable amount of wheat had been raised and was available within 20 miles of their snow covered houses. Laura's future husband, Almanzo Wilder, along with a friend, soon risked their lives and eventually succeeded in bringing back enough food to sustain the townspeople through the rest of the winter. With the spring thaw the railroad service was reestablished, abundant food was delivered and the Ingalls family enjoyed a long-delayed Christmas celebration in May.

To 21st century readers, "The Long Winter" is as a valuable reminder of how common and lethal crop failures and geographical isolation once were before the advent of modern farming and transportation technologies. Indeed, two additional footnotes to this true story are that Almanzo Wilder's parents had to leave the town of Malone in Upstate New York in 1875 due to crop failures. And secondly, soon after the winter of 1880-81, three years of drought and prairie fires forced most of DeSmet's settlers to relocate their farms and homesteads.

Fortunately for the Ingalls and their neighbors, they had one huge asset over past communities that had struggled with significant food shortages: Their connection, even if temporarily unavailable, to the rest of the world through the railroad. While it is hard today to imagine how much of a game-changer the railroad once was, but suffice it to say that before its development, moving heavy goods over 30 miles of land was as expensive as shipping them across the North Atlantic on a sailboat.

The railroad made it possible for landlocked farmers to specialize in and export what they were good at and to rely on others for their remaining needs, in the process delivering more abundant food at a cheaper price. It also encouraged them to produce more than what they would need for their own consumption as they could reasonably expect to sell their surplus to distant markets rather than seeing them go to waste. Without the capacity to sell to distant consumers, it is doubtful that the farmers within reach of Almanzo Wilder would have generated a significant grain surplus in the first place. And once the snow melted, the railroad immediately brought in large quantities of food from other regions. Without this connection to the rest of the world, the Ingalls and their neighbors would have had to struggle with the "lean season," the period of greatest scarcity before the first availability of new crops. That cycle was typical of agricultural communities that produced most of their own food. For instance, in England the late spring, and especially the month of May, was once referred to as the "starving time" or the "hungry gap," while in Africa's tropical Sahel region, the period of greatest hardship lasted from May to August.

Unfortunately, a seemingly endless supply of local food activists are now determined to encourage most people to limit the sourcing of their food supply to a small radius, such as 100 miles, from their homes. Failure to give up on the petroleum products that make our modern agribusiness and transportation infrastructure possible, they warn, will result in nothing less than a climate apocalypse.

Yet, these "locavores" are somehow oblivious to the fact that the "Apocalypse of John" written nearly 2,000 years ago had as one of its main protagonists a "third horseman" who carried a pair of scales to weigh bread during famines and who came in riding announcing grain prices that were about 10 times more than what people normally paid. Long before humanity could be accused of altering our planet's climate through the burning of carbon fuels, it turns out, unseasonable heat or cold, excessive or insufficient rainfall, floods, insect pests, rodents, pathogens, soil degradation, and epidemics that made farmers or their beasts of burden unfit for work regularly brought the third horseman (famine) to town.

Widespread hunger and famines only became a memory with the advent of long-distance trade, first in trading powerhouses such as the Netherlands and Great Britain in the age of sail. And later in other parts of the world with the advent of the steamship and the railroad. Not surprisingly, the key to a reliable food supply turned out to be the ability to move economically the surplus of regions with good harvests to those that had experienced mediocre ones. Of course, a region that experienced a bumper crop one year might have a mediocre one the next.

Writing in 1856, the British historian George Dodd observed that in the "days of limited intercourse, scarcity of crops was terrible in its results; the people had nothing to fall back upon; they were dependent upon growers living within a short distance; and if those growers had little to sell, the alternative of starvation became painfully vivid."

In 1871, the British civil servant William Wilson Hunter noted that an important set of preventative steps to successfully address the recurring famines in India included "[e]very measure that helps towards the extension of commerce and the growth of capital, every measure that increases the facilities of transport and distribution… [and whatever tends] to render each part [of a country] less dependent on itself."

While most present-day Americans cannot relate to food shortages, the weather problems experienced by many farmers in 2012 hopefully alerted a few people to the risks of putting all of their food security eggs in one regional basket. In the northeast alone, a late frost first devastated fruit orchards.

This was followed by the worst drought in 50 years and in the fall by hurricane Sandy that destroyed much infrastructure. Luckily, East Coast local food activists were not yet living in their utopia and large quantities of affordable food were brought in from regions that had been spared inclement weather.

The diversification of our food supply sources via cost-effective and large-scale, long-distance petroleum-powered transportation is one of the great unappreciated wonders of our age. True, most of us have an inherent propensity to root for the home team and to believe that local producers will be more dependable in times of political crisis and economic collapse than foreigners who only cater to the highest bidders. Yet, as humanity's history makes painfully clear, all local farmers will struggle through bad years, no matter how good, dedicated or subsidized they are.

Anti-petroleum activists would have us give up on long-distance trade and the food security inherent to the reliance on multiple suppliers based in a wide variety of geographical locations. Far from keeping the third horseman at bay, their carbon dioxide obsession will bring him back with a vengeance.

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