



EAST MEETS WEST

Michigan's Silkworm Fever

By Gerald P. Wykes

During the nineteenth century, an unusual farming venture made its way to Michigan. Intended to feed the desire for a U.S. silk-making industry, raising silkworms—and growing mulberry trees necessary to sustain the insects—became part of the state's agricultural landscape in a short-lived craze known as the "Multicaulis fever."



The leaves of a white mulberry, which are used to feed silkworms. (Photo courtesy of Francisco Manuel Blanco.)

The "Humbugged Public"

As if providing the beginning line of a legendary tale, the secretary of the Michigan State Horticultural Society reflected in 1881 that "there are men still living who remember the 'multicaulis craze' of the thirties." Orson Randall, who died in 1889, was one of them.

Randall, a 31-year-old native of Howard, New York, came to Michigan with his wife, Laura, and two young children in the spring of 1837. Upon reaching Hillsdale County, he built a public house and tavern in the newly minted community of Allen.

Orson Randall entered his various transactions in an account book brought with him from New York. Beginning with the purchase of lumber for his building, he noted everyday transactions of whiskey, dinners, lodgings, and work done on behalf of Hillsdale County and Allen Township. Among those typical accounts, two unusual entries appear near the back of the book.

The first entry, in pencil, lists three batches of silkworm eggs "Received of O. Randall," consisting of 5,000; 2,500; and 5,000 eggs. There is no date, and the recipient's name is smudged. However, the second inscription, in ink, is clearly dated July 16, 1841, and signed by I.R. Hall: "Received of O. Randall said to be seventeen thousand and five hundred

silkworm eggs for Esq. Beach and others." The unique record provides singular proof that Randall was one of Michigan's "humbugged public."

According to a Michigan historian writing in 1877, a bug-related fever "attacked the pioneer settlers of the west." It came from the older states on the eastern seaboard and struck the Lower Peninsula—from Prairie Ronde to Pontiac—in the 1830s. That fever took the form of a failed flirtation with the home silk-growing industry and was eventually defined by wild speculation over a particular variety of mulberry, called *Morus multicaulis*, that was used to feed the silkworms.

Thus the silk experiment came to be known variously as the "Multicaulis fever" or "Multicaulis humbuggery"—a humbug being a nineteenth-century reference to an illusion or something that did not really exist. If we follow Orson Randall's trail back east, to New York and beyond, we can get a sense of how the fever began.

A Short History of Silk

According to legend, the discovery of silk began with the Chinese empress Si-Ling Chi more than 4,500 years ago. She "discovered" a moth caterpillar that turned mulberry leaves into a thread that could be woven into rich, shimmering textiles. The caterpillar was domesticated, and the process,

later called sericulture, was refined. Silk production remained a jealously guarded secret until 552 C.E., when foreign visitors smuggled silkworm eggs to Constantinople.

Arriving via the ship *Elizabeth*, silkworms reached Jamestown, Virginia, in the winter of 1613. The native red mulberry was serviceable as caterpillar food, but King James required his New World settlers to plant Chinese mulberry trees and nurture a silk-growing industry. The whole idea failed to thrive when tobacco proved too lucrative to ignore.

Over the next few centuries, small silk mills along the eastern seaboard produced locally grown, low-quality silk, but fine silk textiles—a luxury afforded only by the wealthy—remained an exclusive overseas import. Concern over the multimillion-dollar dependence upon the likes of France and Italy for those imported goods eventually reignited fervor for domestic silk growing. Richard Rush, Secretary of the U.S. Treasury, commissioned a treatise on silk growing in 1828, and private entrepreneurs soon followed with their own guides.

It was claimed that American silk would thrive due to sheer Yankee ingenuity. The typical argument claimed that the mulberry trees would grow on wasteland and that women, children, and the infirm could find useful employment gathering leaves and raising worms.

While raising silkworms was relatively simple, rendering their cocoons into raw silk and finished threads involved a complicated series of spinning, throwsting, and dyeing. Profit potentials were exaggerated, and the labor and skill required for success were underplayed.

Silkworm Wishes and Mulberry Dreams

Silkworm dreams quickly spread westward. In early 1831, Michigan territorial representatives James Kingsley, Henry Schoolcraft, and Wolcott Lawrence asked Congress for a donation of four townships “to aid the Territory in growing mulberry trees, and in the manufacture of silk.” The measure specified that the treasurer of the territory pay out a sum “to any person...who shall rear the greatest number of White Mulberry trees, exceeding two thousand.”

In 1836, a bill was floated in the Michigan House to incorporate a Michigan Silk Growing & Manufacturing Company—one of many such attempts to promote the industry. Further, the Oakland County Agricultural Society was founded in early 1838 on the principle that raising mulberries and making silk were on par with raising potatoes and wheat.

The mulberry, not the worm, held the key to success. Massachusetts native and silk cheerleader William Kendrick wrote, “wherever the mulberry finds a congenial climate and soil, there also the silkworm will flourish.” White mulberry had been the primary silkworm food since the days of Empress



*Top: Mulberry leaves and fruits. Although the *Morus multicaulis* is now extinct, white mulberry trees can be found throughout Michigan's Lower Peninsula. (Photo courtesy of Pixabay.) Bottom: Silkworm caterpillars consuming leaves. (Photo courtesy of Wikimedia Commons/Fastily.)*

Silk Production

- 1 *Silk production begins with silkworms, the larva of silk moths, feeding on the leaves of mulberry trees.*
- 2 *After about six weeks of growth, silkworms begin spinning cocoons.*
- 3 *Silk threads are then extracted by boiling the cocoons, and the resulting “raw silk” is bleached or dyed.*
- 4 *The final product is created by spinning and weaving the threads into cloth.*



Chi. Unfortunately, it took some five years before the saplings were large enough to yield a sustained crop of leaves out of which worms could munch a profit. The introduction of the new *multicaulis* mulberry changed all that.

Discovered by a French horticulturist around 1826, the *multicaulis* mulberry produced leaves eight times larger than the white variety. Saplings could be grown from a single bud and yielded feeding leaves in their first year of growth. One leaf, it was claimed, could feed eight worms and was one-third more nutritious than standard white mulberry leaves. William Prince, a New York nurseryman, began to market the plant around 1830—for the reasonable price of 6 cents apiece.

Garret Garretson, a prominent New York seed grower and an associate of Prince, was one of many silkworm promoters who reached out to Michigan farmers. He took out large ads in regional papers, such as *The Pontiac Courier* and the *Monroe Gazette*. With “Mulberries for Silkworms” as a header, he offered 50,000 *Morus multicaulis* plants for sale and glowingly stated that raising silkworms for silk was “as easy as raising wheat and much less laborious.”



The former home of Christian Zook in Whitmore Lake, Michigan. Zook set out to grow mulberry trees on his 160-acre farm in 1834. (Photo courtesy of the author.)

Michigan's *Multicaulis* Men

When he arrived at Whitmore Lake in 1831, Pennsylvanian Christian Zook may have been prompted into action by such dreams. Zook planted *multicaulis* mulberry trees on his 160-acre Washtenaw County farm in 1834 and set out “to start” the manufacture of silk—one of the earliest in the territory to do so.

Grand River Valley settler Abel Page planted two to three acres of *multicaulis* mulberry in his nursery around 1837. He also raised silkworms and sold the cocoons. His interest in silk had a direct family connection through his

son-in-law, William Richmond, who had previously served as a clerk in a New York silk house. Perhaps fellow settler Truman Kellogg also felt Richmond's influence when he established his nursery in 1837, featuring several mulberry trees with which he raised silkworms, produced cocoons, and spun silk for several years.

Probably the most successful Michigan silk producer was Bethuel Farrand. A man of education and enterprise, Farrand came from the Finger Lakes region of New York to Washtenaw County in 1825. He became a probate judge and purchased a small farm two miles east of Ann Arbor. Avoiding *multicaulis*—perhaps suspicious of the inflated claims—he planted eight acres of white mulberry trees with the idea of manufacturing finished silk. He produced about 40 bushels of silkworm cocoons by the end of the 1838 season.

In the spring of that year, the Michigan Legislature granted Farrand a three-year, interest-free loan of \$800 to encourage his venture. Using the money to purchase silk-winding machines from Connecticut, along with the services of skilled workers, his establishment produced around 30 pounds of sewing silk. On September 7, 1838, *The Pontiac Courier* issued a glowing report that Farrand's product was equal to the finest Italian silk.

It is unknown whether Alonzo Mitchel of Palmyra planted white or *multicaulis* mulberry as his food plant, but his 1838 crop of silkworms produced a quantity of cocoons exceeding his expectations. One of the first in Lenawee County to attempt silk growing, Mitchel originated from Cummington, Massachusetts, where a silk industry was already well-established. The Whig Party office in nearby Adrian displayed his silkworm cocoons for public viewing. *The Pontiac Courier* trumpeted Mitchel's success as proof that “there can be no doubt that our climate is adapted to the culture of silk.”

The Silk Industry Persists

Soon, speculative fever arose in which the price for *multicaulis* mulberries skyrocketed to nearly \$4 apiece in early 1839. Many eastern nurserymen had switched exclusively to that variety, and the tree's value became greater than the silk it produced—and too expensive to serve as worm food.

The market crashed in late 1839, when *multicaulis* trees succumbed to disease and a series of severe winters and became virtually worthless. Hundreds of nurserymen were ruined. For a short while, any moneymaking scheme was labeled as just another “*multicaulis*.”

Oddly enough, the western market—in places such as Michigan—still blindly held out hope for a successful home-grown silk industry. Despite “considerable failures” in which “not more than one-fifth of the (*Multicaulis*) cuttings have prospered,” *The Western Statesman* in Marshall maintained



An assemblage of cocoon bales for silk production. (Photo courtesy of the U.S. National Archives and Records Administration.)

Frison, or waste silk typically taken from the exterior of a silkworm cocoon, after washing. (Photo courtesy of the U.S. National Archives and Records Administration.)



Sorting and weighing raw silk skeins, c. 1914. (Photo courtesy of The New York Public Library.)



A worker in a Connecticut silk factory inspecting combed silk. (Photo courtesy of The New York Public Library.)



that “silk will rival cotton” and those who pronounced the U.S. silk business a humbug were mere naysayers.

As could be expected, *multicaulis* mulberry trees could now be purchased cheaply. Jonathon Keeney of Detroit offered the trees for a reduced rate of \$20 per thousand. Silk raising also remained a novelty in Michigan. Some 5,000 thriving silkworms were displayed at George Fowler’s Detroit store in the summer of 1840. They were fed with white mulberry leaves grown in the city and could be viewed for a seasonal cost of 12½ cents. At that time, there were 10 to 12 families in Detroit raising silkworms, but they found little market for the cocoons and only three weavers capable of spinning them.

Bethuel Farrand had made “considerable quantities” of silk-sewing thread by 1839, but even his white mulberry trees

suffered severe winter kill, and he was compelled to give up the business. He paid back his \$800 government loan in 1840 with funds raised from more traditional crops. The 1840 Michigan Census reported that a total of 266 pounds of cocoons had been raised, with Washtenaw and Livingston Counties topping the list at 100 pounds each.

In June 1843, John Dewey, a farmer and merchant from Napoleon, wrote to *Michigan Farmer* to report on his 1842 silk season. He admitted to never having seen a silkworm before and that he gained all he knew from books. Dewey planted two acres of *multicaulis* and raised three broods of silkworms in his house. The work was performed by his wife, Anna, and daughter, Louisa, but Dewey did hire an extra man and girl to reel and spin. He netted less than \$100 for the effort and stated that his experience fell “far short of the calculations of many”—but he also said that others have fully proven that silk can be raised in Michigan. In reality, Dewey’s experience proved typical of all who attempted it.

Silk Fever Fades

As late as 1844, *Michigan Farmer* doggedly declared that local silk was not dead and that the days of the *multicaulis* humbuggery had passed. Yet, by 1845, the combination of severe winters, cold springs, and unrealistic expectations revealed the humbuggery for what it was, and the home silk experiment died a second, and final, death.

The silkworm egg sale that appears in Orson Randall’s account book occurred in 1841, well after the eastern crash. Randall’s eggs went to Israel R. Hall and Samuel Beach, who apparently attempted to establish a silk industry in the southeast corner of Branch County, near the Indiana state line. Randall’s records give no indication of any further silk interest. He gave up his Allen tavern in 1845 and briefly went back to New York before returning to Michigan to set up anew in Coldwater.

Michigan’s bout with silk fever was not unique—it occurred in all the surrounding states and territories with similar results. But it nevertheless remains a fascinating blip in our state’s history that produced one major long-term effect. Although the *multicaulis* variety quickly became extinct, the white mulberry overcame its sensitivities to our northern climes and has become an extremely common part of our Southern Michigan landscape. ❧

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