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Nature's Forgotten Fiber

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The compelling advantages of hemp.

Imagine a crop that could be planted and harvested in approximately 90 to 120 days depending on climate, without the expense and environmental impact of pesticides and fungicides, without the soil degradation of rotational crops, requiring less water than all major U.S. grown crops, and which could produce an oil to run our cars, paint our houses and soothe our dry skin. Further, imagine a crop that would produce seeds that have no rival as an edible source of protein and essential fatty acids (omega 6/omega 3), and would help us reduce our cholesterol levels.

Many of us now know that such a crop exists. Some even know that this crop also can be grown for elegant paper, clothing, composite board, super-absorbent animal bedding, shampoo, mulch, insulation and ice cream. But it is the luscious fiber for which this crop is less known—and for which it seems to be least understood.

For starters, hemp can't be grown for both fiber and seed during the same harvest. The rich fiber must be cultivated before it produces seed, usually in 90 days or less. A good crop will yield rich long bast fiber that has legendary strength and endurance; a fact not lost on generations long departed.

Today, however, hemp has taken on even greater importance as a fiber. As textile jobbers and mills struggle to differentiate their fabrics and their environmental stewardship from other "green" textile companies, few have investigated the seed, crop and other agricultural aspects of their product. At a time when textile and carpet producers are turning headlong to corn as the new renewable fiber of the future (despite what could be considered its invasive and devastating growing practices), hemp remains the prom king that missed the dance. How many understand that soil erosion and nutrient run-off from over-reliance on pesticides are consequences of dangerous monocrop farming practices? Does anybody recognize that water tables worldwide are falling at unsustainable rates due to the heavy toll of irrigation? Or that the recycling of polyester and nylon into fiber is not a long-term answer, either? Barbara Filippone, founder of Enviro Textiles, a successful developer and importer of Chinese hemp fabrics, suggests that, "Recycling is only a temporary solution for what we don't know how to dispose of, while a sustainable and biodegradable approach will save the health of our planet for future generations."

It is the perfect harmony with nature that makes hemp one of Earth's oldest crops dating back thousands of years to China. When a bounty crop can be grown with deep roots to strengthen the topsoil, be watered half as much as other crops due to its super absorption, and grow naturally without pesticides as a result of its weed-like performance, thus shading out all other competing plants, why is it fettered by nearsighted policies? In a superpower industrial juggernaut like the United States, why are our small farmers relying on subsidies, not products, to maintain their

culture?

For one reason, small farmers don't comprise much of the farming population. (The two million farms in the U.S. represent just two percent of the population.) The main reason, though, is the recent Farm Bill. At the current figure of $248 billion, these farm conglomerates can rely on subsidies to supplement the artificial dollar value of corn, barley, oats, beans, wheat, etc. In our state, North Carolina, the subsidies for tobacco farmers highlight an even stranger scenario for farmers: subsidies for not growing their crop. As a result of the recent legislation against tobacco companies, North Carolina tobacco farmers are being compensated by means of the fine levied against those tobacco companies whether they grow anything or not. Capitalism has no roots in modern agriculture, to say the least!

The primary reason why U.S. farmers can't grow a cash crop like hemp is obvious: it is illegal to grow hemp domestically. The ban was created in 1937 because of the government's indifference to the distinctions between hemp and its cousin, marijuana. Considered an illegal substance because of its THC, the psychoactive ingredient found in the cannabis species, hemp has been banished as a crop. Despite hemp's miniscule THC percentage of less than one percent (marijuana has 15 percent or higher), hemp has not returned to American farms. Since 1970, the enforcement of the ban has fallen on the U.S. Drug Enforcement Administration. It is responsible for preventing hemp crops, and up until recently the ingestion of the seed. It is widely known throughout the DEA that hemp grown for fiber is harvested before the plant buds and yet, inconsistently, the ban continues. In a time when our need for organic renewable fibers is expanding, the single most productive crop is ignored.

Sadly, there is still another worrisome situation occurring in the former communist block nations that have historically produced the most hemp fiber in Europe. The natural processing of hemp fiber into textiles seems embedded in the brains of an aging workforce and, thus, is in danger of being lost forever. Steve Logothetis, founder of Hemp Basics, is one of the largest importers of European hemp and he is alarmed. "The fiber can be handled by mills that traditionally have spun linen, but we're going to lose shortly the generation with the hands-on experience, and that's going to be the problem," Logothetis comments. "Just like a species can go extinct, so can know-how."

The technology, as might be expected, is Old World. Natural, non-invasive and labor intensive, hemp is processed into fiber much like cotton was in the United States in the 19th century. Unlike cotton, however, hemp requires much less water, no pesticides, and is used as a break crop. Additionally, hemp is naturally ultraviolet resistant and in its natural color does not fade in sunlight. Yet it is the de-barking of the stalk that makes it so labor intensive. Logothetis estimates that the hemp stalks are 10 times thicker than flax linen and as a result require several mechanical steps to eliminate the woody bark. "These hemp processing mills are all turn-of-the-century plants and have received maybe one or two subsequent modernizations," he notes. The simplicity, the human aspect and the benevolent nature of the crop make these fabrics being imported into the United States from Eastern Europe a natural, though forgotten old friend.

On the other hand, one must turn to the origin of hemp fiber to truly understand its potential for the future. For over thousands of years Asian farmers have been processing hemp fiber at levels

of competence unequaled around the globe. And in terms of production, China greatly outperforms all others. It is an essential thread in their culture. The Chinese have mastered the processing and weaving of hemp fiber, and are the leaders in hemp and blend textiles. Silk, cotton, flax, ramie and wool as well as synthetics are woven with hemp in varying percentages from Chinese mills. Until recently, though, the report on imported Chinese hemp fabrics was mixed.

"The Chinese hemp mills before 2001 couldn't perform the export and had to rely on trading companies that were granted the VISAS," explains Filippone. "These trading companies made no distinction between quality, length of fiber, etc. and as a result of the 'hemp is like burlap' mentality, the supply of hemp fabrics was prone to inconsistencies. The same trading company representing the Chinese mills and acting as the knowledgeable source was also selling everything from hairbrushes to Barbie dolls."

In her decade of traveling to China and working with mills directly, Filippone has established quality standards for all of Enviro Textiles' hemp and blend textiles. "I had to start with a qualified mill source that produces at the correct geographical latitude with the correct weather patterns for the finest product. We have a great track record," she adds. The flow of Chinese fabric imports is quickening, and many are marveling at the material for the first time so it would seem that the Chinese hemp fabrics are perhaps not forgotten, but yet to be discovered.

In conclusion, hemp will remain idle, but for a short time. Mother Nature will not stand by in states of decomposition. Water shortages will initiate the demand for a less thirsty plant. Polluted marine environments will not function without a reduction in nutrient rich runoff from harmful agricultural practices. In the United States where we ban the growth of hemp as a fiber, we alternately reward producers of synthetic fabrics derived from fossil fuel. Environmental taxes are not levied against resource depletion, so petroleum-based products are artificially lower priced than renewables, prompting an absurd economic condition. Regardless, as the demand from architects and designers for more natural and benign fabric options increases, the compelling story of hemp will be rewritten. Foreign hemp imports will challenge the current sustainable textile programs of every domestic fabric company, rendering the latter second best. And so, in time, nature will become reacquainted with its all but forgotten fiber friend.

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