

Blowin' smoke - the hype on hemp

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Wendy R. Holm, P.Ag.

Had the Hemp Study I was working on not been abruptly terminated by the client (Boundary Economic Development Commission) upon receipt of my first draft report, most farmers in this province would now have before them the following facts about hemp:

STRENGTHS

Industrial hemp appears to be an easily cultivated, environmentally benign crop with potential significance as a rotation crop (similar to corn in this regard) and for phytoremediation (e.g. extracting heavy metals from contaminated soils) purposes.

To the extent that world prices for cotton and wood fibre move, in future, to a level more reflective of full production/extraction costs, industrial hemp may become important as an alternate supply source for paper, textiles and construction applications.

While there is considerable interest in hemp in the United States and several states have approved cultivation of industrial hemp for experimental purposes, Canada's legalization of hemp cultivation provides a relative comparative advantage for now.

WEAKNESSES

Much of the information currently circulating on this crop is of anecdotal, not factual nature. Statements of growing global demand and high economic returns are not supported by more objective analysis (Vantresse, Department of Agricultural Economics, University of Kentucky, 1998). Similarly, harvesting difficulties encountered by farmers (partly due to the nature of the crop, partly due to a lack of technology) are seldom mentioned.

Because of its bulk and weight, the literature suggests that hemp cannot be economically transported for distances greater than 70 kms. Because hemp can be easily grown in most regions of the world, competitive advantage in hemp production will depend more on local processing capacity than specific soil/climate capabilities.

While hemp possesses some superior qualities for fiber and oil uses, processing remains relatively expensive as compared to other alternatives. Outside of grain/oil seed applications, there exists little infrastructure to process industrial hemp in Canada. Undeniably a crop with many valuable properties, the technology necessary to process hemp is expensive; without markets, capital investment in infrastructure is unlikely.

Hemp oil is relatively unstable and becomes rancid when exposed to air.

Although industrial hemp production has remained legal throughout most of the world and the private sector has been free to invest in production research and processing facilities, the world hemp market continues to contract and is dominated by many low-cost producers. Hemp fiber production is only one-sixth the volume of the early 1960s (China, South Korea and the Former Soviet Union produce about 70% of world supply) and hempseed production has fallen by half during this period (China alone produces about three-fourths of world supply). Although the hemp industry is heavily subsidized in the European Union, production there remains negligible.

Similarly, world hemp fiber exports have fallen from more than \$12 million (\$US) in the early 1960s to currently less than \$5 million (\$US). In 1996, the US imported \$1.4 mil of hemp and hemp products. Of that amount, nearly all (\$1.3 million) was value-added hemp goods (woven fabrics and yarn).

World prices are highly variable and sensitive to changes in production levels. While current projected break-even prices for hemp fiber and seed production appear to lie below world prices, Canada's small domestic market and lack of processing capacity would likely mean farmers would be

selling raw product in competition with low-cost producers and subsidized production from the EU. (Hemp's phytoremediation properties - which extract heavy metals from the soil and concentrate them in the seeds and leaves but not, according to industry sources, in the fibre - may be the only economic cropping option for farmers on the 4 million acres of contaminated land surrounding the village of Chernobyl. Because remediation of these soils is a high priority for the European Union, subsidies for industrial hemp will likely not disappear overnight.)

B.C.'s small parcel size and proximity to potentially large-scale competitors from the Prairies (and elsewhere) makes us too small a player to compete on price. If BC is going to develop and hold a market share against close-at-hand, low-cost suppliers, it needs to seek niche markets which value quality and/or other "value added" activities.

OPPORTUNITIES

The agronomic data suggests selecting the correct variety to match both the intended end-use (e.g. for fibre, seed, oil or multi-purpose) and the soil/climate characteristics of the growing region are critical to achieving commercially acceptable yields. It also suggests that "good seed is hard to find" and that what is available is not necessarily suited to Canadian soils and climates.

B.C.'s unique topography, soils and climate together with the wide range and diversity of its climate types (dry interior desert of the Okanagan, rainforest regions of the Coast, high plateau region of the Peace, mountainous Kootenays/Cariboo) creates an interesting opportunity to develop hemp cultivars which are specifically suited to the individual soil/climate characteristics of Canadian and North American seed markets.

One impediment to the development of commercial markets for industrial hemp is the lack of harvesting (e.g. combine harvester for hemp that will take seeds and stalk in one pass) and primary (e.g. decorticating) and secondary processing technology.

This may open up opportunities in the design and manufacture of specialized harvesting equipment for industrial hemp and small-scale, environmentally sustainable processing technology for domestic and export markets. In this instance, the support of BC farmers would be required to provide fields of sufficient size to develop and test commercial harvesting/processing equipment.

THREATS

At this point, and against the backdrop of incredible "hemp hype" from stock-market-promoters (25,000 uses! Stock doubles!), retiring and/or naive hobby-farmers (we're planting an acre and gonna get rich), the omnipresent legalization-of-marijuana lobby (Hey, man, it's a botanical, right?) and some well-meaning-but-uninformed pols (Hemp's gonna be the answer for this province!) the biggest threat is that an OBJECTIVE analysis of hemp's economic and agronomic potential will not be made available in a timely manner to those BC's farmers wishing assess the economics/agronomics of this crop for their farm.

The bottom line on hemp? As my mother would say, empty vessels (and warehouses?) make most noise. Don't bet the farm on it...