Gum arabic potential cure for Sudanese ills

November 25 2011, by Simon Martelli

Pieces of gum arabic, the resin of an acacia tree that thrives in Sudan's conflict states. Moves to have the resin recognised as a natural prebiotic could significantly benefit Sudanese farmers.

Since he was 14, Al-Amin has tapped gum arabic, the resin of an acacia tree that thrives in Sudan's conflict states -- "manna" from heaven for some, a key ingredient in Coca-Cola for others.

But the low price he gets has made the 40-year-old farmer from North Kordofan consider cutting his trees down and selling the wood as charcoal to feed his wife and seven children, despite such actions contributing to the desertification of central Sudan.

"The producer has needs ... He doesn't have any alternative but to look to his farm and think about how much he will get if he chops down his trees," said Al-Amin.

Sudan's vast woodland savanna, or gum arabic belt, stretches from the border with Ethiopia in the east to Chad in the west, providing the ideal habitat for the two gum arabic producing acacia trees, known as Talha and Hashab.

They are most prevalent in the war-torn states of Blue Nile, South Kordofan and South Darfur.

Issam Siddig, a pioneer of Sudan's gum arabic industry, has a messianic belief in the medicinal properties of this little-known commodity.

He says it could transform the lives of Sudanese farmers, reverse the march of the desert and even halt the conflict in South Darfur, by persuading fighters to swap their guns for tapping tools, if only its real value was recognised.

Abdelmagid Ghadir, the secretary general of Sudan's Gum Arabic Board, agrees.

"We believe gum arabic is the manna given by God, bread from heaven... But our people, the farmers, consider it to be a very marginal crop," he said.

Around 13 million people are thought to live in Sudan's savanna belt, five million of whom are directly active in the business of the forest, whether collecting gum arabic, or chopping down the trees and growing crops in their place.

Siddig blames four Western companies, which he claims have a stranglehold over the business, for marginalising the crop.

He claims they have created a "users monopoly", keeping gum arabic classified as an emulsifier by the Food and Agriculture Organisation

(FAO). Gum arabic is currently used mainly in soft drinks - often under the label E414 - to prevent sugar from crystallising.

This has frustrated Sudan's efforts to develop and sell it as a natural "prebiotic," which stimulates the growth of healthy bacteria in the stomach.

Sudan's gum arabic producers use a small axe to tap the trees. A key ingredient in the production of soft drinks, the resin is classified as an emulsifier by the Food and Agriculture Organisation, which some claim is the work of large Western companies that want to hold down the price paid to producers.

"Being an emulsifier, the price cannot be more than $2 per kilo. But if we position it as a natural prebiotic, the price should be $100 per kilo," Siddig explained.

The US government's trade policy towards Sudan reflects gum arabic's importance as a food additive in the production of such iconic beverages as Coke and Pepsi. The processed material is also widely used in the manufacture of sweets, adhesives and pills.

Earlier this month, Washington renewed economic sanctions on Sudan,

first imposed in 1997 to punish Khartoum for harbouring Osama bin Laden and supporting international terrorism.

But Sudan is the world's biggest producer of gum arabic, and in 2000, Congress adopted legislation requiring the US government to consider approving licenses for its import, despite a comprehensive trade embargo.

The prohibition on importing gum arabic was lifted after it was found to be "devastating" to the US food industry, according to a Congressional report.

Philippe Vialatte, deputy director of French firm Nexira (formerly CNI), which buys and processes about 50 percent of Sudan's gum arabic exports, denies the industry is controlled by a handful of players.

A man checks the branch of an acacia tree that produces gum arabic and thrives in Sudan's conflict states. The Sudanese Standards and Measurements Organisation recently recognised gum arabic as a natural prebiotic.

He points out that since the state-run Gum Arabic Company lost its monopoly rights to buy the raw resin in 2009, the market has opened up.

"This is an opportunity for the farmers to take advantage of the increased number of buyers in the market. It means they can get a better price," he said.

CNI looked at developing the gum as a nutritional ingredient three years ago, Vialatte said, but little progress was made due to other "very competitive" sources of prebiotics.

A possible breakthrough in Siddig's quest to develop the medicinal uses of gum arabic came two weeks ago when the Sudanese Standards and Measurements Organisation formally recognised it as a natural prebiotic.

"With this amendment, the FAO is compelled to follow suit, because Sudan produces 80 percent or more of the world's gum arabic supply, and this will encourage other countries to recognise its natural properties," he said.

Siddig hopes prices will rise and encourage Sudanese farmers to exploit gum arabic's full potential.

Sudan produced 55,000 tonnes in 2010, said Ghadir, and is targeting 100,000 tonnes next year, which could help offset the heavy loss of oil revenues following the secession of South Sudan in July.

But production in areas hit by conflict this year is already expected to be lower -- down 20 percent in Blue Nile state alone.

There are also longer-term concerns about how the fighting will deter people from planting and protecting Sudan's acacia forests.

On the edge of the plain in North Kordofan, away from the violence, tapping season runs from mid-October to late November.

Al-Amin uses the traditional small axe to cut into the bark of the tree, which responds by secreting the sticky, odourless substance that he will collect later.

Standing in the shade of its branches, he recites a poem, speaking of his "passion" for the tree, despite the financial pressures that force him to question its value.

"I will sing for you, and play the tambour ... You are the shelter of the herder, the home of the zazour," he says, referring to a type of bird that nests in the tree.

"I am leaving my children and spending months with you, because of your generous bark and your pretty gum."