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## HEMP TEXTILES

# New partne textile deve

### Naturally Advanced Technologies' que develop its patented 'Crailar' enzyme production of hemp fabrics continues

Intimate apparel and activewear manufacturer Hanesbrands has signed an agreement with Naturally Advanced Technologies to use 'Crailar' organic bast fibres in some of its commercial knit products.

The new multi-phase joint development agreement for this organic-fibre commercialisation will involve the retrofit of existing dyeing equipment at a Hanesbrands facility to develop a commercially viable use of the '100% organic fibre'.

NAT has been looking to develop new commercial partnerships for the production of yarns and fabrics from bast fibres such as hemp using its patented 'Crailar' process, which uses enzyme technology to produce soft, comfortable textiles that can compete more effectively with organic cotton. It also recently teamed up with Patrick Yarns, a manufacturer of high performance industrial yarns to make and manufacture Crailar Organic Fiber yarns and related products for sale and distribution in North America to third party licensees of Crailar.

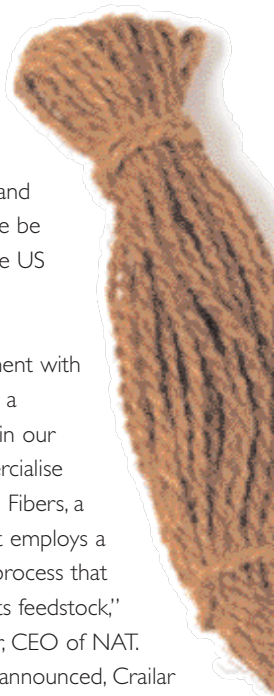
While NAT's hemp feedstock grows without the use of chemical fertilisers and pesticides or herbicides to the USA's National Organic Program (NOP) standard, the company also confirmed that the enzymes used in the production process are completely natural, and not modified in any way. The issue of using genetically modified organisms

for the production of enzymes is not allowed according to GOTS criteria and would therefore be outlawed by the US Organic Trade Association.

"The agreement with Hanesbrands is a significant step in our plan to commercialise Crailar Organic Fibers, a technology that employs a 100% organic process that uses hemp as its feedstock," said Ken Barker, CEO of NAT. "As previously announced, Crailar Organic Fibers were successfully spun on existing cotton systems at North Carolina State University in tests that were sponsored by Hanesbrands. These tests demonstrated the evolution of hemp fibre from a niche market alternative to a mainstream solution.

"Now Hanesbrands is taking action to develop an in-house facility in North Carolina for processing Crailar Organic Fiber. We are very excited to continue working with Hanesbrands in this next phase of our partnership, which will include technology development, marketing initiatives and commercialisation planning."

The deal with North Carolina



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—based Patrick Yarns will also boost its strategy to commercialise Crailar technology beyond commercial apparel knit products. The company is hopeful that the partnership will enable it to grow development in denim, work wear and related apparel markets, as well as the home furnishings and carpeting industries. “We are very excited to be working with Patrick Yarns in a partnership that allows us to create a pull through marketing strategy with fabric and finished goods brands,” added Barker.

The company has an incomparable track record of partnering with its customers to develop yarns that create brand awareness and market share.”

An agreement with commission US-based textile dyer G.J. Littlewoods Son, Inc. to manufacture ‘Crailar’ organic bast fibres for use in apparel will also secure an initial capacity of approximately 40,000 pounds per week, with the capability to aggressively ramp up from there to meet the needs of its commercialisation plans. Littlewoods, located in Philadelphia, is a commission

dyehouse, specialising in the dyeing of synthetic fibres, as well as natural fibres. It intends to use state-of-the-art conventional machinery to process Crailar.

With this in mind, the company anticipates delivering its first revenue from Crailar in the fourth quarter, which, with a loss of US\$966,000 in its second quarter ending June 2009, will be a welcome boon.

It was back in November 2008, the company announced test results from its trials at North Carolina State University, which were sponsored by Hanesbrands Inc. In the trials, the testers spun hemp

yarn and knitted fabric on conventional cotton equipment with no modifications using

Crailar Organic Fibres technology. The resulting yarn was knitted into a five-ounce per square yard jersey fabric, which resulted in a 50% reduction in shrinkage, a 45% increase in tensile strength, a 20% reduction in dye uptake and demonstrated wicking capabilities.

Having now outlined plans to shutter its HTnaturals organic clothing business, which impacted the cost of sales, NAT will be somewhat relieved that Crailar can at last begin to pay its way.

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