



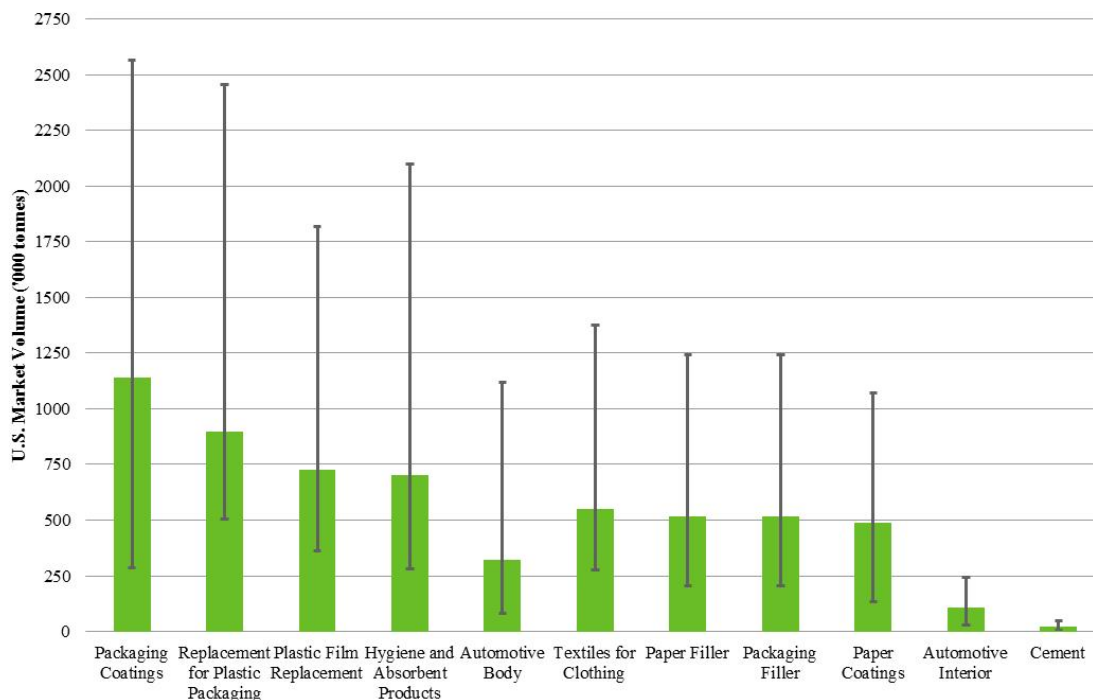
Tuesday, February 17 2015

Nanocellulose Markets in North America

Research in the micro- and nano-cellulose field has increased exponentially over the past five years. Two main product categories have been developed: cellulose nano-crystals (CNC) and micro/nano fibrillated cellulose (CF or CNF). Though the properties of these products vary significantly, their main use is as strengthening agents in various materials. They can also reduce the carbon footprint of composite materials by substituting for petroleum-based or mineral-based fibers.

Canada is a leading player in the bio-based nanomaterial industry, with the first demonstration CNC plant at the Domtar Windsor mill, QC and the first commercial CF plant at the Kruger Trois-Rivières mill in QC. As such, Canada is in a leading position in this emerging market. More than a dozen organizations in Scandinavia, Europe, United States and Japan have also entered the marketplace with their own bio-based nanomaterials, but at a pilot or demonstration scale.

Recent studies by Shatkin et al. and Cowie et al. published in TAPPI Journal estimated the U.S. market for CF and CNC products to be 5.9 million tonnes per year, with a global market potential of 35 million tonnes. The graph below presents estimated quantities (pessimistic, realistic and optimistic) for various high volume applications of nanocellulose products in the U.S. market. It is expected that the first application for incorporation of CF into existing products will be in paper products.



Source: TAPPI Journal, KSH Consulting

Please consult our latest issue of "[Forest Industry News](#)"

In Business Since 1923

If you have comments, questions or wish to subscribe, [click here](#)

If you wish to unsubscribe, [click here](#).