

It all begins with



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For more information on how we can help you, contact John Anderson, Director 704.825.3737, ext. 254 or anderson.john@gaston.edu http://textilecenter.Gaston.edu



Legwear Fashions Textiles

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News About The Industry, From The Industry, For The Industry.

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legislative column by PAUL FOGLEMAN, Director, Hosiery Governmental Affairs Council

Has The Fat Lady Sung? They have always said as the General Assembly draws to a close "It ain't over until the fat lady sings." There was no sight of the lady when the Legislators adjourned in June after passing the state budget and wrapping up the long session. Not a note was heard when they reconvened and adjourned in July after passing controversial redistricting plans and overriding the vetoes of Gov. Beverly Perdue. And after spending \$150,000 in operating costs and three days of conjolling and maneuvering to pass a bill for a constitutional referendum to ban same-sex marriages, there was no song prior to departure.

The fat lady hasn't delivered her song. But/she may have her chance in November. The recent adjournment resolution included Nov. 7 as a possible date for yet another session - perhaps to return to redistricting if the courts reject the Republican map for new legislative and congressional districts.

It costs \$50,000 a day to operate while the General Assembly is in session. Members collect at least \$107 a day for per diem expenses in addition to a modest salary. When one in six North Carolinians are in poverty according to federal guidelines, some legislators are sensitive to the expenses incurred in the sessions.

So maybe in November, the fat lady will sing "I'm Dreaming of a White Christmas."

Farewell And Welcome: When the legislators return in November and May 2012, some veterans will be gone. GOP Reps. Jeff Barnhart of Concord and Jonathan Rhyne of Lincolnton and Sen. Debbie Clary of Cleveland County will have departed.

Barnhart was co-chair of the House Appropriations Committee. Democratic Rep. Jim Crawford of Vance County, one of five so-called Blue Dog Democrats who joined Republicans to overturn gubernatorial vetoes and push the same sex marriage ban, was rewarded with the appropriations chair. Observers in the legislature say Crawford is almost sure to have primary opposition.

Rep. Bill Owen, who has been one of the most powerful Democrats and who joined the Blue Dogs, has announced he is retiring. A half dozen other House Democrats and Republicans have said this is their last session. Others were gerrymandered out of their districts and put in other members districts. As a result, Republicans are positioned to control the North Carolina Legislature for years to come. But there is a big "if".

If the courts uphold the map adopted by the Republican majority.

Is Same-Sex Marriage Amendment Bad For Business? Opponents of the constitutional amendment proposal called "The Defense of Marriage" act prohibiting same-sex marriages in North Carolina say the adoption will hurt business recruiting. Two gay CEOs who head companies employing 2,000 people say it will. Furniture executive Mitchell Gold of Hickory and Robert Page, owner of Replacements Ltd., Greensboro, told legislators the action sends a message to gay entrepreneurs: don't come to North Carolina. Executives in corporations around the Research Triangle area said the ban will hurt recruiting of highly-skilled personnel. More executives in traditional businesses surmised the debate was a waste of time and money.



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Textiles and hosiery industry vendors have used **TRENDS** magazine to open doors. Multi-national, veteran established manufacturers, and smaller niche players all look at market innovations in **TRENDS**. National and state legislation affecting the industries – manufacturing and distribution – are covered in easy-to-read articles. Happenings within the industries and retailers are included to help marketers and purchasing executives.



Paul Fogleman, a veteran experienced in hosiery and textiles operations, can help you with your advertising and public relations opportunities with *TRENDS*.

Contact him at pfogleman@informinc.net

It all begins with



By John Anderson, Dirctor Textile Technology Center

Because yarn is a basic building block for textile fabrications of all types, the Textile Technology Center at Gaston College has continually upgraded capabilities to supply the industry with yarns to develop innovative new products.

First, let's do a quick refresher. A standard definition for "Yarn" is "A continuous strand of fibers of natural or synthetic material, such as cotton, wool, polyester or nylon, used in forming fabrics."

Broadly, yarns are classified as filament yarns, where the fibers are continuous for the length of the yarn, or spun yarns, where short fibers are tangled together to form a continuous strand of yarn, commonly called a spun yarn.

With the exception of silk, which occurs in nature as a continuous filament, all filament yarns are man made. Polyester, nylon, and polypropylene yarns are all formed by melting a polymer and pumping it through a die with a number of holes (envision a shower head) called a spinnerets. The individual filaments are wound onto a package and the yarn is ready for further textile processing

At the Textile Technology Center, recent equipment additions allow clients to process small quantities of polymer and then continue into making a filament yarn. A ½ gallon batch reactor and a small extruder fed spinner shown below enable the Center to make new filament yarns at the 1 – 5 lb level for evaluation.

For innovators who are working with scarce raw materials or new polymer concepts, it is very cost effective to demonstrate products and processes at this level where it is possible to go from chemicals to fiber in two working days or less.

Caption: This batch reactor is charged with chemicals and then processes them under pressure and heat where they react to form polymers. This half gallon capacity machine is ideal for experiments with new materials.

Caption: This melt spinner is a recent addition to the Center's capabilities to extrude filament yarns. Here it is shown directly coupled to a draw stand which allow yarn to be spun, drawn, heat set and wound onto a package in a single process. Polymer chip is loaded in the hopper at the top of the machine.

When an innovative filament idea is ready for scale up, the Center has a development melt spinner which can make filament yarn at an average rate of 8 – 10 lbs per hour. The Center can draw filament yarns into a final form and then knit or weave demonstration fabrics on a very short development cycle.

Within the Textile Technology Center, a complete spinning mill is available to expedite development of new spun yarns, or to evaluate new materials in the various processes involved in producing new yarns.

Spun yarns are made from short

lengths of fiber, known as staple. Fiber typically arrives in bales, and goes through several process steps. Fiber is changed from a compressed state in the bale by opening and picking, and then is delivered to a card, where the fibers are aligned in a single direction and gathered into a bundle known as sliver. Different fibers can be combined at the carding step, or at the next step in the process, called drawing, where several ends of sliver are combined and processed to make a fiber bundle of uniform weight from one end to the other.

From this point, the fibers can be spun into yarns using several different technologies.

Ring spinning is the oldest technology practiced commercially, and also the most prevalent in the global textile market. Ring spinning requires that the fiber bundle be reduced to an interim state, known as roving, and then formed into a final yarn.

The yarn is formed on a spinning bobbin, and then must be wound onto a larger package before it can be utilized in a commercial fabric forming process.

At the Center, a typical ring spinning trial for a development project involves the production of 30 to 100 lbs of yarn, and is performed on modern equipment so the development concept can be readily commercialized.

When a client has just a small amount of fiber, we are still able to process the material into a ring spun yarn, using a sample device known as a rotor ring to put the fiber into sliver form. Recently, the Center purchased the very flexible sample ring spinner shown below to efficiently produce sample yarns from less than one pound of fiber.

Caption: this SKS sample spinner is a recent addition to the Textile Technology Center's yarn forming capabilities. The system is computer controlled and allows very small quantities of fiber to be made into ring spun yarn.

Historically, rotor spinning, or "open end" as it is commonly known was the

next technology to be developed. The technology was introduced in the 1970's and has been continually improved since then. Open end spinning is very cost effective for yarn sizes in the 6/1 to 30/1 size range, like those used in denim weaving or jersey knitting. At the Center, modern open end spinning frames are used to demonstrate new yarn concepts and to evaluate fibers for use in North Carolinas modern, efficient open end yarn mills, such as those operated by Center clients Patrick, Parkdale and Frontier Yarns.

Caption: Drawn sliver is shown here being converted to Open End spun yarn. The Sliver enters the spin box from the bottom through an opening and finished yarn is wound onto packages above.

Air jet spinning or MJS is a technology that came to the industry in the mid 1980's.

While mills originally invested in air jet spinning because it was 10-12 times more productive per position than a ring frame, today air jet yarns are used primarily because the system produces synthetic content yarns that resist pilling and offer a high level of cover. The Center has an air jet frame that is regularly called upon to produce yarns for development of technical textiles for the military, protective gear and performance athletic fabrics.

Vortex spinning is a relatively new technology, introduced in the late 1990's, which offers the technical capability of the air jet system and the flexibility to spin 100 percent cotton yarns as well as synthetic fibers in blends or in 100 percent form. Vortex spinning also offers another step change in productivity. Recently, two large installations of Vortex spinning were added in North Carolina.

Caption: The Textile Technology Center has both air jet and vortex spinning available for development of new yarns. The air jet frame is on the right, and the vortex frame on the left. The Center also has two professionals on staff that have extensive commercial experience operating and configuring both systems. All of the yarn spinning systems described so far are known as short staple, or "cotton system" spinning, because they process fibers 2 inches in length or less.

In the last year, the Textile
Technology Center assembled a
complete spinning system that can
process natural fibers such as wool and
alpaca along with synthetic technical
fibers that are longer than 2 inches on
a modified worsted system. The system
includes a brand new roller top card,
a pin drafter and an 8 position sample
spinning frame which can also be used
to ply and twist yarns. The entire
system is housed in a separate room
inside the Textile Technology Center
for client confidentiality and to prevent
fiber contamination with other systems

Caption: This eight position modified worsted system spinning frame was built for the Textile Technology Center by Carolina Specialties, Inc. of Goldston, NC. It offers great flexibility and ease of set up, and is equipped with the capability of making novelty yarns with slubs.

This addition, along with the Centers modern fabric forming capabilities ensure that North Carolina yarn mills and knitters and weavers have access to modern, efficient product development for products from filament or spun yarns. The Textile Technology Center also offers extensive laboratory services to characterize yarns and raw materials and to document processes.

As part of the Center's Charter from the NC Legislature "... to develop a world-class workforce for the textile industry in North Carolina; support the textile industry by identifying problems confronting the industry and assisting the industry in solving them"

The Center offers several levels of learning about yarn spinning and operations as well as product development and demonstrations in its well equipped facility. Instruction is available for individuals or groups.

As TRENDS points out, when it comes to textile innovation, "It all begins with Yarn!"

Hosiery Courses Offer Basics To Producers, Retailers, Marketers

1 ore than a decade ago, Dan St. Louis determined that retailers, marketers, and designers could become more efficient and knowledgeable with a basic course on the making of a sock from knitting to finishing from yarn construction to dveing.

Since his first class, more than 1,800 people from throughout the United States and abroad have journeyed to Hickory to learn the fundamentals that represent quality. Last month a twoday class with more than 50 people from national brand merchandisers, manufacturers, and retail specialty chains were enrolled.

St. Louis, manager of the Manufacturing Solutions Center and its Hosiery Technology and Testing Center, said the last class was the largest to date.

The content of the classes changes with new yarns and evolving technologies. "You would not recognize the latest class from the first one," he reflects. The first class in 1994 focused on products that were made in America. Off-shore purchasing was not on the horizon and China had not joined the World Trade Organization, a move that gave them open-door access to the U.S. market.



Thomas and Susan Miles of Circular Knit Services in Fort Mill, SC, are among hosiery manufacturing entrepreneurs pursuing niche business. They were among the 50 people in the recent Hosiery 102 class at the Manufacturing Solutions Center.





These "students" in the Hosiery 101-102 classes absorbed presentations on the methods and technology in the production of hosiery and yarn properties.





Hosiery 101 was a four-hour class that covered manufacturing and helped retail buyers understand the complexities of changing patterns. Today, Hosiery 101 and 102 includes how yarns are made and their characteristics, knitting technologies, sizing of socks and sheers, dyeing and finishing, testing methodology. Two full days of presentations end with a tour of the MSC facilities.

In addition to the onsite course, St. Louis has taught an abbreviated version at special events sponsored by companies.

"Retailers are learning that quality issues are associated with off-shore goods and they want to be able to articulate specifications for products that will be accepted by their customers," he observed recently. Also, hosiery buyers want to communicate with their vendors in a knowledgeable way, including their domestic partners, he adds.

Participants in the most recent two-days session confirmed those observations.

Helen Liu of Shalom International Corp. was there to learn what to look for in quality and how to communicate specifications with manufacturers. In her case, most of the manufacturers are in Asia.

Danielle Weith of Kohl's Department Stores said more of their socks are coming from U.S. mills. As the product developer for the national chain, she was gaining more knowledge about the technology in hosiery manufacturing and innovations in yarns.

Large delegations in the recent class were sent by Gildan, Hanes Brands, Renfro, and Kayser Roth. K Bell, Nike and Keen Footwear were among brand marketers and retailers.



Participants represented the nation's leading hosiery manufacturers and distributors, retailers, brand managers and marketing companies.

'One-Way Trade' Pacts

Opposed By Domestic Mills

Domestic hosiery manufacturers are raising concerns about trade agreements with southeast Asian and Pacific rim countries, again arguing that fairness is the issue.

The U.S.-South Korea Free Trade Agreement known as KORUS as currently negotiated gives South Korea far more access to the \$14.5 trillion U.S. market than the U.S. receives to the \$1.3 trillion South Korean market, according to the American Manufacturing Trade Action Committee (AMTAC).

During a recent meeting in Chicago with U.S. trade negotiators, Darrell Frye, vice president of Harriss and Covington Hosiery Co. and Robert Chesson of Wigwam Mills argued the remaining core of hosiery companies making socks in the United States would face unfair competition under the proposed agreement.

Since the adoption of NAFTA almost 20 years ago, U.S. manufacturing companies have observed that tariffs and value-added taxes have put up barriers to U.S. exports. As a result of these barriers, the U.S. trade deficit with South Korea between 2001 and 2010 reached \$136 billion, AMTAC reports.

KORUS is the largest free trade agreement since NAFTA and it is the first negotiated with a southeast Asian industrial exporting power. It has been opposed by a diverse group of industries, among them textiles, automotive, and beef producers.

AMTAC also is leading the opposition to the Trans-Pacific Partnership involving trade agreements with Australia, Singapore, New Zealand, Brunei, Vietnam, Chile and Peru. This is an example of an agreement that opens doors to major exporters to the U.S. market but who buy few U.S. goods in return. Such a pact is a "one-way trade deal", the organization argues.

Frye and Chesson were particularly concerned about a proposed agreement with Vietnam and its non-free market economy. Already paying full duties, Vietnam is the second largest textile and apparel supplier to the U.S. (China is the largest). Vietnam also wants to ship duty-free goods coming into the country from China.

Frye, who heads up the Hosiery and Textiles Governmental Affairs Council, is considering staging a meeting for hosiery manufacturers for a presentation by AMTAC Executive Director Augustine (Auggie) Tantillo who is based in Washington DC and is a registered lobbyist. Clients include some of the nation's leading industries including Milliken Inc.



Industry Briefs

SEAMS Association

Networking Conference Set for October 21 – 22

The fall networking conference for SEAMS Association will be held October 21 – 22 at Wild Dunes Resort on the Isle of Palms near Charleston SC.

Apparel manufacturers and their suppliers in the association will hear presentations on international trade agreements and the impact they could have on U.S. manufacturing. The business networking will begin Friday, Oct. 21 with a golf outing.

For additional information, contact Sarah Friedman, SEAMS executive director, at (803) 772-5861 or check the association website.

SYFA Fall Gathering

November 16 – 17 To Focus On Trends

The Synthetic Yarn and Fiber Association has announced a full schedule of presentations at the November 16 – 17 Fall Conference at the Sheraton Airport Hotel in Charlotte NC.

Keynote speakers are Dr. Blanton Godfrey, dean of the College of Textiles at N.C. State University, and North Carolina Commerce Secretary Keith Crisco.

The two-day conference which opens at 11 a.m. Wednesday, November 16, also features information on trends in product development, markets, and governmental regulations.

Approximately 100 textiles executives are expected to attend. The event will include a tour of the Textile Technology Center, headed by John Anderson, at nearby Belmont.



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Hosiery Meeting Nov. 10 To Focus On Fair Trade Issues

Domestic hosiery manufacturers will gather in High Point November 10 to consider uniting behind opposition to pending U.S. trade agreements with countries on the Pacific Rim.

At the top of the agenda for the gathering is a pending U.S. trade agreement with South Korea. Textile manufacturers have asserted that the agreement as drafted will give Korea unfair access to the U.S. market in exchange for possible exports to the Korean market which is one-tenth in size.

The November 10 meeting will include a luncheon at the High Point Chamber of Commerce including executives from independent domestic hosiery mills and their suppliers. Tickets are \$12 each.

Auggie Tantillo, executive director of the American Manufacturing Trade Action Committee, will be the featured speaker. He is based in Washington DC and represents manufacturing members with issues on Capitol Hill.

Tantillo will address also pending agreements with several Southeast Asian and South American countries.

Darrell Frye, chairman of the Hosiery and Textiles Governmental Affairs Council and vice president of Harriss & Covington Hosiery Co. is coordinating the meeting. "Our objective is to again unite the independent, family-owned companies that employ thousands of people," Frye said.

Since the adoption of WTO rules and trade agreements over the past decade, dozens of hosiery manufacturers have shuttered their plants, unable to compete with cheaper labor and less regulations in foreign countries.



Back-issues are available online at www.TrendsLFT.com





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The Hosiery and Textiles Governmental Affairs Council looks forward to working with legislators in Raleigh in 2011. Republicans with a pro-business agenda will set priorities for state government, including how state finances are invested. Emphasis will be on smaller government and the best return on dollars invested by the state.

We congratulate the new leaders in the House and the Senate. Also we look forward to working with new members of the General Assembly as we present our case for the continued support of the Textile Technology Center and the Manufacturing Solutions Center with its successful hosiery industry testing and research programs.

There will be a lot of noise with competition for state money. We invite textiles and hosiery companies that continue to employ over 100,000 North Carolinians to join us in support of the value-added services of our centers.

Hosiery and Textiles Governmental Affairs Council P.O. Box 1708 415 First Avenue NW, Hickory NC 28603 (828) 322-7766 • informinc@charter.net

People now call us the 'Manufacturing Solutions Center'



and that's OK.

Officially we have been the Center for Emerging Manufacturing Solutions. (CEMS). Our mission is to help traditional manufacturing in North Carolina succeed in a changing environment. The Hosiery Technology Center remains a core service. But furniture, packaging, plastics, and other industries that helped build North Carolina's economy are now priorities.

If our official name is too much to remember, just call us the Manufacturing Solutions Center. We are ready to assist you with new products, new manufacturing strategies, new markets.

Traditional manufacturers have an old history with our state. But they are an important force in the new economy.

Dan St. Louis, Director • Catawba Valley Community College

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