

REPORT CLARIFICATION

In the last issue of *Textile Topics* (February 1993, Vol. XXI, No. 6), we published an article titled "An Evaluation of Burckhardt Rotor Components." Since the printing of the article, we have been made aware of the need to clarify several statements.

Schlafhorst rotors that can be run at speeds higher than 110,000 rpm are now available. The speed recommended by the manufacturer for the T231D and G 231D is 120,000 rpm. When the work on the project was begun in February 1992, only the T231D and G 231D rotors were available to us and the recommended speed limit was 110,000 rpm.

The Schlafhorst T37 torque stop was used in this study. This was not identified by a part number since we assumed it was the only one available. We have since learned that Schlafhorst also uses another torque stop, the TS 30/3.

The tables in the report indicate the test duration ranged from 18 to 25 rotor hours, not the normal 100 to 200 rotor hours typically run. Although the results of the study provide an indication of the rotors' and other components' performance, they should not be interpreted as conclusive.

The work on the project was completed in February 1992. Since that time, higher speed rotors and various other components have come into production. The K 230 rotor, for example, operates at speeds between 110,000 and 130,000 rpm, according to Schlafhorst. These new rotors and components are all designed to improve the spinning efficiency and yarn production. An evaluation of these new components will be made in the future, as time permits.

"Man is the lowest-cost, 150-pound, nonlinear, all-purpose computer system that can be mass-produced by unskilled labor."

This quote, attributed to an unidentified National Aeronautics and Space Administration spokesman, is borrowed from the *Hartford Advocate* (Hartford, CT).

LET'S TALK ABOUT CASHMERE

Delicate brightness . . . Softness . . . Gentle warmth . . . Lightness. These words describe one of the world's finest and most sought-after animal fibers -- cashmere.

Cashmere is widely associated with the fine undercoat or down produced by the Kashmir goats in the Himalayan regions. Today, however, cashmere goats are known by the amount of down produced by the animal rather than by the zoological classification. At the turn of the century, cashmere was in such demand in Europe that it was purchased in bulk from India, China, Iran, Afghanistan and Tibet. The cashmere fleeces were shipped to England and France, and manufactured into garments that were worn by the most distinguished people.

Cashmere is usually one of three colors; brown, gray or white. The soft cashmere fibers are normally one to three and one-half inches in length, and the coarse guard hairs covering the cashmere are two to five inches long. Cashmere begins to grow on the goats in the autumn, as the days begin to shorten, and stops growing when the days begin to lengthen. As the goat sheds or molts its winter coat, the fiber is collected by raking, combing or shearing. Manufacturers insist upon three percent (or less) guard hairs in good quality cashmere; therefore, it is necessary to remove these coarse, stiff fibers from the soft down. The process in which the guard hairs are removed from the cashmere is called dehairing.

Because of supply and demand problems, and political unrest in countries that traditionally produce cashmere, manufacturers are looking toward Australia, New Zealand and the United States as major sources of cashmere. Australia and New Zealand have provided cashmere to the world market since the 1970s with the discovery of cashmere on feral goats. Improved cashmere quality has been achieved through selective breeding, but the cashmere industry in Australia is now in trouble. The use of Angora blood and concentration on quantity rather than quality has resulted in a fiber labelled "cashgora," not cashmere. Most manufacturers want only true cashmere fleeces. There are no true or purebred Kashmir goats in the United States, but Australia and New

Zealand have been vital for exporting selected cashmere breeding stock and semen to the United States and other areas interested in producing cashmere.

Cashmere is available today in knit and woven apparel, and is in high demand. Texas has a golden opportunity to meet this demand with the development of a dual-purpose goat breed which produces both fiber and meat. Though the Spanish feral goat herd in Texas is the largest in the United States (perhaps in the world), the goats are raised primarily for meat, and the demand for goat meat is much greater than the supply. Since the Spanish feral goats also produce cashmere of high quality, the Texas Cashmere Association has taken steps towards increasing the meat supply by placing equal emphasis on meat- and fiber-producing characteristics.

The development of a dual-purpose goat breed could add an estimated \$90 million to the Texas economy, and boost the textile industry in Texas and the United States with the availability of ample supplies of cashmere fiber. It is believed that through

careful selection of breeding stock, the quality of the fiber and its properties can be improved without sacrificing quantity.

One of the goals of the International Center for Textile Research and Development at Texas Tech University is assisting the development of new industries for Texas. The Center has recently begun to research and process cashmere. The main objective of the study is to determine the most economical way to remove the guard hairs (dehair) and to produce good quality yarns from cashmere.

The dehairing equipment on the market today is very expensive and available only in certain locations in the United States, Europe and China. The Center is trying to develop an economical process to dehair cashmere employing the cleaning and carding principles available in cotton gins and textile mills.

Information for this article, written by Cathrine Amason, has been taken from the proceedings of the Fifth Annual National Conference held by the Cashmere Producers of America.

TEXCELLANA WEAR TEST

The International Center for Textile Research and Development, in conjunction with College of Human Sciences at Texas Tech University, is involved in a project to develop a TEXCELLANA outerwear fabric. TEXCELLANA, a blend of Texas cotton and Texas short-shorn wool, was developed at the Research Center.

Fabric for this project was produced from 100% carded Pima cotton, 90% cotton/10% wool, 80% cotton/20% wool, and 70% cotton/30% wool. Women's skirts were made from the various blends, and the five fabric types and their properties will be assessed before and after wear.

The wear study involves 26 participants from throughout the University. Those involved in the study are required to wear the skirts for five weeks, for a minimum of 32 hours a week. Participants are asked to complete a daily log and to evaluate the skirt fabric at the end of each week of wear.

This project is sponsored by the Texas Food and Fibers Commission. Results of the study will be reported by Dr. Patricia Horridge and Dr. Samina Khan of the College of Human Sciences later this year. Alicia Campbell, Maggie Rogers and Sridhar Chikodi, graduate research assistants, College of Human Sciences, are involved and working on the project with Drs. Horridge and Khan and the Textile Research Center staff.

AFIS INSTRUMENT TO ENHANCE RESEARCH

Zellweger Uster has placed an Advanced Fiber Information System (AFIS) at the International Center for Textile Research and Development. This highly specialized instrument is used to measure important fiber properties such as neps, length, diameter and trash content. The AFIS instrument not only will greatly enhance our materials evaluation lab in quickly determining fiber properties, it also will aid in determining the efficiency of the textile machinery used here. For further information on the AFIS instrument, we refer readers to the June/July 1992 issue of *Textile Topics* (Vol. XX, No. 10/11).

DONATIONS

Recent donations to the Center have included:

- from Sonoco Products Co., Hartsville, South Carolina – one case of yarnsaver cones which will be used on various winders here and six cases of cylindrical tubes for use on the Volkmann 2-for-1 twister in our animal fibers research lab;
- from Textube Corporation, Greer, South Carolina – four cases of cones for our open-end spinning machines;
- from Dairy Victor Ring Travelers, Gastonia, North Carolina – several sizes of ring travelers for spinning fine-count yarns.

We wish to express our gratitude to these organizations for their generosity in providing supplies for our activities. Such donations are most helpful in continuing and maintaining our commitment to research.

TEXAS INTERNATIONAL COTTON SCHOOL

The eighth class of the Texas International Cotton School was held at the International Center for Textile Research and Development from April 5 through 16, 1993. There were 23 students enrolled from four foreign countries and the United States.

Since the Texas International Cotton School began in 1989, a total of 133 students have completed the course. Thirty-nine of these students have come from the United States and 31 from other countries.

The school is sponsored by the Lubbock Cotton Exchange with two sessions a year, in April and in October, beginning on the first Monday of the month. Each class lasts for two weeks and covers textile technology, cotton marketing and economics.

Students attending Class VIII, their counties and the companies they represented, were:

from Egypt: Drs. Mervat M. Abdallah, Mohamed A. Abd-El-Mohsen, Nafisa Taha Ahmed Ali, Ahmed Nehad Yousef Ashour, Samir Hasanien Mohamed H. El-Hariry, Abdallah Hamza El-Sheikh, Abdel-Wahab Mohamed Ismail, Farag Saad Mansour, Ala El-Din Salama Ibrahim Marzook, Mahmoud Taha A. Nawar, Erian Mesiha Soliman and Mohamed Mahmoud M. Syiam, all from the Cotton Research Institute, Giza;

from Czechoslovakia: Alois Bohac, Perla Enterprise, Usti nad Orlici;

from Germany: Anja C. Schleth, representing Zellweger Uster, Knoxville, TN;

from Mexico: Susano Mojica Hernandez, Textile Polo S.A. de C.V., Trebol Tepetzotlan;

from the United States: Ken Dulin, J.G. Boswell Company, Los Angeles, CA; Jim Gruben, Rotan Gin Co., Rotan, TX; Randy Hicks, Consolidated Cotton Co., Lubbock, TX; Frank Navarette, SWIG, El Paso, TX; Ray Ridens, Caney Valley Cotton Co., Childress, TX; and Bill Spacek, Cassell Cotton Co., Lubbock, TX.

Instructors for the textile technology sessions included John Gannaway, Texas A&M Agricultural Research Station, Lubbock; Roy Baker and Alan Bra-shears, USDA-ARS, Lubbock; Emerson Tucker, Plains Cotton Coop Assn., Lubbock; Frank Jones, Lubbock; and ICTRD staff members Harvin Smith, Jane K. Dever, William Cole, Edwin Foster, R. D. Mehta and Bobby G. Wyatt.

Visiting lecturers were Joseph J. O'Neill, New York Cotton Exchange, New York, NY; Helmut Deussen, Schlafhorst Inc., Charlotte, NC; Carl Anderson, Texas A&M University, College Station, TX and Jackie Smith, Texas A&M Station, Lubbock; Keth Henley, Cotton Outlook, Memphis, TN; Eric Gauch, Peyer Corporation, Dallas, TX; and Joe Yankey, Zellweger Uster, Knoxville, TN.

Information concerning the next class of the Texas International Cotton School may be obtained by contacting Mandy Howell, Lubbock Cotton Exchange, 1517 Texas Ave., Lubbock, TX 79401; telephone 806/763-4646; FAX 806/763-8647.



Texas International Cotton School, Class Eight:

Front row, from left: Karen Thompson (Assistant TICS Coordinator), Anja Schleth, Nafisa Taha Ahmed Ali, Mervat M. Abdallah, Abdallah Hamza El-Sheikh, Frank Navarette.

Second row: Erian Mesiha Soliman, Eric Gauch (Peyer Corp.), Abdel-Wahab Mohamed Ismail, Mandy Howell (TICS Coordinator), Jim Gruben, Ray Ridens, Susano Mojica Hernandez.

Back row: Farag Saad Mansour, Joe O'Neill (NY Cotton Exchange), Randy Hicks, Ken Dulin, Bill Spacek and Alois Bohac.

Not shown in photo above: Mohamed A. Abd-El-Mohsen, Ahmed Nehad Yousef Ashour, Samir Hasanien Mohamed H. El-Hirary, Ala El-Din Salama Ibrahim Marzook, Mahmoud Taha A. Nawar and Mohamed Mahmoud M. Syiam.

VISITORS

Recent visitors to the International Center for Textile Research and Development have included Danny Gilmore, George A. Goulston Co., Monroe, NC; Larry Sims, Allied Fibers, Columbia, SC; Garrett Screws, Novo Nordisk Bioindustrials Inc., Danbury, CT; Lee Borden and Woody Barnes, Borden Manufacturing, Goldsboro, NC; Gene Duke, Technical Seed, Brownfield, TX; Dean Ethridge, Chemonics International, Alexandria, VA; Rafiqul Haque, Tallu Spinning Mills Ltd., Dhaka, Bangladesh; Kim Parker and V. A. Rangarajan, Afcott Nigeria, Yola, Nigeria; and Thomas Kafantaris, Athens, Greece.

Also, A. A. (Tony) Ball, Rieter Corporation, Spartanburg, SC; Warren Perkins, Auburn University, Auburn, AL; George B. Jordan, George B. Jordan & Associates, Greensboro, NC; Lee Morris, B. F. Goodrich, Pueblo, CO; Ronnie Morris and Mann Phillips, The Pawley's Institute, Scotland Neck, NC; Leslie Busby, Cotton International, Memphis, TN; LaRhea Pepper, Pepper Farms, O'Donnell, TX; and South Plains Maid of Cotton Rashael Ritter, accompanied by Cheryl Sebastian and Arden Pemberton.

In addition, seven representatives from the Egyptian Central Administration for Seed, Cairo, Egypt, visited the Center on March 12. They were accompanied by interpreter, Sa'd Al Sa'd, Tuscon, AZ, Kathryn M. Swigert, Resources for International Development, Woodland, CA, Don Ator, Texas Seed Trade Association, Pflugerville, TX and Mark Marley, Production Plus +, Plainview, TX.

On March 25, 31 members of the China Association for Science and Technology, People's Republic of China, visited with us as part of a friendship tour to Lubbock; and on April 22 five members of Rotary International from South Africa came to the Center, accompanied by Brad Youngblood, Wolfforth, TX, a Lubbock Rotary member.

Other groups included 73 students from Littlefield High School, Littlefield, TX, accompanied by Sheila Kieffer, their instructor; Margaret McCutcheon and 10 students from Garden City High School, Garden City, TX; seven Texas Tech University Chemical Engineering students and their instructor, Dr. Richard Tock; 13 4-H members from Morton, TX; and six members and parents from the Floydada 4-H Club, Floydada, TX.