



OPEN—END SPINNING In the January 1987 issue of *Textile Topics* (Vol. XV, No. 5), we carried fiber testing and spinning results of two cottons that had been included in our annual Texas Cotton Quality study. Apparently the information presented was well received, for we have had a number of requests for additional copies of the complete report which presented test results on thirteen cottons from different areas of the State.

We also have had inquiries about the spinning parameters of the two rotor machines used in the study. These were the Rieter m1/1 and the Schlafhorst Autocoro. The inquiries concerned certain details about the operation of the machines while they were spinning three yarn numbers, the same three on each machine. We failed to give information that would be useful to manufacturers who have one or both of these machines, and we would like to offer this now. It will be noted that we are presenting results of only one test, as the same spinning parameters were employed for all cottons in the study.

On the next page we are including three tables, two being reproductions of the information presented in the earlier issue of *Topics*. We are doing this so fiber properties, spinning details, and yarn testing results can be related to each other. We trust this information will be useful. It is our intent to include complete spinning information in all future Texas Cotton Quality reports.

PRICE AND EDWARDS PROMOTED John B. Price and G. Clinton Edwards have recently been promoted to Assistant Directors of the Textile Research Center, following the retirement of Harry E. Arthur who served as Associate Director for many years. As the workload has increased, it seemed advisable to restructure our organization in order to give the highest possible efficiency. Therefore, it was decided to appoint two assistant directors and have them share responsibility for our overall operation.

Mr. Clint Edwards is a native of Burlington, North Carolina and received his early education there. After high school, he entered North Carolina State University and graduated with a Bachelor of Science degree in Textile Technology in December 1972. Soon afterward, he began work with Burlington Industries in the Corporate Research and Development Center in Greensboro, North Carolina. There he specialized in research and technical service on open-end spinning machines. In 1978 he joined the Barber-Colman Company of Gastonia, North Carolina, as a sales engineer. In 1980 Mr. Edwards accepted a position with a yarn spinning company as vice president and technical manager. He remained there until he joined the Textile Research Center in May 1985. Until his recent promotion Edwards served as head of our knitting research.

John B. Price is from Barnsley, Yorkshire, England. He received his early education at Gateshead and then attended the Leeds College of Science and Technology where he received a Higher National Certificate in Chemistry in 1965. He then enrolled at the University of Manchester in the Institute of Science and Technology. He was graduated with honors and received a Bachelor of Science degree in Textile Technology in 1969.

In 1970 he joined E. Scragg and Sons Ltd. at Macclesfield, England, as a textile technologist. His responsibilities there were to perform evaluations on carpet yarn texturing, a chenille yarn machine, bush friction twisting units and high-speed nylon crimping machines. He also was responsible for textile evaluation of prototype rotor spinning machines and assisted in their design. He joined Spindelfabrik Suessen, West Germany, in 1975 in order to maintain his interest in the field of rotor spinning. Soon afterward, he came to the United States to assist the Barber-Colman Company. He later was employed full-time with Barber-Colman as a senior laboratory engineer at the Rockford, Illinois facility, performing

**TABLE I
FIBER PROPERTIES**

Individual Instrument Data			HVI Data: MCI 3000		
Stelometer Strength	25.10	g/tex	1/8" Gauge Strength	27.0	g/tex
Elongation	5.47	%	Elongation	5.6	%
2.5% Span Length	1.11	in.	Length	1.18	in.
Uniformity Ratio	44	%	Uniformity Ratio	82	%
Short Fiber Content	6.3	%	Micronaire Value	3.8	
Micronaire Value	3.33		Reflectance	77	
Pressley Strength	86.2	Mpsi	Yellowness	7.8	
Shirley Non-lint Content	2.85	%	Index of: Color - 31; Leaf - 4		

IIC/Shirley F/MT	Micronaire: 3.6	Fineness: 151 mtex	Percent Mature Fibers: 78.0		
Peyer Texlab AL-101	Upper Quartile Len.: 1.03 in.	Mean Len.: 0.80 in.	CV% of Mean: 37.5	% Short Fibers: 20.5	

**TABLE II
ROTOR SPINNING SPECIFICATIONS**

Sliver	55 gr/yd Finisher Drawframe					
	Rieter m1/1			Schlafhorst Autocoro		
Machine						
Nominal Yarn Number (N_e)	10	22	30	10	22	30
Rotor Type	45 N St			T40		
Rotor Speed (rpm)	55,000			80,000		
Opening Roller Type	T.52			OB20		
Opening Roller Speed (rpm)	6700			7500		
Draft (approximate)	66	145	198	66	145	198
Twist Multiplier	4.85	4.80	4.78	4.78	4.79	4.79
Yarn Speed (yd/min)	99.5	67.7	58.3	147.0	98.9	84.6
Navel	Smooth Steel			4-grooved Ceramic		

**TABLE III
YARN PROPERTIES**

Spinning Machine	Rieter m1/1			Schlafhorst Autocoro		
	10/1	22/1	30/1	10/1	22/1	30/1
Nominal Yarn Number (N_e)	10/1	22/1	30/1	10/1	22/1	30/1
Nominal Twist Multiplier (α_e)	4.85	4.81	4.78	4.78	4.79	4.79
Skein Test:						
Yarn Number (N_e)	10.18	22.54	29.73	9.97	21.98	30.34
CV% of Yarn Number	0.9	1.0	1.1	0.6	0.9	1.4
Count-Strength-Product	2409	2115	1949	2409	1939	1725
CV% of CSP	2.1	1.8	2.1	2.1	3.3	3.1
Single-Yarn Strength Test:						
Tenacity (g/tex)	14.84	13.79	12.78	14.52	13.21	11.75
Mean Strength (g)	861	362	254	860	355	229
CV% of Break	7.1	7.7	8.6	5.8	7.3	9.3
Elongation (%)	6.72	6.06	5.63	6.62	5.40	5.08
CV% of Elongation	6.6	7.6	7.8	6.7	9.8	9.6
Spec. Wk. of Rupture (g/tex)	0.577	0.467	0.401	0.553	0.411	0.338
CV% of Wk. of Rupture	12.9	13.8	14.5	11.3	14.2	16.1
Initial Modulus (g/tex)	353	350	354	303	370	374
Uster Evenness Test:						
Non-Uniformity (CV%)	14.08	15.19	17.37	12.95	15.72	17.71
Thin Places/1,000 yds	2	16	99	0	31	147
Thick Places/1,000 yds	96	127	389	35	148	320
Neps/1,000 yds	106	244	1071	48	232	926
ASTM Yarn Grade	B	C	D	B	C	C

research and development trials to improve productivity and the range of application of rotor spinning machines. Mr. Price joined the Textile Research Center in April 1981 and has served as head of New Spinning Technologies research until his recent promotion.

We are very pleased that Price and Edwards are now assuming more responsibility at the Textile Research Center. Both have proven to be assets to our work, and we look forward to the contributions they will make in our many research activities.

TRC'S NEW LOCATION As we mentioned in the previous issue of *Textile Topics* (Vol. XV, No. 7), we have been in the process of moving the Center from the old facility on the campus of Texas Tech University to our new building on the east side of Lubbock, some seven miles from the former location. We are pleased to report that the move has been going extremely well, and we now have approximately 85% of our equipment installed in the new building. All of it is not yet in operation, but this is being accomplished as rapidly as possible. The equipment still to be moved is in our dyeing and finishing department. Some of this is quite large, and it is requiring a good bit of time to disassemble, move and then reassemble.

We stated in last month's *Topics* that the new facility is located at 1001 East Loop 289. Our mailing address has remained the same and is given on the back of each issue of *Topics*. However, our telephone number has changed. **The new number is 806/747-3790.** Anyone calling the old number will get a recorded message that will eventually lead you to us.

We want to point out that the move has delayed our preparation of this issue of *Textile Topics*. We realize we are somewhat behind with this, but we should be catching up and getting back on schedule within the next month or two. We mention this because we have received several letters asking what happened to *Topics* numbers 8 and 9 of Volume XV. This is number 8, and number 9 will be coming along soon. We hope everyone will understand our present position and why we are running a bit late.

HIGH PLAINS COTTON PRODUCTION We have had a number of inquiries recently about the prospect for this year's High Plains cotton quality and quantity. We do not normally become involved in agriculture and cotton production, for our research begins with the bale of fiber. However, because of the inquiries we have had, we thought we might mention a few details of the current production here in West Texas.

We have talked with several cotton producers and researchers recently, and we have gathered some rather interesting information concerning the 1987 cotton production in the Lubbock area. We have learned that it was the intention to plant 3.1 million acres of cotton this year, but it now (late May) appears that no more than 2.8 million acres will be planted. In fact, the latter figure may be the maximum amount and actual plantings may be even less than that. June 10 is the normal cut-off date for planting in this area. Current planting in the northern half of the High Plains seems more advanced than in the southern portion, and this is considered to be good as the northern half has a shorter growing season.

Recent excessive rains have caused some problems with early cotton growth, and everyone agrees that what is now needed is a good bit of warm, dry weather. It is always good to have occasional rains during the growing season - preferably in August -- but there is good soil moisture throughout the area, and nothing more is needed at the present time. Additional moisture or cool weather during the growing season likely would result in low micronaire cotton. However, if we do get good weather through the summer, September will be the critical time for maturity. In recent years, cool wet weather has begun in late September and October and has resulted in a decline in both quantity and quality. Ideal weather during the summer and early fall would be very beneficial. This would improve chances for good quality of the area's cotton.

To those readers who have inquired about this, we hope this bit of information will be of some value. If there seems to be enough interest, we will be pleased to furnish additional information in the future on the progress of the cotton crop in the High Plains area.

VISITORS Visitors to the Textile Research Center during April included O'Brien Seymour, West Point Foundry, West Point, GA; Robert I. Joseph, Ocot Inc., Odem, TX; Victor Brier, Julian Martin and

Isaac Jones, Brentex Mills, Inc., Brenham, TX; Carl Cox, Natural Fibers & Food Protein Commission of Texas, Dallas, TX; Brian Woods, A. Meredith Jones & Co., Ltd., Liverpool, England; Mustafa Nevzat Ozhamurkar and Mehmet H. Uçok, Birlik Mensucat Ticaret ve Sanayi İşletmeleri A.S., Kayseri, Turkey; Minoru Tokora, Mulogawa Women's University, Osaka, Japan; and from Algeria we had Oukdane Kachid, Ministère des Industries; Bouterfas Auglou, Cotitex Jebdou; Mustapha Touabi, Cotitex de D.B.K.; and Fetha Tahar, Entreprise Nationale des Industries Textiles Cotonnières.