

TELCOT

*New Dimensions
In Marketing*

Cotton became a cornerstone of American agriculture early on and today is produced in at least 14 states with annual returns from the sale of raw fiber that amount to several billion dollars at the farm gate.

It ranks importantly in the Texas-Oklahoma economy in the Southwest where as much as 45 to 50 percent of the nation's cotton acreage is planted. Texas has produced cotton commercially since before the 1836 revolution. On the High and Rolling Plains, one of the largest contiguous cotton areas in the world, cotton is paramount. Oil, cattle and a few other crops are significant, but production of the natural fiber is supreme as the balance wheel to the area's total economy.

Cotton production is nearly a year-long undertaking from the time the land is conditioned, planted, and the crop cared for until harvest. It creates income and supports many workers and a quiltwork of farm communities in movement from the field to the door of a textile mill. In the cooperative sector this progression creates for the producer bits of vital income from savings in the gin processing and warehousing. But the apex of a producer's interest in the cotton cycle is the merchandising.

Traditions in the Southwest marketing arena have standardized over many decades. Sellers and buyers seek each other. They bargain for price based on supply-demand factors, using government standards for quality and staple length determinations. Incidentally, these standards with their many variations can number into the thousands but trading is generally conducted with use of only a handful that are basic to the geographical area involved.

A sample weighing 8 ounces or more is drawn from the packaged bale or automatically taken as the bale is ginned, forwarded to a government classing office, and compared to universal standards either by human evaluation or instruments. This classification is recorded on a "green card" that becomes a basic instrument used in much of the cotton trading.

The electronic trading system developed by Plains—TELCOT—is only in its sixth year. But the marketing process that predated it in the Southwest for the most part now seems woeful. The process in which a producer or his gin clerk bargained with one, two or a small handful of buyers characterized cotton trading in these parts for over a century. In some cases this practice continues today but became rarer with the advent of TELCOT.

An exception to the crude process preceding TELCOT was the innovative work in centralized marketing by Plains after its formation in 1953. Even with Plains' influence in the market as it represented many thousands of producers and sold hundreds of thousands of bales annually, producers really didn't possess the means to plot a selling strategy to fully expose their cotton to a large number of buyers simultaneously for competitive bidding.

For one thing, many members liked to pit their cooperative against the private trade. The decision to patronize Plains often hinged on a fraction of a cent per pound. Plains managed to compete in this environment while having the CCC loan as a risk bearing tool. But with enactment of new farm legislation that lessened the role of loan levels in the destiny of cotton, Plains was to encounter new struggles in the early 1970's.

With TELCOT's introduction in 1975, Plains' members no longer had to rely on the time consuming manual recapping of their cotton qualities before they could be offered for sale. And the breadth of their market was to be substantially widened.

The old process was a gin clerk with an adding machine, who figured the recap of qualities, the average loan level, and then telephoned a few potential buyers to see what they would offer. Information was relayed back and forth between the two parties until a sale was made or the offer rejected. Oftentimes the producer and the buyer couldn't get together on price. A few days or perhaps several hours later the process was repeated.

Fortunately Plains had continued to enhance its data processing capabilities almost from the start of the electronic age. By 1974 we were using CRT terminals inhouse to call up current price data from the computer on members' cotton. This information was transmitted to the gins as they inquired on inbound WATS lines about cotton prices.

We implemented TELCOT in the 1975 season by installing terminals in the offices of 15 cotton buyers over which we offered cotton for simultaneous competitive bidding on a blind basis. This was the beginning of the "clearing house" concept that today is captivating our marketing scene. Forging this new dimension to the market place was not without its hitches and bumps but we were determined to begin a new era in competitive marketing.

In the 22 years before TELCOT, Plains did much to advance high volume marketing in the Southwest while the industry operated under strong government control. Prices usually hovered near the CCC loan and consequently margin-making potential was razor thin. This didn't dissuade the energetic, bright-minded Dan Davis, general manager during the era. Backed by his board of directors, Davis set in motion high volume programs that built markets overseas and stimulated local pricing. Plains also made attempts to be in the forefront of the design of off-farm handling systems. And it strove to improve fiber quality by developing instrument testing lines as early as 1961. It expanded into two warehouse divisions, a South Texas service center, and developed a storage facility at the Port of Galveston to facilitate its exports.

The concept of pool marketing as practiced by Calcot, Ltd. in the Far West was tested by Plains unsuccessfully. Eventually, however, long-range planning done by Plains in 1972 ultimately resulted in the establishment of two new marketing programs with pooling as one. The first was TELCOT which would shift much of the trading function to cotton merchants. The second was American Cotton Growers (ACG), a companion organization that today is highly successful with

its pooling concept and operation of a fully integrated denim manufacturing mill whose principal customer is Levi Strauss & Co.

By 1975, producers had the choice of continuing to make their own marketing decisions but in a highly competitive marketing arena serviced by TELCOT, or they could allow professionals to make these selling judgements and gain the benefit of margins earned from a cooperative textile mill. Many chose the ACG program but a large corps of producers preferred to rely on the merchant market.

The risk element of borrowing huge sums to finance a competitive front-end price advance to attract large volumes had taken serious toll on Plains by 1974. Volume had fallen to an inefficient level and operating losses became inevitable.

In the spring of 1975, calling on its experience with electronic computers and inhouse use of CRT units, Plains consulted with merchants to seek their cooperation in development of TELCOT. The speed and flexibility of the system that could communicate via visual screens and high-speed printers had many advantages. It could provide merchants with an instantaneous listing of cotton offered by Plains—a library of all cotton it had available piped right into a merchant's office no matter how remote he was from the producing areas. This would sharply reduce time and expense merchants spent in covering the sprawling trade territory. "Bells and whistles" included in the master plan would further facilitate the flow of cotton and the laborious administrative work involved.

Naturally there were fears among the trade that a co-op clearing house might put many merchants with traditional ties to producers and gins out of business. Some feared that Plains might dominate the system since it was our intention to have the right to purchase cotton from TELCOT in competitive bidding for our own merchandising account. We felt this practice would further stimulate the competitiveness of the system.

On the producer side, the manner in which our

TELCOT's terms of sale and general trading rules cover many points. Essentially they state that payment by buyers will be immediate cash against the first presentation of documents. Prompt delivery will be made on warehouse receipts. Although green cards themselves are not furnished to buyers, TELCOT guarantees the accuracy of the recap green card class.

Payments may be made with a Lubbock bank cashier's check, wire transfer of funds, or draft through the bank that services us. In the case of buyers desiring drafts drawn on them through out-of-town banks, we add a surcharge to the drafts sufficient to offset the loss of use of funds caused by such delay.

There are other rules that cover technicalities and spell out our adherence to, say, trading rules as governed by the Texas Cotton Association.

A courier service calls on each gin nightly to pick up warehouse receipts of lots traded during the day, and to deliver checks and payment statements to producers for sales made on prior days. These warehouse receipts are delivered by the following morning for processing to begin. During the day, buyer invoices are prepared and readied for collection the following day.

The commission as set by each gin is added to the buyer invoice along with the marketing fee charged by Plains. Our fee for the 1980 crop was \$2 per bale. The gin commission varied between .50 to \$1 per bale.

Plains has a Loan Advance Program (LAP) to advance to producers the net amount of the CCC loan of their cotton. This cotton remains in the TELCOT system for subsequent marketing. It also offers a Deferred Payment Program.

The information delivery aspect of TELCOT is a key use aside from actual marketing. We report on

the tube the results of each sale as it is made. Producers can watch the market right in their gin office as trading occurs and therefore their market information covering a large area is both accurate and current.

The tube also furnishes producers commodity futures trading information on cotton and several other commodities, plus a broad range of other commodity news through our "Comnet" news service. We additionally "broadcast" general news, including features and sports, from the wires of United Press International.

We have added a program to maintain the complete accounting records for the gin offices, whereby they can use their keyboards to access our computer and do their bookkeeping. Soon we will add printers in the gins for greater flexibility.

A promising enhancement to the system is our work with the USDA in its use of electronic recording devices to give producers machine readable class cards that facilitate the entry of green card data into the computer and thus reduce costs.

We envision additional services for buyers who want it, such as inventory control, preparation of shipping orders and more information on crop conditions each year.

For our own use, we will soon have programming completed on a comprehensive Sales Information system so we may more accurately and readily track the countless number of administrative details and occurrences in a worldwide merchandising operation.

We plan to stay up with advancements that can provide greater cost-effective service to our members and TELCOT customers.

The workhorse of TELCOT is an IBM 370 series, Model 3031 Central Processing Unit completed

by IBM disk drives and a 3705 Communications Control Unit. This system supported 750 batch programs and 250 on-line programs and went through an OS/MVS conversion in the latter part of 1980 and early 1981.

With DOS/VS the operating system could manage only 7 jobs running concurrently and could address only a single virtual address space up to 16 megabytes of memory. With MVS, which is IBM's system for its large, complex line of processors, we now have the design to handle many more jobs concurrently (with TELCOT representing a single job) and address up to 16 megabytes per job.

This conversion was not made without the most frustrating chain of interruptions and down times in our history. It tested the patience of all users who, apart from our initial year of developing TELCOT, came to rely on the system as their "silent servant," generally ready when the buttons were pushed. But the conversion was necessary to our growth and has provided us with a base to build upon without undertaking another major change to our data processing operation.

The scope of this effort encompassed changes to some 3000 programs (2158 application programs and 973 systems programs), 500 production files, and 550 job streams.

As for the terminals used, they are principally IBM 3276 SNA video display units in the 50 or so buyer offices and the several hundred gin offices. The buyer offices have 3287 printers. Newer models in both video display and printing are of course in the offing.

Data is carried to and from the users via leased telephone lines involving about 30 different telephone companies covering nearly 10,000 miles of telephone lines on over 50 different circuits. Our longest gin circuit is 700

miles and the most remote buyer circuit is 2,100 miles in distance. Each telephone circuit on our network, after conversion, transmits at 2,400 bits per second, or 300 characters per second, to and from the computer.

Our objective is to provide a 15-second response time on the users' video display terminal at least 75 percent of the time. Today a typical gin averages about 25 transactions per hour, 10 characters inbound, and 1,050 outbound. A typical buyer averages 45 transactions per hour, 10 characters inbound, and 1,350 characters outbound. The computer processes about 4 to 5 transactions per second or around 140,000 transactions per day.

Our strategy has been to rent terminal equipment to permit the flexibility to change as equipment technology changes. If advancements in these lines contribute to lower costs we will look forward to purchasing this equipment. We have purchased our IBM 3031 computer. We are interested in seeing a transmission system that will accommodate faster data flow to and from country points and will also facilitate faster response times for the terminals. We have incorporated the use of modems to speed this flow but eventually believe there will be better transmission methods at lower costs.

There are several supplemental programs which enable us to more effectively service and monitor performance to our users. We have a set of network programs which enable us to put terminals and lines in and out of service, measure response time and retrieve error logs recorded in the terminals in order to do problem determination. We also have a number of support programs that enable us to monitor the work being processed in the computer and control certain performance criteria within the system.

Traditionally co-ops and merchants have been at odds philosophically and have competed sharply for the producers' business. Of course the

"asking price" for the initial marketing option was established during the day came under question. "Were we setting the market?" "Were merchants able to collaborate and thus stifle the pricing?" These and other questions had to be addressed and eventually were done so with satisfaction.

Since producers liked the custom of taking the highest bid for their cotton on the day they decided to sell, the objective of TELCOT was for Plains to expose their cotton simultaneously before a large number of merchants in a timed auction. Cotton would be sold to the highest bidder if that bid was within so many points of the floor or asking price. Of course there was no limit to the pricing above the floor. After the sale Plains would issue the producer a check and invoice the buyer, adding a marketing fee.

We began the 1975 season with 15 merchants on the buyers network, who leased TELCOT terminals and printers, and we traded 230,000 bales. Business was not sufficient to cover expenses and we learned many lessons. We knew, though, that TELCOT was indeed a promising new avenue to the market place.

We were plagued with an assortment of hardware problems, programming difficulties and a lot of bad luck. It was evident that our IBM 360 computer wasn't flexible enough to let us reach higher volumes that would lower the high per-unit fixed costs of the system. Our board of directors and banker were understanding and we improved the data processing capabilities with an IBM 370 series model 145 computer for the 1976 season. The buyer network was increased to 25 offices and 15 terminals were installed in gin offices while the balance of our producers were served by WATS lines.

Placing terminals in the gin offices was our wisest decision. Producers could "see" the market as it happened. As word about the gin "tube" spread, TELCOT's popularity was to become a wildfire of acceptance among producers. This popu-

larity sharpened the interest of the merchants and their numbers on the buyer network soon increased significantly.

In the next few years we further enlarged our data processing center, expanded the number of terminals in the gins, offered additional options that included crop contracting, and began servicing on a fee basis an independent company that developed the TELCOT service for non-cooperative producers and gins. We made numerous enhancements to the service such as the reporting of commodity and general news, a gin bookkeeping program, and producer accounting. A countless number of new programs in our programming department further refined the system.

During this time we were able to establish a year around network and enlisted gins by agreement while increasing our fee to the buyer that would allow Plains to operate on a break-even basis or show a slight margin.

At the close of the 1980 crop, Plains had handled 1,700,000 bales through TELCOT and showed a margin of around \$2,500,000.

Plains serves only the cooperative gins which account for slightly over a third of the cotton produced in the Southwest.

In May of 1978, after 22 years at Plains, Dan Davis decided to venture onto his own and develop an electronic service for those areas not served by Plains, and formed Commodity Exchange Services (CXS). With the approval of Plains' board of directors, we entered into a test project with CXS to see whether a facility-sharing arrangement might be workable, jointly using the same computer, telephone lines and buyer terminals so the overall operating cost could be lowered.

After a season of experimentation, our board decided that a service agreement was workable.

Since that time cxs has made considerable progress in linking Telcot with private cotton gins that previously were excluded.

Plains and cxs are two completely separate and distinct business operations. Each is responsible for its own TELCOT transactions. Each handles its own delivery, collection and payment to producers. Neither is responsible for the business of the other.

We estimate that about 90 percent of the buyers who normally engage in the buying of cotton in our trade territory participate in TELCOT trading in some way. We even have a method whereby merchants who do not have terminals can enter into the competitive bidding, so we feel the market coverage is fairly well saturated. With Plains covering the cooperatives, and cxs the private gins, TELCOT is now available at over 400 gin points. This number will gradually increase but the rate of saturation will slow because of TELCOT's already wide coverage. Plains has no plans to expand outside its customary service areas.

Detailed information about each individual bale is entered into the memory of the computer. This includes bale number, USDA green card class and producer ownership identified by an account number.

Producers wishing to seek market news, prices, or information about their unsold cotton have this information available from the gin's terminal. Gin personnel can inquire through the video display tube into the memory of the central computer for the desired information. When a producer wishes to know the approximate market price of his cotton, the gin makes this inquiry and the screen displays data concerning the producer's lot. It will show a TELCOT "Quote" which is the approximate price the recap would sell for if offered promptly through the system. Many such price inquiries are made by producers who are not ready to sell but are only keeping up with the value of the cotton.

In all of TELCOT trading, except crop contracts sold to other TELCOT buyers, members sell their cotton to Plains, who then resells the cotton to the buyers.

When a producer is ready to offer his cotton for marketing by Plains, he chooses one of two optional programs. He may use "Regular Offer" in which case Plains offers his lot simultaneously to all buyers in the system. Each buyer, via his terminal, may enter his "blind" bid into the computer. No buyer knows what the other is bidding. At the end of a predetermined time, now 15 minutes, the computer awards the lot to the highest bidder if that bid is no more than 25 points lower than the TELCOT Quote.

The results of this Regular Offer sale are promptly displayed on the monitor screens of all tubes in gin and buyer offices. If the high bid is a tie, the computer will award the lot to the bid received first. If a lot does not sell, the result will show as "N/S" (no sale).

Firm Offer is a second option. The producer may offer his recap firm to Plains at any price advance he chooses no matter how that price relates to the TELCOT Quote. Plains then offers the cotton at a firm price to all buyer terminals simultaneously. The first buyer to accept the offer at the firm price is awarded the lot. The firm offer remains in effect until a buyer accepts the offer or until the offer is withdrawn.

A crop contracting option also is available and can operate much like the Firm Offer. This option was expanded in 1980 so we could better satisfy the needs of all producers interested in contracting. Plains can now assume the role of an intermediate party between the buyer and the seller. Rather than having to wait for producers to contact us via the gin points as they become interested in contracting, we can now initiate the offer with the producer. In certain contracts, if agreed to, Plains can be responsible to both the producer and the buyer for contract performance.

philosophical differences remain somewhat but TELCOT has helped bring both forms of competitive free enterprise closer together and each is the better for it.

We cannot accurately estimate the impact of TELCOT on pricing and savings in marketing costs. No one gives a serious argument against the system. We know the producer's market has been improved. Just how much cannot be determined since TELCOT has become the most quoted standard of trading in the Southwest.

TELCOT endeavors to satisfy the needs of both the producers and the buyers. The producers wanted greater flexibility in marketing options and more accurate market information on a swifter basis. Buyers wanted greater description of the cotton offered, the ability to buy large volumes faster and some finer points such as a running tally of their purchases.

At the same time we have materially lightened the gin office work load by eliminating the adding machine that was used to manually recap cotton. The office has use of our computer for many labor-saving practices. More advancements in linking with other businesses that serve the gin and the marketing effort, such as cotton warehouses, are around the corner.

With TELCOT, the 1980's will offer greater streamlining of cotton handling with emphasis on giving the producer more competitive marketing and improved efficiency for the buyers.



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