



G-P FORDYCE

First Southern Pine Plywood Plant

№. 20

in a series of monographs on the history of plywood plants.



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Plywood in Retrospect

This monograph, twentieth in a series devoted to the history of plywood mills, is the first to tell the story of a mill beyond the Pacific Northwest. The selection of the Fordyce, Arkansas mill of Georgia-Pacific Corporation reflects the plant's stature and proud history as the first southern pine plywood mill. It is appropriate to dedicate this monograph to the late Nelson S. Perkins, former secretary-treasurer of the Plywood Pioneers Association, who wrote 13 of the 19 monographs produced previously, including the last one telling the story of the American Plywood Corporation (later known as Aberdeen Plywood Corporation). This appeared in April, 1981.

Acknowledgements

Many people contributed valuable information in helping me record the fascinating story of G-P Fordyce. They include David Brown, manager of the Fordyce mill; Sandra B. (Sandi) Holt, statistician at Fordyce and editor of the plant's employee publication; Robert B. Pamplin; William H. Hunt; Frank V. Langfitt, Jr.; Bill Robison, retired APA president and PPA president-elect; George Sleet, APA vice president and secretary; Bob Ripley, retired director of the APA Quality Services Division; Jack Merry, APA manager, industry communications; Barbara Embrey, supervisor, APA records center; and Billie Larson, secretary-treasurer of the PPA. Thanks are also due to APA art director Mike Martin, who designed this monograph.

The PPA would like its members and friends to know that an effort is under way to reinstate the monograph series not only with the present issue but with others covering plants in both the West and South. Ideas concerning plants that have not yet been featured will be warmly welcomed.



Hugh Love

retired APA staff member and PPA member

Cover Photo

Gery Vogel, first plant manager at Fordyce, with G-P southern pine plywood pioneer and innovator Jens Jorgensen (center), and technical advisor Frank Schuh.

In February, 1964 – when screaming Beatle fans thronged New York's Kennedy Airport to welcome the recently discovered English songsters to the United States – an event of less notoriety but much greater long-term significance to the regional and national economies took place in Arkansas. The nation's first load of southern pine plywood was delivered to Arkmo-Keys Lumber Company in North Little Rock from the first southern pine plywood mill in the country, Georgia-Pacific Corporation's brand new Fordyce plant.

Fordyce continues to play a strong role in the growth story which has made G-P the nation's, and the world's, largest producer of structural wood panels. Through a program of expansion and constant refinement of manufacturing technology, the plant now produces approximately 300 million square feet of southern pine plywood annually, 3/8-inch basis, compared to 65 million feet in the 1964 startup year.

The plant, located in the City of Fordyce (population 5,000) 72 miles south of Little Rock, was actually completed late the previous year on a fast-track construction schedule that began in May, 1963.

Genesis of Industry Expansion

One Fordyce plant started a building boom of new southern pine plywood mills in the South – from a single operation in 1964 to a high of 70 in 1989 and to today's 55 plants producing nearly 49 percent of U.S. structural panel production and 69 percent of the nation's plywood production. To understand the motivation for the huge expansion in southern pine plywood plant construction that took place through the sixties and beyond, the Plywood Pioneers Association conducted interviews with some of the Georgia-Pacific Corporation senior executives who had roles in the “birth,” production, and marketing of southern pine plywood.

Robert B. Pamplin, the Georgia-Pacific chief executive who paved the way for his company's big move into plywood with G-P's purchase of the Crossett and Fordyce Lumber Companies in 1962 and 1963, is now chairman of the Pamplin Corporation in Portland, Oregon. “Right after we bought Fordyce and Crossett,” he says, “we wanted to see if we could make a satisfactory plywood product out of pine logs. The conventional wisdom was that you couldn't make southern pine plywood – they said there wasn't a glue that would hold it. So we had some southern pine logs shipped to Coos Bay, Oregon, where they were peeled and made into ply-

wood, using a glue developed by G-P that worked well. From that point, the decision to build the first plant was easy.”

He adds: “Fordyce was the guinea pig we used to make sure the product was okay, but we moved ahead with other mills right away, because many other companies were hard on our heels and we knew the product was right.”

The big marketing incentive for G-P and the rest of the industry was the ability to position construction plywood plants close to established distribution centers in some of the nation’s fastest-growing metropolitan areas, such as Atlanta and Miami.

Another huge incentive was the growing recognition that the timber supply on America’s publicly-owned forest lands was going to be subject to increasing restriction, making the predominantly privately owned forests of the south a natural choice for more intensive sustained management supporting plywood mills and other wood products.

Georgia-Pacific Corporation was to build another 17 southern pine plywood mills, which were ultimately joined in competition by more than 50 mills of other companies. The availability of the vast southern pine timber resource, perpetually renewable in a regeneration cycle averaging only 35 years, spurred a plant construction boom that brought a welcome new era of prosperity that transformed the standard of living in communities across the rural South and Southwest, from Virginia to Texas and Oklahoma.

To quote Sandi Holt, Editor of the *G-P Informer*, house organ of G-P Fordyce:

“Fordyce plywood is a good example of what a company can do for the economic and social growth of a community. Georgia-Pacific supplies more than 400 jobs directly and hundreds more are created such as loggers, local businesses and subcontractors. The plywood operation alone has an economic impact of more than \$33 million annually in Fordyce and Dallas County, Arkansas.”

William H. Hunt, former president of Georgia-Pacific Corporation and now a private investor in Portland, recalls G-P’s expansion into southern pine plywood as “true pioneering, both on the production floor and in the marketplace.”

He adds: “There were predictions in the early 60s that the plywood industry would continue to grow, but at a much slower pace in the West. Those pre-

dictions did not take into account that with pioneering and innovation – the introduction of southern pine plywood and its aggressive marketing – plywood production would be nearly doubled in 25 years. For Georgia-Pacific and then for the industry as a whole, it was an immense marketing challenge – finding customers for billions of square feet of new production, much of which was added very quickly. But we met that challenge, and the American public reaped the benefit of rapidly expanding markets and product lines.”

Bill Hunt, a charter member of the Plywood Pioneers Association, remembers Jens Jorgensen, who was later to become the company’s vice president for plywood production, as a key figure in G-P’s development of the first successful pine plywood. “We took several car loads of the southern pine panels produced by Jens and his people at Coos Bay, and test marketed them to established customers in the Portland area, with encouraging results.”

Role of Product Standard

Bill and fellow Plywood Pioneer Frank V. Langfitt, Jr. – retired G-P senior executives who also served at different periods as president of the American Plywood Association (APA) – agree that the intensively debated but ultimately successful effort to achieve a common U.S. standard for construction and industrial plywood grades was one of the fundamental building blocks helping to assure the successful introduction of southern pine plywood and the volume expansion of plywood markets that followed.

A key factor leading to the promulgation of the first national plywood standard – Product Standard PS 1-66 – was the statesmanship displayed by industry members in the West and South. Industry leaders in each region looked beyond regional differences and rivalries and opted for the advantages of unified promotional effort, aided by a single manufacturing standard. Thomas M. Orth, chief executive of Kirby Lumber Company, Houston, Texas and chairman of the Southern Pine Plywood Standards Committee, advised the APA Board of Trustees in June, 1965 of a unanimous resolution by the southern pine plywood manufacturers, “recognizing and commending the constructive action taken by the western plywood industry in proposing a consolidation of softwood plywood standards.”

Action swiftly followed under APA leadership, replacing three regional softwood plywood standards

with a single national standard, simplifying product specification by consumers and improving the industry's ability to competitively market a growing range of products.

Fordyce Overcame Early Challenges

Veterans of the early days at Fordyce – there are 14 employees still in the workforce today who were on board when the first plywood panels were produced – acknowledge that there was a natural process of “trial and error” before the most effective production procedures were implemented.

For example, an early conception that the logs could be put right into the lathe without conditioning was found to be without merit.

As colorfully reported in the *G-P Informer* employee publication: “Douglas fir logs shipped in from the west coast were used for our first test runs – and were peeled on Christmas Day, 1963, according to then Plant Manager Gerry Vogel. The biggest problem was the extremely cold weather and 13 to 14 inches of snow on the ground.”

Mel Noble recalls that Gerry dumped the first pine logs in the pond for soaking. “He kept a watchful eye to see them ‘bob’ to the surface like the Douglas fir. However, the pine logs didn’t float, so steam chests were installed to heat the logs so there would be a suitable peel. Later, hot water vats were installed to condition the logs for a much smoother peel.”

‘No Fancy Computer Booths’

The plant history records that James Speer peeled the first pine logs on February 4, 1964. “This was a manual operation at the time, and there were no fancy computer booths. Those would come years later after we automated the lathes. On a good day’s run, Speer said he could peel 800 logs, and today that figure has more than doubled. Speer also said each log he peeled was like driving a new car, each peeling differently. He stated that he had icicles hanging off his hard hat – it was a very cold winter in 1963-1964.”

A Proud Day

Georgia-Pacific Corporation historical records also recapture this vignette from Fordyce Plywood’s proud past: “On February 27, 1964, 90 persons were on hand to give the very first load of yellow pine plywood a tremendous greeting. Arkansas Governor Orval Faubus congratulated Georgia-Pacific on its history-making achievement and hailed the com-

pany as an important new industry for Arkansas and the South. William C. Norman, Vice President and General Manager of G-P’s Crossett Division, predicted that southern pine plywood would be successful “because of its wide range of home building uses.”

Other highlights of the welcoming ceremony were remarks by Carl Keys, who accepted the first load on behalf of Arkmo-Keys Lumber Company in North Little Rock, and the attendance of the Arkansas Forest Queen, Lucinda Williams, who “christened” the load with a bottle of Arkansas River water.

Technology Transfer

The great challenge of constructing new facilities and building up a trained plywood workforce from scratch, in small towns like Fordyce and numerous other Southern communities, was vigorously tackled by Georgia-Pacific Corporation and other companies with the infusion of experienced personnel from the west.

As previously mentioned, Jens Jorgensen, vice president for plywood production, made southern pine plywood successfully in test runs conducted in Oregon, then had a “hands on” role in the launching of Fordyce and other G-P southern pine plants. Another key executive who made a major contribution to these efforts was Orville Knudson, who managed the construction of many of the plants, including Fordyce.

A former G-P staff member who spent much time at Fordyce is C.W. “Bill” Peters. Plywood Pioneers Association member Peters, a mechanical engineer who later established his own consulting business, recalls working on the design of the Fordyce plant in a specially built 12 by 20-foot plywood office at G-P’s Springfield, Oregon plywood mill. He adds: “All of us, including the draftsmen, were required to work under conditions of great secrecy, recognizing that we were involved in a project where protection of the company’s leadership was of paramount importance.”

Another member of the original G-P team at Fordyce, Bill Cash, is today manager of industry sales in the company’s chemical division, based at Crossett, Arkansas.

Among those who directed early efforts for G-P and helped make possible the highly skilled southern plywood production crews of today was the late Art West. Art had immaculate credentials for his later



Dignitaries attending the formal ceremonies marking delivery of the Fordyce mill's first load of southern pine plywood included (from left) Carl Keys, president, Arkmo-Keys Lumber Company, Little Rock, Ark.; Arkansas Governor Orval Faubus; Arkansas Forest Queen Lucinda Williams; and Bill Norman, general manager of G-P's Crossett division.



Construction sequences from the 1976 expansion of the plant's facilities, nearly doubling capacity.



membership in the Plywood Pioneers Association, starting work in 1933 as a dryer tender for the Capitol Plywood Corporation, Olympia, Washington.

He joined Georgia-Pacific as plant manager at Toledo, Oregon in 1954, and was named manager, southern pine plywood in the company's Crossett, Arkansas Division in 1964.

He retired at Crossett in 1973 as vice president, plywood, particleboard and studs.

Art West is remembered in the Fordyce mill's annals, along with Frank Langfitt, retired G-P vice president, sales and marketing, as among those who were "very instrumental in promoting the early sales of southern pine plywood."

Ralph Gage Remembers

One of the many people who had a part in the development of Georgia-Pacific Corporation's Fordyce plywood plant is PPA member Ralph G. Gage. Ralph had been with The Coe Manufacturing Company just four years when he went to Fordyce in 1963 to help G-P with plant startup. Now Coe's vice president of southern operations based in Atlanta, Ralph recalls that the following was the original Coe equipment installed at Fordyce:

One Coe 8-foot Model 244-D veneer lathe with a Coe Model 762 lathe charger; one Coe 56-inch Model 263 veneer lathe with a Coe Model 762 lathe charger; one 21 section, six line Model 61 Coe veneer dryer; and, one 18 section, six line Model 61 Coe veneer dryer. Georgia-Pacific Corporation added other Coe production equipment shortly after startup.

The Fordyce historical records also note that the early crews benefited from "a host of Fordyce Lumber Company cross-overs who were very familiar with yellow pine lumber but were new to making plywood. However, they had some very good leadership to get them started. Most of the supervisors were from Oregon and very familiar with the plywood business. Those early supervisors were: Jim Feiber, Rex Martin, Jim Nail, Don Foster, Burt Maus, Gene Massingale, Mel Noble and plant manager Gerry Vogel." Gerry had been manager of the G-P plywood plant at Toledo, Oregon.

Mel Noble a 36-year G-P employee, continued to work at Fordyce as Boiler Superintendent until his retirement on August 30, 1996.

At 1994 celebrations marking the 30th anniversary of Fordyce production, the company planted a tree in the City of Fordyce for each of the 25 employees still working at the mill who were part of the workforce when the plant started up.

Progress, 1964-1996

Fordyce is proud of the reputation it enjoys as "the oldest southern pine plywood plant, and one of the newest." It has often been selected by Georgia-Pacific Corporation as a testing ground for the introduction of new technology. Operations at Fordyce have benefited from extensive modernization and refinement in the 32 years since the first box car left the mill. In 1974, a new sprayline was installed, replacing the old spreaders. In 1976, an addition was built to the plant, virtually doubling its capacity, and new dryers were installed.

In 1988, during the 25th anniversary year of the plant's completion, a new press was installed to increase press capacity to 120 openings.

The use of foam gluing as an alternative method of applying adhesive to veneers was pioneered at G-P by Fordyce Plant Manager David Brown. Introduced early in 1994, the plant's foam glue system replaces conventional methods that add fillers and extenders to resin to control properties of the finished glue. The new system uses air, with the advantage that glue is applied in exactly the right amount, eliminating waste and lowering costs. The system has since been installed in G-P's Gloster, Mississippi plywood plant. The company's experience with foam gluing at Fordyce and Gloster will help determine which methods of adhesive application have the capability of maximizing quality and cost effectiveness. Based on the results, introduction of foam gluing will be considered at other G-P plywood plants.

Fordyce is justly proud of its achievements as one of the safest plywood operations in the nation. It has been a repeat winner in the "Top Ten" annual safety competition sponsored by APA for some 125 participating plants across the country. The latest award will be received at the 1996 APA annual meeting for the mill's exceptional safety performance in 1995.

It is this kind of dedication, permeating an entire workforce that strives constantly to improve an already excellent reputation, that will serve Fordyce well as it meets the challenges of the future.



FACES OF FORDYCE
 Members of the boiler steam team (from left): Moses Spark, Columbus Highsmith, James Sledge, Jr., Tracy Hart, Lloyd Davis, Major McClellan, Aaron Hall, Jr., Lynn Morris, Bob Labash, boiler superintendent Mel Noble; and Ricky Harris (front). Since the picture was taken, Mel Noble and Columbus Highsmith have recently retired.



Sander team members (from left): Clarence Reynolds, Buddy Barrett, James Givens, James Barrett, Charlie Welch and plant manager David Brown. At front, Billy Still. David Brown has been Fordyce plant manager since 1988. Previously superintendent, he succeeded a plywood production veteran, the late Larry Shorey, as plant manager.



Fordyce plant manager David Brown (left) with Georgia-Pacific Corporation board chairman and chief executive officer A.D. (Pete) Correll. During a visit to the Fordyce plant, Mr. Correll was briefed on the mill's introduction of foam gluing.

The Plywood Pioneers Association reproduces in a slightly condensed format the following article published in 1988 by Georgia-Pacific Corporation in Wood Works, the employee publication of the Mid-Continent Division headquartered in Crossett, Arkansas. One of several stories commemorating the 25th anniversary of the Fordyce plant's completion, it effectively recaptures the mood in the Fordyce area back in 1963, when G-P's plans to build the first southern pine plywood mill were announced.

Southern Pine Plywood: A Gamble That Paid Off

In 1963 forester O.H. Darling was worried. Georgia-Pacific Corporation, his new employer, had just bought out the Fordyce Lumber Company in Fordyce, Ark., and the new company was getting ready to make some major changes.

“I had some concerns when Georgia-Pacific announced they were going to make plywood,” said Darling, who is now forestry manager for the Mid-Continent Division.

The problem, as Darling saw it 25 years ago, was that what little plywood he had seen (made from Douglas fir and shipped in from the West Coast) looked as if it had been crafted in heaven. It was beautiful, smooth and knotless, the kind of plywood used for cabinet making and other high-end applications.

Arkansas' pine trees are fairly knot-free at the bottom of the trunks, but that isn't so toward the tops. All Darling could figure was that Georgia-Pacific was just going to throw away the top part of the tree. What a waste and what a cost.

“That was absolutely in error with a capital ‘E’, Darling says. If he had known in early 1963 what “sheathing” meant, he could have put his worries to rest. Sheathing is a wood panel - such as some of the lower grades of plywood - used in areas where it won't be seen, like roof decking. A few knots never matter.

“The Fordyce mill was to be a sheathing mill,” Darling remembers. We were not aware of what they meant when they said sheathing.”

Although southern pine was plentiful, no one had been able to figure out how to peel it into long sheets of veneer without cracking and splitting it into giant toothpicks. And even if it was successfully peeled, no glue had been developed to adequately bond the veneer layers into a sheet of plywood.

“People said you just can't do it,” said Bruce DeLess, division plywood quality manager. Based on experiments beginning as early as 1952, the Yale School of Forestry and the Forest Products Laboratory at Madison, Wis., claimed making plywood from southern pine was not feasible, and most of the major forest products companies had also given it a thumbs down.

But Georgia-Pacific was ready to gamble. The company moved into Arkansas in 1962 with its acquisition of the Crossett Lumber Company. G-P then purchased the Fordyce Lumber Company in 1963. Both acquisitions came with a good supply of high quality south Arkansas southern pine timber. And the company saw that timber supply as an opportunity to do what industry said couldn't be done: make southern pine plywood on a commercial basis. All G-P had to do was figure out how.

To be accurate, by the time G-P had purchased the Fordyce Lumber Company and identified it as the site for the first southern pine plywood plant, the company was almost - but not quite - certain it could manufacture the revolutionary new product.

Months before the Fordyce acquisition, G-P had cut choice southern pine logs and quietly shipped them to its mill in Savannah, Ga., for test runs with newly-developed techniques for peeling veneer and gluing plywood panels. Georgia-Pacific had discovered that steaming the pine logs, or soaking them in hot water, softened the fibers and helped prevent the splitting and cracking that often occurred during peeling. The company also found the right glue formula to bond layers of veneer into a commercially-acceptable plywood panel. The test results were positive.

Still not satisfied with the results, another load of logs left south Arkansas bound for Coquille, Ore., for further tests under the watchful eye of a colorful Georgia-Pacific plywood maker named Jens Jorgensen, who had boasted that he could make plywood out of anything.

He repeated the tests and reconfirmed the results. Plywood could be made from southern pine on a commercial basis. G-P sent Jorgensen to Fordyce to oversee construction of the world's first southern pine plywood plant.

The fuse was lit and the explosion would soon follow. The building boom was ready to begin and there was an endless supply of southern pine.

Note: Mr. Darling and Mr. DeLess, who are quoted in the above 1988 article, have now retired from Georgia-Pacific Corporation. Bruce DeLess is a PPA member.

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