HIGH TECH RANCHHAND

By **Dan Shell**

Built to support forest health activities, Blanca Forestry Products expands capabilities.

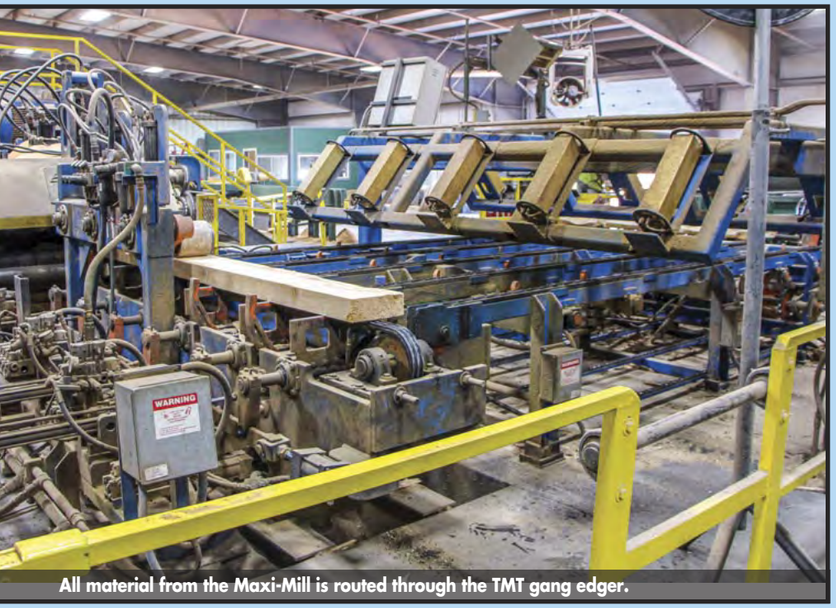
BLANCA, Colo.

Located in the remote San Luis Valley in southern Colorado, Blanca Forestry Products is truly a different kind of sawmill, built seven years ago to support wildfire mitigation efforts on the largest ranch in the state. But to do so most effectively, the mill has also grown to utilize additional log sources and increased production that makes the facility more readily available to handle the timber coming off the ranch, says General Manager Rick Engebretsen, who joined the Blanca Forestry Products team in 2020. He has an extensive background in the industry, mostly on the hardwood side with stints at Northwest Hardwoods and Collins Companies' Kane Hardwood operation.

The mill was established to help boost the local economy and provide an outlet for thinning material coming off the Trinchera Blanca Ranch, the largest private holding in Colorado at 172,000 acres that includes more than 90,000 forested acres.

Microtec lumber grading system includes Ai capability and Mictotec QCAssist tool and Grade-Vu projector to enhance quality improvement.

In this application, Maxi-Mill overhead end-dogging primary breakdown operates best as a single-pass machine.



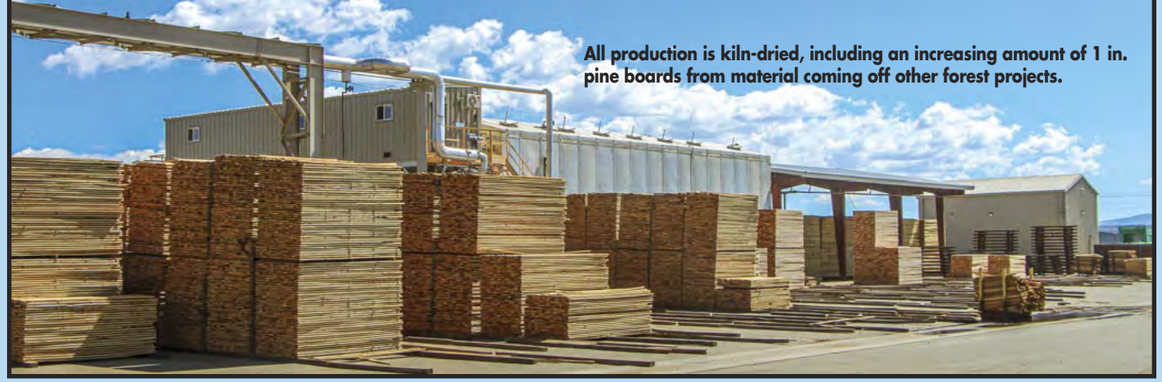
All material from the Maxi-Mill is routed through the TMT gang edger.

In 2007, ranch managers had just begun developing and implementing wildfire mitigation strategies on the ranch, which had suffered a 14,000 acre forest fire in 2006. But the environmentally significant ranch—a Rocky Mountains gem that includes several 14,000 ft. peaks in southern Colorado—had been suffering from forest health issues.

Ranch ownership formed Blanca Forestry Products, a strategic move to develop the ranch's own processing capability to utilize timber from its forest health improvement activities.

Overstocked forests created by well-meaning fire suppression policies have been ripe for stress and pests as prolonged drought and insect infestation from spruce budworms and bark beetles have left Colorado timberlands extremely vulnerable to wildfire. The spruce budworm has been especially devastating, turning whole high elevation mountainsides into thousands of acres of standing dead timber.

Yet efforts to directly employ forest health improvements on the ranch were hampered by a lack of local timber processing outlets and facilities that limited annual harvests top around 500 acres annually, according to some reports. Ranch managers did as best they could, but the effort didn't get a big push until



All production is kiln-dried, including an increasing amount of 1 in. pine boards from material coming off other forest projects.

almost a decade later.

In 2015, ranch ownership formed Blanca Forestry Products, a strategic move to develop the ranch's own processing capability to utilize timber from its forest health improvement activities. From the start, the arrangement would be different than most sawmills have with their wood baskets: In this case, the sawmill was built to serve the forest, not the other way around. After groundbreaking and construction in 2016, the new mill received its first logs and started up in February 2017.

In the six years since the sawmill started up, the facility has expanded to more than 25MMBF of annual production, with roughly half the sawmill's log supply coming from the ranch timberlands. The mill sees usually 7-10 loads a day from the ranch.

Of critical concern has been extensive beetle-killed spruce that needed salvaging, and roughly 40%-45% of the log mix is made up of Engelmann spruce salvage timber. Other species sawn include Douglas fir, white fir and ponderosa pine. With more aspen coming off the ranch, mill managers are also in the early stages of developing an aspen program to take advantage of the resource.

One ongoing aspect of raw materials procurement working with so much salvage material is the inevitable culling and bucking to short lengths. The sawmill has responded with a firewood production program, using a Multitek firewood processor. The material is moved in wholesale bulk to distributors along Colorado's Front Range, where demand has been phenomenal. "It's been terrific for us to help take care of those logs that can't go in the mill," Engebretsen says, adding that the operation produces a truckload a day that's shipped into the heavily populated markets along I-25 and in Colorado Springs south of Denver.

Mill Manager Rick Engebretsen, left, and Dalton Vega, operations superintendent

In addition to its forest health mission, Blanca Forestry Products is a key private employer in Colorado's remote San Luis Valley, paying solid wages with good benefits.

Finding ways to utilize and ideally monetize residuals is a challenge in the region, where there's no paper or pulp facility or large-scale pellet mill and relatively few high volume chip or hog fuel consuming businesses within viable distances.

The mill's chip production is utilized on site in a new Hurst boiler, and is also marketed to a local agricultural pellet producer, a soil enhancement company and a large regional nursery. "The byproduct program is a big focus," Engebretsen says, adding that the nature of the area means working with more and smaller customers.

The mill's primary lumber market is the stud market, 2x4-2x6, with 8-12 ft. dimension produced as well and everything is certified under WWPA. Engebretsen notes that the ranch's high elevation timber, with its tight growth rings, makes a great stud product.

Though the mill isn't considered a board manufacturer, an influx of lower elevation ponderosa pine this past spring led to some 1x4 and 1x6 pine board production. The mill will likely see more pine logs from a large Boy Scout Ranch fire mitigation project in New Mexico that has been seeking markets and will take several years.

"The ponderosa is a bit better for boards, with a better price than studs and it also helps us get logs to the mill," Engebretsen says.

PERSONNEL

In addition to providing an outlet for logs and raw material produced during Trinchera Ranch's forest health improvement activities, Blanca Forestry Products also has an objective to provide much-needed economic development to the east side of the Mystic San Luis Valley.

Home to 3,500 residents, Costilla County is one of the poorest in the state, and the mill immediately became one of the county's largest private employers after it started up.

Engebretsen says that mill ownership has made a commitment to paying a pre-

Blanca Forestry Products lumber is marketed heavily in Colorado and sold all over with WWPA certification.

The mill employs more than 80 and recently added a firewood program.

Hurst boiler runs off residuals from the mill.

mium wage for the region, with a benefits package that includes medical-dental, 401-k and a safety bonus program—even a gym membership.

"We try to make it very attractive to work here," Engebretsen says, noting the mill currently employs 80-90. Operations in mid July included two sawmill shifts, one planer mill shift and three shifts for the firewood program.

FLOW

The mill accepts logs from 7 in. diameter small end, minimum 16 ft. length. The ranch works with one major logging contractor that handles much of the timber salvage work with two-man crews operating Ponsse cut-to-length harvester and forwarding machines that can safely handle steep slope operations. The mill, however, works with roughly 10 separate logging contractors.

All incoming logs are bought by weight over an Everweigh scale system. A Caterpillar 980 wheel loader unloads trucks, and a Caterpillar 324 handles log decking. Sorts are by species only.

Logs are fed to the infeed deck by the Cat 980, and pass under a Progress Engineering scanning system with single bucking saw. Logs are processed through a Nicholson A5 26 in. debarker.

Primary breakdown is a Maxi-Mill overhead end-dogging carriage system that feeds through two chipping heads and a set of bandmills.

Engebretsen notes that the Maxi-Mill works best with 10-14 in. logs that can be single-passed with sideboards and a 6 in. cant dropping and keeping production moving.

All production flows to a TMT combination gang edger that features JoeScan heads on its scanning and optimization system and can handle up to 6 in cants. A tipple operator downstream from the gang edger sends boards to either a resaw or a green chain. The green chain feeds to a USNR stacker.

Lumber packs are fed to a set of 85 ft. USNR kilns, one single- and one double-track unit. Kilns are heated with a new Hurst boiler that's fired with residuals produced on site.

The planer mill features a Stetson-Ross planer. The facility received a major upgrade in August 2022 with the installation of a Lucidyne, now-Microtec grade scanning system. The unit comes standard with Microtec Ai capability that utilizes Microtec's QCAssist tool to optimize communications during quality control activities.

Mill operators also invested in a Microtec Grade-VU projector system that facilitates grading and continuous process improvement efforts. Engrebretsen notes the system has made a big difference in operating speed and uptime—and most importantly has provided a 7% improvement in grade uplift since it went in to go with a small drop in trim loss.

Lumber flows to a Newnes trimmer with recently added USNR paddle fence system—and on to a USNR sorter. A Signode hand-wrapping station prepares packages for shipping. TP