Logistic/Technology (From forest to market)

Eastland Wood Council Te Kaunihera Pororākau o Te Tairāwhiti

Forestry for life

astland Wood Council Te Kaunihera Pororākau o Te Tairāwhiti is an incorporated society which provides a collective voice for the forestry industry in Tairawhiti, for the benefit of Tairawhiti.

Our philosophy: forestry is a vibrant, respected industry in Tairawhiti.

Our strategic goals:

- Kaitiakitanga, care for the environment
- Haumarutanga, health and safety
- Whakawhanake, growing our people
- Te Huarahi, roads to market

The Eastland Wood Council (EWC) believes in the value of collaboration to improve the planning and delivery of important regional priorities which are vital to the local economy and the community. This month we highlight the vital role that innovation and technology represents for the forestry industry.

www.eastlandwood.co.nz



Eastland Wood Council:

Selwyn Parata (kaumatua and director of Ngati Porou Forests), Dylan Foster (general manager, JNL), Danny Boyle (regional manager, Summit Forests New Zealand), Dan Fraser (Forest Enterprises), Daniel Williams (chair, Eastland Wood Council and general manager, Ngati Porou Forests), Philip Hope (CEO, Eastland Wood Council), Bill Wheeler (regional manager, Ernslaw One), Andrew Gaddum (chief operating manager, Eastland Group Ltd).

More timber, less waste and safer

orest Enterprises' determination to improve health and safety and environmental performance is driving its implementation of mechanised harvest systems.

Mechanised harvesting means fewer foresters on chainsaws. It's safer. Plus, it causes less disturbance to the land and improves productivity.

"Such practices are part of a new era for harvesting in New Zealand," says Dan Fraser, co-owner of Forest Enterprises and chair of the Eastland Wood Council Environmental Focus Group in Gisborne.

What is "mechanisation", and why?

Mechanisation is about using machinery and remote-controlled equipment for harvest processes like felling trees and pulling logs on to landings, even on steep hillsides. An example is a tether-assist system, where a downslope machine is harvesting under the winch control of an upslope machine.

Mechanisation is safer for forestry workers, with reduced need for, or reliance on, high-risk manual techniques like using chainsaws and breaking out near tensioned cables.

Mechanised harvest operations enable crews to produce a greater volume of timber, with less wood waste and less soil disturbance.

Innovative contractors

In the first trial of its kind in New Zealand, Forest Enterprises' Gisborne harvest contractors trialled a new low-impact wheeled skidder system coupled with a remote-controlled winch-assist system.

This configuration allows the skidder to traverse steeper terrain safely with less reliance on tracking. It is capable of harvesting areas previously deemed suitable only for cable systems.

Less environmental impact
The skidder-winch-assist system is

The skidder-winch-assist system is

reducing the skid and road infrastructure required by conventional cable systems, and it has reduced the road and landing footprint overall.

It also provides the ability to harvest trees away from waterways, so many more waterways are being fully protected compared with conventional systems.

Contractors are switching to alternative, lighter machines to reduce rutting and soil disturbance.

Industry recognition

Testing and implementing new techniques has attracted a lot of interest from New Zealand's forestry sector.

Forest Enterprises has hosted open days to demonstrate its positive actions to other forest owners, contractors, Gisborne District Council staff and officials.

The council's monitoring team has been supportive of the operational changes. Similarly, Department of Conservation staff have praised the level of technology

involved and the extent of planning undertaken to improve environmental performance.

Earlier this year, Forest Enterprises won the environmental management award at the 2021 Eastland Wood Council Awards. The award recognised the company's support of contractors to implement innovative harvesting systems, and for its leadership in harvest catchment management.

Dan Fraser





Responsible. Effective. Efficient







Technology removes personnel from high-risk areas and increases efficiency

The 2021 log supply chain with ISO Limited is a far cry from what was considered a mature process six years ago. In just six years, ISO Limited, with its constant focus of applied innovations to improve safety and efficiency, have revolutionised their supply chain, with benefits for all stakeholders from forest to ship.

The latest innovation for ISO is focused on eliminating the hazard of having staff on the ground tallying logs. The team in Gisborne have just installed a new automatic tally (AT3) which will remove the need for staff on the ground to scan logs at shipside.

Designed and developed by ISO's in-house technology solutions team, the AT uses an array of cameras and LiDAR sensors to automatically count logs and detect QR codes as logs travel through the station, without stopping. In under 30 seconds, nearly 2GB of data has been processed and sent to ISO's vessel-loading software for each trailer-load of logs.

Each Terminal Tractor (TT) operator has a tablet in the cab which is fed information from the AT, and each TT and Trailer is tracked through the AT using RFID. A process which previously could take almost nine minutes to count and scan logs (by two on-ground personnel) is now a short drive through on the way to the vessel for loading, with no staff in that high-risk area.

Says Neal Ebbett, Gisborne ISO area manager, "This is the latest technology to be delivered by ISO with the aim of increasing safety, productivity and accuracy of log loading through Eastland Port".

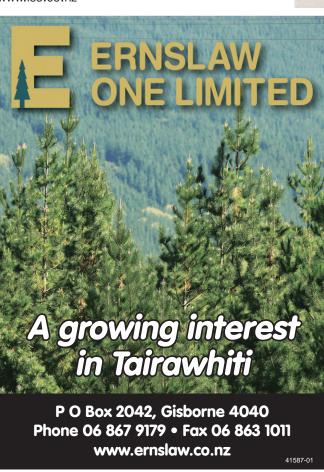
With mobile harbour cranes on target for the end of this year, ISO's innovations at shipside will remove the need for any staff on the ground around ship loading operations. These operations also increase efficiency, benefiting all stakeholders in a port which already excels in productivity. ISO continues to lead the industry on innovations that are exceeding expectations and keeping our teams safer from forest to market.

www.iso.co.nz











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