

## **PGP STEEPLAND HARVESTING PROGRAMME. SUMMARY Q4 2013-14**

This programme will realise substantial productivity gains for forestry through developing innovative harvesting technologies on steep country. Direct economic benefits of over \$100 million by 2020 are envisaged, as well as enhanced worker safety.

The main achievements in this programme during the period 1 April to 30 June 2014 have been the communication and extension of the following commercial developments to the forest industry:

- ClimbMAX steep slope harvester
- HarvestNav on-board navigation application
- CutoverCam hauler vision system
- Alpine Grapple

The fourth ClimbMAX machine was delivered to a customer in Nelson and is now in commercial operation – and a fifth machine is under construction. This machine has demonstrated productivity gains of 26% in field trials and directly contributes to improved worker safety by eliminating the need for chainsaw operators on the ground.

HarvestNav is a software application for a computer tablet mounted in the cab of a harvesting machine to enable the operator to track their position in the harvest block via a graphical display. The system provides harvesting machine operators with information on terrain around the machine including ground slope, boundaries, water courses and other features. This 'app' has been released to the industry free of charge to encourage widespread uptake and improve machine operation and safety.

The CutoverCam hauler vision system is designed to provide the hauler operator with wide angle high resolution video coverage of the harvesting terrain to increase visibility of breaking out operations and improve productivity and safety.

The Alpine Grapple is an innovative hauler grapple aimed at improving the efficiency and utility of grapple systems for New Zealand logging conditions. Designed to work on both swing yarders and tower haulers the Alpine is a lightweight, lower cost option than conventional motorised grapples.

Outputs of the programme featured in the July issue of "Agri-Gate" the newsletter from the Primary Growth Partnership, in addition to industry newsletters "Friday Offcuts" and "Wood Week".

The focus this Quarter has been on the installation of a teleoperation control system into a commercial feller buncher (a John Deere 909). The first stage of the teleoperation project, installing remote control to the machine, was achieved in late June.

Significant progress has also been made in the design and development of the prototype Innovative Yarding System. This programme will continue to provide forest owners and contractors with solutions to improve productivity and reduce the exposure of workers to hazards on steep terrain.