

PGP STEEPLAND HARVESTING PROGRAMME. SUMMARY Q3 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 January to 31 March 2014 have been the completion of the following development projects through to full commercialisation:

- the ClimbMAX steep slope harvester.
- the CutoverCam
- the Alpine Grapple
- the HarvestNav software application.

Four ClimbMAX machines have now been built and are in commercial operation – three in New Zealand and one in Canada. 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.

The CutoverCam hauler vision system also improves productivity and safety by providing hauler operators with a high resolution video coverage of the harvesting site.

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.

The HarvestNav on-board navigation system provides machine operators with information on harvest area terrain around the machine, improving machine operation and safety.

The focus this Quarter has been on communication and extension of these developments to the forest industry.

Significant progress has been made in the development and installation of a tele-operation control system into a commercial felling machine and the on-going development of the prototype mobility system for the novel biped felling machine.

Concept design work for the Innovative Yarding System has been completed and a demonstration of the system to simulation stage was made in February.

Continued industry funding for the PGP steep slope harvesting programme has been committed to 2016 outside of the new forestry levy which was introduced in January 2014. The future management of Future Forests Research Limited has been confirmed.