Harvester position data
how precise is it?

Bruce Talbot
Division for Forestry and Forest Resources
Motivation

– Big data implies automated data capture
– Harvesting head calibration provides estimate of accuracy, but estimates of associated positional accuracy are limited
– Estimation of accuracy need in mapping location of rot in the stand
PRECISION Data collection strategy

StanForD + operator

StanForD + Operator + Sensors
Improve base machine position for calculating head position estimate
Comparison with RTK GNSS

- Topcon GR5 with SIM card for real-time correction
- Comparison 1: Standard GPS vs centreline
- Comparison 2: Standard GPS vs RTK
Field evaluation

Harvester GPS estimate of base machine position
Field evaluation

- Harvester GPS
- RTK position
- RTK at felling
- Centreline from ortho
Results

Mean (2.53), SD (1.93)
Discussion

– Estimates were much more precise than expected — possibly due to stand and stand aspect

– Visible machine trail on orthophoto provides a good reference for adjusting estimates

– Longer term testing in varying topography needed to provide reliable estimates
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