

Steep Slope Tethered Harvester Demonstration

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Tethered harvesting includes a piece of machinery, a cable or “tether” and either another piece of machinery or other stationary object holding the tether under tension.

Harvester

Tracked
wheels

Slash Mat

Tether

>60%
slope





Anchoring machine,
holding tether



Linked tires, expected to put less pressure on soil than tires or tracks. (Not fully documented)



Slash mat on
>60% slope



Tethered
harvester
In operation



Operator
responds to
length of skid
trails, soil
impacts and
volume of wood
removed



Forwarder operating on
flat ground



Can it operate in wet weather?

Operator says:

Operates half of the time in January. Does not operate on saturated ground. Even one pass with harvester and forwarder causes enough soil compaction to see effects on puddling and runoff. If operate after rain has subsided, impacts are very low and productivity is high.



Slash mat over wet soil after untethered harvester/forwarder passes on flat ground



Wet soil not protected by slash mat on flat ground after untethered harvester/forwarder passes.



Question: Can go up to 80% slope, but should we?

Operator says 80% slope is possible, but very scary and overwhelming. Also shortens reach of harvester crane.

Suggests max 70% slope (both adverse and favorable) for safe, effective operability.