Harvest Slash
6.1 Managing Processing
Slash on Landings

When extracted trees are processed on a landing the process creates woody debris or slash. Processing slash is often pushed or stacked into large piles around or on the slope below the landing, called a “birds nest”. Processing slash stored around landings occupies productive land for the next crop. If poorly managed, its weight, in addition to saturated, unstable or potentially unstable ground, can create a significant risk of failure. There is also risk of spontaneous ignition if slash piles are too high (>3 m) or organic material (needles/dirt) or rubbish is mixed with slash.
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A Where and when to use
1. Around all skids or landings.
2. Minimise locating slash where it will be difficult to contain or manage, or where the ground is unstable or could become unstable.

B Where not to use
Not applicable for this FPG.

C Design
1. Before harvesting, assess whether on-site processing will create large volumes of slash.
2. Develop a slash management plan, especially if harvesting steep country where large amounts of processing slash will be produced.
   a. Estimate the quantity of slash that is likely to be produced.
   b. Identify and plan for the placement of processing slash (where appropriate, incorporate slash benches as part of the landing design and construction). Slash areas should be on stable land, well away from streams, steep slopes, non-engineered fill material, slips, gully heads and riparian areas. This will mitigate the risk of processing slash entering water bodies and causing damage downstream.
   c. Designate “No-Go” zones where slash is not to be deposited.
   d. Decide if off-site slash disposal sites are required and where they are located. Detail how and when the processing slash will be removed as the operation progresses.
   e. Identify the potential for storing slash on landings once harvesting has been completed.
   f. Document the plan before the operation commences.

D Operational controls
1. Prior to the operation starting, identify where the processing slash should be located.
2. Construct slash benches or designated slash placement areas, especially on sites with limited natural storage options for processing slash.
3. Ensure the contractor knows and is familiar with the slash management plan. Sign it off as part of the pre-harvest brief.
4. Ensure that machines have unrestricted access to the identified processing slash placement areas.
5. Plan for temporary slash storage if there is insufficient space for onsite processing slash storage. This will allow processing slash to be temporarily accumulated and trucked off site to a disposal site (for example, another landing).
6. Keep birds nests free of soil, organic material and wire rope/metal which can act as a catalyst for spontaneous ignition. Do not blade off mud and dirt into them as this makes post-harvest rehabilitation more difficult and can create instability.
Operational controls continued

**Burning**

7. Burning can be an effective option to reduce the amount of slash in a bird's nest. The processing slash can sometimes burn for weeks which can pose a severe fire risk in dry or windy conditions. Burning debris can also roll downslope creating a risk of starting fires. High levels of fire supervision and resourcing are required when burning processing slash.

8. Seek specialist advice if you wish to use burning as a slash management technique.

9. Have a fire permit if required, a Burn Plan and Fire Control Plan, and follow all local fire authority requirements. Check the relevant council’s air plan and forest insurance requirements.

10. Carry out burns only when local and long-range weather conditions are suitable.

11. Ensure that there are sufficient resources to control the burn (i.e. staff and equipment).

12. Close or control access to operational areas to prevent unauthorised access.

13. When using accelerants follow manufacturers’ recommendations and have material safety data sheets (MSDS) readily available. Do not use tyres, rubber or refuse as a fire accelerant.

14. Ensure ground-based equipment and/or aircraft loading and mixing areas are well away from bird nests.

15. Ensure designated areas of protected vegetation are protected from burning. Consider over-sowing burnt areas to reduce the risk of surface erosion.

**Post-harvest rehabilitation or decommissioning**

4. Pull any unstable processing slash back from the landing edge with an excavator.

5. Install drainage as required to minimise the entry of stormwater into bird nests.

6. On steep erodible slopes, processing slash should be reduced to a level that the ground is visible through the remaining material, if the slash is not contained on purpose-built slash benches.

7. Check landing edges for thick build-ups of processor-generated bark. Large deposits of bark can form deep, wet, heavy layers that are prone to failure. Remove the bark to solid ground.

**Other methods**

1. Processing slash can be minimised by harvesting full or longer length stems and transporting them to a central processing site or yard.

2. Remove all lower grade logs (e.g. overcuts or bin wood) during extraction, or process logs in the forest.

**Note:** Some of these options may not be feasible or economic in all circumstances.

3. Refer to FPGs Earthworks Construction for construction of slash benches.

**Maintenance**

**During the operation**

1. Manage stormwater control around slash areas during operations to prevent water entering bird nests. Reinstate stormwater controls if they are damaged by operations.

2. Monitor bird nests to ensure they are stable and fully utilise the available space. This may require benching and shifting or reworking of the processing slash.

3. Monitor processing slash storage space. If it is likely to be exceeded, find an alternative site. Make sure that processing slash does not accumulate beyond the reach of the excavator if it needs to be repositioned.

**National Environmental Standards for Plantation Forestry**

Particular relevant provisions for managing slash are Regulations 20, 69, 83 – 92.
Examples

A constructed slash bench.

Burning can be an effective method of removing slash where it is carefully managed.
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Landings need to be rehabilitated and decommissioned. This landing has had the slash pile stored on the landing. Water tables and bunding have directed stormwater away from fill and on to the hard surface.

Constructed slash bench below the landing.
Rehabilitated landing – slash stored in a safe location and water controls installed.