

ENVIRONMENTAL ASPECTS OF SILVICULTURE (Ch.6)

RESIDUE MANAGEMENT (p80)

The Conservation of Agricultural Resources Act (CARA)

Act 43 of 1983 regulation R280 GG 2216 of 30 March 2021 for the protection of cultivated land against erosion through the action of water (Regulation 4) and wind (Regulation 5).

Protect cultivated land in such a manner that the run-off speed of run-off water is restricted.

The retention of plantation residue, so that it is sufficient to form a mulch.

Sustainable soil management to retain soil properties and crop growth.

NO BURN NB: No burn complies with Regulations 4 and 5 of CARA.

Stack

1. Heavy material can be stacked in windrows or piles.
2. Lighter material can be left between stacks.
3. Windrows can be placed across the slope but provide gates to allow access.
4. Windrows can be mulched to reduce fire risk.

Broadcasting

Plantation residues to be spread across a site after harvesting.

Reduce fire risk

Mulching or chopper rolling operations can be used to compact residues thereby reducing fire risk and improving access.

BURN NB: Hot fires are **not compliant** with Regulation 4 of CARA. It destroy the soil's organic matter and breaks down soil structure resulting in greater susceptibility to erosion.

No

Is burning necessary?

Yes

[Click here for guidance.](#)

Yes

Are soils sensitive/erodible?

Reschedule

No

Weather conditions

Temperature <23°C
Humidity >40%

No

No

Adequate soil moisture
in the top 10 cm of soil.

Yes

Burn plan

NB: Steep slopes and difficult terrain should be burned progressively downhill from the top of the slope to the bottom in the early morning, or at night when dew is present and wind speed is low to prevent damage to the soil, minimise the heat of a hot burn and improve the safety factor.

BURN

NB: Burning should only take place in the presence of sufficiently well-trained personnel and adequate firefighting equipment. Also with approval, burning only to take place as permitted or indicated by Fire Protection Association.

Benefits of leaving a residue

1. Protects soils from wind and water-borne soil erosion.
2. Reduces evaporation of moisture from the soil.
3. Moderates soil temperature.
4. Provides a mulch effect which aids in the suppression of weeds .
5. Helps to retain or enhance soil organic matter.
6. Promotes soil nutrient status.
7. Improves microclimate for soil organisms.
8. Protects germinating plants from grazing animals.
9. Creates cover habitat for underground animals that burrow and aerate the soil.