# FACT SHEET

*Planning for summer fallow*

The removal of topsoil (including organic matter and nutrients) through wind erosion, degrades the landscape lowering productivity. To prevent fallow wind erosion, at least 50 per cent groundcover of stubble is needed.

## Stubble retention should be your highest fallow priority

Stubble is critical for protecting Mallee dryland soils from wind erosion. Careful management is required to ensure that groundcover is maintained above the critical 50 per cent threshold while also not creating issues at seeding time.

Stubble residues protect soil and young crops from wind damage, limiting erosion and lost productivity. They also lesson moisture loss, improve biological activity and provide nutrients to future crops.

Standing stubble of at least 10 cm height is twice as effective as loose flat stubble at reducing wind erosion. Cereal stubbles provide better erosion protection than legume stubbles as legume stubbles are more prone to breakdown.

## Stubble grazing

After six weeks in any stubble paddock it is highly unlikely that sheep will be gaining weight; rather, it is more probable that sheep will be losing weight.

## Crash grazing optimal

Dry cereal stubble has very little nutritional value as opposed to high digestibility grain and green matter.

Rotational and continuous grazing have detrimental impacts on soil condition and requires sheep to eat the low nutritional value stubble. This leads to reduced condition of flocks and lower stubble and groundcover loads, increasing the susceptibility of soils to erosion.

## Burning stubble

Burning stubble reduces nutrients for future crops.

- 85 per cent Nitrogen
- 74 per cent Sulphur
- 15 per cent other nutrients.

## Cultivation

Any form of cultivation will increase wind erosion. Cultivation and erosion are linked; the number of cultivations used in the fallow increases the risk of erosion.

## Weed control

Integrated weed management (IWM) is needed which reduces the need to cultivate weeds. IWM includes:

- crop rotations to introduce new herbicide groups
- brown manuring
- crop topping legumes and pastures
- making use of herbicide resistant crops
- delayed sowing and double knocks
- increasing crop competitiveness through seeding rates and good nutrition
- cutting crop for hay
- capturing weed seeds (chaff cuts or concentrated in windrows behind harvester for burning).

## Stubble can limit herbicide effectiveness

- evenly distribute trash
- leave stubble upright if possible, allowing effective application of pre-emergent on soil
- drive in direction of existing stubble.

## Steps for managing wind erosion

**Harvest time**

Leave enough anchored stubble after harvest to provide protection from wind erosion. Following a dry season, there may not be enough stubble left after harvest to give protection until the next season. In that case:

1. decide if harvesting is worth it (dollars and erosion risk)
2. if harvesting, choose a harvest height and management to leave as much stubble on-site as possible
3. do not graze the stubbles and keep traffic to a minimum.

**Fallow**

Assuming you have met the stubble harvest targets:

- if grazing the paddock, remove livestock when stubble cover drops to about 50 per cent or if any bare patches develop
- limit all vehicle movement in the paddock
- protect bare areas and high traffic areas
- if there are summer weeds, balance:

1. the need to control them for the following crop
2. the increased risk of wind erosion if control leaves bare ground.

NSW GOVERNMENT Local Land Services

**For more information:**

Western Local Land Services

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