

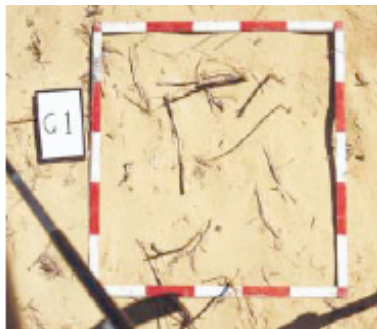
## Media Release

### Keep Your Soils Undercover

As a farmer you cannot control the wind but you can manage soil condition and ground cover by controlling grazing rates and cultivation strategies.

Areas subject to wind speeds that exceed 30km/hr at 10m above the soil surface have a higher erosion risk. Light sandy soils have higher risk of erosion than heavier soils as soil particles detach more easily due to less binding from the clay.

One of the best ways to reduce the risk of wind erosion during summer is to head out into the paddock and do a ground cover assessment to estimate how many grazing days the paddock can provide a suitable stocking rate. The risk of wind erosion this year is higher than usual as the dry season has reduced the ground cover level from lower yielding crops and the soil is drier, therefore more susceptible to erosion.



*Photo Left* : This paddock contains only 816kg/ha of lupin stubble and all of it is loose. The paddock, as seen in this oblique photo is highly prone to wind erosion.

*Photo Right*:  
A vertical view of the 816kg/ha of lupin stubble.

#### ***The risk of erosion is determined by the:***

- Windiness of the paddock
- Dryness of the soil
- Looseness of the soil
- Ground Cover Level

Grazing by livestock will remove plant material, dig up and loosen the soil. However a paddock can carry stock safely through summer if stocking rates and paddock conditions are well monitored. Once the paddock reaches 50% ground cover, particularly if you plan to crop the paddock the following season grazing should be stopped.

The risk of erosion after cultivation is much greater due to the loosening of the soil and poor ground cover. Stubble should contain at least one third of anchored material to minimise loose movement of the soil. If the ground cover level is less than 30% of standing stubble then the risk of erosion is significantly increased.

Wind erosion will start in the weakest part of the paddock but will not progress unless the majority of the paddock is in poor condition. Bare areas around water troughs and camps will not erode if there is adequate stubble/ground cover surrounding these areas.

#### **Work out your grazing days**

It is helpful to work out the grazing potential or stocking rate based on how much stubble is available after harvest. See the table below for an indication of crop yields and the estimate of grazing days, or use the following calculations.

***Number of grazing days (DSE/ha) = (stubble level (kg/ha) – critical level (kg/ha)) ÷***

(removal rate (2kg/ha/day) x stocking rate (DSE/ha))

**Or stocking rate (DSE/ha) =** (stubble level (kg/ha) – critical level (kg/ha)) ÷ (removal rate (2kg/ha/day) x no. of days required)

**Critical levels: 750kg cereal stubble /ha, 1500kg/lupin stubble/ha DSE = dry sheep equivalent**

**These levels take no account of the nutritional requirement of the livestock. Hand feed as required.**

**Table A range of crop yields and after-harvest stubble yields, with estimates of grazing days to the point of critical ground cover (source DAFWA Farmnote 67/2002)**

Type of crop	Crop yield (t/ha)						
<b>Wheat</b>							
Grain yield (t/ha)	3.2	2.8	2.4	2	1.6	1.2	0.8
Stubble yield (t/ha)	5.9	5.2	4.4	3.7	2.9	2.2	1.5
Grazing days (10 DSE/ha)	260	223	185	148	111	74	37
<b>Oats</b>							
Grain yield (t/ha)	1.6	1.4	1.2	1.0	0.8	0.6	0.6
Stubble yield (t/ha)	4.8	4.2	3.6	3.0	2.4	1.8	1.2
Grazing days (10 DSE/ha)	203	173	143	113	83	53	23
<b>Barley</b>							
Grain yield (t/ha)	3.0	2.6	2.2	1.8	1.4	1.0	0.6
Stubble yield (t/ha)	5.3	4.6	3.9	3.2	2.4	1.8	1.0
Grazing days (10 DSE/ha)	229	194	158	123	87	51	16
<b>Lupins</b>							
Grain yield (t/ha)	1.6	1.4	1.2	1.0	0.8	0.6	0.4
Stubble yield (t/ha)	4.8	4.2	3.6	3.0	2.4	1.8	1.2
Grazing days (10 DSE/ha)	225	135	105	75	45	15	15

Consider where you hand feed sheep. Selecting areas such as gravel ridges, suitable parts of farm tracks not prone to erosion, heavier soil types or spread out the feeding areas to reduce feeding on lighter soils. If the risk of grazing becomes too high on all available soils and you wish to retain your stock consider setting up a feedlot.



**Photo Left :** An oblique view of a 1400kg/ha of cereal stubble, more than enough to minimise wind erosion.

**Photo Right:** The 0.25 sq.m quadrat in this vertical view represents 1400kg/ha of cereal stubble

Regularly monitor the ground cover levels in the paddocks being grazed especially in late summer early autumn (**the photos give you an idea of what adequate cover looks like**). Ground cover assessment quadrats and copies of the Farmnote 67/2002 Ground Cover Assessment are available from the Pallinup Landcare Office.