

Merino Matters



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Can we graze crops in winter with confidence?

DOES it feel right spending money on seed, fertiliser and herbicides to simply put the sheep on it?

Looking at 2011, winter cereal and canola grazing data presented at the recent Crop Updates supports we can graze crops without significantly reducing grain yield or quality (see figure one).

What are some of the key benefits from grazing?

1. Improved profitability by providing additional feed for either increasing stocking rates or animal performance or by reducing pasture area and sowing more crop.
2. Deferred grazing or designated pasture paddocks, leading to an increase in the overall yearly pasture production.
3. Disease management through reducing the crop micro environment conducive for early stubble-borne diseases like mildew and yellow spot development.
4. Reducing frost risk of early sown cereals with grazing deferring head emergence by up to a week.
5. Reducing the risk of 'fat crops.' Removal of foliage may result in less transpiration of moisture leading to more stored water at the finish of the season during the grain fill.
6. Some weeds are likely to be better controlled when grazing is used. For example the spray-graze method can improve the control of weeds such as radish. Conversely the removal of the crop canopy early in the growing season can reduce the crop competition/smothering effect enabling grasses like ryegrass, wild oats, brome and barley grass to proliferate.

Key management factors adhered in the trials and when grazing to minimise any negative effects include:

1. Not grazing cereals too early. Wait until the root system of the cereal crop is strong enough that the plant won't be pulled from the ground, ie 4-6 weeks after the emergence when the crop is beginning to tiller (Z14). Not grazing cereals after the stem elongation stage (Z30). Grazing after this stage can result in yield reductions due to the removal of the developing head of the cereal plant and or the flag leaf which is responsible for 25-35pc of grain fill of that head.

To best assess when the crop has reached Z30 stage, cages should be placed in the crop to monitor.

2. In canola, grazing can commence as soon as plants are well anchored, although generally biomass levels or chemical withholding period tend to preclude grazing until the 6-8 leaf stage. Not grazing canola after the bubs have elongated more than 10cm ensures little impact on flowering time (2-3 days delay) and yield.
3. Rotational grazing with high stocking numbers. ie 20-40 DSE/ha is important to achieve even grazing over the entire paddock and more even maturity at harvest time.

Figure one: 2011 GRDC funded Grain & Graze 2 trial grazing and yield data, G=Grazed, U=Ungrazed, Growth stage=when removed.

Location	Variety	Sowing Date	Stock In	Stock Out	Grazing Days (DSE/Ha)	Growth Stage	Yield (L/Ha)	Screenings (%)
Binnu	45Y82	1/5	9/6	22/6	509	Bud 10cm	G2.26	-
							U2.30	-
Binnu	Carnamah	17/5	5/7	16/7	267	Z30	G1.60	-
							U1.88	-
Mingenew	Wylie	21/5	7/7	20/7	218	Z31	G4.50	1.4
							U4.51	0.9
Kojonup	Jardie TT	29/4	6/7	13/7	373	Bud Visible	G1.65	-
							U1.73	-
Coomalbidjup	Hindmarsh	1/6	14/7	21/7	388	Z30-31	G2.60	12
							U2.75	15
Dalyup	45Y82 & 44CV79	11/5	4/7	8/7	157	6-7 leaf	G1.97	0.84
							U2.04	0.75
Neridup	Hurricane	12/5	16/7	25/7	237	Bud Visible	G1.33	-
							U1.51	-



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