



Grain & Graze™
Profit through knowledge


Introduction to Grazing Crops

Sam Taylor
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Put the sheep (or cattle) into the crop!!

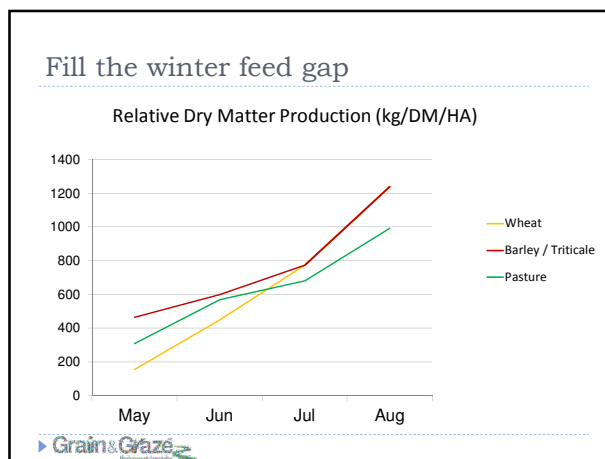




No Joke


- ▶ **If you could**
 - ▶ Increase winter feed supply
 - ▶ Minimise seasonal risk (eg frost & disease)
 - ▶ Increase crop area / maintain stock numbers
 - ▶ Increase winter stocking rate
 - ▶ Defer grazing of pastures
 - ▶ Have minimal impact on grain yield when done correctly
- ▶ **Why wouldn't you graze your crop?**






Extra Dry Matter

- ▶ Similar growth rate to pastures early, but depends on variety and time of sowing
- ▶ Better access to dry matter due to varying growth habits
 - ▶ Cereals upright
 - ▶ Pastures prostrate
- ▶ Improved utilisation % of cereals vs pasture due to accessibility
- ▶ Grazing crops = more pasture growth



Canopy Management Advantages

- ▶ **Positive influences from grazing**
 - ▶ Can delay flowering from 3 – 14 days
 - ▶ Moves flowering to less risky period
 - ▶ Earlier grazing completed, lesser delay
- ▶ **Reduced Canopy**
 - ▶ Less conducive to disease development
 - ▶ May reduce fungicide requirement
 - ▶ Less groundwater required to support canopy can improve grain quality



Mildew in Barley



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Some other positives

- ▶ Widens sowing window – ease seeding pressure
- ▶ Can help with BLW control
 - ▶ Spray Grazing
 - ▶ Open canopy improves target access
- ▶ Preferential grazing of weeds over crop has occurred (weed & variety dependant)
- ▶ Reduced biomass can preserve moisture for grain fill
- ▶ Reduced stubble load for subsequent crop

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Crop Protection Flexibility

- ▶ Pesticide Withholding Periods
 - ▶ Observe all GWHP's for pre and post em weed control products & insecticides: examples
 - ▶ Raxil 4 wks, Baytan 5wks, Dividend 6 wks, Jockey 12 wks, check individual labels.
 - ▶ Treflan / Glean – Nil, Boxer Gold 10 weeks
 - ▶ Metribuzin – 14 days
 - ▶ Logran / Logran B – 7 weeks
 - ▶ Dual Gold – 8 weeks
 - ▶ Atrazine – 15 wks pre em, 6 wks post em in canola
 - ▶ Ensure compliance to Q7 on the NVD

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Beware of...

- ▶ Grazing which encourages grass weeds to tiller – don't make ryegrass worse
- ▶ Reduced crop competition following grazing, maybe enhancing weed growth
- ▶ Overgrazing impacting on crop yield
- ▶ Herbicides that reduce crop biomass (glean, ally, diuron)
- ▶ The need for increased Nitrogen rates
- ▶ Potential animal health issues (Na and Mg)

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Usual Questions

- ▶ When can I start grazing?
- ▶ How hard can I graze?
- ▶ How long can I graze for?
- ▶ How late can I graze the crop?
- ▶ What can I expect in animal production?

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When can I start Grazing?

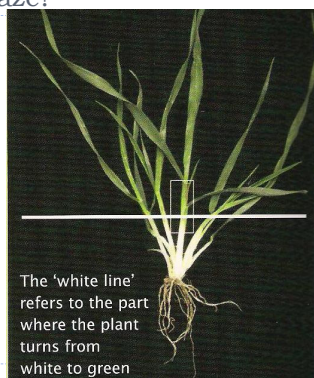
- ▶ Pinch and Twist
 - ▶ Plants firmly rooted
 - ▶ Leaf breaks off
 - ▶ Generally Z13-4/2
- ▶ Use your finger and thumb

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How hard can I graze?

More residual =
more dry matter
production

To the White Line



The 'white line'
refers to the part
where the plant
turns from
white to green

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How long can I graze?

- ▶ Short, Sharp grazing interval is best
- ▶ 3 days on cereals
- ▶ Large numbers of animals in small areas

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Animal Performance

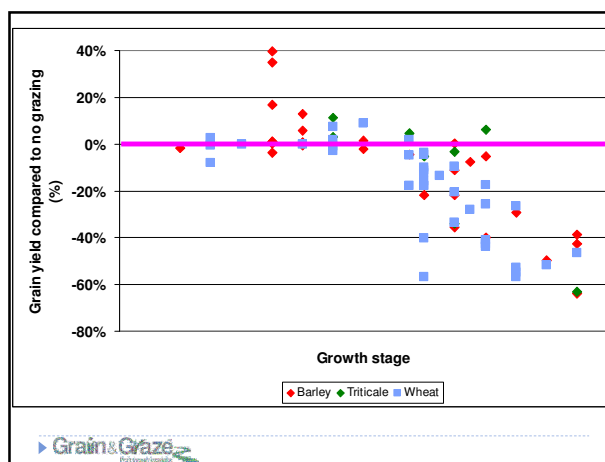
- ▶ Livestock response has been variable
- ▶ Magnesium deficit is a possible cause
- ▶ Due to excess potassium and low sodium
- ▶ Mg Loose Lick recommended
 - ▶ Equal parts of Causmag, Ground Limestone and Salt
- ▶ Provide access to roughage to prevent scouring
- ▶ Do not put hungry stock into lush feed on an empty stomach

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How late can I graze the crop?

- ▶ (or When should they come out?)
- ▶ Z30 – 1st Node evident is the critical point
 - ▶ Grazing after this point leads to reduced grain yield
- ▶ Use an exclusion cage to ensure overgrazing does not occur
- ▶ Dissect Plants to observe node as this will detect the node earlier.

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How often can I graze?

- ▶ Aim for maximum regrowth = maximum dry matter production
- ▶ 2 x grazing's @ 6 weeks harvests more DM than 3 grazing's @ 4 weeks
- ▶ Ultimately depends on feed requirements
- ▶ 1 grazing is realistic,
- ▶ 2 grazing's possible in early starts,
- ▶ 3 grazing's rarely if hoping for grain yield also



Animal Growth Rates

Livestock	Liveweight gain (kg/hd/day)
Lambs (25-40 kg)	0.25 to 0.30
Hoggets (30-35 kg)	0.14 to 0.36
Steers (300-400 kg)	1.5 to 1.80



Summary

- ▶ Good opportunities to increase winter feed
- ▶ Consider chemical WHP's
- ▶ Do the Pinch and Twist test
- ▶ Stop Grazing at Z30 (or else)
- ▶ Increase Gross Margin per hectare
- ▶ No real reason not to in mixed farming enterprises



Estimating Dry Matter

Crop	Relationship
Wheat	Each 1 cm = 60 kg DM/ha
Barley	Each 1 cm = 75 kg DM/ha
Triticale	Each 1 cm = 65 kg DM/ha

- 100kg/ha sowing rate @ 200mm spacing
- +/- 10% for every 1" variation in row spacing



Grazing Crops

- ▶ There are a lot more positives than negatives