

Amazing Grazing

Substantial fresh grass intake in restricted grazing systems with high stocking rates

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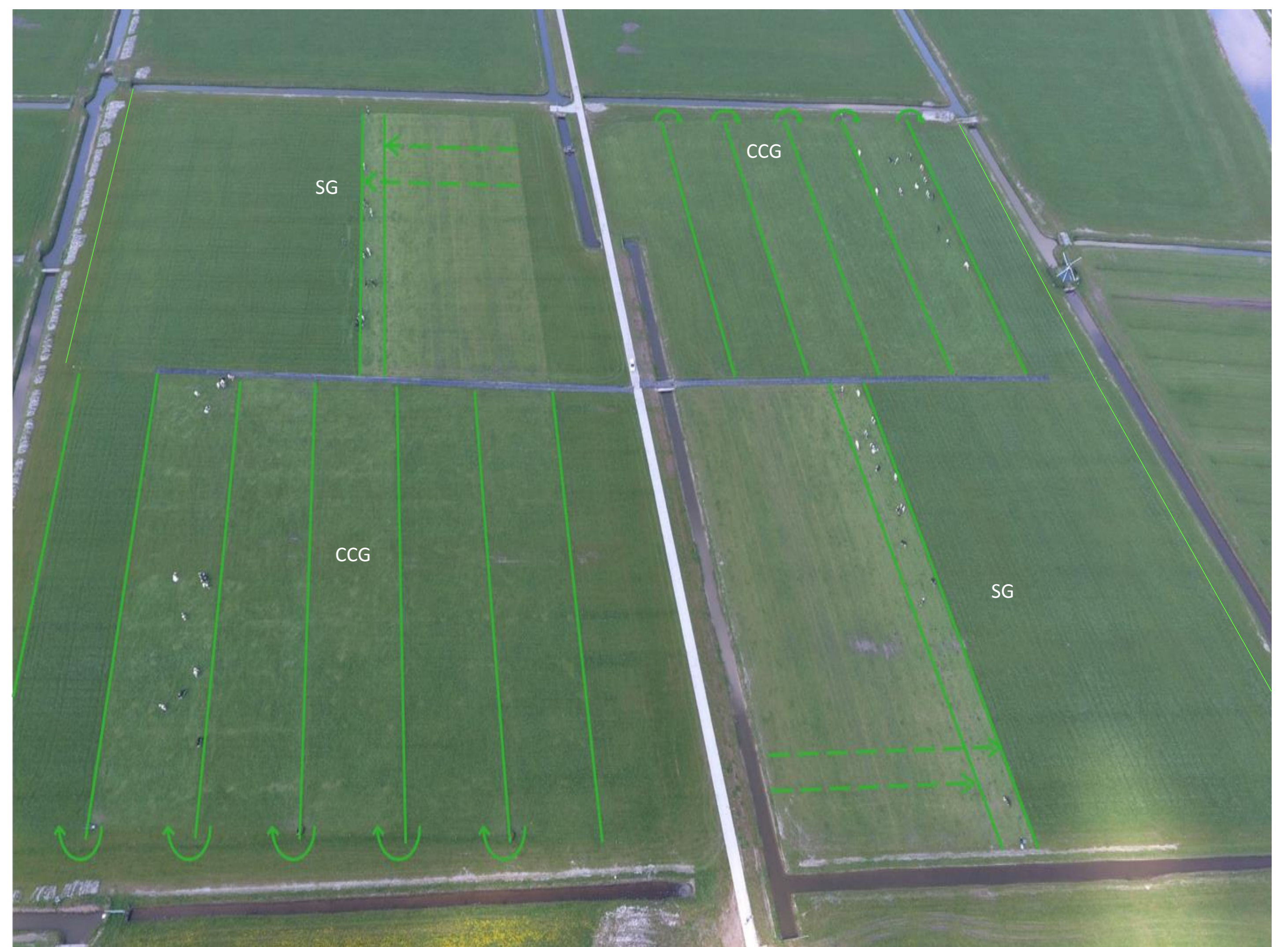
Background

Dairy farmers face grazing challenges due to increasing herd sizes with a lagging growth in the available grazing area. Farmers with larger herds on smaller grazing platforms are indicating that grazing is difficult or even impossible.

Methods

Evaluate and develop two grazing systems (2016 and 2017)

- Grazing experiments at a stocking rate of 7.5 cows ha⁻¹ with contrasting grazing systems. On a clay soil, a Holstein herd grazed either under Strip Grazing (SG) or Compartmented Continuous Grazing (CCG) in 2 replicates (picture).
- Pasture access during day time. Supplementation with maize silage (depending on the grass allowance: 4-12 kg DM cow⁻¹ d⁻¹) and concentrates (fixed at 5.5 kg cow⁻¹ d⁻¹) during housing.
- Individual roughage intake and milk production were recorded. Mown grass for silage was weighed. Daily grass intake was calculated as difference between total energy requirement and energy intake by maize silage and concentrates, divided by the energy content of fresh grass.



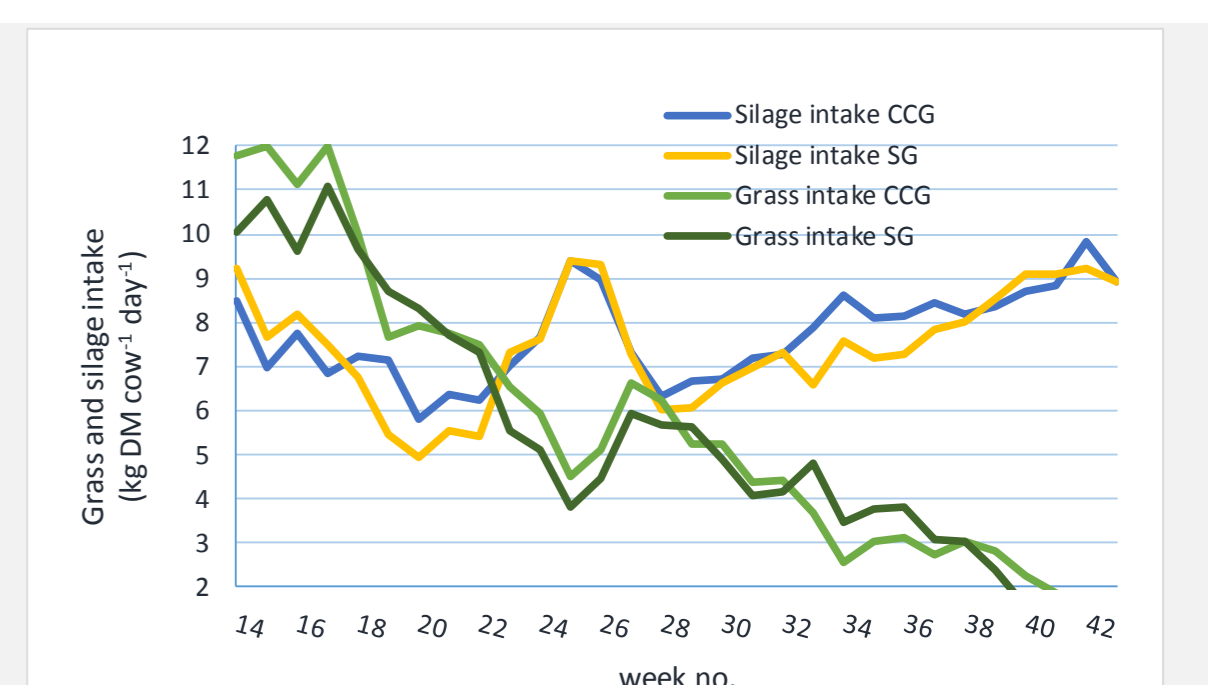
Grass intake

The grazing experiment showed that daily grass intakes of 6 kg DM cow⁻¹ were possible in intensive grazing systems with high supplementation levels. There was no significant difference between the two systems



Feed supplementation

The average daily silage intake over the whole grazing season was 7.4 kg DM cow⁻¹ for CCG and 7.2 kg DM cow⁻¹ for SG. The difference was not significant.



Average feed intake (2016&2017) on on Strip Grazing and Compartmented Continuous Grazing

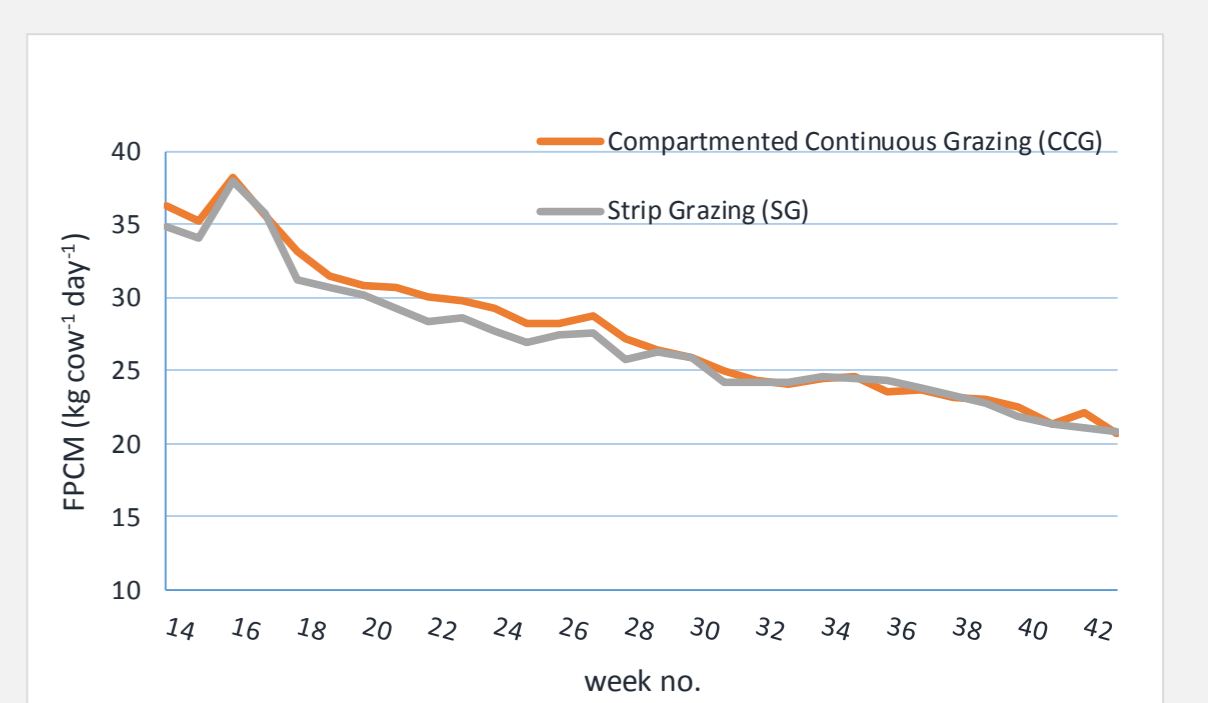
Grass production

Grass production on SG was significantly higher than on CCG. More grass was mown for silage

Parameter	CCG	SG	s.e.d.	P-value
Fresh grass utilisation (t DM ha ⁻¹)	7,8	7,8	0.15	NS
Mown for silage (t DM ha ⁻¹)	2,4	3,8	0.37	0.03
Total gross production (t DM ha ⁻¹)	10,2	11,6	0.51	0.05
Mowing percentage (% of area)	174	233	30	NS

Milk production

Average daily milk production, corrected for protein and fat content (FPCM) was 28.0 kg cow⁻¹ for CCG and 27.4 kg cow⁻¹ for SG; the difference was not significant.



Average FPCM production (2016 & 2017) on Strip Grazing and Compartmented Continuous Grazing

Conclusions

- The SG system had the highest grass production, but requires more daily labour.
- The CCG system is relatively easy to manage from day to day but needs a good balance between grass growth and supplementary feeding. The crucial time is the second half of May, when grass is heading.
- Variations in grass growth were compensated by supplementary feed.
- Milk production was not affected by the variation in grass supply and the accompanying variation in feed supplementation.



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