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Effects of social dominance on milk production and grazing behaviour of grazing dairy cows at different level of pasture allowance

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Introduction

- The social hierarchy consists of dominant and subordinate individuals
- Interact to determine the priority of access to basic resources such as feed, water and space
- Competition can result in subordinate cows receiving a lower DM intake compared with dominant cows



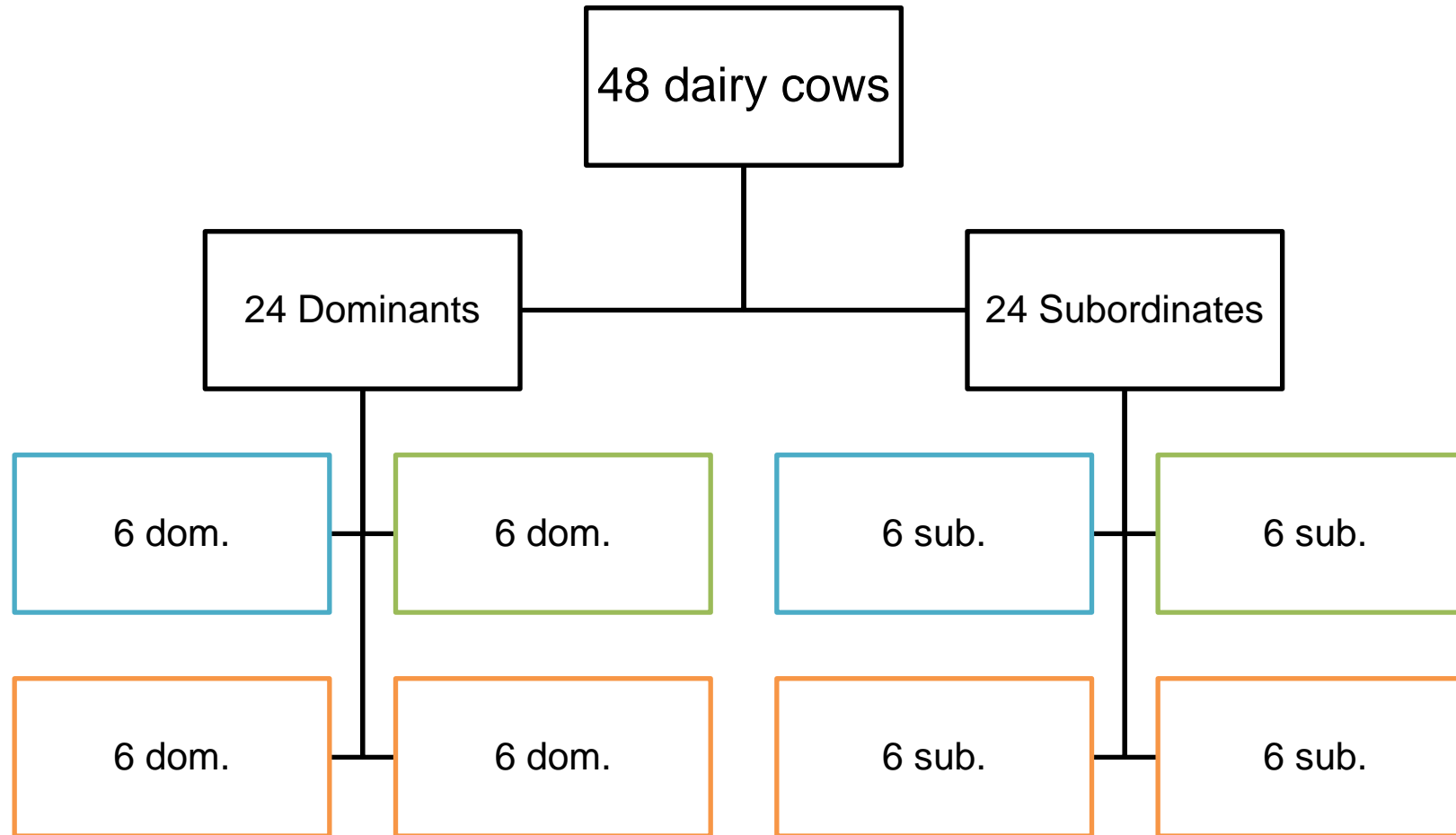
- **Food availability-**
larger impact on cows
feeding behaviour and
DM intake (*Grant and
Albright, 2001*)
- **Grouping management-**
minimize the negative
impact of excessive
competition on feed
resources (*Grant and
Albright, 2001*)



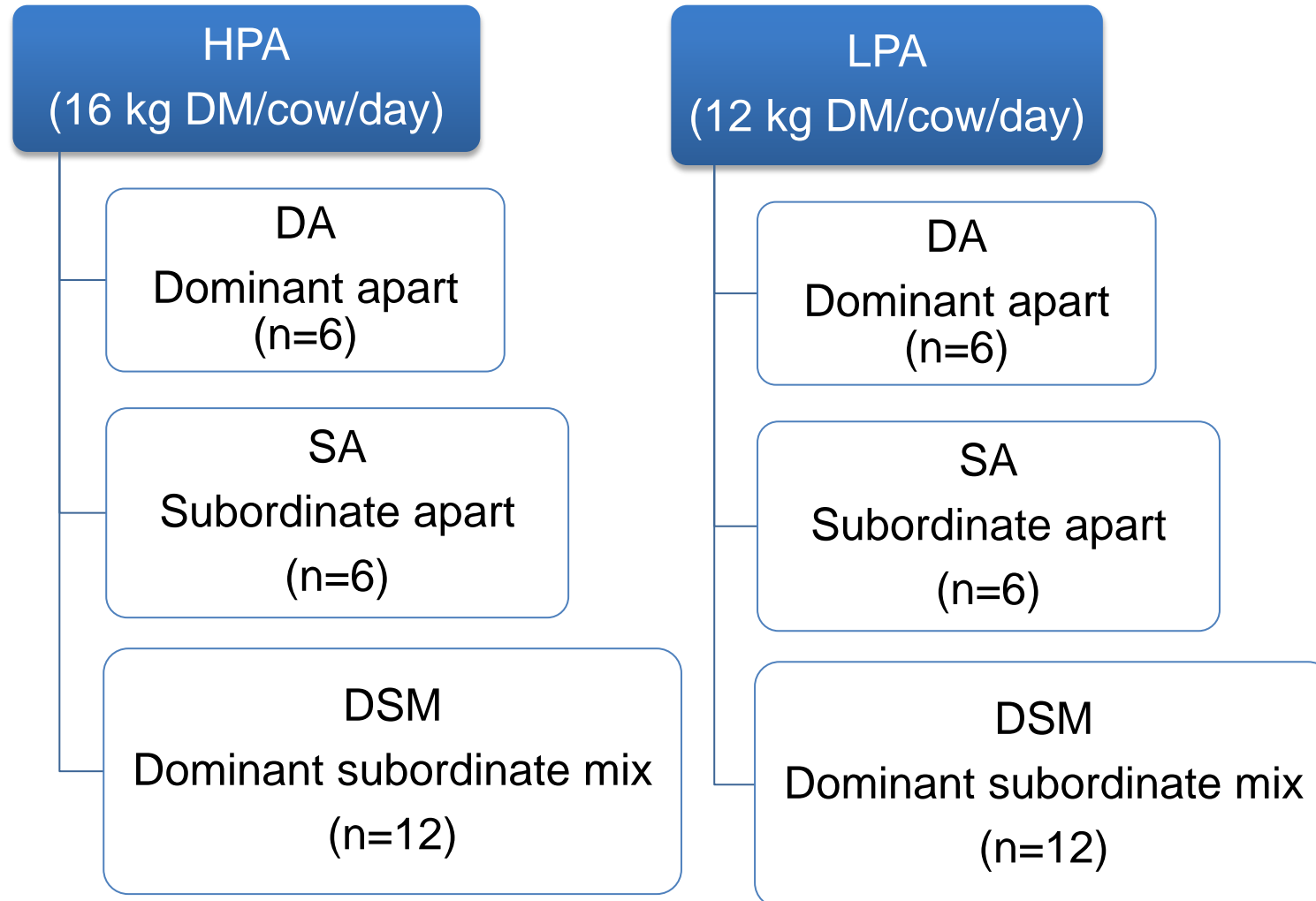
Objective

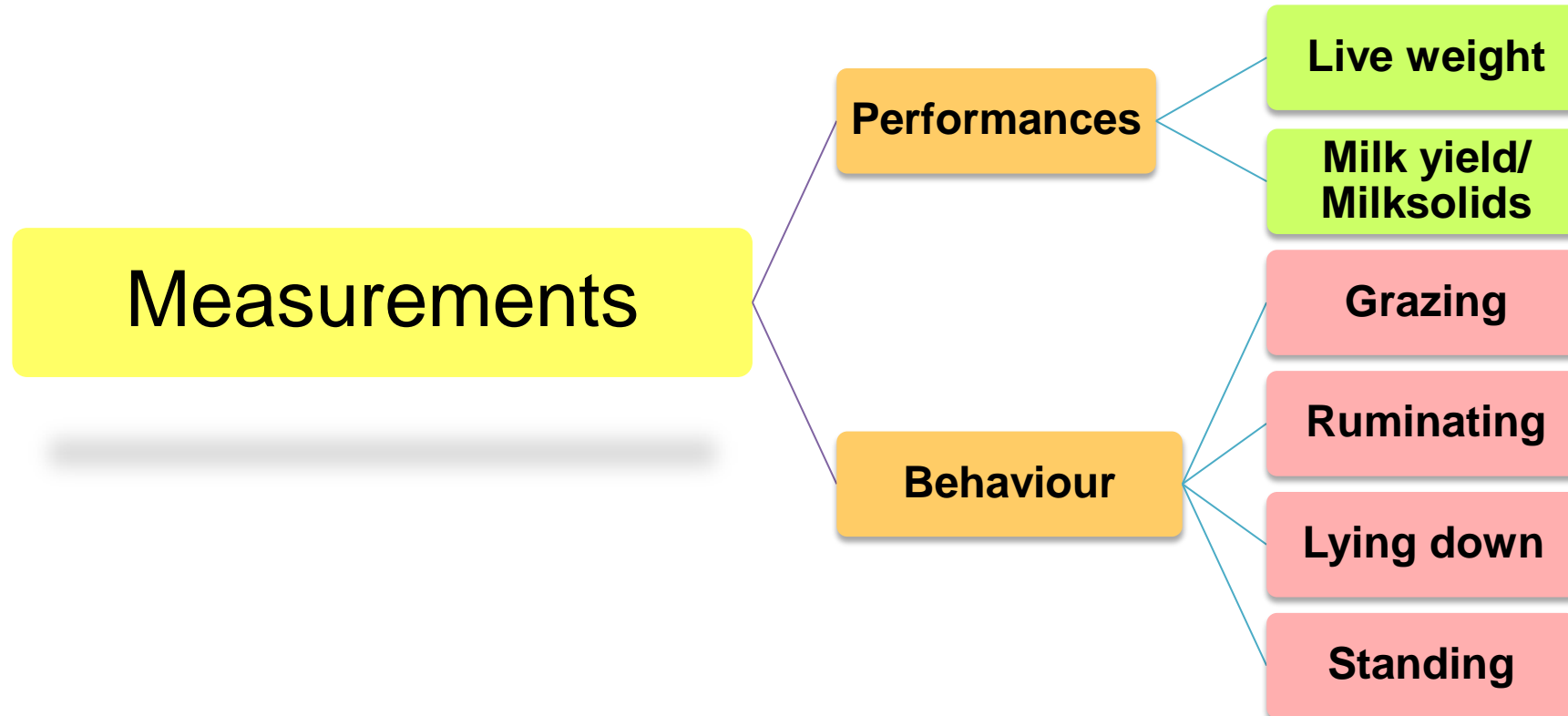
To explore the effects of grouping management on grazing behaviour, pasture intake and milk production of dominant and subordinate cows allocated to different herbage allowances

Materials & methods



Treatments

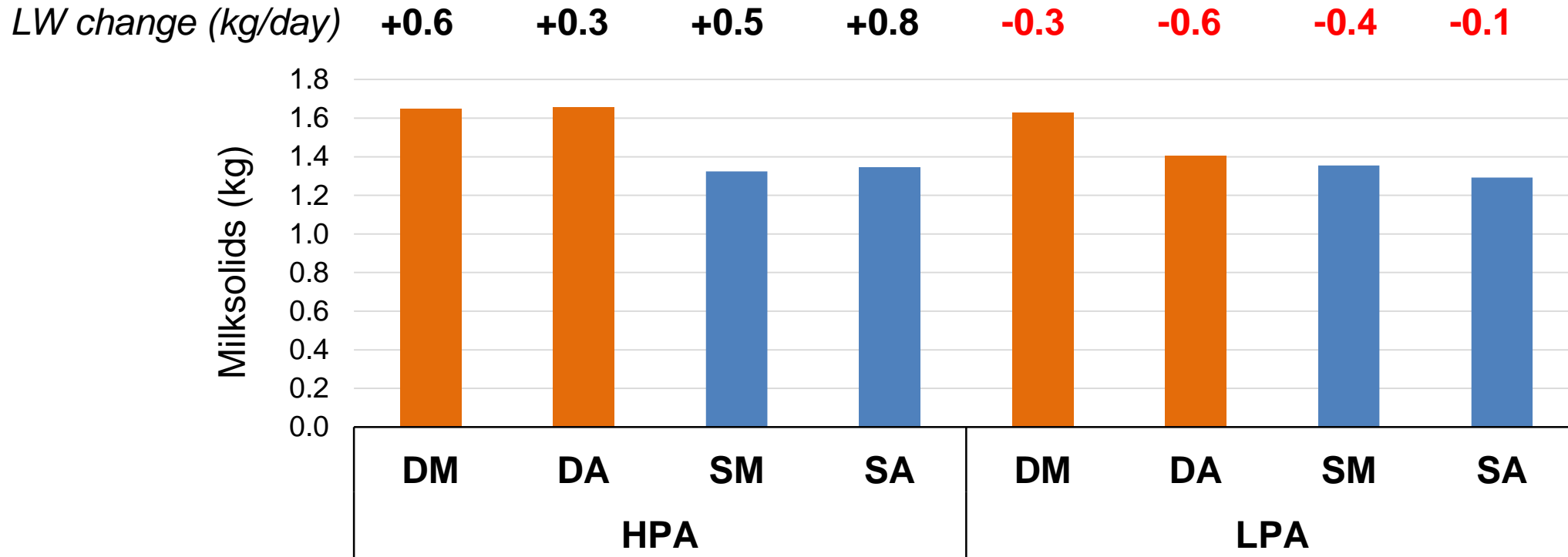




Herbage intake (kg DM/cow/day)

Items	HPA			LPA		
	DSM	DA	SA	DSM	DA	SA
Herbage intake (pre- post grazing difference)	14.1	14.5	13.9	12.2	11.8	11.7
Back-calculated intake	15.9	16.6	15.9	13.1	12.4	12.4

Milksolids production (kg/cow/day)



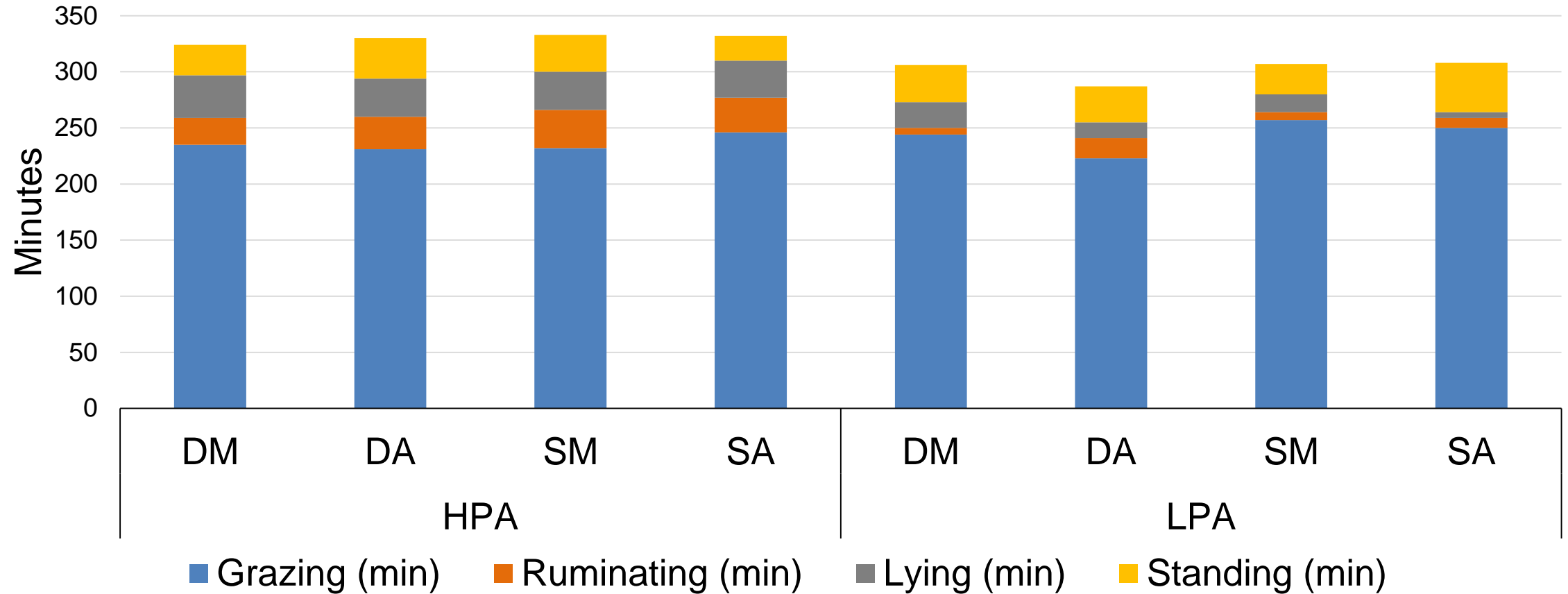
DM= Dominants mix

DA= Dominants apart

SM= subordinate mix

SA= subordinate apart

Grazing and lying behaviour



Conclusion

- Social dominance affects milk production of cows
 - ✓ Dominant cows produced more milk than subordinate cows
- No benefit of separating cows based on dominance value even when allocated to high or low herbage allowances

Thanks!

