

How to keep and feed horses in groups?

E. Søndergaard

AgroTech, Institute for Agri Technology and Food Innovation

Denmark

Background



- * Group housing is beneficial for horses but still most horses are kept singly (paper 4)
- * NKJ-project: Group housing and managing horses under Nordic conditions: Strategies to improve horse welfare and human safety
<http://www.group-housing-horses.net/>
- * Review paper by Hartmann, Søndergaard & Keeling, 2011
- * Theory versus Practice? What do we really know?
- * Social constraints in group housing?



Advantages in group housing of horses

- * Better air quality due to more time spent outdoors
- * Move more around (Hoffmann, 2008; Lee et al., 2011)
- * More space and less risk of injuries but any change in housing management increase the risk of injuries (Knubben et al., 2008; [paper 6](#))
- * Opportunity for social contact all day round
- * Horses in groups are easier to train (Søndergaard & Ladewig, 2004; Irrgang & Gerken, 2010; [paper 5](#))
- * Typical fed large amounts of roughage
- * Often cheaper than single housing both in investment and daily expenses
- * Lower work load (von Borstel et al., 2010)

Challenges in group housing



- * Group composition
- * Group size
- * Group stability
- * Housing design
 - Motivate to exercise/movement
 - Secure space and time for resting behaviour
 - Reduce the risk of injuries (paper 6)
 - Reduce aggression
 - Space
 - Reduce competition
 - Socialization
 - Introduction of horses
 - Easy feeding and cleaning
 - Opportunities to isolate horses and to work with individual horses



Group composition (knowledge)



Sex

- No difference in aggression between groups with one sex or mixed sex groups
- More play behaviour was shown in groups with geldings than groups with mares (Jørgensen et al., 2009)
- Pregnant mares should not be kept with stallions (Bartos et al., 2011)

Age

- Young horses benefits from being in groups with adult horses (Bourjade et al., 2008; [paper 3](#))

Group composition (practice)



Sex

Mares may have a larger comfort zone than geldings?

Some geldings show stallion like behaviour and cannot be kept with mares

Age

It may be appropriate to keep weanlings or yearlings in homogenous groups in periods to facilitate feeding

General

Some individuals require a lot of space to function well in group housing thus part time single housing may be a solution

Group size



- * In nature from 3 to several hundreds
- * In practice it depends on the available space, housing design and the behaviour of the individual horses in a group
- * Managing horses in groups require the opportunity to rearrange groups and to isolate horses

Group stability (knowledge)



- * Introduction of horses (Hartmann, E., Ph.D + publications)
 - Pre-introduction reduce aggression
 - Introduction to more horses at a time reduce aggressive interactions per horse
- * Accept of new horses seems to be fast (Søndergaard & Turner, 2008)
- * Horses neither sensitize nor habituate to repeated regrouping (Christensen et al., 2011)

Group stability (practice)



- * Some individuals/groups are better in handling instability than others
- * Sex and age related differences?
 - Easier to introduce younger/lower ranking horses than older/higher ranking horses into groups?
- * More knowledge is needed on individual characteristics, effect of rank etc.

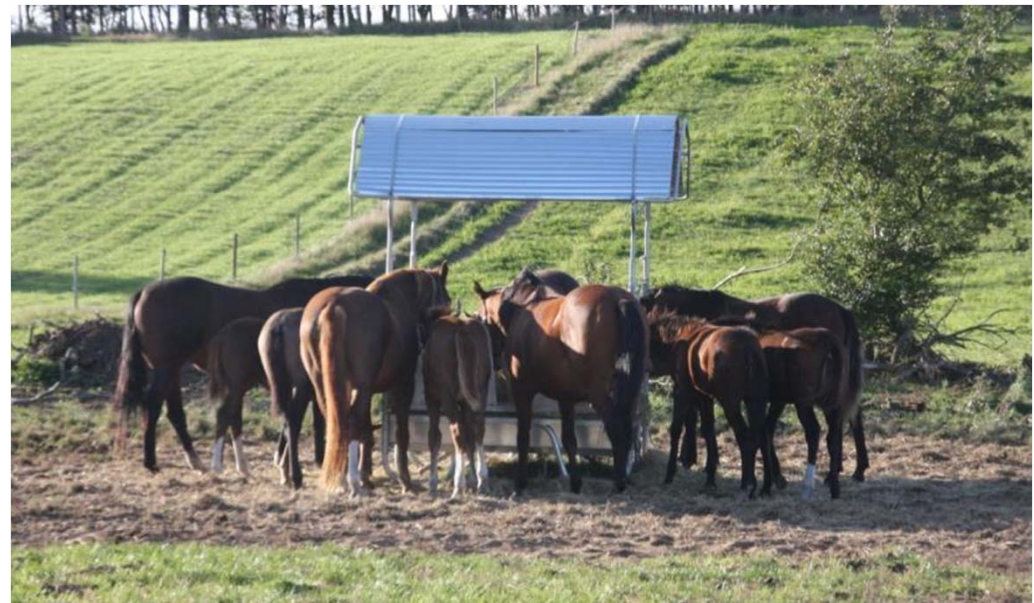
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Housing design - motivate to movement

- * Spreading resources
- * Attractive outdoor area = feed or environmental enrichment (paper 2)
- * Horse Activating Stable Systems “HASS” make horses move more than an open barn system (Rose-Meierhöfer et al., 2010)



Horse Activating Stable Systems HASS



ActiveHorse
feeding, comfort and performance

hos Thommysminde Centret, Jelling
fra BoPil A/S

Horse Activating Stable Systems HASS



Housing design

- reduce risk of injuries

- * Space
 - Minimum space requirement may be determined by law but it can never be too large
- * Escape opportunities for low ranking animals
- * More entrances
- * Feeding stalls
- * More feeding places than horses and/or protection from other horses when feeding
- * Socialised animals
 - Horses raised in groups are in general better socialised for group housing as adults (Christensen et al., 2002)
- * Group composition is important in any housing design

Housing design

- reduce risk of injuries



Housing design

- easy feeding

- * Electronic feeding
- * Free access to roughage and best more types of roughage as it increases the welfare of horses (Benhajali et al., 2009) and reduces aggression ([paper 2](#))
- * Feeding stalls or tying up horses



Housing design vs. nutritional demands

- how to minimise the time without access to feed and at the same time provide the horse with an adequate diet?



Energy content in ration



Foraging time

Special challenge: Weanlings

Housing design

- Isolation/working with individual animals

- * Always at least one single box in connection to group housing
- * Opportunity to take individuals out for examination, treatment or farrier but it may be an advantage if it does not require isolation
- * Horses should be trained to be alone but not at the same time as farrier or vet treatment!

Housing design

- Isolation/working with individual animals



Challenges in group housing



- * Group composition
- * Group size
- * Group stability
- * Housing design
 - Motivate to exercise and movement
 - Reduce the stress of horses
 - Reduce the number of horses
 - Space
 - Enrichment
 - Opportunities to isolate horses and to work with individual horses

FLEXIBILITY

Thank you for your attention!

