Future of Calf Rearing in Pairs and Groups

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The future of calf rearing in pairs and groups

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Animal welfare is a multi-stakeholder issue requiring multi-disciplinary approaches

Biological science: Understanding the animals





Social science:



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Calf rearing: Present	
	Calf rearing: Present

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Calf rearing: Future Why is individual housing the norm? Allows for controlling & monitoring individual calves (feeding, health issues) Physical separation can reduce disease risks: ■ [₽] shared aerosol \blacksquare \clubsuit contamination of shared feeding equipment or bedding Ease of handling individual calves

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Benefits of social rearing





✓ Addresses calves' motivation and preference for contact
 ✓ Positive emotional state reflected in "optimistic" test responses





Why does learning ability matter? Image: Stress of the stress o

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Benefits of social rearing

- ✓ Greater solid feed intake
- ✓ Greater weight gains, ADG



Costa et al., 2016. Invited review in J. Dairy Sci. 99:2453-2 018: Knauer et al., 2021: Zhang et al., 2021: Lindner et al., 2

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Potential challenges of pair or group raising

1) How to raise healthy calves?

- Many farms successfully raise healthy calves in social groups
- We surveyed producers using pair or group housing: 72% were satisfied with calf health
- But, some farms may need to adjust management practices before transitioning from individual housing

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Multiple factors contribute to calf morbidity

The same principles for good health apply whether housing calves individually or in groups:

- ✓ preventive care and monitoring
- ✓ colostrum protocol
- ✓ nutrition
- ✓ hygiene, sanitation, biosecurity
- ✓ ventilation
- \checkmark space allowance, bedding
- ✓ all-in / all-out moves

Ollivett, 2020. Vet. Clin. Food Anim. 36:385-398 Costa et al., 2016. J. Dairy Sci. 99:2453-246

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Pair-housed calves can stay healthy

- n = 48 calves (16 individuals, 16 pairs)
- Housed from 0-60 d of age in outdoor plastic hutches
 Winter (December-March) in Wisconsin
 - Winter (December-March) in Wise

Condition	Pair housed
Infected inner ear	1 out of 32
Cryptosporidiosis	0
Pneumonia	1
TOTAL	2 out of 32

Individually housed 0 1 out of 16 1 2 out of 16

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Potential challenges of pair/group raising

2) Proper housing facilities?

One reason given for keeping calves individually is a lack of housing facilities for groups

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 26%
 29%

 Outdoors,
 Dudoors,

 manually fed
 23%

 Moors,
 23%

 Indoors,
 10%

 Indoors,
 10%<

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Potential challenges of pair/group raising 3) How to manage unwanted behaviors (e.g., cross sucking) In our survey, at least "occasional" cross sucking reported by: 85% of producers using pair or group housing •70% of producers using individual housing with fence-line contact

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Extension

Feeding strategies to reduce cross sucking Braden® bott

- 1. Reduce hunger by feeding a generous milk volume
- 2. Provide enough opportunity to suckle appropriately



nel et al., 1998; de Pa . 2001, 2010; Jung & Lidfors, 2001; Keil & Lang 2003: Veissier et al., 2002: Jensen & Budde, 20

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FARM Animal Care program



Two (or more) heads are better than one

- Pair or group housing will likely become an industry expectation
- Social contact from an early age is important for calves'
- development, growth, welfare, and public perception

 There can be challenges, but they are <u>surmountable</u>:
- Housing options vary in level of infrastructure investment
 Concerns with health or cross sucking can be managed



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