The Evaluation of Commingled Calves and Dams versus Separated Calves and Dams on Behavior, Physiology, and Production

A.R. Lee¹, A.D. Campaeux¹, M.C. Cantor², J.H.C. Costa², and P.D. Krawczel¹

¹ Department of Animal Science, University of Tennessee Knoxville, Knoxville, TN
² Department of Animal and Food Sciences, University of Kentucky, Lexington, KY
Objective: Assess the effects of commingling on dam and calf behavior, milk production, and calf weight gain.

Hypothesis: No differences among calves and dams housed together or separately.
D0: Parturition

D1 to D3: Test Passive Transfer, BW

D5: Treatment Begins

D5 to D19:
Daily: Milk Production
3x week: Uterine Health Score
2x week: Uterine Health Score
1x week: Teat End Swab
Milk components

D10 approach test

D0: Parturition

D5: Treatment Begins

D5 to D19:
Daily: 3x/d feeding 6 L
3x week: Health Score
1x week: Body Weight

Real Life Solutions
Mixed dams’ took more steps per day than control dams.

![Bar chart showing comparison between Control and Mixed treatments.](chart).

- **Control** treatment had steps/d ranging from 1000 to 2500.
- **Mixed** treatment had steps/d ranging from 1500 to 3000.

**P ≤ 0.01** indicates a significant difference between the two treatments.

**MIXED model, SAS 9.4 (Cary, NC)** was used to analyze the data.
Milk yield was not significantly different by treatment.

Milk yield (kg/d)

Control

Mixed

Treatments

Control

Mixed

P = 0.49

MIXED model, SAS 9.4 (Cary, NC)
Body weight was not significantly different between treatments.

Mean BW (kg) vs. Days

- Control
- Mixed

$P = 0.64$

T-Tests
SAS 9.4
(Cary, NC)
Calf approachability was not significantly different

$P = 0.33$

T-Tests
SAS 9.4
(Cary, NC)

MacKay et al., 2014
Conclusions: No differences between treatments

- Milk yield
- Milk composition
- BW
- Health
- Lying or standing time of calves
- Lying behavior of dams
- Approach
Implications

- No negative effects on calves and dams
- Shorter time before separation may help increase dam-calf bond
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Questions?

Amanda Lee
alee90@vols.utk.edu
Skype Name: areneelee

Dr. Peter Krawczel
pkrawcze@ukt.edu
Skype Name: pkrawcze