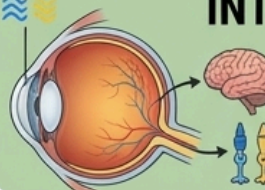


REACTION OF DAIRY CALVES TO COLORED MATS WITH INTERLACED COLORS

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INTRODUCTION AND OBJECTIVE




Evaluate dairy calves' (0-6 mo) reaction to colored mats.
Understand how visual stimuli influence behavioral responses.
Optimize management practices and promote animal welfare.


MATERIALS & METHODS




SUBJECTS:
6 Holstein calves
(0-6 months old)




CONTEXTS:
Familiar (FA) &
Unfamiliar (UA)



STIMULI MATS:
(Nonwoven fabric)
Lilac & Red
Lilac & Black
Lilac & Yellow



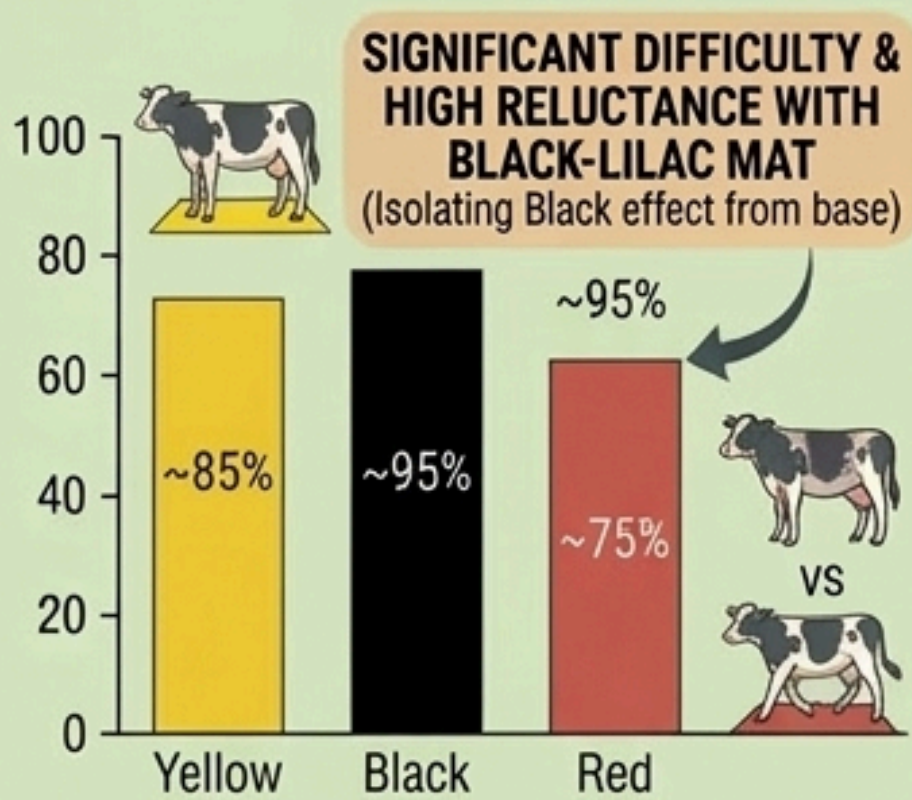
BEHAVIORS OBSERVED:
Crossing, reluctant
cross, Retreat
Exploration
Attempts to jump



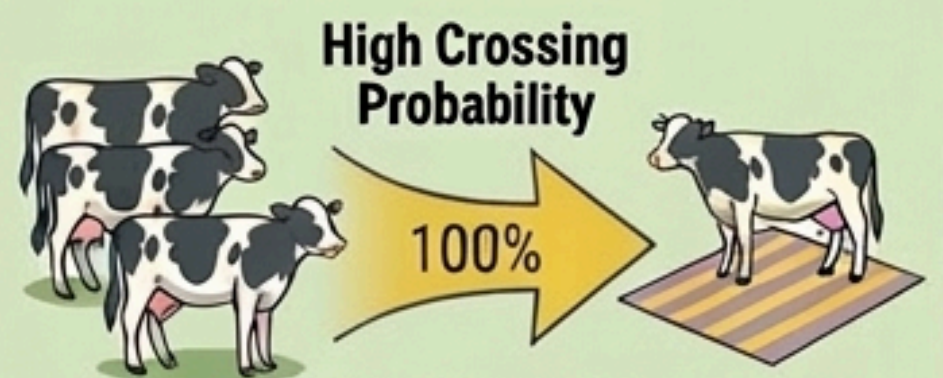
ANALYSIS:
• Behavior recorded
(cross, reluctant
cross, etc.)
• Kruskal-Wallis &
Nemenyi Tests

RESULTS AND DISCUSSION

CROSSING RELUCTANCE BY MAT COLOR (FA) – ISOLATED COLORS



GREGARIOUS EFFECT





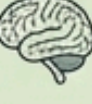
GREGARIOUS EFFECT: Presence of conspecifics significantly increased crossing probability (100% in Yellow-Lilac group)

- High sensitive to visual stimuli.
- Yellow-Lilac mat most challenging.
- Exploratory & retreat responses
- Presence of other calves significantly boosts crossing, but effect is less effective on **Black-Lilac** due to high inherent reluctance.

CONCLUSIONS

Welfare path 
Management barrier 



 Social support
 Group dynamics
 Social factors

FUTURE WORK / REFERENCES

Argôlo, L.S.; Barros, M.C.C.; Marques, J.A.; Teodoro, S. M.; Pereira, M. L. A., 2010. Comportamento e temperamento em ruminantes. PUBVET, Londrina, V. 4, N. 13, Ed. 118, art. 795 Disponível em: <https://ojs.pubvet.com.br/index.php/revista/article/view/2604>. (accessed 26 March 2022).

Boissy, A.; Le Neindre, P. Behavioral, cardiac and cortisol responses to brief peer separation and reunion in heifers. Physiology & Behavior, v. 61, n. 5, p. 693–699, 1997. DOI: 10.1016/S0031-9384(96)00521-5.

Sowell B.F, Mosley J.C, Bowman J.G.P, Comportamento social de bovinos de corte em pastagem: implicações para o manejo, Journal of Animal Science, Volume 77, Edição suplementar E, 2000, Páginas 1–6, <https://doi.org/10.2527/jas2000.00218812007700ES0021x>.

Costa, J. H. C.; Daros, R. R.; von Keyserlingk, M. A. G.; Weary, D. M. Complex social housing reduces food neophobia in dairy calves. Journal of Dairy Science, v. 97, n. 12, p. 7804–7810, 2014. DOI: 10.3168/jds.2014-8392.