

Lincoln University in New Zealand:

“The Nedap SmartTag Neck sensor is a valid and useful tool that monitors eating activity in grazing systems with very high accuracy”

The objective of this research project was to evaluate the correlation between the grazing time measured by the Nedap SmartTag Neck (CowControl) and the observed grazing time. The study involved over 55 hours of observations to assess a set of 5 defined cow behaviors (two ‘head up’ and three ‘head down’ behaviours) in 37 Holstein-Friesian dairy cows on a pasture-based farm in Taranaki, New Zealand.



97%
Eating accuracy

- Visual observation 70.8% of the time spend on grazing
- Nedap SmartTag 69.3% of time spend on grazing

Highest accuracy for grazing time compared to 4 other commercially available sensors

97%

Nedap
SmartTag Neck

71%

Afimlik
AfiCollar

88%

CowManager

92%

SmartBow

95%

DairyMaster
MooMonitor+

Conclusion

From this robust validation study, it was shown that the percentage 'eating time' as observed by the Nedap SmartTag Neck and observed percentage active grazing times were very well correlated (97%). This shows a high degree of agreement for identifying cow grazing activity.

Why is this important?

Dairy farmers with a pasture-based system need to get the most out of the available grass/forage to maintain high milk production, animal health and farm efficiency. By using the Nedap SmartTag Neck, the farmer receives the most reliable results on eating times and can act fast to change protocols or feeding when needed. This will prevent drops in eating time and associated losses in milk production and breeding problems. This validation proves that the Nedap SmartTag Neck is the most accurate sensor on the market for picking up grazing times and these results can provide peace of mind and give confidence to producers when they decide to invest in this cow monitoring system.

These results are all from validation studies published by the Journal of Dairy Science or MDPI between 2017 and 2021.

Source: B. Dela Rue et al, Evaluation of an eating time sensor for use in pasture-based dairy systems, Journal of Dairy Science, 2020