



ASSESSMENT OF EATING DURATION FROM AUTOMATIC FEEDERS

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We tested whether **automatic recordings** for when a **cow enters and exits a feed bin** can be used to assess **actual eating duration**

- Visit duration (sensor) = from when the cow enters the bin until she leaves
- Eating duration per visit (observer) = sum of the time with head above the feed bin, taking a bite (head down) or chewing (head up)
- Visits < 10 s or > 40 min removed
- 3 visit intervals: short < 2.5 min; medium 2.5-10 min; long ≥ 10 min

- 3 types of feed bins :
- Insentec 160 cows
 - BioControl 1400 visits
 - MooFeeder



Eating duration can be estimated with very high accuracy with all 3 types of feed bins

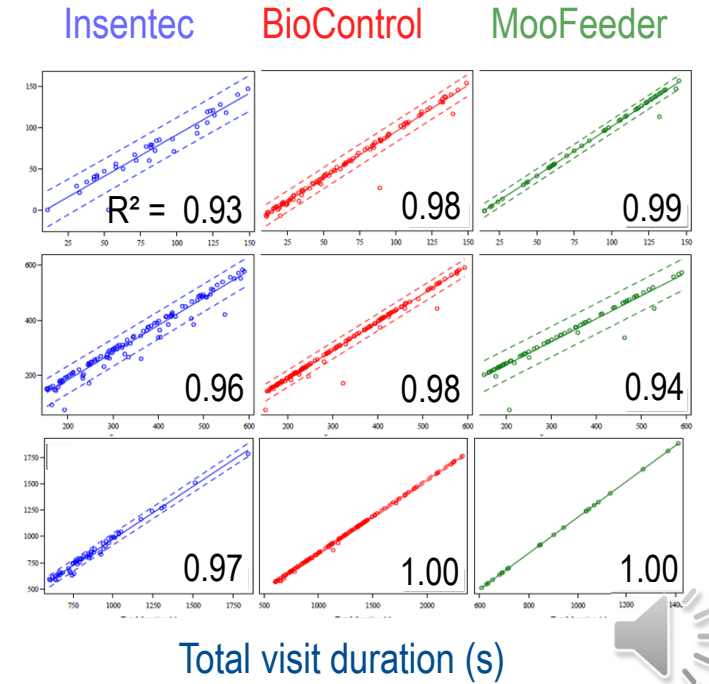
Mixed model

Eating duration (observer)

explained by

- Visit duration (sensor)
- Visit interval
- Type of feed bin
- Their interaction
- + cow (random)

Eating duration (s)



Total visit duration (s)