Milking behaviour dynamics during the early lactation of three breed groups under a semi-automated batch milking system

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Our question:

Is cow breed a significant factor affecting the habituation to the milking routine?

We have data from Holstein (HO), Jersey (JE), and their cross (HJ) under the same Automatic Milking Systems with a semi-voluntary batch milking design.
The objective:

To compare milking behaviors during the early lactation of HO, JE, HJ in an automatic milking system with a semi-voluntary batch milking design.
Who & What

Who:
2,138 cows milked 2x from May to December 2023 in a grass-fed organic certified herd (Texas, USA).

The variables:
1. Incomplete milkings (%)
2. Milking unit kick-off (%)
3. Teat cleaning failure (%)

Proxy for habituation to the milking routine and system
Our findings
Primiparous

**HO**

**JE**

**HJ**

**Incomplete milking**

**Milking unit kick-off**

**Teat cleaning failure**

[Bar charts showing frequency (%) for different weeks and cow breeds (Holstein, Jersey, Crossbred).]
Multiparous

HO* JE HJ

Incomplete milking

Milking unit kick-off

Teat cleaning failure

Week 1  Week 2  Week 3  Week 4

Holstein  Jersey  Crossbred

Frequency (%)
Conclusion

- The frequency of undesired milking behaviors depended on breed and time post calving
- Variability in udder conformation, temperament, and body size, may play a role in these breed differences
- Undesirable behaviors decreased at week 3:
  - Habituation to milking
Thank you!