Dairy cows are dried-off annually, but there has been little research on the impact of dry-off practices on behaviour. Milk leakage is a risk factor for mastitis, particularly around the time of dry-off. The objectives of our study were 1) to assess the effects of dry-off on lying behaviour of cows housed on a commercial farm, and 2) experimentally compare the effects of abrupt versus gradual dry-off on milk leakage and motivation to be milked.

### Commercial farm case study: Effect of dry-off on lying behaviour

**Graphs:**
- **Lying time (min/d):**
  - Days Relative to Dry-Off: Baseline, 0, 1, 2, 3
  - Multilactating cows showed an initial decline and then increased.
- **Duration of lying (min):**
  - Days Relative to Dry-Off: Baseline, 0, 1, 2, 3
  - Primiparous and multilactating cows decreased lying bout duration on the day of dry-off; this decrease was greater for primiparous cows.

### Abrupt versus gradual dry-off: Milk Leakage and motivation to be milked

**Graphs:**
- **# of Cows Leaking:**
  - Days Relative to Dry-Off: 0, 1, 2, 3
  - Abrupt versus gradual dry-off
- **% of time at the gate:**
  - Days Relative to Dry-Off: 0, 1, 2, 3
  - Abrupt versus gradual dry-off

- **Cows that produced more milk and were abruptly dried-off leaked more. Abruptly dried-off cows also leaked for longer, leaking in 40±17% vs. 10±7% of observations.**
- **Abruptly dried-off cows were more likely to wait at the gate after dry-off compared to before, suggesting that they were more motivated to be milked than gradually dried-off cows.**

Abrupt dry-off is disruptive for all cows, but the effects on lying behaviour were greatest for primiparous cows, suggesting that these cows experience more discomfort at dry-off.

Dry-off achieved using gradual cessation of milking reduces milk leakage and waiting at the gate.