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Lameness is widely regarded as a serious problem facing the dairy industry. Our objective was to determine how the lying behavior of individual cows is affected in response to the development or recovery from lameness.

Precipitation affects lying behavior of cows at pasture

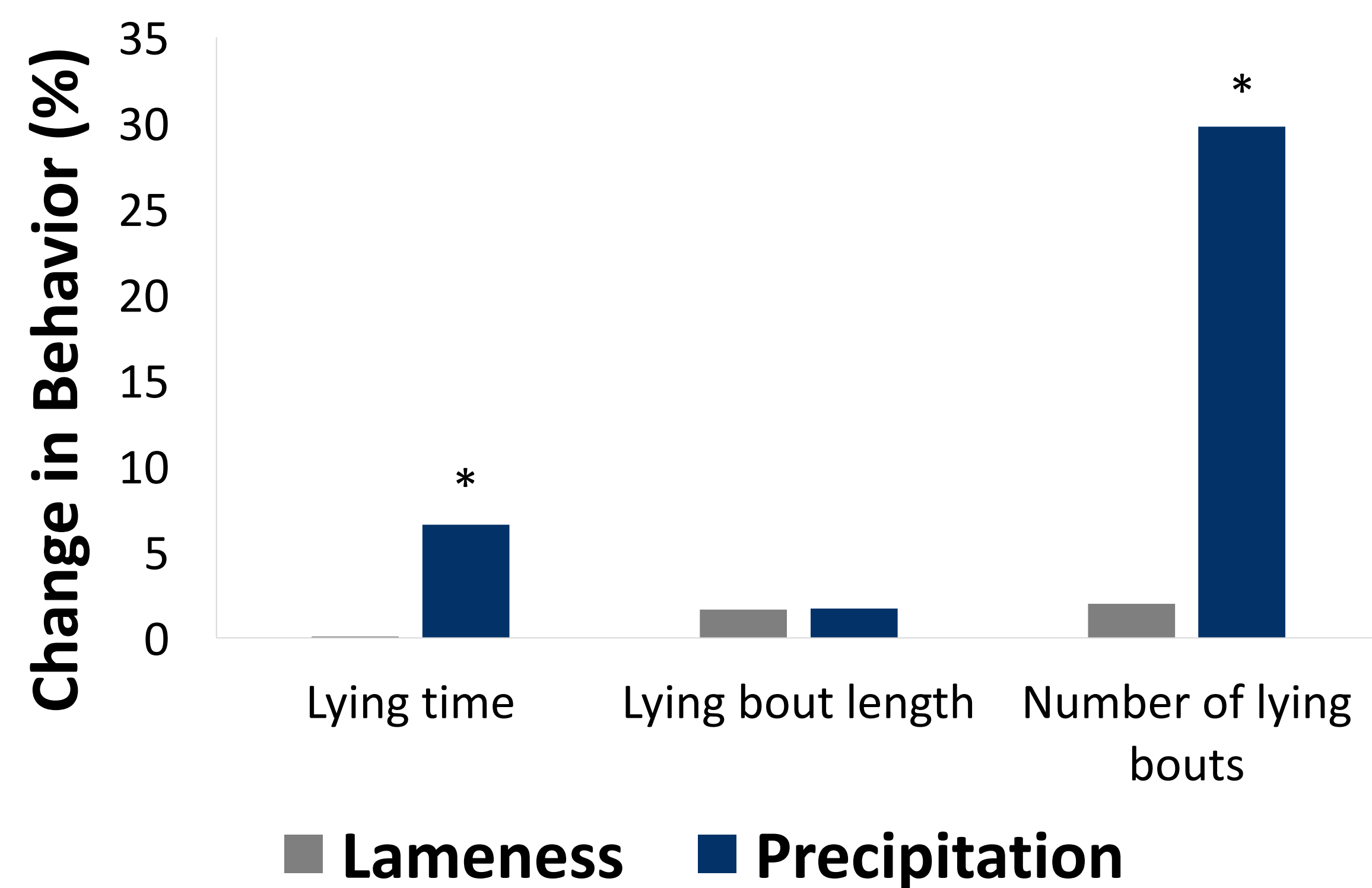


Figure 1 - Precipitation decreases lying time and number of lying bouts of dairy cows:

On rainy days, cows had 1.8 fewer lying bouts ($P < 0.001$) and spent 90 min less lying down ($P < 0.001$). Lameness alone did not significantly affect lying time ($P = 0.97$), lying bout length ($P = 0.083$), or the number of lying bouts ($P = 0.59$).

Materials and Methods



A total of 252 dairy cows from 6 pasture-based farms in southern Brazil were gait scored weekly to assess lameness for 4 consecutive weeks. During this time, lying behavior was recorded continuously using leg-mounted accelerometers.

During the experiment 52 cows developed or recovered from lameness.

Lameness decreases flexibility in lying behavior

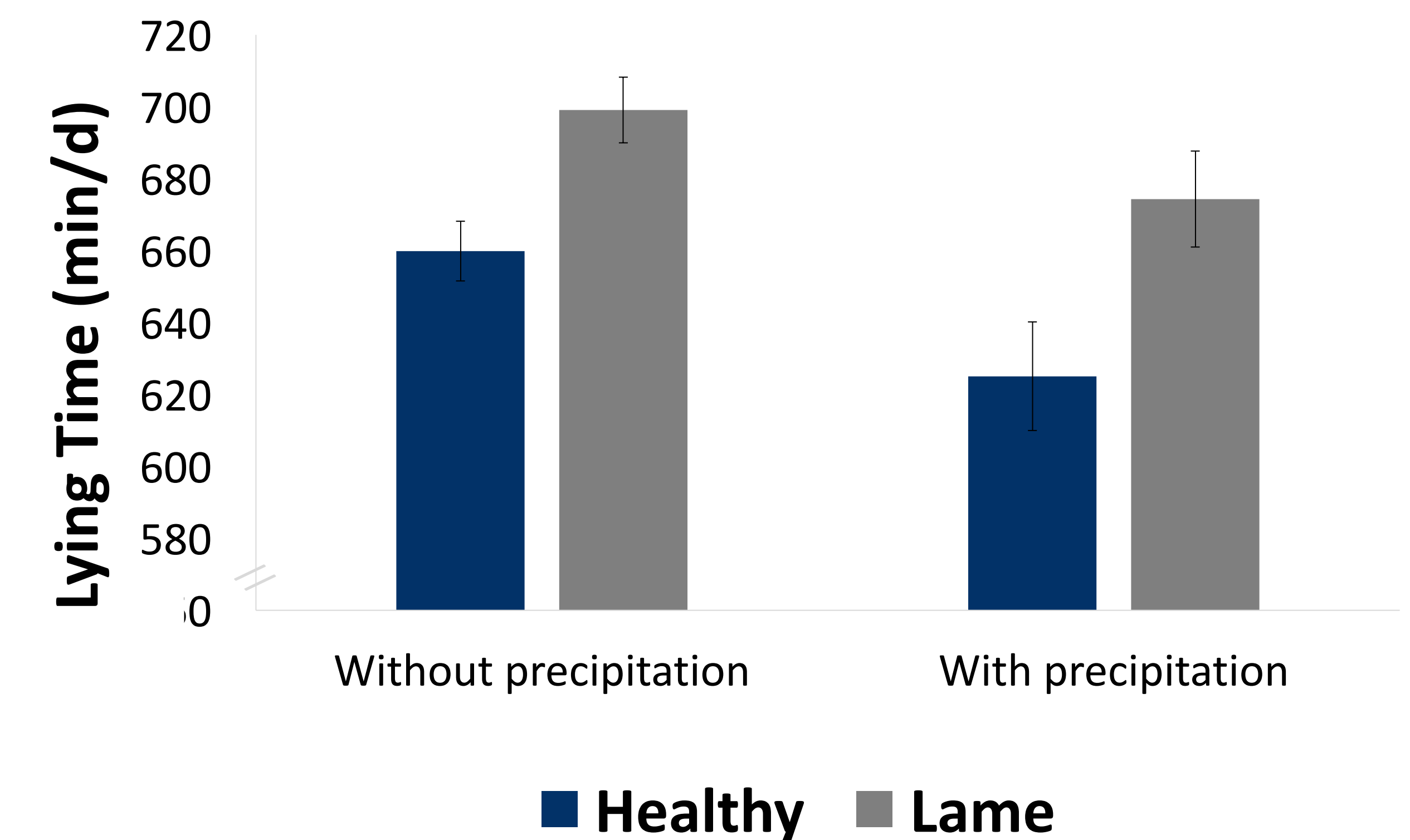


Figure 2 - Lameness and precipitation interact to affect lying time of dairy cows:

Cows prefer to not lie down on wet surfaces (i.e. when its raining), but lame cows must lie down. During periods of rainfall, cows that were lame spent an extra 33 min/d ($P = 0.048$) lying compared to when they were not lame.

Take Home Messages

- For cows at pasture, precipitation has a large effect on lying behavior
- On rainy days, cows that were lame showed a smaller decrease in their lying time than when healthy
- This work provides evidence that lameness reduces the ability of cows to alter their lying behavior