Sewerage overflows put production and fertility of dairy cows at risk.
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The objective of this study was to estimate the risk of impaired production and fertility in dairy cows that are drenched with surface water known to be in direct contact with a sewerage overflow. On the one hand, the largest part (85%) of the 15,000 sewerage overflows in the Netherlands discharge into small waters in land with mainly agricultural allocation. On the other hand, more than 50% of the dairy farmers use surface water as the main source of water to drench their cows during the grazing season. Although sewerage overflows have been suspected to be the cause of cow diseases in some individual cases in the past, only recently the risk of sewerage overflows for dairy production has attained broader attention. Therefore, we compared production and fertility data of cows from 60 farms using surface water, known to be in direct contact with a sewerage overflow, with that of 397 farms using surface water, known not to be in contact with an overflow. The results show strong tendencies of impaired production and fertility. Cows that were drenched with water that was in direct contact with a sewerage overflow tended to produce less milk (−0.9 l/d; P < 0.09). Also, age at first calving was higher (804 vs. 784 d; P < 0.01), the interval between calving and successful insemination was longer (128 vs. 124 d; P < 0.14), and the percentage of cows having abortions tended to be higher (8.3 vs. 7.1%; P < 0.12). We conclude this result strengthens earlier suggestions that sewerage overflows put production and fertility of dairy cows at risk.