

Mental health of dairy farmers using robotic milking systems

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Our objective was to survey dairy farmers using robotic milking systems to better understand their mental health. Of 76 farms in Ontario visited to survey management, cow health, and milk production, 34 farmers completed an online survey that included validated psychometric scales used to assess stress, anxiety, and depression. Associations between many variables were explored; results below indicate how those variables were associated, but they do not imply cause or effect. Because average milk yield per cow was negatively correlated with SCC and the proportion of lame and under-conditioned cows, only milk yield was kept for the multivariable models. Farmer stress was greater for females vs. males, and greater for those feeding manually vs. using an automated feeder (i.e. conveyer or automated delivery system); lesser stress was associated with greater herd average milk yield per cow and milk protein %. Depression was greatest for those working alone on the farm, those feeding manually, and for those with lesser average milk protein %. Anxiety was greater for females vs. males, those feeding manually, those working alone on the farm, and those with lesser average milk yield per cow and milk protein %. Greater resilience was surprisingly associated with lesser average milk yield per robot, greater herd average SCC, and for those using automated feeders vs. feeding manually. Comparing our results to a recent survey of all commodity groups across Canada, using similar methods, we demonstrated that dairy farmers using robotic milking systems may be experiencing less stress, anxiety, and depression than other farmers. Take Home Messages: The results highlight the potential benefits of automated milking and feeding systems for farmer mental health. We also identified a greater risk of poor mental health for farmers working alone, and we encourage everyone to reach out to their support networks and ask for help. Farmer mental health was also identified to be associated with milk yield, quality, and composition.