

ABSTRACT

Background: Endometritis is a prevalent uterine disease in postpartum cows. The disease reduces fertility performance and milk yield, and subsequently, productivity and profitability of dairy farms. The reduction in performance is associated with considerable economic losses on dairy farms. Smallholder farmers are likely to incur considerable economic losses from the disease where they lack knowledge of effective prevention and control measures for the disease. This study used farmer's perspectives to determine the effectiveness of different management interventions (MIs) for endometritis prevention and control on smallholder farms in Rwanda practicing dairy zero-grazing. The best-worst scaling (BWS) choice method was applied that relied on past 1 year recall data obtained from 154 farmers. These farmers were identified through snowball sampling in a cross-sectional study.

Results: Of the 20 MIs evaluated, 12 scored highly for effectiveness. The top four most effective are: avoiding sharing equipment with neighbouring farms (45.5%), consulting animal health service provider about disease treatment (31.8%), keeping cows in a clean and dry shed (26.7%), and selecting sires based on calving ease (26.6%). The MIs considered least effective were: maintaining clean transition cow housing (35.1%), removal of fetal membrane immediately after passing (33.1%), disinfecting the equipment used in calving assistance before and after use (32.5%), and selecting sires with low percent stillbirths (29.2%).

Conclusion: This study has demonstrated the application of BWS object case method in understanding the MIs that farmers consider are most effective in the prevention and control of endometritis disease in the dairy herds. The MIs are on-farm biosecurity and hygiene, seeking veterinary services for disease treatment and selecting sires for ease of calving. These MIs should be considered for prioritization in extension services and research to continuously improve and enhance their practical application on smallholder dairy farms.

Keywords: Best-worst scaling choice; Extension messages; Herd health; Management interventions, smallholder farmers.