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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

MOBILE DEVICE FOR ANTIBIOTIC DETECTION REDUCES THE MILK DISPOSAL PERIOD OF COWS TREATED FOR MASTITIS

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Milk discard from cows under antibiotic treatment represents significant losses in milk production systems. The use of mobile devices for antibiotics detection in milk may allow to identify the cows that have milk antibiotic-free before the disposal period end. The objective of this study was to evaluate how the use of the mobile device Delvotest® can impact the reduction of milk discard in different scenarios of productivity and incidence of clinical mastitis. Two antibiotic bases (Ceftiofur and Neomycin Sulfate) were evaluated with different disposal periods of 3 and 6 days, respectively. The reduction in the disposal period was 1.60± 1.14 (n = 7) and 2.33± 0.82 days (n = 6), respectively. These values were used to simulate the amount of milk discarded on farms with 100 lactating cows with different mean herd productivities (10, 20, 30 and 40 kg / day) and month clinical mastitis incidence (1, 3, 6 and 9%). The use of Delvotest® avoided the discarding of 192, 576, 1152 and 1,728 kg of milk/year on farms with a mean herd production of 10 kg/day treated with Ceftioufur and for cows treated with neomycin sulphate the milk discard was reduced of 280, 839, 1,678 and 2,516 kg of milk per year, considering the incidence of clinical mastite of 1, 3, 6 and 9 %, respectively. For herds with higher productivity (40 kg/day), the potential of milk recover was 768, 2.304, 4.608 and 6.912 kg/year, considering the use of Ceftiofur and 1,118, 3,355, 6,710 and 10,066 kg/year with the use of neomycin sulphate. The use of the mobile device resulted in an annual percentage savings in dollars per liter of milk ranging from 0.38% to 21.60% for Ceftiofour and from 1.86% to 20.89% for Neomycin Sulfate. We conclude that the use of Delvotest® becomes an economically feasible method to minimize the losses from the milk disposal period by antibiotic use, independently of the productivity and prevalence of clinical mastitis in the herds.

Keywords: milk disposal period, ceftiofur, delvotest, mammary gland, neomycin sulfate

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