



The Time Budget of Dairy Cows as Affected by Season and Housing System[#]

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Abstract: The design of appropriate housing for cow comfort is important to increase animal production. The objectives of this study were to observe daily activity of dairy cattle (lying, standing, feeding, walking, watering, milking and other behaviour) and investigate the association between the time budget of dairy cows and housing systems; the time budget of dairy cows and climatic conditions. This study was carried out to determine time budget and the effect of different housing systems and seasons on the time budget of dairy cattle between 2006 and 2008 in Konya-Turkey. Behaviours of animals were investigated in open loose and freestall dairy houses. Behaviours of cows (n=48) were observed during 1920 h (80 d) using continuous sampling method, by using video cameras. Annual average time budget of dairy cows was determined as 10.17±0.40 h/day lying, 2.67±0.29 h/day standing, 7.74±0.36 h/day feeding, 0.39±0.03 h/day drinking, 1.51±0.15 h/day walking, 0.43±0.11 h/day other behaviours, 1.09±0.04 h/day milking in open loose barn and as 10.91±0.32 h/day lying, 3.30±0.31 h/day standing, 6.09±0.27 h/day feeding, 0.43±0.03 h/day drinking, 2.38±0.13 h/day walking, 0.32±0.04 h/day other behaviours, 0.57±0.01 h/day milking in freestall barn. The effect of seasons on lying, standing, feeding and walking behaviour was important in both dairy housing systems (P<0.05, both). Standing behaviour increased from 1.93±0.20 h/day to 5.37±0.45 h/day while lying behaviour decreased from 12.12±0.56 h/day to 7.62±0.62 h/day in winter because of negative climatic and barn condition. As a result, under wet and muddy housing floor, duration of lying behaviour decreased and standing behaviour duration increased. This situation causes decrease in the milk production of dairy cattle.

Key words: Cattle behaviour, livestock buildings, lying behaviour, standing behaviour.

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