

Reproductive management and performance of replacement heifers on large Hungarian commercial dairy farms

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The aim of our study was to survey the major reproductive parameters and the reproductive management of replacement heifers on large commercial dairy farms in Hungary.

Heifer reproductive management practices were surveyed between 6 May and 22 November 2015 in 34 dairy herds in Hungary via personal interviews with the farm manager or the veterinarian. Individual heifer data were gathered from the Livestock Performance Testing Ltd. (Gödöllő, Hungary), and altogether the records of 50,396 heifers first inseminated between 1 January 2011 and 31 December 2014 were analysed.

The results show that body weight was regularly measured during heifer raising only in 47.06% of the herds, however, body weight of the heifers was reported most frequently as a decision criterion of breeding eligibility (85.29%). Heat detection aids were applied on 14.71%, whereas sex-sorted semen was used on 94.12% of the farms. Early pregnancy diagnosis was performed in heifers in 38.24% of the herds. Mean (\pm SD) age at first service (AFS), age at first calving (AFC) and mean first-service conception risk (CR1) were 15.53 ± 1.59 months, 25.61 ± 2.22 months and 47.10%, respectively. Heifers were culled 246.25 ± 107.10 days after first insemination, at 23.94 ± 3.95 months of age, on average. Considering the relationships between major parameters we found that (1) heifers culled prior to first calving had higher AFS compared to those having survived at least until calving ($p < 0.0001$), and (2) heifers having failed to conceive to first insemination had 2 months higher AFC compared to those having conceived to the first AI (24.75 vs. 26.75 months, $p < 0.0001$).

In order to increase profitability, heifers with much higher AFC compared to the mean should be culled, as well as the uptake of cost-effective management measures should be considered.

Hultgren, J. et al. (2008): *Prev. Vet. Med.* 87. 244–260.

Mourits, M. C. M. et al. (2000): *Prev. Vet. Med.* 46. 197–208.