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Ketonuria in Holstein Friesian Milking Cows in Chiang Mai, Thailand

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Abstract

Ketonuria tests on Holstein Friesian milking cows were performed at a farm in Chiangmai, Thailand.

Test 1: 20 cows were tested for ketonuria at 2, 4, 6, 8, 10, 12 and 14 weeks postpartum. 45 % of the cows showed negative results and 78 % of these were low milkers (cumulative 14-week milk production, < 2000 kg). Cows testing positive for ketonuria were more at week 2 and 4 than at week 6, 8, 10 and 12 postpartum (30, 30, 5, 10, 10 and 15 % respectively). There was no ketonuria detected at 14 weeks postpartum. Fifty percent of ketonuria cows at weeks 2 and 4 postpartum were high milkers (cumulative 14-week milk production, 3001–4000 kg). Variations in the number of ketonuria cows from week 2 to 14 postpartum among low, moderate (cumulative 14-week milk production, 2001–3000 kg) and high milkers were not significant ($\chi^2 = 7.57$, $p > 0.05$). There was no correlation between ketonuria cows and milk production (contingency coefficient: $C = 0.78$, $p > 0.05$).

Test 2: 24 cows were tested monthly for ketonuria at 3 periods postpartum: 0–4, 5–8 and 9–12 weeks. 62.5 % of the cows were negative at all testing periods. There were more cows with ketonuria at 0–4 weeks than at 5–8 and 9–12 weeks postpartum (21, 17 and 17 % respectively). The correlation between ketonuria occurrence and milk production at 0–4 and 9–12 weeks sampling period were significant ($p < 0.05$, $r = 0.41$ and 0.44 respectively) but not at 5–8 weeks postpartum ($r = 0.39$, $p > 0.05$).