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Body condition score loss, hepatic lipidosis and selected blood metabolites in Holstein cows during transition period

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Abstarc :

The aim of this study was to investigate the relationship between the loss in body condition score (BCS) and loss (?BCS), energy balance (EB), hepatic lipidosis and blood serum concentration of non esterified fatty acids (NEFA), glucose, triacylglycerol (TAG) and total bilirubin (tBIL) in healthy dairy cows during transition period. Twenty healthy Holstein cows were included and categorized into groups based on BCS loss (?BCS) between dry period and early lactation (?BCS <0.75 and ?0.75). Significant differences between groups ($p<0.05$) were observed for blood serum NEFA, glucose and tBIL. Cows with high ?BCS (?0.75) between dry period and early lactation showed increased blood serum NEFA, TAG and tBIL concentrations and lower blood serum glucose concentration during transition period, compared to the low ?BCS cows (<0.75). Metabolic profiles of cows during transition period indicate high level of lipid mobilization from adipose tissue, possible decreased liver cells TAG export and gluconeogenic ability and impaired bilirubin metabolism if ?BCS is increased by more than 0.75 points. ?BCS was in relation with energy balance (EB) in transition period

Key Word :
ody condition score loss / cows / metabolic profile / transition period

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