**Metabolic adaptation and reticuloruminal pH responses in periparturient dairy cows experiencing different lipolysis early postpartum**

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**Supplementary Table S1** Analyzed chemical composition of forages and concentrates used in the close-up and fresh-lactation diets

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| --- | --- | --- | --- |
| Variables1 | Forages2 |  | Concentrates3 |
| Hay | Corn silage | Grass silage |  | Barley grain | PMV4 |
| Chemical composition, % of DM unless stated |
| DM, % of fresh matter | 88.6 | 30.8 | 32.0 |  | 87.1 | 90.8 |
| OM | 88.6 | 95.1 | 86.9 |  | 96.7 | 84.1 |
| CP | 13.5 | 6.9 | 13.9 |  | 13.2 | 39.5 |
| Ether extract  | 2.4 | 3.3 | 2.7 |  | 2.6 | 2.0 |
| NDF | 45.0 | 44.9 | 47.1 |  | 19.6 | 16.7 |
| ADF | 28.6 | 26.7 | 33.1 |  | 5.9 | 13.4 |
| NFC4 | 27.7 | 40.1 | 22.1 |  | 61.4 | 30.8 |
| NEL, MJ/kg DM | 5.40 | 6.26 | 5.65 |  | 7.52 | 6.77 |

1 DM = dry matter; OM = organic matter; CP = crude protein; NDF = neutral detergent fiber; ADF = acid detergent fiber; NEL= net energy of lactation.

2 The forage in the close-up diet consisted of (DM basis) 31% hay, 37% corn silage, and 32% grass silage; the forage of the fresh-lactation cow diet consisted of (DM basis): 32% hay, 36% corn silage, and 32% grass silage.

3 The concentrate proportion in the close-up diet consisted of (DM basis) 91% barley grain and 9% protein-mineral-vitamin premix (PMV); the concentrate proportion in the fresh-lactation cow diet consisted of (DM basis) 85% barley grain and 15% PMV.

4 PMV contained 45.48% soybean meal, 45.48% rapeseed meal, 5.04% limestone, 2.00% salt and 2.00% mineral-vitamin supplement (contained per kg: Ca 6%, P 12%, Mg 10%, Na 8%, Mn 1,500 mg, Zn 5,700 mg, Cu 800 mg, vitamin A 750,000 IU, vitamin D3 75,000 IU, vitamin E 3,000 mg).

4 NFC (nonfiber carbohydrates) = 100 - (% NDF + % CP + % ether extract + % ash).