**Supplementary Table S1**. Allotment of dairy cows by breed and system 1.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Ext2 |  | Semi2 |  | *P*–value |
| Hols3 | Mont3 |  | Hols4 | Mont4 |  | Breed | System |
| n total | 12 | 12 |  | 12 | 10 | - | - | - |
| Primiparous | 2 | 3 |  | 3 | 2 |  | - | - |
| Multiparous | 10 | 9 |  | 9 | 8 |  | ~~-~~ | ~~-~~ |
| Lactation number 4 | 2.9(± 1.7) | 2.7(± 1.8) |  | 2.7 (± 1.4) | 3.1 (± 1.9) |  | 0.67 | 0.91 |
| Age at calving (years) | 5.2 (± 2.0) | 5.5(± 1.9) |  | 4.6(± 2.0) | 5.3(± 2.1) |  | 0.41 | 0.50 |
| Primiparous cows | 3.4(± 0.2) | 3.3(± 0.2) |  | 2.3(± 0.1) | 2.5(± 0.1) |  | 0.50 | < 0.001 |
| Multiparous cows | 5.5(± 2.0) | 6.2(± 1.6) |  | 5.4(± 1.6) | 6.0(± 1.7) |  | 0.28 | 0.77 |
| BCS at week -4 | 2.52(± 0.35) | 2.61(± 0.37) |  | 2.62(± 0.37) | 2.37(± 0.46 ) |  | 0.54 | 0.60 |
| Primiparous cows | 2.88(± 0.00) | 2.71(± 0.71) |  | 2.29(± 0.19) | 2.01(± 0.18) |  | 0.40 | 0.04 |
| Multiparous cows | 2.45(± 0.34) | 2.57(± 0.23) |  | 2.72(± 0.36) | 2.46(± 0.46) |  | 0.62 | 0.44 |
| BW at week -4 | 731(± 57) | 711(± 50) |  | 723(± 94) | 722(± 55) |  | 0.58 | 0.91 |
| Primiparous cows | 726(± 50) | 704(± 52) |  | 620(± 28) | 644(± 14) |  | 0.96 | 0.01 |
| Multiparous cows | 732(± 60) | 713(± 52) |  | 758(± 82) | 741(± 41 ) |  | 0.38 | 0.19 |
| Calving date | 4-May-11(± 30) | 11-May-11(± 21) |  | 10-May-11 (± 33) | 27-Apr-11(± 14) |  | 0.74 | 0.65 |
| DIM at pasture turnout | -12(±31) | -19(± 22) |  | -25(±33) | -12(±14) |  | 0.73 | 0.66 |
| 1 Values are means and standard deviations.2 Extensive (Ext) and semi-extensive (Semi) production system.3 Holstein-Friesian (Hols) and Montbéliarde (Mont).4 During current lactation. |