

Abstract by Elodie Ganche - Grazing severity in early lactation: effects on immediate and total lactation dairy cow performance

Well-managed grazed grass is the cheapest form of high-quality feed available on Irish dairy farms. Significant profit can be made by increasing the proportion of grazed grass in the post-parturient dairy cow's diet. Due to a deficit of grass supply in early spring, low post-grazing sward heights (PGSH) may be required to maximise the utilisation of grass. To investigate the immediate and subsequent effects of PGSH in early spring on animal performance, 90 Holstein-Friesian spring calving dairy cows were randomly assigned across 3 PGSH treatments: 2.7, 3.5 and 4.2 cm from February 14 to April 24, 2011. Cows were then managed similarly until the end of lactation. Increasing PGSH in early spring linearly increased ($P < 0.001$) milk (22.5, 23.6 and 25.1 kg/cow/day, respectively) and milk solids (1.75, 1.91 and 2.00 kg/cow/day, respectively) yields. Grazing to 2.7 cm reduced ($P < 0.001$) cumulative yields of milk (-160 kg/cow) and milk solids (-17 kg milk/cow) as well as end BCS (-0.13; $P < 0.01$) when compared to the 3.5 and 4.2 cm treatments which performed similarly (1538 kg/cow, 124 kg/cow, 46.4 g/kg, 34.1 g/kg and 2.84, respectively). At the end of the lactation the cows from the spring 2.7 cm treatment produced 256 kg milk and 25 kg milk solids less when compared to the cumulative production of the 3.5 cm and 4.2 cm treatments (4980 kg milk and 394 kg milk solids). Grazing to 2.7 cm in early spring resulted in large immediate and cumulative milk production losses; furthermore no benefit in terms of milk production was observed when PGSH was increased from 3.5 to 4.2 cm in early spring indicating that a PGSH of 3.5 cm strikes a balance between sward utilisation and animal production performance during the first 10-weeks of lactation.