How much milk should dairy calves be fed?

Common dairy industry practice is to feed unweaned calves around 10% of calf body weight in milk daily. However, this amount of milk is about half of what calves would typically drink (around 10 litres of milk over 8-12 feeds per day) in the first month of life if a calf were able to suckle from its dam.

Reducing milk intake is intended to encourage the calf to consume solid feed which leads to more rapid rumen development and allows the calf to be weaned off milk more quickly. However, it appears that calves are not able to compensate low milk intake with a higher solid feed intake at such an early age.

Feeding calves more than the traditional quantity – e.g. feeding up to 20% of calf body weight (in milk or equivalent milk solids) instead of 10% daily – has been shown to result in greater feed consumption, body weight gain and structural growth. Further benefits, including improved mammary development and increased milk production, become more apparent later in life. Higher milk allowances also result in less unrewarded visits to the milk feeder. A high number of such unrewarded visits is indicative of hunger. Calves that are hungry will vocalise more and play less than well-fed calves. Frequent visits to feeders will cause frustration if the calf is often not allocated sufficient milk. Increased mortalities may result if calves are fed a limited ration in winter and therefore have limited energy reserves to keep warm. There is no strong evidence that feeding calves large amounts of milk will increase the incidence of clinical diarrhoea, although their faeces may be more liquid. Offering calves an amount of milk that they would choose to consume ad libitum will ensure calves are satiated. Potential for poor welfare exists where calves are fed limited milk rations, particularly if the diet is not supplemented with concentrate and/or roughage.

Bibliography


