DN NEWSLETTER issue 21

Calves need the best start to life for the greatest performance throughout life. However, there has to be a balance between milk replacer powder and starter feed to drive skeletal growth, especially if heifers are served at 15 months old.

Producers should look beyond weaning to see the true impact of starter feeds on performance, and to find the feeding regime that best meets their goals. Research shows that pre-weaning nutrition accounted for less than 3% of the variation in firstlactation milk yield performance and it's a myth that more milk replacer leads to more milk production. It is not just milk replacer that contributes to achieving target growth rates. Starter feed and management, both pre and post weaning, have key roles to play, alongside high standards of calf management and health protocols.

Dugdale Nutrition work closely with Cargill to produce our ***DN Progressive Calf Milk***. The latest data from Cargill's Ohio-based Nurture Research Centre shows that calves fed on higher rates of calf milk replacer (CMR) had marginally better growth rates by four months old, but poorer structural growth.

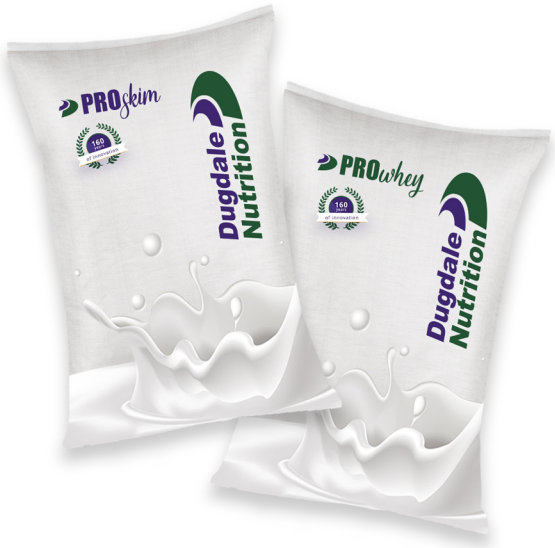


Table 1 shows that although the growth rates of calves fed on high levels of CMR are considerably better at weaning, this advantage diminishes post weaning. Calves fed on moderate or high – as opposed to very high rates – of milk replacer had better height and hip growth post weaning.

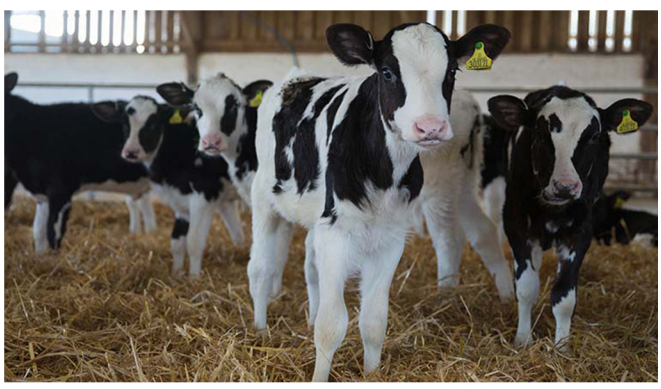
	moderate (0.7kg/ day of 28:17 CMR)*	high (0.9kg/day of 26:17 or 28:20 CMR)*	highest (1.1kg/day of 26:17 CMR)*
0-2 months			
average daily gain (kg/day)	0.59	0.63	0.72
hip height gain (cm)	10.4	10.9	10.9
hip width gain (cm)	4.3	4.6	4.1
2-4 months			
average daily gain (kg/day)	1.05	1.01	1.00
hip height gain (cm)	11.2	10.7	10.4
hip width gain (cm)	5.3	5.1	4.8
overall 0-4 months			
average daily gain (kg/day)	0.82	0.82	0.86
hip height gain (cm)	21.6	21.6	21.6
hip width gain (cm)	9.7	9.4	8.4

* 28:17 means 28% protein and 17% oil

Table 1: Heifer calf performance on varying CMR feeding rates

This advantage is reflected in the overall results from birth to four months old. Skeletal growth is particularly important in heifer calves that are due to be served at 15 months old, to achieve 24-month-old calving.

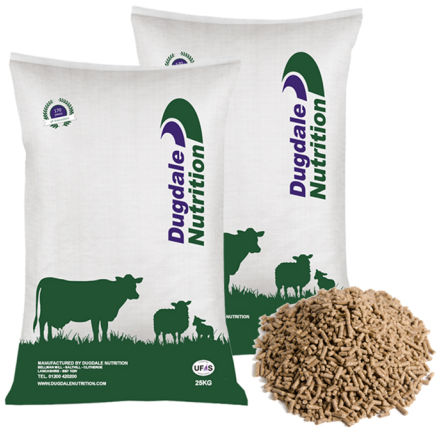
Further research has shown that organic matter digestion and acid detergent fibre (ADF) digestion are reduced around weaning in calves that are fed higher volumes of milk replacer.



The trial compared calves fed 900g of milk replacer a day with those fed more moderate amounts of 660g a day and it found that starter intakes in calves fed more than 660g were depressed. Milk replacer enters the abomasum, whereas starter feed is digested in the rumen. Calves on higher rates of milk replacer, and less starter feed, will encounter reduced rumen activity and, therefore, rumen development compared to calves with higher starter feed intakes. Starch, which comes from starter feed, encourages rumen development.

Cargill trials have shown that starter diets that include a higher starch level can achieve better rumen development and body weights compared with low starch content starter feeds. Further work showed that feeding a starter and grower feed from birth to 16 weeks, with 38% starch on a dry matter basis compared with 20% starch on a dry matter basis, resulted in a 6% improvement in dairy weight gain up to eight weeks old and then a 10% improvement from eight weeks to 16 weeks. Overall, these calves fed on a higher starch diet were 7kg heavier at 16 weeks old with a 10mm improvement in hip width.

Finding the correct balance of milk replacer and starter feed intakes is important. This will be more cost effective and efficient than feeding larger volumes of milk replacer. It will also better prepare the calf for weaning and prevent any checks in performance.



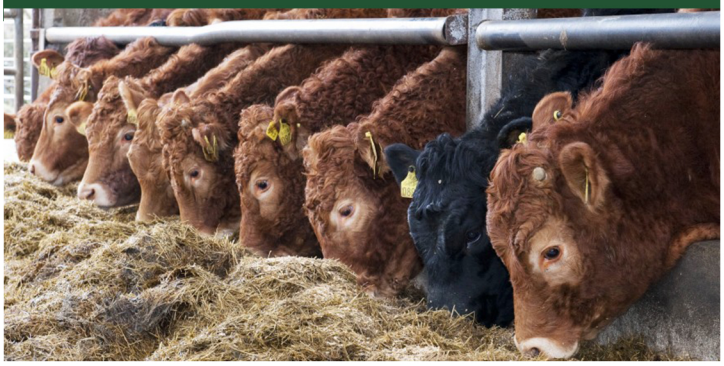
Upcoming Online Events from DN

Our next Zoom meeting is on Thursday 7th January. In conjunction with Phileo, we will focus on beef finishing and feed efficiency.

Registration is essential in order to receive the meeting links and passcodes directly to your inbox.

You can register for our online events and view the full schedule on the DN website at:

www.dugdalenutrition.com/upcoming-events



DN Progressive Milk Powder

DN have two Progressive Milk Powders – Pro Skim and Pro Whey. These are high quality powders which are formulated with the fatty acid technology of NeoTec4 and Amneo technology.

The Benefits of NeoTec4:
1. Improve Feed Efficiency & Utilisation
2. Improve ADG (Average Daily Gain)
3. Improve Frame & Muscle Growth
4. Reduce Scours & Optimise Immune System

Amneo balances the animo acids to meet the calf's requirements.

Dugdale Nutrition

170 years of innovation

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