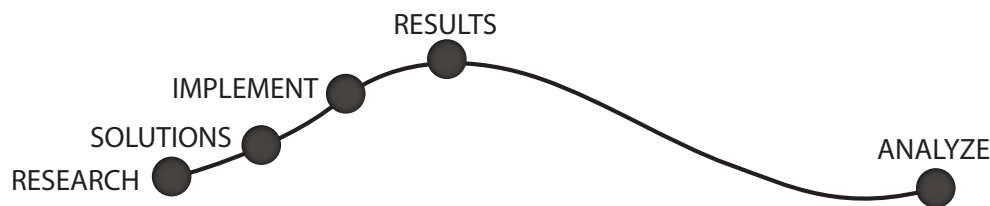


# YOUR RESEARCH CREW



The New-Life Mills Research Crew is leading the way to optimal dairy performance. Our dedicated team of experts in animal behavior, health, barn management and nutrition, proactively respond to the changing species, industry and consumer demands - embracing new technology and ideas, driving research and developing proven animal nutrition.



## Average Body Weight Gain for Calves on NextGen Compared to other Calf Starters



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## Background

Grain plays an instrumental role in rumen development in young calves. Starter is paramount to establishing the rumen microbial population and ensuring that rumen papillae are strong and healthy. Bach et al (2007) showed that textured and pelleted starters perform very similarly in terms of consumption and average daily gains.

New-Life Mills recently developed a new pelleted calf starter-the **NextGen 22% Calf Starter** contains additives such as MOS and selenium yeast for improved health and a flavour pack which has been shown to improve early feed intake in calves. In the winter of 2014 a trial was undertaken using calves in group housing, and believed that a second trial using individual housing would be beneficial.

## Objective

To feed NextGen 22% Calf Starter to dairy calves to chart growth, average daily gain, feed consumption and feed conversion.

## Method

Two dairy farms in Southwestern Ontario, using individual housing for their calves, were selected to participate in this study. An initial farm visit and questionnaire was completed. The producers were supplied with NextGen 22% Calf Starter. The producers were asked to feed calf starter once daily, and weigh back remaining amounts 24 hours later, increasing the amount of starter given when necessary. Once a week calves were weighed using a dairy weigh tape. Calves born after the start of the study were added into the study to gain a broad range of ages. Selected calves were also weighed after they had been weaned and moved to group housing (individual intakes were not able to be measured at this time, but a group average was taken). The trial period was 9 weeks on one farm and 10 weeks on the other farm.

## Findings

Table 1 describes the setup of each farm, and the findings at each farm. The average daily gain overall was 1.145kg/calf/day, and the average total bodyweight gain was 39.95 kg. The study completed in the winter had a total bodyweight gain of 61.5 kg and an average daily gain of 1.23kg/calf/day. When comparing the total bodyweight gain to the current study, it is important to note that in the previous study all animals were in the trial for 8 weeks, whereas in the current study this average for all animals includes those in the study for as little as 3 weeks. All of these average daily gains exceed the 850 g/day recommended in terms of profitability in the first lactation (Bach et al, 2007).

Table 1

Farm	Farm 1	Farm 2
Milk replacer	8L milk replacer 26-26-17	6L raw milk
Starter	22% with Rumensin	22% unmedicated
Housing	Hutches	See Figure 1 (end not shown is open)
Hay available?	No	Yes
Bedding	Shavings and straw	Shavings
Average Daily Gain	1.09kg	1.2kg
Average weight gain in 8 weeks	40.7	39.2

## Farm #2

On farm 2 we were able to compare the calves gain for two different starters: the NextGen 22%, and a competitor's textured calf starter. The average daily gain amongst all calves on the NextGen starter was 1.2 kg/day, whereas the average daily gain for the competition was 1.14kg/day.

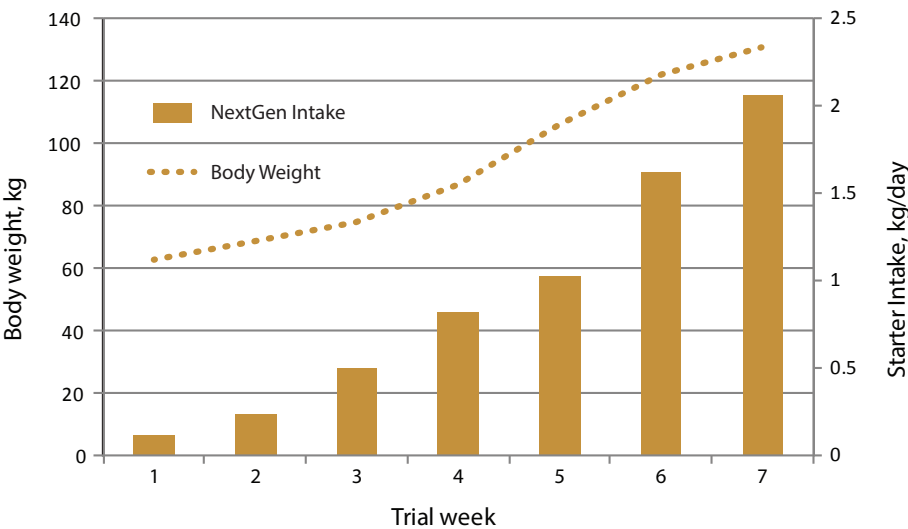


## Farm #1

At farm #1 accurate intakes for each calf were measured daily. The graph below portrays average body weight each week and average starter intake each week for all calves in the trial throughout 7 weeks (Figure 2). The black line represents 1kg of starter daily, which is the recommended intake prior to weaning. This farm reaches this level at 5 weeks, which is early compared to the industry average of weaning at 8 weeks.

A cost analysis, using an average of current prices at Wyoming and Inkerman mills, showed that, using the starter intakes depicted in Figure 2 (below), the average cost of starter was \$0.548/calf/kg of gain, which for a 40kg total bodyweight gain is \$21.92.

Figure 2 : Farm #1 Body Weights and Starter Intake for Calves from 1-7 weeks



## Conclusion

New-Life Mills NextGen 22% Calf Starter has performed very well in trials using both group and individual housing. Average daily gains are above the recommended 850g/day, and calves are consuming 1kg/day at an early age of 5 weeks, which allows for an easier transition off of milk. Future trials investigating weaning calves on NextGen calf starter at this young age may be beneficial.