

Feed intake and growth performance of dairy calves fed either low or high volumes of whole milk



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Introduction

Greater milk supply can improve:

- Pre-weaning growth and welfare of calves (*Khan et al., 2011 JDS*)
- Life-time milk yield in heifers (*Soberon et al., 2012 JDS*)



Objectives

To determine whether KiwiCross calves fed low milk volume could maintain similar growth to those fed higher milk volume by increasing their solid feed intake



Treatments

Low milk volume (LMV)

4 L milk / calf / day

High milk volume (HMV)

8 L milk / calf / day

Methods

Calves

KiwiCross

n= 42 / treatment

(7±2 d old)

Pens

7 pens per treatment

Whole milk feeding

2x daily in equal
volumes

Weaning

10% daily reduction in
milk volume
d 64 – 73 of trial

Solid feed

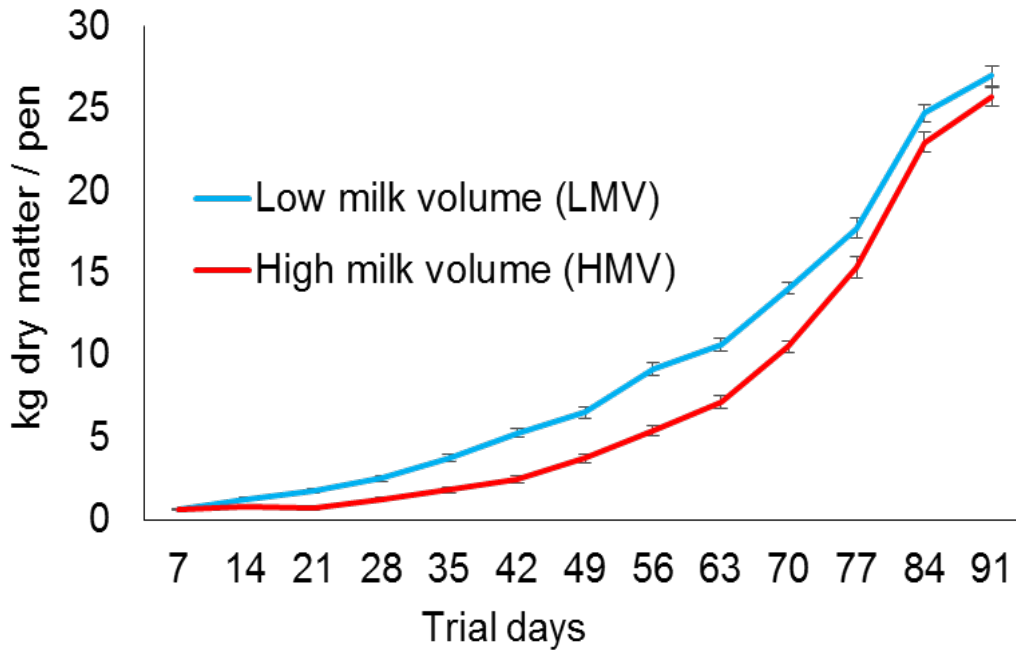
Textured starter and
chopped hay *ad libitum*
from d 1

Measurements

Daily feed intake
Weekly body weight
d 1 - 91

Results and conclusion

Weekly average intake of solid feed



Calves body weight, kg

	Low milk volume (LMV)	High milk volume (HMV)
Initial at day 1 of trial	40.3 ± 0.9	40.0 ± 0.8
Weaning at day 73 of trial	85.4 ± 1.6 ^b	91.6 ± 1.6 ^a
Post- weaning at 91 day of trial	110.5 ± 2.0	114.4 ± 1.9

a,b Means within row are different P<0.05

Greater solid feed intake by LMV calves was unable to provide energy and protein required to support BW gain equal to HMV calves during milk feeding period