



Background.

Heifer development is one of the most significant costs in a dairy system. When executed properly it can be very financially rewarding.

Dairy farms often focus on pre weaning development of heifers and overlook the post weaning management of replacement heifers.

Good heifer management increases your profits because:

- First lactation milk production and lifetime milk production are increased
- There is less culling for failure to conceive or poor production
- Reproductive performance is better
- Fewer replacement heifers need to be reared
- Genetic potential is maximised.

The most important measure of heifer development is growth weight.

Age (months)	Jerseys Target live weight kg	Holstein-Friesian Target live weight kg
Birth	20–25	35–45
Weaning (2–3)	70–80	90–100
12	170–180	250–280
15 (mating)	230–280	330–370
24 (pre calving)	400–450	550–600

Weaned heifer weight

Mating age heifer weight

Mature cow weight.

Additional 100KG in live weight at calving increases daily milk production

	Milk (L)	Fat (kg)	Protein (kg)
1st	4.07	0.18	0.18
2nd	8.30	0.26	0.39
3rd lactation	8.44	0.33	0.28
Totals	20.81	0.77	0.85

Ave. Heifer is 400Kg at calving produces 4500L milk in a 300 day lactation

With an additional 100Kg what would you expect the production to reach

At 56 Cents/L additional income of \$

Bottom line economics

Heifers weighing 100 kg more at 2 years are likely to produce 2500 L more milk over their lifetimes. This would return an additional \$1400 at 56c/litre (average milk price). They would also return extra money as cull cows (say, 100 kg at 80c/ kg live weight = \$80) and produce heavier calves. The additional cost of grain for the extra growth and milk production would be, \$540 (3 tonnes at \$180/tonne). This leaves a \$290 profit per cow—and you also get faster genetic gain and have to keep fewer replacements.

Year	Live weight range in kg (mean)	Empty %	Culled (poor production) %
1988	258–439 (315)	15	13
1990	334–460 (387)	6	4
1991	372–560 (432)	0	0

Increasing the number of available heifers allows the farmer to sell an increased number additional heifers.



Replacement heifer management program for achieving target weights

Birth–2 weeks:	Provide colostrum, dip navel (7% iodine solution), remove surplus teats, identify calf, house properly. Introduce starter meal; dehorn.
6 weeks:	Weigh, check feed intake, wean if eating 0.5–0.75 kg a day of a 20% protein concentrate.
8 weeks:	Vaccinate for clostridial diseases and leptospirosis.
12 weeks:	Check weight and body condition and revaccinate.
6 months:	Check weight and body condition and assess.
9 months:	Check nutritional needs (good pasture and/or supplements).
12 months:	Check your drenching and vaccination program.
14–15 months:	Check weight for age; heifers that have reached their targets may be synchronised and mated (preferably with AI and a follow-up bull).
18–20 months:	Pregnancy test and check live weight targets.
20–24 months:	Check weight and condition score. Drench. Before calving introduce to milking shed and farm routine.
Calving:	Check target weights. Revaccinate for clostridia and leptospirosis.



“A Smart Farmer” promotes dairy education through our Mobile Dairy Classroom and heifer programs. For more information and current specials please contact Luke Micallef on 0415 346 266 or visit our webpage at www.asmartfarmer.com. We can also be found on facebook and www.cursions.com.au