

Dairy heifers

On-Farm Research

Key Points

1. Failure to achieve target live weights will affect cow lifetime performance and result in higher wastage rates.
2. Establish live weight targets for your heifers based on mature cow live weights in your herd.
3. Monitor, review and adjust feeding and animal health plans to achieve targets.
4. Targets are weights for ALL heifers to achieve, not a group average.
5. Electronic scales are more accurate than 'eye-o-meter' or weigh band for assessing live weight.



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Calf Rearing Fact Sheet 4.2

General

Failure to achieve target weights at mating and pre-calving will result in:

- Lower conception rate of heifers,
- Later calving heifers and consequently lower and later conception rate of first calvers (rising 3 year-olds),
- Lower milk production in first lactation,
- Failure to achieve adequate mature live weights, affecting lifetime production.
- Target live weights are set to ensure heifers reach adequate weights to be mated and calve at or before their herd planned start of calving.
- Puberty occurs when heifers reach 42-47% of mature live weight.
- Achieving target mating weights minimises the incidence of non-cycling heifers and ensures heifers are mated and consequently calve early. This allows for more days post calving before mating starts for the herd. Higher conception rates are achieved if first calvers are mated during their 2nd or subsequent heat.
- Achieving target pre-calving heifer weights will result in higher first lactation milk yields.

Replacement heifer live weights

- As outlined in Farm Fact Sheet 4.1 replacement heifer live weight targets are often referred to as a percentage of mature live weight.

Age	% mature weight (kg)
6 months	30
9 months	40
15 months (mating)	60
22 months	90

Recommended targets are outlined below:

- Achieving target calving weight starts with achieving target weights at weaning. To reach target pre-calving weights Friesian calves will need to grow at 0.75 kg/day, cross breed at 0.6 kg/day and Jerseys at 0.54 kg/day.
- Later born heifers will have to grow faster to achieve target mating and calving weights at the same time as their contemporaries.
- Poor growth rates or poor animal health will reduce the likelihood of achieving these targets.

Table 1: Target live weights of young stock based on mature cow live weight and Live Weight Breeding Value

Mature Cow Live weight	400 kg	450 kg	500 kg	550 kg	600 kg
Live Weight Breeding Value (LW BV)	-78	-28	+22	+72	+122
3 months (fully weaned)	70	80	90	100	110
6 months (30% mature live weight)	120	135	150	165	180
9 months	160	180	200	220	240
12 months	200	225	250	275	300
15 months (60% mature live weight)	240	270	300	330	360
18 months	290	330	365	400	440
22 months (90% mature live weight)	360	405	450	495	540

Reference: The In Calf Book for New Zealand Dairy Farmers, DairyNZ. Page 43.

Putting plans into action

- Establish target live weights for the young stock in your care. This is an individual farm decision based on mature liveweight of cows in your herd.
- Monitor progress. Weigh calves every second month and assess progress against targets. Are you going to reach the mating target? Scales are more accurate than 'eye-o-meters' or weigh bands.
- It is important that ALL heifers reach target - it is not a group average as each individual needs to reach its target weight.
- Weigh at a similar time of day, preferably in the morning to minimise the effect of gut fill.
- If targets are not being achieved take action and if necessary preferentially feed lighter heifers.
- If targets are consistently not achieved review the animal health status of heifers and in particular review the parasite control programme and mineral status of heifers.
- Discuss issues with your vet.

