

3-22 Recommended liveweights for young stock

Target weights for your young stock should be relative to the weight that they will grow to as mature cows. The key liveweight targets shown in Table 1 are:

- 30% of mature liveweight at 6 months of age, and 40% at 9 months.
- 60% of mature liveweight at 15 months (mating).
- 90% of mature liveweight at 22 months

Table: Breeding values for liveweight (BV LW), heifer liveweight (LW) targets (kg) and subsequent pasture intake required (kg DM/cow.day)

Targets						
6 months		15 months		22 months		Mature
Liveweight (kg) (30% Mat. LW)	Pasture intake* (kgDM/day)	Liveweight (kg) (60% Mat. LW)	Pasture intake* (kgDM/day)	Liveweight (kg) (90% Mat. LW)	Pasture intake* (kgDM/day)	Liveweight BV LW (kg)
120	2.8	240	4.7	360	6.7	400 (-78)
135	3.1	270	5.3	405	7.6	450 (-28)
150	3.5	300	5.8	450	8.5	500 (22)
165	3.8	330	6.4	495	9.4	550 (72)
180	4.2	360	7.1	540	10.4	600 (122)

**Assumes a pasture metabolisable energy (ME) of 11MJME/kg DM, MJME / kg LW gain = (0.071 * LW + 14.04) and a ME for maintenance of 0.62 * (LW 0.75). A drop in feed quality of 1MJME requires that pasture intake increases by 10% and vice versa. Pasture intake should increase by 5% if heifers are grazing rolling or steep land to achieve liveweight targets.*

Benefits of achieving liveweight targets:

1. Production

At a \$4 payout, each additional kg of LW at 22 months between 80-90% of mature liveweight will return around \$1 in the first lactation.

2. Reproduction

Achieving the 15 month liveweight target will help minimise the incidence of non-cycling heifers at mating.

To estimate mature liveweight either:**1. Use the liveweight breeding value (BV) of the heifer.**

The breeding value (BV) for liveweight can be used to estimate individual heifer mature liveweight using the following equation:

$$\text{Liveweight at maturity (kg)} = 529 \text{ kg} + (\text{BV Liveweight} - 51 \text{ kg})$$

Calculated values for BV Liveweight (BV LW) are shown beside the mature liveweights in Table 1.

or

2. Weigh the 6-8 year old cows in the herd in April - May.

Liveweight measurements taken in early lactation can underestimate mature liveweight as cows are generally at their thinnest. Liveweight measurements taken in the dry period will overestimate mature liveweight as a proportion of the weight consists of the foetus and foetal components.

The average mature liveweight of Jerseys was 407 kg, and 528 kg for Friesians in the 2004/5 Livestock Improvement Corporation Sire Proving Herds.

Management to achieve liveweight targets.**1. Offer sufficient quality feed**

Table 1 shows the amount of feed required by heifers to achieve differing target liveweights. Always offer high quality pasture.

2. Maintain animal health

Youngstock are particularly susceptible to internal parasites. Wormwise, the national worm management strategy, advises that each farm is different and drenching programmes should be developed in consultation with your veterinarian after considering a number of factors including level of challenge, nutritional inputs and the drenching history. The routine application of drench at set intervals, like 3-4 weeks, is no longer a standard recommendation.

3. Monitor liveweight gain

Growth is best monitored by weighing with a set of electronic scales. Individual heifers not on track to achieve target liveweights should be isolated from the group and fed preferentially so that targets are met by all stock.