Feeding Systems Used by Australian Dairy Farmers

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Australian dairy farmers choose to use one of five main feeding systems on their farm:
1. Pasture + other forages + low grain/concentrate feeding in bail
   (Grazed pasture + other forages + up to 1.0 tonne grain/concentrates fed in bail).
2. Pasture + other forages + moderate-high grain/concentrate feeding in bail
   (Grazed pasture + other forages + more than 1.0 tonne grain/concentrates fed in bail).
3. Pasture + partial mixed ration ± grain/concentrate feeding in bail
   (Pasture grazed for most or all of year + partial mixed ration on feed pad ± grain/concentrates fed in bail).
4. Hybrid system
   (Pasture grazed for less than nine months per year + partial mixed ration on feed pad ± grain/concentrates fed in bail).
5. TMR system
   (Zero grazing. Cows housed and fed total mixed ration)

A number of things influence a farmer’s choice of feeding system, including the farm’s natural resources, how variable the climate is, the extent to which they prefer to focus on pasture or cows, equity levels, labour constraints, and employment, technology and machinery preferences.

The proportion of farmers using the five feeding systems varies considerably between regions, as these data from Dairy Australia’s 2010 National Dairy Farmer Survey show:
Some other points to note from Dairy Australia’s 2010 Dairy Farmer Survey:

- Grazed pasture was used by 98% of dairy farmers nationally in their feeding systems (systems 1 to 4) in 2009/10.
- 20% of farmers in Tasmania fed grazed pasture only, which is considerably higher than in all other regions (ranging from 2% to 9%).
- During 2009/10, 30% of farmers nationally fed a low rate of grain / concentrate in the dairy bail (up to 1.0 tonne per cow per year).
- Half of farmers (50%) nationally fed their cows a moderate to high rate of grain/ concentrate in the dairy bail (> 1.0 tonne per cow per year).
- The regions with the largest proportion of farmers supplementing grazed pastures with a partial mixed ration via a semi-permanent or permanent feed pad (systems 3 and 4) were northern Victoria / Riverina (30%), far-north Queensland (27%), and northern NSW / south-east Queensland (26%).
- Hybrid systems were most commonly used by farmers in northern Victoria/Riverina (15%), Western Australia (10%), northern NSW / SEQ (8%). Those farmers using system 4 have most likely been forced to in response to climate variability and unreliable pasture production in recent years.
- Only 2% of dairy farmers nationally used a zero-grazing, total mixed ration system (system 5) in 2009/10. Farmers using this system were most common in Queensland (9%) and South Australia (8%).
- Average herd sizes on farms using feeding systems 1 and 2 were substantially lower than on farms using systems 3, 4 and 5.
- Feeding system 2 remained the predominant system across all herd sizes.
- Most seasonal calving herds used feeding systems 1 and 2. A split or year-round calving system was more likely to be used on farms using feeding system 3, 4 or 5.

A key difference as farmers move across the spectrum from feeding system 1 to 5 is increasing capital investment in feeding infrastructure and equipment.

Farmers who choose to invest in systems 3, 4 or 5 may do so for many reasons, including a desire to:

- achieve higher cow feed intakes and better control over diets;
- utilise cost-effective co-products;
- reduce levels of feed wastage;
- provide passive or active cooling to cows in hot weather to sustain daily feed intake and milk production; and
- control wet weather damage to pastures.

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