Feeding decision tree flowchart.

Should I feed?

A decision pathway for evaluating feeding opportunities

Use this flow chart to identify the right analytical tool at each step, and determine whether feeding is likely to the profitability of your business under your specific conditions.

1 Are my fundamentals on track?



- Weaning rate and breeder performance
- Growth rates
- Mortality and animal health
- Body condition
- Stocking rate and pasture condition
- Nutrition (e.g. P status)

TOOL: BUSINESS AND HERD PERFORMANCE REVIEW (IN YOUR CONTEXT)

- Analyse your own data in the context of your country, objectives and past performance
- Seek input from a consultant, extension officer or experienced peers
- Identify key limitations and opportunities

KEY INPUTS
- Your herd and pasture data
- Historical performance
- Local knowledge/peer experience

OUTPUT
- Are fundamentals on track for production and reproduction?

Fundamentals on track?

No → **Address these issues first** (e.g. nutrition, breeder performance, stocking rate, animal health).

Yes ↓

2 What is the objective of feeding?



- Prevent dry season weight loss
- Increase sale weight / hit market specification
- Turn off earlier
- Improve breeder performance
- Utilise a feed resource
- Manage seasonal risk (e.g. drought)

TOOL: DEFINE TARGET AND ANIMAL CLASS

- Choose the animal class and number of head
- Define target weight/condition and target date
- Confirm market pathway and price signals

KEY INPUTS
- Current weights and class
- Target weight/date
- Market requirements
- Seasonal conditions

OUTPUT
- Clear feeding objective and production targets.

3 Is the required performance technically achievable?



- Will these animals gain at the required rate?
- Is suitable feed available at the right quality and volume?
- Are there animal health or management constraints?

TOOL: FEED OPTION AND ANIMAL PERFORMANCE ASSESSMENT

- Use trial data and published information
- Assess feed quality, intake and expected ADG
- Determine days on feed and total gain

KEY INPUTS
- Feed test results
- Feed availability and cost
- Animal class and starting weight

OUTPUT

Realistic estimate of achievable ADG, days on feed and total gain.

Technically achievable?

No → **Reconsider the feeding option, animal class or target, or explore alternative strategies (e.g. grazing, agistment).**

Yes ↓

4 What type of decision is this?



TACTICAL FEEDING DECISION
Short term, lower capital, reversible
e.g. supplement, paddock feed, agistment, use of surplus fodder

STRATEGIC INVESTMENT
Longer term, higher capital, longer time horizon
e.g. improved pastures, irrigation, fodder production, feedlot or infrastructure

5 Does it pay at current prices?



- **Is this the most profitable class of cattle to feed?**
- What is the minimum extra weight needed to cover all additional costs?
- Use current cattle prices and all variable costs (feed, freight, feeding, labour, machinery, wastage).
- Does the margin look positive?

If not profitable, consider a different animal class, stage of gain or feeding option and re-test.

TOOL: BREAK-EVEN ANALYSIS (TACTICAL)

- Use a bullock/cow trade or break-even calculator
- Include all variable costs and realistic intake/ADG
- Use cost of gain calculations to estimate feeding cost per kg

KEY INPUTS
- Feed costs ($/t)
- Feeding costs ($/head/day)
- Expected ADG and total gain
- Cattle price ($/kg lwt)

OUTPUT

Break-even gain and net return per head at current prices.

6 Does the investment work and improve the whole business?



- What is the expected increase in production or change in costs?
- What is the impact on herd structure, turnoff age, carrying capacity and breeder performance?
- What is the time horizon and risk?
- What return is required?

TOOL: INVESTMENT AND WHOLE-BUSINESS ANALYSIS (STRATEGIC)

- Whole-business herd model (production, carrying capacity, breeder performance)
- Discounted cashflow analysis (NPV)
- Internal rate of return (IRR)
- Payback period and peak deficit

KEY INPUTS
- Capital costs
- Operating costs
- Expected production response
- Herd model parameters (pasture, AE, prices)
- Time horizon
- Discount rate

OUTPUT

Change in whole-business profitability and resilience (NPV, IRR, payback, etc.).

7 How sensitive is the result?



- What happens if ADG is lower/higher?
- What if feed costs or cattle prices change?
- What is the break-even point?
- Consider compensatory gain and seasonal variation.

TOOL: SENSITIVITY ANALYSIS

- Test a range of ADG, feed costs and cattle prices
- Identify the break-even point
- Assess key risk drivers

KEY INPUTS
- Range of ADG
- Feed prices
- Cattle prices
- Feed duration/seasonal variation

OUTPUT

Range of likely outcomes and key risk drivers.

8 What are the key risks?



- Are cattle prices volatile?
- Could feed costs be higher or supply limited?
- Will these animals compensate if feed is removed?
- Are there seasonal, market or operational risks?
- Do I have the infrastructure, labour and skills to implement?

TOOL: RISK ASSESSMENT

- Test optimistic and pessimistic scenarios
- Include cattle price, feed cost, ADG and seasonal risk
- Consider risk management options (e.g. staged implementation, flexible exit)

KEY INPUTS
- Range of key variables
- Seasonal outlook
- Market and operational risks

OUTPUT
- Robust, marginal or high-risk outcome.

PROCEED
Feeding is likely to improve profitability under your conditions.

TRIAL / FURTHER INVESTIGATE
Result is marginal or uncertain.
Consider a small-scale trial or refine assumptions.

DO NOT FEED
Unlikely to improve profitability under current conditions.

MONITOR, REVIEW AND ADAPT
Compare actual performance (ADG, intake, costs, sale value) with assumptions.
Continue, modify or stop based on results and changing conditions.