

FACT SHEET

FENCING SELECTION AND MAINTAINING INTEGRITY

WHAT TYPE OF FENCE SUITS MY NEEDS?

Prior to installing any agricultural asset, it is important to consider the costs and benefits of an investment decision. With the cost of living rising and difficulty in sourcing skilled labour and materials, strong property planning is needed to ensure a fit-for-purpose and cost-effective decision.

When deciding the design and placement of a new fence line, one main question you may pose could be: 'What type of fence should I install?'

Rural fencing requirements vary greatly depending on the property's unique characteristics, including but not limited to - location, livestock, purpose, cost and capacity. To assist in deciding which best fencing combination suits your operation you could begin by posing the following questions:

1. What is the purpose of the fence? Do you want to keep stock in? Or are you trying to exclude pest animals?
2. How long do you expect the fence to be there? Do you want to temporarily exclude stock from a sensitive area? Or are you installing a permanent boundary fence?
3. What is the landscape like? Are you fencing in undulating country, along a ridge line or adjacent to a watercourse?
4. What materials and skills do I need to install the fence?
5. What is my budget and is there any assistance available?

Depending on the answers to these questions there is a variety of fencing materials and methods available to bring your project to life.



FENCE DESIGNS AND MATERIALS

Local rural supply agencies are a great source of advice for fencing options. The sections below are designed to provide a starting point.

Cattle Fencing

Standard cattle fencing often includes wooden or steel strainer assemblies, steel/wooden/concrete posts every ~20 metres, steel pickets (or wooden/concrete running posts) every ~ 5 metres, and 4 strands of barbed wire. Replacing the top wire with a plain wire will minimise the impact the fence has on local wildlife such as bats, gliders and birds.



Figure 1 - An example of grazing fencing with a plain top wire installed in the Mackay Whitsunday Isaac Region



Figure 2 - An example of goat fencing installed in the Mackay Whitsunday Isaac Region

Sheep and Goat Fencing

There are several goat fencing recommendations including a minimum height of 1100 - 1500mm and steel/wooden strainers, steel/wooden posts every ~20 metres, steel pickets (or wooden running posts) every 4-6 metres, fabricated fencing (8/90/30) secured no greater than 100mm off the ground, with additional wires above the fabricated fencing to increase the fence height to prevent goats jumping the fence. A wildlife friendly plain wire on top is recommended. For sheep fencing a similar design can be implemented however fabricated fencing of 6/70/30 may be used.

Dog Exclusion Fencing

Most dogs are able to break through conventional livestock fences by pushing, burrowing, climbing or jumping. If other control methods such as baiting and trapping are not reducing feral dog populations exclusion fencing may be a final option. When deciding on this fence type remain conscious of potential negative impacts to native fauna movement and minimise risk of entanglement when possible.

A minimum fence height of 1500mm is recommended for fabricated and netting fences. Electric fences need to be constructed to a minimum height of 950mm. To effectively control wild dogs the fence must have an effective barrier at below snout level (450mm) to prevent them pushing through.

To prevent dogs burrowing under the fence, a fixed or hinged apron or footer on the fence should be incorporated. It is also important to construct gates at the same height as the fence and frame it so there are no gaps that a dog can pass through.



Figure 3 - An example of dog exclusion fencing. Photo: Qld Country Life



Pig Exclusion Fencing

Pigs are large and robust animals weighing up to 115kg and are known to pass through standard plain wire fences usually at snout level. They will also push under and scale fences when necessary. Pig exclusion fencing must be equally robust to exclude them from an area.

Standard feral pig exclusion fencing should be a minimum 1200mm high and includes steel/wooden strainers, steel/wooden posts every ~20 metres, steel pickets (or wooden running posts) every 5 metres, mesh wire (~150mm) secured to ground, with plain wire on top or other wildlife-friendly options.

Additionally barbed wire at the bottom and 10-20cm from the ground or utilising electric fencing at this level has been seen to greatly assist in preventing pigs from lifting the netting.



Figure 4 - An example of Feral Pig exclusion fencing installed in the O'Connell Basin.



Figure 5 - Example of three wire pig exclusion electric fence installed along cane headland.

Temporary Electric Fencing

Temporary electric fencing is a low cost and easily constructed fencing alternative and is suitable for short-term animal control and rotational or cell grazing. Faults in an electric fence can reduce its effectiveness and may be caused by:

- Vegetation touching the wires
- Broken wires or insulators
- Poor earthing
- Poor connections
- Poor insulation

Electric fencing for pest management requires constant monitoring and maintenance to maintain voltage, tension and prevent breaches.



THREATS TO FENCE INTEGRITY

Erosion Control along Fence Lines

Fences are often susceptible to soil erosion because they concentrate runoff. This can damage fences and make them inaccessible and hard to maintain. Erosion control should be applied before the fence is built and maintained throughout the year to ensure its effectiveness.

To ensure that fence lines don't become concentrated paths of overland flow and create high velocity and erosion potential the following design features could be incorporated into the fencing plan:

- Plan alignment of linear infrastructure—As a general rule, linear features aligned along the contour, up and down the slope, or along ridges are least likely to cause erosion. Wherever feasible linear features should not be

aligned across the slope at an angle as this will increase the likelihood that they will intercept and concentrate runoff.

- Ground Cover – Remediate disturbed soil by planting grass seed or allowing grass to naturally regenerate to improve ground cover.
- Managing runoff – Ensure runoff is spread slowly rather than concentrated. Management could include features such as flat drains, whoa boys, diversion banks and catchment drains.

For more information on best practice soil conservation and managing erosion refer to the Soil Conservation Guidelines for Queensland.

Fencing in Flood Prone Areas

Fence placement should consider the likelihood and impact of inundation by setting fencing back from waterways. The fence line should generally be placed well back from the top of the stream bank. This enables the recruitment of riparian vegetation which provides a buffer to the velocity and height of flood waters.

Riparian zones are not necessarily unproductive or lost grazing areas because carefully managed riparian grazing can provide drought fodder, shelter, bank stability and improved habitat function.

Fencing in flood-prone areas usually requires additional considerations as fencing construction needs to be strong enough to withstand flood inundation and the force of water and debris. Certain fence designs can also be implemented to reduce damage risk such as hanging suspension fences, drop fences, and lay down fences.

Fences in flood prone areas are less susceptible to damage if placed parallel to the anticipated direction of flood flow. Plain wire fences also collect less flood debris and therefore are less likely to be swept away by flood waters.

Fire Impacts

Fence lines are ideal locations for fire breaks and the clearing of vegetation within the immediate vicinity of a fence should go towards protecting the fence and the area it encloses from fire. Steel fence posts and porcelain insulators can be used in fire-prone areas to minimise fire danger.

Additionally, continued maintenance to reduce vegetation buildup along fence lines will assist in improving access and reducing fuel load and potential for fire events to jump paddocks.

Extreme Events and Natural Disasters

Extreme weather events such as cyclones, floods or fire will result in the destruction of private infrastructure including fence lines. Preparation against natural disasters is one of the best ways to mitigate damage and improve recovery time.



Figure 6 - Debris on fence due to inundation along the Gregory River



Examples of management strategies that can help prepare the property and secure on farm infrastructure can include:

- Selection of trees that can best withstand being planted in wind-breaks
- Cross bracing and reinforced fences, buildings or sheds
- Anchoring of fence lines, farm buildings and sheds
- Standby electrical generation capacity and clean water supply
- Insurance policies are up to date and comprehensive.

After an event such as a cyclone it is important to thoroughly assess damage and implement a plan for recovery while incorporating any opportunity to improve farm resilience for the future.

There are many avenues for support before, during and after natural disasters so be sure to know your local key contacts and support services. More information can be found on the Queensland Government's website under drought and natural disaster advice for agribusiness.



Figure 7 - Fence line integrity compromised by streambank erosion caused by severe flooding in the Proserpine catchment.

OTHER CONSIDERATIONS

- Cost – Each fencing project will be unique and with material shortages and recent price hikes it may be critical to obtain several quotes for a variety of materials/designs to assist in the decision-making process.
- It is important to monitor and maintain your fence by checking it regularly and repairing it when required to prevent stock and animals breaching the fence.
- Trees and branches falling on fence lines can compromise the fence and allow for the escape of stock. Regularly check your fence lines to ensure their integrity.
- Where applicable and required, obtain any necessary approvals from the regulator in relation to clearing native vegetation to establish fencing.



REFERENCES



[Exclusion Fencing for Feral Pig Control](#)

[Cost Effective Feral Animal Exclusion Fencing For Areas Of High Conservation Value In Australia](#)



[Drought And Natural Disaster Advice For Agribusiness](#)

[Soil Conservation Guidelines For Qld](#)



[Landmark Fencing Handbook](#)

[Wild Dog Exclusion Fencing: A Guide For Woolgrowers](#)



[Wild Dog Facts Exclusion Fencing](#)

[This fact sheet is to assist landholders and stakeholders within the Mackay Whitsunday Isaac region. This is general information and is not intended to prescribe mandatory standards or requirements.]



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