



A circular cattle-handling facility for 10-50 head

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Nick Linden and Chris Halpin, Maffra

There are presently a lot of cattle yard designs based on a circular forcing yard. This is a proven layout that has good workability, and flow of cattle.

The circular design described and illustrated in this Agriculture Note is a "cattle-handling facility", that when coupled with suitable sized holding and receiving yards, adequately controls between 10 and 50 head.

The owner/manager of a cattle herd has an obligation to ensure their stock are in good health, and treated as safely and humanely as possible.

A good set of yards positively encourages sound management and herd health programs because of the ease of handling cattle. Where facilities are difficult to work, or in a poor state of repair, or do not exist, essential management practices are often not undertaken. The end result is often a lower price in the market place.

Siting

Locate your yards after considering the following points:

- Arrange access to laneways and/or as many paddocks as possible.
- Keep yards away from living areas to minimise noise, flies, dust and smell.
- Allow for all-weather access of trucks to and from market. Remember, the best prices are often paid on wet days because many farmers cannot get their stock out.
- Water and power should be laid on, or close at hand.
- Good drainage is essential. Build on a gravel rise if possible, or build up the site with gravel.
- Shade trees make working cattle more pleasant in summer.

Features of the yard

(See figure 1)

Holding yard

Cattle in yards will often bunch up with the heads in a corner. It is time-consuming and often dangerous to move cattle out of this situation.

In the holding yard on the plan the only corner where cattle may bunch up is in the direction where we want them to move to: that is the forcing yard.

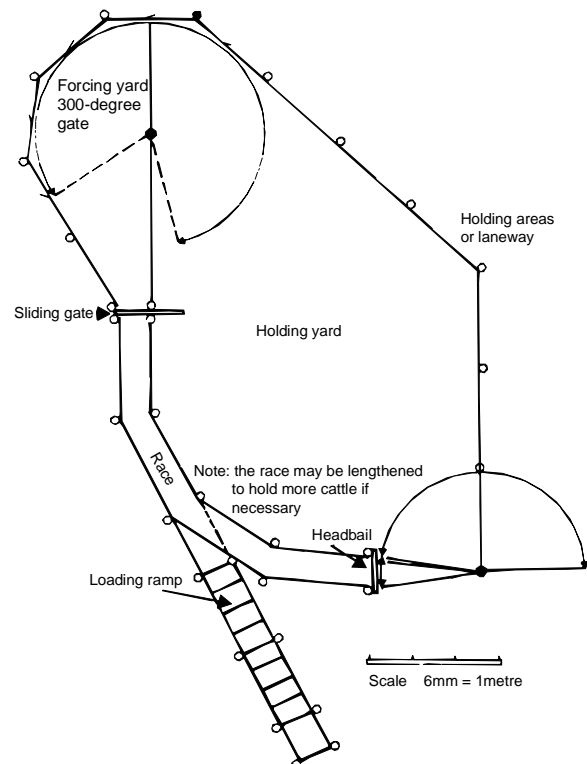


Figure 1. A circular cattle-handling facility for 10-50 head

Forcing yard

In many conventional yards the forcing yard is either too large or too small, has the wrong angle of approach to the race, and requires the operator to be in the yard to force cattle up the race.

The forcing yard in this design is a half-circle and there are no corners into which cattle can put their heads.

The gate of the forcing yard is hinged well out from the centre pole, which allows the gate to swing through up to 300 degrees. This is an important point as it means you do not have to climb into the forcing yard to push cattle up the

race: it may be done from behind the gate by pushing the gate at arm's length.

A further aid to safety of the operator behind this gate are one-way (non-return) catches in the centre of each forcing-yard panel. A spring loaded catch on the gate will ensure that the gate is positively held at these points.

The race

The curved race encourages steady movement of cattle around the race. This is in contrast to their movement in a straight race, in which cattle will often move very quickly forward, baulk and then move backwards. A curved race has a natural anti-backing effect, and tends to be self-feeding.

The height of the race panels should be 1.5 metres. The width between opposite posts should be 690 mm plus the thickness of the rails.

The loading ramp

The critical dimensions are:

Loading height - 1.2 m

Width (between rails) - 750 m

Length - At least 3.5 m if the ramp is to rise to a height of 1.2 m.

In addition a level section at least 1 metre long at the top of the ramp will encourage easier stock movement.

Cleats on the ramp floor will help the animals to keep their footing. However, a better way is to step the ramp in concrete. Allow a 450 mm length of step for each 100 mm rise.

Crush and/or headbail

For most operations with a small beef enterprise, a headbail is sufficient. Commercial bails include parallel-sword walkthroughs and non walkthroughs (some swing open). The most efficient are full walkthroughs, in which the animal can walk straight ahead after treatment, without first being backed out.

Some of the important features of a crush include quietness, strength, safety for animal and operator, and positive operation from behind the animal.

Drafting

There are two main ways of drafting cattle. One is yard drafting, which usually requires two people. Remember to always draft cows from calves, rather than vice-versa.

The second method is race drafting, which may be done by one person in this yard. For two-way drafting, the gate in front of the headbail can be operated with an extension bar. For three-way drafting, two gates facing the headbail are used, and further holding areas shaped to suit.

Materials

It is important that the railing used is strong, quiet when knocked, and presents a visual barrier to cattle. 150 mm by 50 mm hardwood rails fit these requirements. A pipe rail on the top inside of the race is useful.

The best posts are large-diameter steel pipe, or lengths of railway rails. However, round timber posts are adequate if properly treated, to prevent decay.

Mesh and cable should not be used in the race and forcing areas, especially if horned stock are to be handled.

Gates and catches

(See Figure 2)

Gates should be tube-framed with the same infill as is used in the adjacent yard and race panelling. Steel pipe sizes for use in various sizes of gate frames are:

Vet's gates - 25 mm internal-diameter medium galvanised or black steel tube.

Up to 2.4 m wide - 32 mm internal-diameter steel pipe.

2.4 m and wider - 42 mm internal-diameter steel pipe.

Gates using timber infill should be braced from the top on the hinged side with 25 mm by 3 mm flat mild steel strap. A central vertical strap for gates wider than two metres is also desirable.

Catches should be positive bolt types, preferably spring-loaded. If chain and slot types are used, be careful.

Holding areas

To reduce cost, a small paddock or laneway is ideal for holding cattle. However, at the drafting end of the race, position the draft gate so that the drafted groups are separated as on the plan (figure 1).

Where further yards can be afforded, or are needed, avoid corners in their design where possible.

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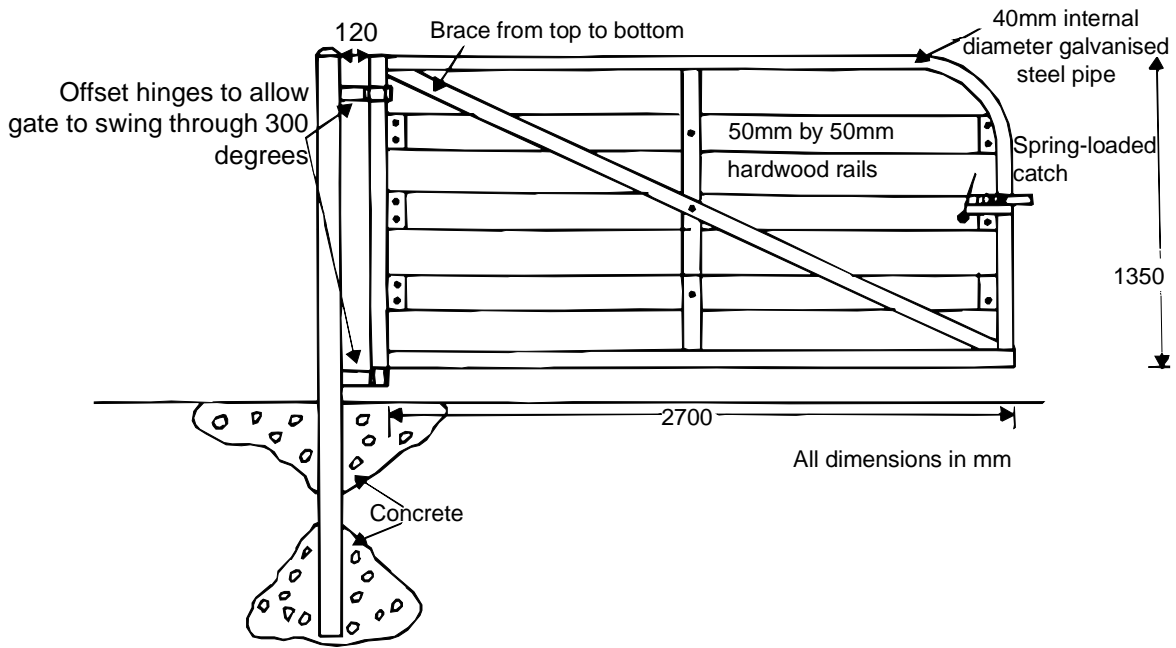


Figure 2. Construction of the 300-degree gate

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