

Build a buffalo fly trap

Buffalo fly cause a chronic loss of production in beef herds in coastal and sub-coastal northern Australia. The majority of the production loss is because of reduced grazing time due to fly worry. There is increased marketing pressure to implement non-insecticidal management strategies for the range of parasites affecting cattle. A simple tunnel trapping system has been shown to reduce fly populations by 60% to 80%.

How the trap works

The trap is a short tunnel through which cattle have to pass regularly. This may be a controlled watering point or feed station for beef cattle, or perhaps a laneway or yards leading up to the milking shed for dairy cattle. The flies leave the cattle in response to the change in light intensity at the tunnel entrance, and are subsequently caught in cages attached to the sides of the tunnel. The trap is simple to build and since there are no obstructions in the tunnel, training cattle to use it is relatively easy.

Construction details

- Overall size is 2400 mm x 1800 mm x 800 mm (LxHxW inside measurements).
- It is a demountable steel frame constructed of 25 mm RHS.
- The tunnel sides are covered with 12 mm plywood panels; the roof is covered with 7 mm plywood.
- The sides are set on a base/footing and the roof has 20 mm RHS or 15 mm pipe pegs that slide into the top of the side frames (ensure there is no gap for light to enter the top of the tunnel).
- The plywood and frame are painted matt black (to reduce light in the tunnel). Alternatively the sides can be sheeted with sheet polythene or tin and tin roof. (Sheeted polythene (2 mm) is already black and works effectively).
- A window (1900 mm x 200 mm) is cut into each of the side panels (700-900 mm from ground).
- Fly trap cages are attached to the side panels, to completely cover the windows (this attachment needs to be fly-proof).

Cage general construction

- The cages can be constructed of 25 mm aluminium or steel RHS.
- The frame is 2000 mm x 650 mm x 300 mm (LxHxW outside measurements) and is covered with wire fly screen (except the panel facing the tunnel).
- The cage should be tightly sealed except for the opening that fits over the tunnel side windows.
- Door sealing strips or silicon sealant should be used between the tunnel side panels and the cage to eliminate any gaps.
- The cage is attached to the tunnel with bolts or screws through the horizontal RHS frame bars.
- A funnel-shaped baffle (with a 20 - 40 mm gap at the top) is used to trap the flies in the upper section of the cage.

The baffle

- Baffles can be made out of flat steel and fly screen or fly screen framing (as indicated in the plans).
- Hinges can be used to join the two sides of the baffle. The hinges will allow the baffle to be folded during installation.
- It is important to get a fly-proof seal between the baffle and the cage sides.
- The baffle will rest on the cage centre bars. To prevent the baffle pushing against and damaging the screen, the flat steel used to attach the screen to the cage frame, should be lifted 5 mm above the cage frame centre bar so as to form a lip. It may be necessary to fix a bracket to hold the baffle in place.

Using the tunnel trap

To effectively reduce fly numbers, all animals in a mob need to pass through the tunnel at least once daily. The best way to achieve this is to have controlled access to water. This could include fencing off troughs or dams. The tunnel can be set up as a permanent structure or as a temporary one. It is best set it up in a gateway on a well-drained site. If used as a permanent fixture, it may pay to pour a concrete pad to prevent the development of deep pads.

Where it is impractical to control access to water, an alternative is to use a feed supplement as an attractant and to control access to the feeding station. The tunnel trapping system can be easily adapted to self-mustering (trapping) systems.

Cattle may need to be trained to use the tunnel trap. The tunnel should be assembled in stages to allow the animals to become familiar with using it.

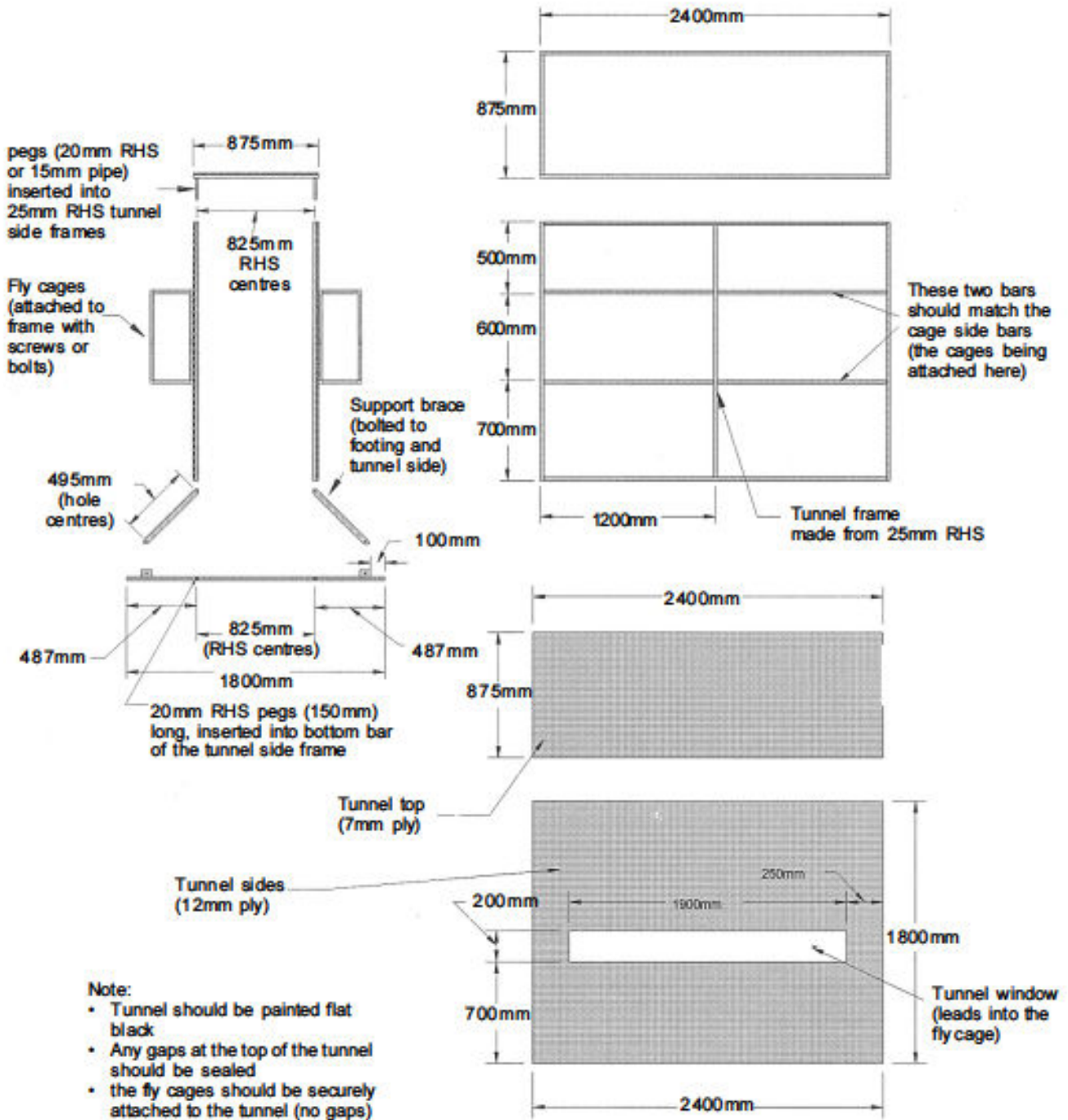
Plans

The following pages show plans for construction.

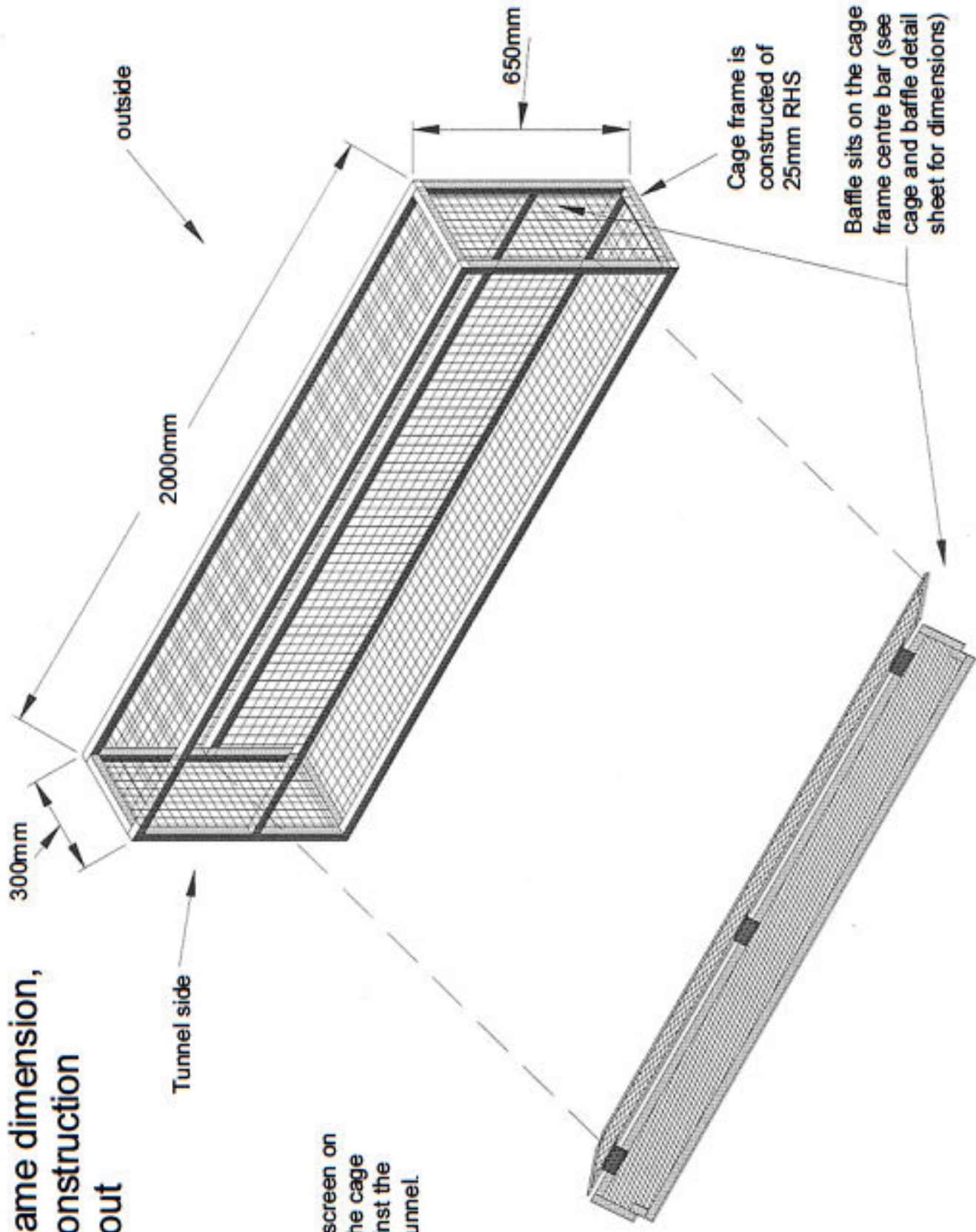
- Tunnel dimensions
- Cage frame
- Cage and baffle details
- General assembly

Source: Queensland Department of Agriculture, Fisheries and Forestry; 2009

Tunnel dimensions

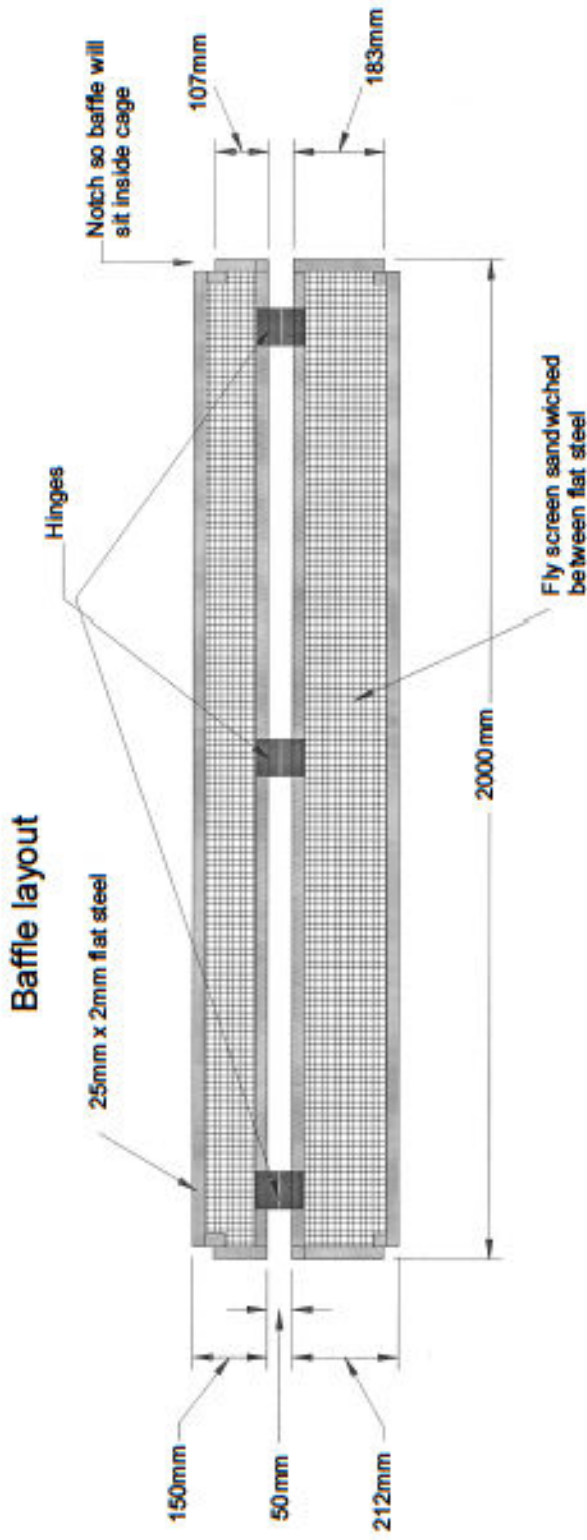


Cage frame dimension, baffle construction and layout

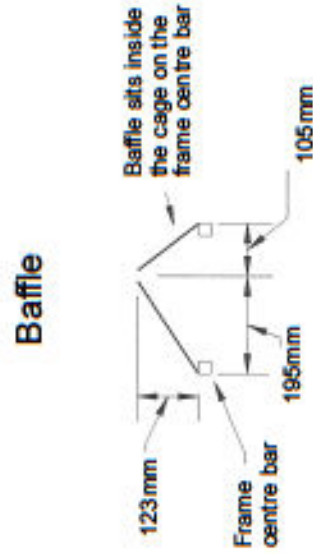
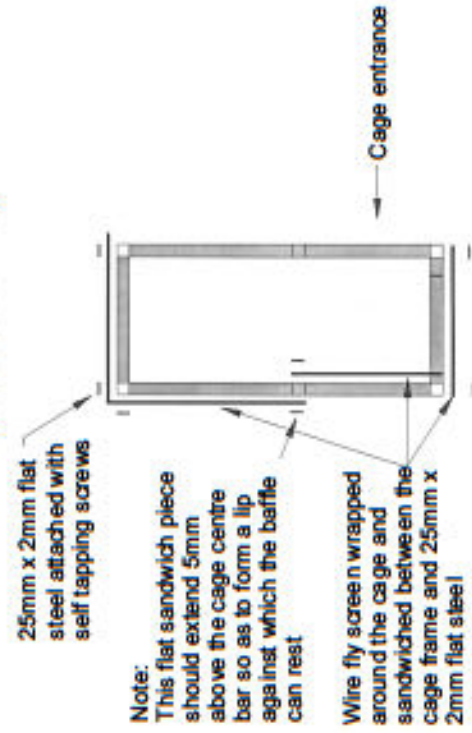


Note:
There is no screen on the side of the cage that fits against the side of the tunnel.

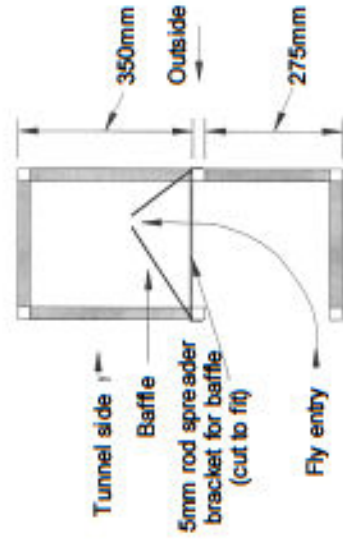
Cage and baffle details



Fly screen attachment (cross sectional view)



Cage cross section



Buffalo fly trap - general assembly

