

# Good practice delivers benefits from improved infrastructure

FACTSHEET 5

Good practices required under conformance and quality management programs place significant emphasis on infrastructure that ensures animals are moved safely and calmly through facilities.

## Key points

- Well-designed facilities that utilise natural animal behaviour can reduce animal stress and improve productivity.
- Key areas include sharp edges, slippery floors and other infrastructure flaws which can lead to stress, injury and bruising.
- Even small flaws in infrastructure design can lead to delays in production, increased labour costs and increased stress on animals.
- Well-designed facilities can deliver greater returns through reduced bruising, dark cutting and labour costs.
- Existing facilities can generally be modified to significantly improve performance and deliver significant animal welfare and economic benefits.

## Why good infrastructure is important

There are many potential hazards for people and animals when moving livestock through facilities. Clear areas for concern and areas for improvement are sharp edges, slippery floors and other infrastructure flaws which can lead to stress, injury and bruising. Even small flaws in infrastructure design can lead to delays in production, increased labour costs and increased stress on animals.

Increased ease of animal movement and consistent slaughter intervals reduces labour and improves animal welfare. This results in lower costs and less wastage, e.g. using V-conveyor races for sheep and curved races for cattle.



*Facilities in good repair are more efficient*

# Good practices required by conformance or quality management programs to improve welfare and efficiency

Good practices from conformance or quality management programs which utilise natural animal behaviour can reduce animal stress and improve productivity by promoting facilities and practices which:

- present animals at the point of slaughter which are more uniform, i.e. same gender, same source and similar weight and size
- reduce labour required in the lairage area
- provide a safer environment for workers
- reduce dark cutting
- have a positive impact on tenderness, juiciness and flavour of meat
- increase the water holding capacity of meat, and
- reduce bruising.

Following a conformance or quality management program will highlight elements of facilities and infrastructure requiring maintenance and improvement. This will include areas where:

- animals are slipping or falling due to poor footing
- animals are baulking at noise, movement or distractions
- poor handling practices are being used as a result of poor infrastructure
- animals are suffering stress due to isolation
- infrastructure or handling practice is causing animals to overcrowd
- animals are likely to escape
- facilities and equipment have faults that could cause injury to animals
- poor lighting may be causing disruption to animal flow
- restraint for slaughter is causing animals to stress, and
- maintenance is required to ensure good operating procedure.

Upgrades can be done to existing facilities that can greatly improve animal's movement with the introduction of blanking, slide gates, non-slip flooring and other simple solutions which allow better animal flow and less stress for animals and workers.

Additions such as sheep V-belts are a more substantial investment but offer good return in labour savings, stress reduction and consistency of animals presenting for slaughter.

**Good infrastructure and facilities mean improved animal welfare and higher profits**

## Benefits of good practice

**Reduce bruising** due to improvement in yard facilities, forcing pen and holding race.

**The daily cost saving due to reduction in bruising by X%:**

= *Daily kill number \* % of carcasses bruised \* Average weight of bruised product \* c/kg deduction in value \* (X/100)*

Example for a 80% reduction in bruising where previously 20% were bruised =  $600 * (20/100) * 1\text{kg} * \text{AUD } \$2.50 * (80/100) = \text{AUD } \$240/\text{day}$

**Reduce stress and dark cutting** due to improved animal handling and facilities.

**The daily cost saving due to reduction in dark cutting by X%:**

= *Daily kill number \* % dark cutting \* Average carcase weight \* c/kg deduction in value \* (X/100)*

Example of cost saving to reduce dark cutting by 50%: =  $600 * 25\% * 18\text{kg} * \text{AUD } 40\text{c}/\text{kg} * 0.5 = \text{AUD } \$540/\text{day}$

**Reduce labour costs** due to more efficient handling techniques and facilities.

**The annual cost saving due to reduction in animal handlers by X%:**

= *No. animal handlers \* Average annual wage \* (X/100)*

Example for a 25% reduction in animal handlers =  $4 * \text{AUS } \$55,000 * (25/100) = \text{AUS } \$55,000/\text{year}$

Total annual cost saved for a X day/week operation =  $((52 * X) * \text{Reduced bruising cost saving}) + ((52 * X) * \text{Reduced dark cutting cost saving}) + \text{Annual saving in labour}$

Example total return on investment =  $(261 * 240) + (261 * 540) + \$55,000$

= \$285,580 per annum



*Good practices from conformance or quality management programs which utilise natural animal behaviour and good infrastructure can reduce animal stress and improve productivity*

## Further reading

- *Factsheet 1: Good practice can reduce dark cutting for better meat quality and higher returns*
- *Factsheet 2: Good practice can reduce stress and improve eating quality*
- *Factsheet 3: Good practice can reduce acute stress and water loss from meat*
- *Factsheet 4: Good practice can reduce bruising resulting in less trimming and less carcass wastage*
- *Factsheet 6: Good practice can reduce animal stress and shrinkage for increased profits*
- *Factsheet 7: Good practice in the provision of quality feed and clean fresh water can improve growth rates and eating quality*
- *Factsheet 8: Good practice in reducing slipping and falling can improve hide cleanliness and carcass hygiene*
- *Factsheet 9: Good practice avoids mixing unfamiliar livestock which can reduce stress and improve eating quality*
- *Factsheet 10: Good practice in traceability delivers health and safety control and improves management decisions*
- *Factsheet 11: Good practice reinforced through training*
- *Factsheet 12: Support and training in good practice*
- Grandin.Com. *Livestock Handling Systems, Cattle Corrals, Stockyards, and Races*. Access online: <http://www.grandin.com/design/design.html>