

Water Buffalo Handling: Property to Abattoir

Part 3. Transportation to the Abattoir

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STRESS

There are two main areas where profits can be lost through poor handling. The first is **pre-slaughter stress**, which causes meat to become tough by raising pH. Also, the resulting dark-cutting meat will be less attractive, thereby losing value. The second and most obvious is **bruising**. Bruising in buffalo is generally less than in cattle due to the greater thickness of the hide.

When transporting buffalo during hot weather, cooling down stock with water on the truck would be a distinct advantage. Mini sprinklers could be fitted quite cheaply to crate tops, using black polythene pipe with a 12V pump and a small tank. Only enough water is used to cool the buffalo without causing slippery floors, particularly when floors are made of steel. A few minutes pumping with a very fine spray is sufficient when the truck is stationary. Weldmesh or floor anti-slip treads may be necessary when setting up cooling systems.



Transport of stock should be preferably done during the cool of the day, that is, early morning, late afternoon or overnight, with shaded rest stops during very hot periods, or frequent use of on-truck mini-sprinklers. A shade cloth cover would be useful when stopping where there is no shade. Equally in cold climates, some wind and rain protection would be necessary to protect buffalo from the “chill factor” of a moving vehicle in cold weather.

Correct handling for transport starts with proper mustering and yarding.

In the tropics, high quality meat animals should be left at the abattoir in shaded or sprinkler-cooled yards for the minimum time necessary before slaughter. Arrangements should be made for them to be at the top of the kill list of the day. If this is not possible, buffalo should be kept in an area with the least amount of disturbance possible. In cool climates, buffalo should have adequate shelter from the cold during winter. They should have continuous access to clean water and should not be without feed for more than twelve hours prior to slaughter. Hay is sufficient.

Dehydration

You should learn to recognise a dehydrated and overheated buffalo so that precautions can be taken.

In dehydrated or overheated buffalo you will notice:

- Increased reddening of the hide along the brisket and belly, and between the legs. (Difficult in crossbred and riverine buffalo because of blacker hide all over)
- Tonguing (the tongue hangs out of the mouth).
- Panting (greatly increased respiration rate).
- Sunken eyes (in extreme cases) and skin which when pinched, takes a long time to retract.
- Stiff or awkward gait.
- Very high rectal temperatures (noticeable when carrying out pregnancy diagnosis).

Buffalo found in this condition must be sprayed with water and left to cool down without disturbance. This is more quickly achieved if affected animals are able to mix in with the herd away from human contact. Proper attention to feeding and watering before trucking will greatly improve heat tolerance and endurance in trucked buffalo.

Buffalo deprived of water for a long period and/or overheated will tend to engorge or **over water**, increasing the risk of mortalities. The addition of electrolytes to the water will reduce mortalities in severely dehydrated stock.

Salt water buffalo

Such animals are found in coastal fringe areas and are used to drinking salty water. If trapped and offered fresh water, they will often refuse to drink and will become dehydrated. Add salt or electrolytes to the drinking water; gradually reduce salt over a period of time to allow the stock to become used to fresh water.

How to remedy dehydration

- Before unloading or letting animals on to water, individual animals may be observed as dehydrated. On trucks you can direct the hose or spray at the heads of affected animals. Unlike cattle, they are able to drink in this way, thereby partially quenching their thirst. This method can prevent most cases of mortality due to thirst or over-watering. Shade and spraying down will help reduce high body temperatures associated with dehydration. Electrolytes may be useful when added to drinking water.
- Allow small numbers of buffalo into the watering yard at a time (15 animals or a maximum of one truck deck). Push animals that are over-drinking away from the trough. When all animals have had some water, remove them from the yard and follow the same procedure for the remaining animals. In the evening or when temperature drops, all animals can have unrestricted access to water. Shade and/or fine mist sprays will speed recovery in hot weather.
- Avoid situations and circumstances that put you in this position by avoiding mustering, loading and trucking during hottest periods of the year, or of the day. Avoid using yards of poor design and people with poor stock handling skills. Muster animals and load trucks in the cool of the day.

BRUISING – “TRIMMING OFF THE PROFITS”

Although less susceptible to bruising than cattle, buffalo will still bruise due to rough handling, poor yard and truck crate design, incorrect loading and many other factors. Correct handling with no bruising will increase dressed carcase weights at the abattoir by reducing the trimming and therefore increasing the monetary return.

Transport the adult males separately from the females and young stock unless they have had significant previous paddock time together with no sign of problems. The exception to the rule is that some domesticated animals are sufficiently quiet to handle in a single line and may be trucked and slaughtered in the same group. Some bulls may also need to be separated from each other especially if strangers. Observations at the abattoir kill floor of

bruise locations on carcasses of your buffalo and their ages will enable you to identify where and how your animals are bruised. Hips and pin bones are the usual bruising locations. Observe stock being worked in the yards and trucks and you will soon recognise the trouble spots: protruding posts, gate hinges, sharp corners, poor handling (excessive use of prodders, etc), or particular animals that are nervous and cause problems by barging, mounting the animal in front whilst in the race, rushing out of scales or crush and hitting a post when turning sharply.

Trucking

Buffalo appear to balk at loading if they see an open space or gap between the truck and loading race. This space should be well bridged. Anti-backing gates in the loading race will be of immense value. A piece of steel pipe 40 or 50 mm in diameter used at the vertical posts as an anti-backing rail can help when loading a truck from a loading ramp. Such pipes need to be placed at the right height: if too high, animals will push them upwards and pass underneath; if too low, animals will pass over the top. The ideal height is about 20-30 cm below the rectum. The pipes need to be used only behind the last animal; otherwise, the animals following will attempt to jump over the pipes. A slide gate right at the end of the loading race next to the truck can save much loading time when stock are not quiet during handling. Animals wanting to leave the truck to go back down the ramp in the face of oncoming stock can be contained with a sliding gate at the top of the ramp. This type of situation can cause bad bruising and increased stress if the sliding gate is not available. Often the main problem in loading is a person standing next to the race at the entrance to the truck. This will cause an approaching buffalo to hesitate and disrupt the following behaviour. The best enticement to an animal behind is to see the one in front moving steadily forward. All ramps should have a level area of at least one animal length before stepping onto the truck. Walking in the opposite direction to the required flow of animals along the line in the race is the best way to keep animals on the move. To get back to the top of the ramp to start again, you need to walk well away from the race in a wide arc when you move in the same direction of flow of buffalo; i.e. well outside the flight zone.

Also take time to explain to the truck driver that he will not need his electric prodder to load and unload your quiet buffalo. It is best to open the truck gate and let the buffalo find their own way out at their own time with no pressure to immediately unload. The more people you have around the truck, the greater is the likelihood of a poor flow of animals out of the truck because of confusion in the animals as to where they should go. Such a situation is exacerbated if everyone is brandishing an electric prodder. This is the worst possible scenario, but happens all too often.

The initial start to unloading is to move the animals so that one is facing the exit gateway. Such an animal can usually be moved easiest by approaching it from a 45° angle to the front and walking towards it and past it in the opposite direction to which it needs to travel. Once the first one steps through, the others will usually follow happily behind it. Poking at the rear of the animal is usually the least effective method to get it to step off the truck as will turn to face the direction from which the poke is coming.

It pays to be aware of buffalo's lesser tolerance of heat and its lower ability to sweat compared with cattle. With that in mind, your first preference should be to start loading during the coolest part of the day. Pre-organise shade, water and sprinklers, if arriving in the heat of the day.

And finally – load stock quietly without using prodders or dogs.

Loading densities

Loading of trucks and trailers is an important issue. Overloading can cause problems with buffalo going down, being trampled and injured, and unable to rise. Underloading can also cause problems of uneven weight distribution during the trip. Also excessive stock movement without mutual support may cause increased stress and possibly bruising. You will need to allow extra room for stock with large horns. Meat and Livestock Australia publish recommended loading spaces for stock of different live-weights, that is, the number of stock per deck. Table 1 (taken from the CALM Assessor Manual) is printed to give a guide for loading of buffalo. The driver also needs to drive carefully, avoiding heavy braking and acceleration or heavy cornering at speed. On very long

interstate journeys buffalo, if given sufficient space, will happily lie down and rest without injury, if given reasonable bedding material. Interstate movements of breeders must comply with long haul transport regulations which specify maximum distances, rest and feed stops.

RECOMMENDED LOADING DENSITIES FOR LIVESTOCK

Table 1. Minimum and maximum numbers of cattle of various live weights for three and four metre pens and double deck road transports

Live-weight (kg)	3-m pen (7.2 m ²)		4-m pen (9.6 m ²)		Deck 12.2 m	
	Minimum+	Maximum*	Minimum+	Maximum*	Bottom#	Top
250	7	10	10	14	38	36
300	7	9	10	12	34	32
350	6	8	9	11	30	28
400	5	7	7	9	28	26
450	5	6	7	9	26	23
500	4	6	6	8	24	21
550	4	5	6	7	22	19
600	3	5	4	6	20	17
650	3	4	4	5	18	15

+Cattle transported at densities lower than above may be more prone to injury in emergency braking situations during travel

*Loading densities greater than the maximum recommended may not permit fallen animals to be brought to their feet before unloading

#Bottom deck loading rate also applies to single deck trailers

At the abattoir pre-slaughter

Any stressful situation should be avoided in the 48 hours prior to slaughter, wherever possible. At the abattoir, you may need to show abattoir staff how quietly your stock will move through the yards without 4-wheel drives and electric prods. If the stay in the yards is longer than eight hours, make sure animals have plenty of feed and clean water to reduce stress and weight loss - you will be paying for the weight loss in most instances. If possible attend to the stock yourself. Use the arrangements described in this Agnote with abattoir staff so you maximise the potential returns of your breeding and care during transport, which will be expressed fully in the meat produced. If a stressful situation occurs prior to loading, replace stressed animals and keep them until the next shipment leaves for slaughter. Otherwise pH of stressed animals will be elevated at slaughter and discount prices will apply.

CONCLUSION

To be able to achieve good handling and husbandry of buffalo, improvements may need to be made right through every facet of the operation.

Careful initial planning in the layout of the property, design of laneways, fences and yards is essential, as well as a positive attitude of the owner and staff toward the herd. Retraining of stock may be necessary in the short term or segregation of young stock by weaning, training and keeping them totally separate from older buffalo. This may be a good start towards developing a quiet, tractable herd. Obviously, frequent human contact, particularly at the time of providing feed, is a good positive reinforcement. Most of the management changes are common sense. Owners soon learn what the wrong treatments are; correcting them may take more time and patience. **Patience** and **attitude** of the handler are the key issues with all buffalo handling. A person with a 'short fuse' or bad temper should not be allowed to handle buffalo.

The benefits of good animal husbandry techniques and quiet stock will be ultimately reflected in higher profits for the producer.

If animals are quiet and easily managed, labour requirements and cost will be reduced. Similarly, there will be fewer injuries and bruising to stock and people, and less damage to facilities.

There will be a better financial potential if quiet young animals are put on the market. There is a distinct possibility of higher prices per kg for your stock if you can consistently produce good quality meat animals. Not only is the meat of such animals of better quality, there is more quality meat to sell per carcass. Ascendancy in the market place is achieved by producing a consistent high quality product.

FURTHER READING

Attend *Low Stress Stock handling School*. See website www.lss.net.au

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