The role of commercial use in integrated feral camel management

Commercial use of feral camels includes mustering for domestic meat processing and ground culling for petmeat. The Australian Feral Camel Management Project (AFCMP) recognised the potential of both forms of removal to contribute to feral camel management and provided a range of support for these activities. Beyond the AFCMP, there are a number of challenges facing ongoing commercial use that are discussed in this paper.
An integrated approach to managing feral camels

An integrated approach to feral camel management was adopted by the AFCMP as no single management method is likely to reduce feral camel density to a level where their impact is acceptable to all stakeholders. When a single feral animal management technique is used in isolation, it is generally less effective than when two or more techniques are combined into an integrated management program. Culling (aerially and from the ground), muster for commercial sale, water access management and exclusion fencing are the main methods available for feral camel management.

Zeng and Gerritsen 2012 from Charles Darwin University, in their research on the contribution of commercial harvest to the management of feral camels in Australia, concluded that harvesting may reduce feral camel numbers in areas of localised high densities, but on a landscape scale it couldn’t adequately reduce feral camel impacts on its own.

Working in partnership

The AFCMP used a national approach, bringing together relevant state and territory governments (WA, NT, SA and Qld), Traditional Owners across the four jurisdictions (land trusts, corporations and land councils), Natural Resource Management boards, conservation groups, the pastoral industry and the commercial camel industry. With their extreme mobility, feral camels require a cross-jurisdictional as well as cross-tenure management approach.

The Australian camel industry

Around the world, there is significant demand from consumers for protein, including camel meat, particularly in the Middle East and Africa. However, sales opportunities can be significantly restricted by what key markets are prepared to pay for this meat. This in turn determines the extent to which commercial removal can be utilised in an integrated management plan.

Currently there are two abattoirs in Australia (Caboolture, Queensland and Peterborough, South Australia) that are supplying camel meat to overseas markets. Their maximum processing capacity is estimated to be around 50,000 camels per annum. Current processing throughput is increasing but is well below this estimated maximum, with less than 15,000 camels processed in 2012/13. In a price-sensitive market, the distance of these abattoirs from the feral camel population significantly influences the numbers available for commercial use.

An Australian camel meat industry cannot be totally reliant on ongoing harvest of feral camels to be sustainable. A long-term sustainable camel industry must be based on farmed camels (camels behind wire), although it may continue to make a contribution to feral camel management.

The Australian Camel Industry Association (ACIA) recognises that while Australia’s feral camel population poses a threat to agriculture, natural ecosystems and biodiversity, it also present opportunities. The Association supports a humane, long-term solution to this problem that includes utilising and developing the commercial value of the animal in an increasingly regulated and responsible industry environment. This will assist feral camel management through increased commercial pressures on the feral herd but it is also recognised that an increasing incentive to retain higher densities in the feral herd could counter this benefit.

ACIA Chair, Lauren Brisbane, believes that while feral camel numbers are not excessive in Queensland, they can be domesticated and classified as stock within existing regulations which provides an added incentive to landholders to utilise them.

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1 Benxiang Zeng and Rolf Gerritsen, Journal of Environmental Planning and Management (2012, 1–13) Inadequate contribution of commercial harvest to the management of feral camels in Australia. Charles Darwin University, Australia.
Training has been a priority under the AFCMP to improve the efficiency and animal welfare of mustering operations.

Lauren estimates that there are at least 10,000 domestic camels behind wire in Queensland, owned by landholders who recognise a potential future opportunity for economic diversification on their grazing properties. These landholders are sometimes only interested in the potential woody weed control benefits of camels, but this form of farming should help increase supply to abattoirs over time.

A national removal assistance scheme

Engaging with industry to achieve the complementary outcomes of feral herd reduction, improved natural resource condition and economic participation opportunities for remote Australia were the key objectives of the AFCMP removal assistance scheme for feral camel management.

This scheme helped build the capacity of the commercial use industry with ongoing environmental and social benefits. The removal assistance scheme is outcome focussed, allowing the landholder to enter into agreement with the AFCMP to qualify for financial support once female feral camels are removed, provided compliance with the mustering Standard Operating Procedure and other conditions is demonstrated. In doing so, the AFCMP has assisted landholders to reduce their feral camel populations and contributed to the development of a supply chain through to the processing abattoirs. By linking the scheme to training of personnel and auditing of operations, the environment sector is also able to effectively discourage the development of perverse outcomes such as the release of undersized calves or cow camels back out into the wild.

Working on Aboriginal Lands

One of the keys to success in managing a mobile feral animal is establishing and maintaining successful partnerships across land tenures. This applies particularly in Central Australian Aboriginal communities, including Central Land Council (CLC), Anangu Pitjantjatjara Yankunytjatjara (APY) and Ngaanyatjarra Council (Aboriginal Corporation) lands.
The Ngaanyatjarra Council has been successful in developing their commercial operations. Alex Knight from the Ngaanyatjarra Camel Company says they have removed up to 1,000 camels a month (from both Ngaanyatjarra and APY Lands) and are exporting camel meat overseas and that this is profitable, even when the Australian dollar is high. He attributes much of this achievement to highly motivated staff with practical experience who are not afraid to use their initiative.

Traditional owners within CLC lands have been supportive of all forms of feral camel management. There have been local employment benefits through monitoring feral camels and their impacts, ground culling, ground support for aerial culling and mustering. The CLC has received a number of proposals and had agreements for feral camel harvesting from potential commercial operations. Unfortunately, the remote location and lack of essential infrastructure to support large-scale commercial operations have limited progress in this regard.

The CLC has experienced a range of issues related to the commercial use of feral camels and these may be applicable across other Aboriginal lands:

- The infrastructure requirements for commercial use (e.g. roads, holding, drafting and trucking facilities) are substantial, particularly over the large undeveloped areas typical of Aboriginal lands.
- Non-commercial camels cannot be released and their humane destruction and subsequent carcass management can create problems (abattoirs have minimum weights and specifications, so are not keen to take small camels).
- As the commercial removal of feral camels is still a developing business, trucking logistics can be extremely complex if not managed well. This may require substantial wait-periods and subsequent stock feeding and animal care obligations; for example, you might have to wait weeks for the trucks that can only carry up to 55 big camels at a time. Mustering activity therefore needs to be well timed or have a lot of feed available at the loading facility.
- Mustering can cost a lot, including for the helicopter, vehicles, camel feed and wages.  

Alex Knight agrees and says that by far the biggest expense for Ngaanyatjarra is the transport costs and the turn-around time for trucks, including the added cost of returning without a load. “Having a meat works nearer to the lands would be a great improvement,” said Alex. “It is not feasible to have an on-site abattoir as labour is not easy to source but one in Alice Springs may be a good option”.

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2  smokin’ camel Number 2. May 2012, Newsletter for traditional owners about camel management on Central Land Council Aboriginal Lands, Northern Territory

Mustering operations require adequate infrastructure and access to food and water for holding yards.
A pastoralist’s view

Individual pastoralists are involved in the muster and sale of camels but currently the number of pastoralists participating is relatively small.

Lyndee Severin of Curtin Springs Station in central Australia believes there is a potential place for the private sector to be involved in harvesting feral camels as the demand is well established with a basic range of markets. Feral camel management based on culling alone will not work in the long term. It is an expensive process and while landholders are obligated to control feral animals, they cannot be expected to do this if it becomes too onerous a cost on their business operations.

For Lyndee, one of the main problems for feral harvesting is with the middle of the supply chain and in getting animals onto a truck. “There are some difficulties in negotiating access to land where the highest densities are” she said. “Also it would be useful for landholders to know about more options in terms of camel buyers and mustering teams. The abattoirs tend to have a single point of contact or one buyer purchasing on their behalf and while this may seem a streamlined, easy approach, often this is not in everyone’s best interests.”

Like any abattoirs buying a product, there are specifications for the camels they will purchase. So at any time, but especially when conditions are dry, many of the camels mustered may not reach minimum specifications.

Lyndee recalls the cull they did on Curtin Springs in January 2013. “In October 2012 we had big fires and then not a lot of summer rain. By December we were seeing feral camels building up in mobs of more than 200. Most were cows in poor condition with new calves, not weaned. We knew that the abattoirs would not be interested in them. Another issue was the four weeks waiting time before they could be transported, which meant holding animals for a long period in extreme temperatures with feed not readily available. So we ended up allowing aerial culling of nearly 2,000 feral camels in four days. Of that number, only 200 may have met the abattoirs’ specifications”, Lyndee said.

While abattoirs may take smaller animals at times, it affects the economics of the supply chain and animals need to be in good condition for transporting long distances. It simply isn’t profitable to send camels from the Northern Territory to the Caboolture abattoir in Queensland to be processed at less than 360kg or more than 800kg live weight. This reinforces the need for an integrated approach to feral camel management.

Processor’s perspective

Mike Eathorne, General Manager of Meramist Pty Ltd, has been exporting camel meat to the US, Canada and Europe for 12 years, from the Caboolture Queensland abattoir. Mike also supported Lauren Brisbane in representing ACIA on the AFCMP Steering Committee.

“All the camel meat we export is for human consumption and we are serious about developing this industry further,” said Mike. “Here in Caboolture we process about 5500 camels each year and from each
According to Mike, working with the AFCMP has been beneficial because it has enabled the camel meat industry to develop new partnerships and improve the supply of camels.

**Market diversification**

While Lauren Brisbane is aware that keeping up consistent supply, especially one based on feral harvest, is an issue, there is merit in diversifying market options and that includes the domestic meat market. Lauren is a true believer, describing primal camel meat as exceptional with good nutritional qualities and camel dairy products as low cholesterol foods, suitable for diabetics and contributing to heart disease prevention. There are also potential markets for camel wool and hides.

The use of camels for petmeat is an inherently marginal economic business because of the low product value and comparatively high costs of labour and transportation. A business operated on Ngaanyatjarra lands for several years, and was viable largely because of the ability to backload freight trucks. This operation was supported by the AFCMP, but eventually collapsed due to a change in processor requirements.

Stakeholders in the supply chain need a detailed understanding of potential markets and their requirements. Meeting the market requirements requires development of an efficient supply system that ensures continuity and quality of the animals supplied. So building a strong and effective supply chain that includes property owners, musters, transport, abattoirs and especially marketers is a high priority for the emerging industry. This would have a very positive impact on improving and maintaining the value of camels and industry’s contribution to feral camel management.

To achieve this, one of the first steps is to identify all existing and potential industry partners and to begin developing a cohesive industry identity. Communicating relevant information is also a good place to start. It is appropriate that ACIA take the responsibility to integrate available supply intelligence and market information. Methods for this include the ACIA website and the development of an industry strategic plan.

**Infrastructure requirements and transport of feral camels**

A great deal of work has been done in developing Standard Operating Procedures to ensure the safety of feral camels during mustering, holding and transport. It is important that these procedures are communicated and adhered to.

Managing health and welfare issues is a shared responsibility between all the people involved, including landholders, mustering teams, buyers and drivers. The risk factors for camel welfare during land transport also need to be managed within and across state and territory borders.
Developing on-property infrastructure to allow ongoing (and not just opportunistic) removal is a critical issue. To ensure that capture and handling is performed with the least stress, operators should have a good knowledge of camel behaviour and good stock handling skills.3

Economic contribution

It is difficult to quantify the economic contribution of feral camel harvesting operations as precise figures are dependent on the size of operations and economies of scale.

As a general rule, a feral camel mustering operation involves three to five persons on the ground. According to Phil Gee from SA Rural Solutions, there were four mustering operations active on the APY Lands for much of 2012/13. These operations are still mustering feral camels in the APY but some have expanded their operations into WA. In addition, there have been eight local Aboriginal people employed on a casual basis in the APY Lands with the mustering operations.

Peterborough abattoir employs full-time and part-time workers, processing camels from one to five days per week. On a good day in 2012, around 130 camels were able to be processed. During the first seven months of 2012/13, an average of 205 camels a week were transported to Peterborough abattoir. This required the use of around three triple-trailer roadtrains per week, charged out at around $7.50 per kilometre for the loaded distance travelled. As an example, a trip from Amata in the APY Lands would equate to over $10,000 in transport costs for the roadtrain delivering around 60 camels to Peterborough, or around $170 per camel, with this cost being covered by the abattoir.

The average meat yield over all sizes of camels is in the order of 115-120kg per camel but for very large animals this can reach 180kg+. Landholders sending camels to Peterborough can expect a farm-gate return of between $100-150 per animal. However, mustering costs must be paid out of this return.

Nominally, only 60-72 camels can be trucked on a triple-trailer roadtrain which are single deck as opposed to double deck for cattle; so while commercial removal can be profitable, it is relatively marginal when compared with cattle production. The direct profitability may not be so critical to landholders if social and environmental outcomes are also considered, particularly for remote Aboriginal communities.

Conclusions/Summary

- No single management method is likely to reduce the feral camel density to a level where their impact is acceptable to all stakeholders, so the AFCMP uses and recommends an integrated program involving culling (aerially and from the ground), mustering for commercial sale, water access management and exclusion fencing. Commercial use can significantly contribute to feral camel management programs provided it is responsible and legislatively compliant.

- There is increasing worldwide demand for protein, including camel meat, but a viable and sustainable Australian camel meat industry cannot be reliant on the ongoing harvest of feral camels.

- The removal assistance scheme has allowed landholders to enter into agreement with the AFCMP to qualify for financial support once feral cow camels are removed, and in doing so, contributes to continuity of the supply chain. By linking the scheme to training of personnel and auditing of operations, the environment sector can discourage the release of undersized calves or cow camels back into the wild.

- There are successful commercial operations such as the Ngaanyatjarra Camel Company working on Aboriginal-owned lands and employing local Aboriginal people.

- There is potential for pastoralists to become more involved in the commercial operations if some of the supply chain issues such as transport logistics and costs and farmgate value of feral camels can be resolved.

- Communication of accurate, relevant and up-to-date industry information is vital, including through a camel industry strategic plan.

Further information


Australian Feral Camel Management Project: www.feralcamels.com.au

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