Horsemeat production in Australia and New Zealand

1. Introduction

Horses in both Australia and New Zealand are not raised specifically for food production. It is estimated that there are approximately 1.2 million horses in Australia, including around 400,000 feral horses known as brumbies.\(^1\) FAO statistics for the New Zealand horse population are far lower with 57,427 horses being recorded in 2013. Horse numbers have fallen significantly during the past few decades; in 2003 there were 80,397 horses recorded, but by 2011 this had decreased to 56,505.\(^2\) There are also feral horses in New Zealand, known as Kaimanawa horses.\(^3\)

As illustrated below, horsemeat production in New Zealand has remained relatively stable over the past fifty years. In contrast, Australian horsemeat production increased significantly during the early 1980s and following a brief dip during the late 1980s, it remained stable until 2005 when production began to increase once again.

**Figure 1: Volume of horsemeat production in Australia and New Zealand, 1961-2013**

\(^1\) European Commission (2009) Final report of a mission carried out in Australia from 23 November to 04 December 2009 in order to evaluate the control of residues and contaminants in animals and animal products, including controls on veterinary medicinal products. p.25


Table 1 provides an overview of the number of horses slaughtered in both countries since 2005, according to FAO statistics. This also presumably includes animals whose meat does not enter the human food chain.

Table 1: Number of producing/slaughtered horses in Australia and New Zealand 2005-2012

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<tbody>
<tr>
<td>Australia</td>
<td>76,000</td>
<td>88,000</td>
<td>91,000</td>
<td>92,000</td>
<td>92,000</td>
<td>92,000</td>
<td>94,000</td>
<td>94,000</td>
</tr>
<tr>
<td>New Zealand</td>
<td>8,410</td>
<td>9,864</td>
<td>8,494</td>
<td>8,006</td>
<td>10,370</td>
<td>8,376</td>
<td>8,806</td>
<td>8,800</td>
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Source: FAO Stat, accessed 3rd October 2014

2. Horse slaughter in Australia and New Zealand

There are presently just two slaughterhouses in Australia that are accredited for the slaughter of horses for human consumption. This is in addition to the 33 licensed knackeries that supply horsemeat to the pet food industry. Until recently all the horsemeat produced in Australia was exported given that it could not be sold as such in Australia, but the sale of horsemeat was approved by the West Australian State Government with a single special license having been issued to one butcher who reportedly slaughters 20 animals per annum.

It is estimated that the two accredited Australian slaughterhouses kill around 700 horses per month (approximately 8,400 per annum), while the knackeries slaughter between 22,000 and 32,000 horses per annum. This accounts for between 2.5 and 3.33% of the Australian horse population per annum. In addition to supplying the pet food market, knackeries also produce other by-products, such as horse hides, hair and bone meal.

The two Australian abattoirs accredited for slaughter for human consumption are Samex Peterborough Pty Ltd, which is located in Peterborough, South Australia and Meramist Pty Ltd in Caboolture, Queensland. Samex Peterborough processes its horsemeat for the Belgian company Velda NV; this company also imports horsemeat from South America and was the owner of the former Cavel slaughterhouse in Illinois, US and linked to the Natural Valley slaughterhouse in Canada. The Meramist plant is reportedly owned by the Belgian firm Benimplex NV.

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4 European Commission (2009) Final report of a mission carried out in Australia from 23 November to 04 December 2009 in order to evaluate the control of residues and contaminants in animals and animal products, including controls on veterinary medicinal products.
6 Ibid.
There is only one horse slaughter plant in New Zealand, which is run by Clover Export Limited and located in Gore, Southland. This is reportedly also a subsidiary of the aforementioned Meramist plant owned by Benimplex NV. This company, however, is registered at exactly the same address in Ranst, Belgium as the company Multimeat NV, which is linked to the Empacadora de Carnes Fresnillo horse slaughter plant in Mexico and the now defunct Beltex horse slaughterhouse in Texas, USA.

According to an audit of the European Commission's Food and Veterinary Office (FVO) in 2012, this sole New Zealand slaughter plant processes around 1,700 horses a year, 95% of which are reported to come from just five suppliers.

3. Export markets

The tables below provide an overview of the value and volume of horsemeat exports from both Australia and New Zealand. Belgium, France, Switzerland, Japan and the Russian Federation appear to be the most important export markets for horsemeat from these countries.

Table 1: Horsemeat exports from Australia by volume (tonnes) and value (1000 USD) 2005-2011

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<thead>
<tr>
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<th>2005</th>
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<td>Tonnes</td>
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<td>1000 USD</td>
<td>Tonnes</td>
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<tr>
<td>Belgium</td>
<td>547</td>
<td>1,820</td>
<td>361</td>
<td>1,400</td>
<td>201</td>
<td>823</td>
<td>220</td>
</tr>
<tr>
<td>Canada</td>
<td>19</td>
<td>74</td>
<td>:</td>
<td>:</td>
<td>17</td>
<td>14</td>
<td>:</td>
</tr>
<tr>
<td>France</td>
<td>250</td>
<td>1,529</td>
<td>273</td>
<td>1,350</td>
<td>245</td>
<td>1,535</td>
<td>79</td>
</tr>
<tr>
<td>French Polynesia</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>:</td>
<td>:</td>
<td>:</td>
</tr>
<tr>
<td>Japan</td>
<td>383</td>
<td>654</td>
<td>18</td>
<td>41</td>
<td>106</td>
<td>271</td>
<td>55</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>10</td>
<td>20</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>:</td>
</tr>
<tr>
<td>Qatar</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>0</td>
<td>8</td>
<td>:</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>743</td>
<td>1,453</td>
<td>1,052</td>
<td>2,250</td>
<td>1,237</td>
<td>2,842</td>
<td>1,095</td>
</tr>
<tr>
<td>Singapore</td>
<td>:</td>
<td>:</td>
<td>1</td>
<td>6</td>
<td>:</td>
<td>:</td>
<td>1</td>
</tr>
<tr>
<td>Switzerland</td>
<td>300</td>
<td>1,509</td>
<td>314</td>
<td>1,632</td>
<td>336</td>
<td>1,952</td>
<td>225</td>
</tr>
</tbody>
</table>

14 European Commission (2012) Final report of an audit carried out in New Zealand from 10 to 20 September 2012 in order to evaluate the monitoring of residues and contaminants in live animals and animal products, including controls on veterinary medicinal products. DG(SANCO)2012-6533 – MR FINAL. p. 25.
It should be noted that these FAO trade statistics do not include the French overseas territory Réunion. However, data from the Australian Bureau of Agricultural and Resource Economics and Sciences (ABS) indicates that significant quantities of horsemeat for human consumption is also being exported to this French overseas territory, which is technically an outmost region of the European Union. According to ABS trade data, during the 2010-2011 financial year, 29,309 kilos of Australian horsemeat was exported to Réunion; this represents nearly 2% of Australian horsemeat exports during the same period.15

Table 2: Horsemeat exports from New Zealand by volume (tonnes) and value (1000 USD) 2005-2011

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<thead>
<tr>
<th>2005</th>
<th>2006</th>
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<th>2008</th>
<th>2009</th>
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<th>2011</th>
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<tbody>
<tr>
<td></td>
<td>Tonnes</td>
<td>1000 USD</td>
<td>Tonnes</td>
<td>1000 USD</td>
<td>Tonnes</td>
<td>1000 USD</td>
</tr>
<tr>
<td>Belgium</td>
<td>112</td>
<td>485</td>
<td>260</td>
<td>948</td>
<td>142</td>
<td>584</td>
</tr>
<tr>
<td>France</td>
<td>33</td>
<td>178</td>
<td>8</td>
<td>34</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Japan</td>
<td>100</td>
<td>194</td>
<td>89</td>
<td>186</td>
<td>72</td>
<td>176</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>:</td>
<td>:</td>
<td>37</td>
<td>87</td>
<td>44</td>
<td>93</td>
</tr>
<tr>
<td>Switzerland</td>
<td>3</td>
<td>23</td>
<td>:</td>
<td>:</td>
<td>38</td>
<td>276</td>
</tr>
</tbody>
</table>


4. Animal welfare

There are various animal welfare concerns associated with horse slaughter in Australia and New Zealand. The main issue relates to the long-distance transportation of horses to slaughter with journeys of over 3,000 kilometres being recorded in the Australia.16 With the only horse slaughterhouse in New Zealand being located in the most southerly region of the South Island, it is likely that journey times can be lengthy there too.

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There is a lack of reliable information about the trade and transportation of horses to slaughter in both countries. One news article suggests that some horses, including thoroughbreds, in New Zealand may be transported in cattle trucks by stock drivers with no experience with horses, while others are reported to be transported in the same specialised vehicles used for transporting horses to competition. An Australian animal rights source alleges that horses are transported without food and water with injuries being common.

As described below, the use of captive bolt pistols or shooting are the methods approved for the slaughter of horses in Australian and New Zealand abattoirs. There do not appear to be any specific scientific data on the welfare of horses at the time of killing in Australia or New Zealand. However, the welfare problems identified elsewhere in the world should be equally applicable to the situation in both countries. In short, horses are flight animals and skittish by nature, which makes accurate stunning difficult. As a consequence, they may receive repeated blows and can potentially even remain conscious when they are bled out if the brain is not properly penetrated.

4.1. Australian animal welfare requirements for horse transport and slaughter

Animal welfare standards and guidelines on the land transport of livestock, which were issued by the Australian Federal Government Department of Agriculture, Fisheries and Forestry in 2008, set down specific requirements for the transport of horses. In sum, horses over six months old may not go without water for more than 24 hours; for younger foals, pregnant and lactating mares this is 12 hours. The journey time may be extended to 36 hours on the condition that the horses are watered and fed every 5 hours, they are not exposed to the natural elements and have effective airflow if fully enclosed, the animals have sufficient space to stand comfortably (vertical clearance of at least 2.2 metres and 1.2 m²/head floor area for adult horses), the floor is non-slip, sufficiently strong to bear the activity of horses and has drainage, the fitness of the horses is regularly checked during transport and that the animals must have a 24 hour rest period before starting another journey. All vehicles must be constructed to ensure each horse stall or pen can be accessed for feeding, watering and visual inspection. Unbroken stallions must be segregated, no electric prods or dogs may be used to move horses. Finally, moderately or severely lame horses may only be transported with veterinary advice.

It should also be noted that each Australian state government has its own requirements for the movement of horses both within the state or interstate, partly to prevent the spread of infectious disease. This involves the use of waybills, which includes information of the horse’s breed, sex and brand, as well as on the holding of origin and destination. These waybills are also required for horses being sent to slaughter.

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In Australia, animal welfare at slaughterhouses is licensed under state and territory laws. However, there is a Model Code of Practice for the Welfare of Animals on Livestock at Slaughtering Establishments, which sets down the national requirements for the humane slaughter of horses. According to this Code of Practice, adult horses may be unloaded at slaughterhouses with the use of electric prods. With respect to stunning restraints, the knocking boxes (kill chutes) should not be wide enough for horses to turn around, but long enough to accommodate a single animal, adjustable for smaller animals and easily dismantled to give access to animals that fall, lie down or are incapacitated. The animals should only enter these boxes when they are going to be stunned immediately. Horses must be prevented from viewing dead animals ahead of them, or witnessing the slaughter process if at all possible.

The Code of Practice also stipulates that horses must be stunned using a 'suitably designed' penetrating captive-bolt pistol powered by compressed air or cartridge, or may be shot, if the facilities safely permit this. A head collar or bridle may be put on the animal to allow it to be restrained. It is also recommended that restless animals should be blindfolded. The captive bolt pistol is directed frontally at the middle point between the base of the ears and eyes; if firearms are used, horses may also be shot horizontally from the side of the head between the eye and base of the ear. The horse’s major blood vessels in the neck are then supposed to be severed as soon as possible after it has been shot for the purposes of exsanguination.

4.2. New Zealand animal welfare requirements for horse transport and slaughter

New Zealand has also established a Code of Recommendations and Minimum Standards for Welfare of Horses. With respect to transport, the obligations of those owning, in charge of or transporting the horse are set down in the Animals Protection Act 1960. It is noted that the welfare issues associated with transporting horses domestically are due to be dealt with in a proposed Code of Minimum Standards for the Road Transport of Livestock.

The existing Code of Recommendations stipulates that only persons with competence or experience in the transport and supervision of horses may transport them, or be supervised by someone who has. Horses must be fit for transportation and sufficient water and food must be made available to every animal and offloaded where necessary to receive both. The Code also states that the animal must be provided with reasonably comfortable and secure accommodation, and "no person may confine or transport any animal in a manner which causes unnecessary pain or suffering."

This New Zealand Code also establishes acceptable methods for the humane slaughter of horses. In addition to euthanasia via rapid intravenous injection, which is not applicable to killing horses for human consumption, shooting in the forehead (a diagram is provided showing the target

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23 Ibid. p. 3.

24 Ibid. p. 8.

25 Ibid. p. 9.

26 Ibid. p. 21


28 Ibid.
area, which is the intersection between the base of the ears and opposite eyes) with a firearm of at least 0.22 calibre and the use of a ‘captive bolt or humane killer’ is permitted. It is stipulated that slaughter may only be performed by persons who can prove competence or have received training in the method selected.  

5. Traceability, consumer safety and drug residues

Since 31st July 2010, the EU has required that only horses with a known lifetime medical treatment history, and whose medicinal treatment records show they satisfy the veterinary medicine withdrawal periods, will be allowed to be slaughtered for export to the EU. Consequently, any non-EU country wishing to continue exporting horsemeat to the Union has been required to introduce appropriate residue control plans and to adopt new rules with respect to the identification of horses for slaughter. The European Commission already informed the competent authorities of importing countries, such as Australia and New Zealand, of the change in these requirements in 2009.

5.1. Australia

Australian horsemeat for human consumption/export is sourced from both feral and owned horses. An audit report by the European Commission’s Food and Veterinary Office (FVO) in 2009 notes that drug residue testing is only carried out on domesticated horses since it is assumed that feral horses have not received any veterinary treatment. Instead, brumbies are only tested for contaminants.  

At the time of the audit, however, the Australian authorities had no stratified sampling for the different horse populations nor any formal procedures to deal with samples suspected of being tainted with veterinary drug residues.

Substances, such as nitrofurazone, metronidazole, phenylbutazone and various anabolic steroids, which are banned for use in food animals in the EU are authorised for use in horses in Australia, though are labelled as not be used in animals intended for food production. For some phenylbutazone products, a withdrawal period of 28 days was reportedly given; while in the EU this drug is banned for use in food animals and has no maximum residue limit. The drug is, however, included in the Australian National Residue Survey programme.

The Australian authorities require that horses are individually identified when they are designated as intended for slaughter. Owned horses are identified with a ‘single-use individually numbered collar’, while feral animal are identified as a herd and are kept separate from other horses during transport and slaughter. It has been estimated that between 10% and 20% of

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29 Ibid.
30 European Commission (2009) Final report of a mission carried out in Australia from 23 November to 04 December 2009 in order to evaluate the control of residues and contaminants in animals and animal products, including controls on veterinary medicinal products.
31 Ibid. p.7-8.
32 Ibid. p. 18.
33 Ibid. p. 19.
34 Ibid. p. 25.
the horses slaughtered for export are such brumbies.\textsuperscript{35} The FVO audit found that horse dealers did not administer any preventative treatments to animals intended for slaughter, instead segregating them and diverting horses with health problems to slaughter for the pet food trade.\textsuperscript{36}

Since 2007, horses in Australia must also be accompanied by a vendor declaration, which includes information on veterinary treatments administered six months prior to slaughter.\textsuperscript{37} The FVO audit found that the traceability of products through the production line to the animal's origin to be satisfactory.\textsuperscript{38} Nonetheless, the auditors noted that the keeping of veterinary records for horses in Australia is not compulsory because these animals are not classified as food producing animals.\textsuperscript{39}

The Australian vendor declaration does include questions on the use of nitrofurazone, metronisazaole and growth promoting beta-agonists; in answered positively the horses are not slaughtered for human consumption. At the time of the audit, no questions were asked about the use of anabolic steroids and a recommendation was made to cover these substances in the vendor declaration.\textsuperscript{40}

Despite these shortcomings, the FVO auditors concluded that the measures put in place by the Australian authorities were sufficient to ensure the exclusion of residues in horsemeat exported to the EU.\textsuperscript{41}

In 2014, a complaint that Australian horsemeat exports fail to comply with EU food safety standards was reportedly forwarded to the European Commission.\textsuperscript{42}

5.2. New Zealand

Since December 1996, New Zealand has had a formal agreement with the EU with regard to sanitary measures relating to the trade in both live animals and animal products.\textsuperscript{43} In 2011, the FVO carried out an audit in the country, which – amongst other things – assessed the public health controls on horsemeat.\textsuperscript{44} This was also subsequent to the introduction of the new EU requirements for the import of animal products, which established new rules with regard to the identification of equidae.

36 European Commission (2009) Final report of a mission carried out in Australia from 23 November to 04 December 2009 in order to evaluate the control of residues and contaminants in animals and animal products, including controls on veterinary medicinal products. p. 21.
37 Ibid.
38 Ibid. p. 17, p. 25.
40 Ibid. p. 28.
41 Ibid. p. 26.
44 European Commission (2011) Final report of an audit carried out in New Zealand in order to assess the public health control system and certification procedures for fresh bovine, ovine and equine meat, and casings destined for export to the European Union under the auspices of the agreement between the European Community and New Zealand on sanitary measures applicable to trade in live animals and animal products. DG(SANCO) 2011-6135 – MR. FINAL. 

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Horse dealers in New Zealand are registered, but horse owners are not required to register their holdings. When collected for slaughter from their holdings of origin, these animals are identified by their freeze brand marks (linked to their studbooks) and numbered collars (each dealer uses a different coloured collar); thoroughbreds will also be a micro-chipped, though the FVO audit points out that there is no legal requirement for either dealers or the slaughterhouse to identify them using the microchip. A supplementary Animal Status Declaration (ASD) is also completed describing the identifying characteristics of all horses loaded.45

The horse dealers must also keep a register, which the last owner of the horse must sign a statement with regard to the veterinary substances administered to the animal during the past six months. This supplementary ASD includes a list of substances, such as anabolic steroids and phenylbutazone, that must not have been given to the horse six months prior to slaughter.46 The FVO 2011 audit, however, found that 'there were no procedures in place to verify that correctness of the information provided on the supplementary ASD which is submitted to the slaughterhouse by the supplier".47

A second FVO audit on controls on veterinary drug residues in New Zealand the following year noted that only 2.7% of horses are tested for anabolic steroids each year and one of the anabolic steroids that is authorised for therapeutic use in horses, namely methandriol combined with 19-nortestosterone, was not being tested for by the competent authorities in New Zealand. This is despite the fact that a high percentage of horses slaughtered are known to be former thoroughbred racehorses and this substance is typically used to treat such horses after injury.48

Nonetheless, the auditors concluded that the measures taken by the New Zealand authorities and horse slaughter industry did provide sufficient assurances on the residue status of horsemeat destined for export to the EU.49

According to the FVO's audit programme, an audit concerning fresh meat, meat products, minced meat, meat preparations and casings is scheduled to take place in New Zealand in 2014.50

46 European Commission (2012) Final report of an audit carried out in New Zealand from 10 to 20 September 2012 in order to evaluate the monitoring of residues and contaminants in live animals and animal products, including controls on veterinary medicinal products. DG(SANCO)2012-6533 – MR FINAL. p. 25.
47 Ibid.
49 Ibid. p.40