

Short Report

Equine Influenza in Australia

Background

Outbreaks of equine influenza (EI) occur regularly throughout most countries of the world. Prior to the current outbreak in Australia, Iceland, New Zealand and Australia were the only countries that had never reported the occurrence of EI. EI is the most frequently diagnosed and economically important cause of viral respiratory disease of horses. Because EI is an ongoing risk among horses that co-mingle (shows, races, sales), vaccination to prevent disease is commonly employed in the United States. Equine influenza is not a human pathogen, but the virus can be transported on people's clothing, hands, or equipment. In 2004 in the United States, a strain of equine influenza A H3N8 virus caused a major outbreak of influenza in canines.

Sources:

- 1) Equine Influenza Infection. 2007. Landolt, G.A.; Townsend, H.G.G.; Lunn, P. In: Equine Infectious Diseases. Sellon, D.C.; Long, M.T. (eds.). Elsevier Inc.
- 2) Equine 2005. National Animal Health Monitoring System. <http://nahms.aphis.usda.gov>.
- 3) Landolt, G.A. 2006. Review of Interspecies Transmission of Influenza A Viruses: Implications for the Equine Population, AAEP Proceedings, vol. 52.

Outbreak Summary

On August 25, 2007, Australian government authorities reported to the OIE an outbreak of equine influenza (EI). This is the first occurrence of EI in Australia. EI H3 was first detected on August 17 at the Eastern Creek Quarantine Station in Sydney, New South Wales (NSW) and confirmed on August 20. On August 22 horses at the Centennial Parklands Equestrian Centre in Sydney displayed clinical signs consistent with EI, and subsequently tested positive for EI H3. Since these initial two detections, EI has been found at additional locations in NSW and in the state of Queensland. EI has been confirmed at the following locations in NSW: a government quarantine station at Eastern Creek, Centennial Parklands Equestrian Centre in Sydney, Parkes showground, Redfern (police horses), and private properties in Wilberforce, Cattai, Berry, Wyong, Kulnura, Mount Hunter, and Tamworth. The two affected locations in Queensland are Warwick and Minden.

Disease control measures include quarantine and disinfection of affected premises, movement controls, and screening. Vaccination is currently prohibited, as the vaccine can mask clinical signs, making it more difficult to identify cases and contain an outbreak. The Australian government has banned the movement of horses into and within Australia and has cancelled all racing.

Sources:

- 1) OIE Alert Message. August 25, 2007.
- 2) Australian government website. http://www.outbreak.gov.au/pests_diseases/pests_diseases_animals/equine_influenza/index.htm#situation. Accessed on August 28, 2007.
- 2) ProMED report. <http://www.promedmail.org>. Archive number 20070829.2836.



Epidemiologic Indications

Investigations are underway to determine if a link exists between the affected horses at the Centennial Parklands Equestrian Centre and the quarantine station. Horses at the quarantine station were from multiple countries, including Japan. Japan has been experiencing a major outbreak of equine influenza since mid-August; however, at this time there is no official link between the Australian and Japanese outbreaks. Media sources report that investigators are also focusing on a one-day event held near Maitland, NSW as the possible source of the outbreak. Horses imported into Australia are required to be vaccinated for EI with an inactivated vaccine.

Sources:

- 1) OIE Alert Message. August 25, 2007.
- 2) Argus Watchboard media reports. August 26–30, 2007.

Australian Equine Trade

Australia imported 3,616 horses in 2006, with major imports from New Zealand (2,587 head), the United Kingdom (666 head), and the United States (175 head). Australia also imported 24¹ horses from Japan in 2006. Australia did not import any donkeys, mules, or hinnies.

Australia exported 2,621 horses in 2006, with major exports to New Zealand (811 head), the Philippines (237 head), the United Arab Emirates (222 head), and Malaysia (212 head). Australia also exported 40¹ horses to Japan and 24 donkeys, mules, and hinnies to New Zealand in 2006.

Source:

1) Global Trade Atlas.

Japanese Equine Trade

Japan imported 6,435 horses in 2006, with major imports from Canada (5,723 head), the United States (358 head), and the United Kingdom (127 head). Japan also imported 38¹ horses from Australia in 2006. Japan did not import any donkeys, mules, or hinnies.

Japan exported 102 horses, donkeys, mules, and hinnies in 2006, with major exports to South Korea (42 head), Singapore (35 head), and Australia (15¹ head).

Source:

1) Global Trade Atlas.

United States Equine Imports from Australia and Japan

The United States imported 131 horses from Australia in 2006, and 103 from January to June 2007.

The United States imported 8 horses from Japan in 2006, and 11 horses from January to June 2007.

The United States import regulations for equines do not specifically address EI; however, all imported horses must be accompanied by a proper veterinary health certificate issued by a full-time veterinary officer of the national government of the exporting country stating that the horses have been inspected and found to be free of contagious diseases and, insofar as can be determined, exposure thereto during the 60 days immediately preceding exportation.

Source:

1) World Trade Atlas.

http://www.aphis.usda.gov/import_export/animals/animal_import/equine/equine_import.shtml. Accessed on 8/28/2007.

Australian Equine Industry Impact

Australia's horse industry contributed over U.S. \$5.2 billion to the gross domestic product (GDP), according to a 2001 study. Estimates of the numbers of horses in the country ranged from 900,000 to 1.8 million. Racing and associated activities were estimated to have contributed slightly more than U.S. \$3.2 billion. Equestrian events contributed almost U.S. \$0.3 billion. Eighty-five percent of Australia's horses are in New South Wales, Victoria and Queensland.

Australia is one of the leading countries in the world in Thoroughbred racing. In 2005, Australia was second only to the United States in the number of Thoroughbred races held, closely followed by Japan (Table 1). Australia was third in the amount of purses and fourth in the amount of money bet on the races worldwide.

The outbreak of EI is affecting multiple facets of the equine industry. Racing has been halted at various tracks leading to economic ripple effects of lost wagering, unemployment and lost race purses. Tabcorp, one of the top wagering groups in Australia, expects to lose U.S. \$123.5 million from a week of no racing.

Some of the world's top Thoroughbred stallions, which have completed their breeding seasons in the Northern Hemisphere, are being imported to Australia for the Southern Hemisphere breeding season, which typically starts on September 1. As a result of the EI outbreak, some 40 international stallions have been quarantined in Australia. In addition, the New Zealand government has closed its borders to horses from Australia, including dozens of top American, European and Asian stallions worth an estimated \$500 million.

At a special emergency national meeting on August 27, the Australian Racing Board agreed to a proposal by Thoroughbred Breeders Australia that the beginning of the breeding season be brought forward from September 1 to August 27, 2007. Due to the uncertainty about the duration of restrictions on the movement of horses, approval was given for mares to be covered from August 27. This will permit mares currently on breeding farms to be covered by resident stallions as of August 27, bringing the breeding season forward by six days. This action was taken in the hope of relieving an anticipated congestion of mares' coverings when the current restrictions on the movement of horses are eventually lifted.

¹ Australian imports/exports do not match Japanese imports/exports due to discrepancies between countries' reported data (e.g., Australian reported imports of horses from Japan are different from Japanese reported exports of horses to Australia).

The economic impact on breeds other than Thoroughbreds and harness horses in Australia is more difficult to determine; however, the country has approximately 145,000 Australian Stock Horses, 102,000 Arabian/Arabian crosses and 87,000 Quarter Horses, based on breed registrations. The number of

Thoroughbreds in the 2001 study was estimated to include approximately 32,000 for racing and 68,000 for breeding.

Table 1. Thoroughbred Racing and Breeding Worldwide 2005

Country	Races (number)	Purses (millions of U.S. dollars)	Betting Handle (millions of U.S. dollars)	Mares (number)	Reg. Foals (number)	Starts (number)	Starters (number)
Australia	19,968	\$280.08	\$8,564.58	27,882	17,178	196,683	31,037
Japan	18,213	\$953.51	\$27,701.71	10,623	7,930	196,268	26,420
United States	52,257	\$1,085.01	\$14,561.23	59,219	34,070*	428,048	66,903
World Total	169,487	\$3,633.89	\$106,366.61	197,366	118,024	1,596,093	256,872

Notes: In some cases, Betting Handle includes harness racing.

Wagering statistics include bookmaking in countries where such activities are legal (i.e., Australia and world total).

* Estimated figures

Source: The Jockey Club website. www.jockeyclub.com/factbook.asp?section=17. Accessed on August 27, 2007

Sources:

1) The Jockey Club website.

www.jockeyclub.com/factbook.asp?section=17

Accessed on August 27, 2007.

2) International Federation of Horseracing Authorities (IFHA) website. www.ifhaonline.org. Accessed on August 27, 2007.

3) International Federation of Horseracing Authorities (IFHA) website. Australian breeding season brought forward.

<http://www.ifhaonline.org/newsDisplay.asp?story=495>

Accessed on August 28, 2007.

4) Centre for International Economics, June 2001. The Horse Industry Contributing to the Australian Economy, by Jenny Gordon. RIRDC Publication No 01/083, RIRDC Project No CIE-9A. <http://www.rirdc.gov.au/reports/HOR/01-083sum.html>. Accessed on August 27, 2007.

5) Australian Racing Fact Book 2005/2006. Table 2.2: Information on the number of horses in Australia.

<http://www.australian-racing.net.au/factBook.html>.

Accessed on August 27, 2007

6) Perry, M. Tuesday, August 28, 2007; 12:55 a.m. Australia equine flu spreads, more racing banned. Reuters News press release.

CEI Assessment

Since EI already occurs in most countries, the animal health impact of this outbreak will be felt primarily in Australia. The Thoroughbred breeding and racing industry is a global industry; therefore, significant economic impacts related to restrictions on horse movement and lost wagering and race purses, of both the Australian and Japanese outbreaks, will be felt in many countries. Research to determine the efficacy of EI vaccines currently in use globally against the strain or strains of EI responsible for the outbreaks in Australia and Japan should be conducted.

CEI's Plans for Follow-up

CEI will continue to monitor the equine influenza situation in Australia.

If you would like more information or wish to provide comments on this CEI short report, see contact information below

For more information, contact:

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