



Summary of Selected Disease Events

October – December 2005



I. OIE Listed Diseases

Highly pathogenic avian influenza, subtype H5N1

Countries newly affected with highly pathogenic avian influenza (HPAI) subtype H5N1 during the fourth quarter include Croatia, Kuwait, Romania, Turkey, and Ukraine. Turkey's first outbreak of HPAI subtype H5N1 was reported to the OIE on October 10, 2005 and involved a turkey farm in the province of Balikesir in western Turkey. On December 22, Turkey reported another outbreak among village hens and turkeys in Ankara province in west central Turkey and on December 27 outbreaks in four backyard flocks were reported in Igdır province, in eastern Turkey. Croatia reported an outbreak in wild swans October 21, 2005 and a wild flamingo tested positive for the HPAI H5N1 strain in Kuwait in November 2005. Outbreaks reportedly began in Romania on October 4, 2005. Species affected since the start of the outbreaks in Romania include ducks, swans, hens, turkeys and a heron. Ukraine first reported HPAI H5N1 outbreaks to the OIE on December 8, 2005 and outbreaks have occurred in at least 27 villages on the Crimean Peninsula during December 2005.

Outbreaks of HPAI H5N1 have continued to occur during the fourth quarter of 2005 in domestic poultry in China, Thailand, Viet Nam, and Indonesia, all of which have been previously affected.

There were 151 human cases of HPAI subtype H5N1 with 82 deaths in 2005, with approximately 35 cases and 20 deaths occurring during the fourth quarter of 2005. Human cases have occurred in Cambodia, China, Indonesia, Thailand, Turkey, and Viet Nam.

Sources: OIE disease information reports; FAO AIDE News Update on the Avian Influenza Situation Issue no. 37; World Health Organization

Additional resources:

Impact worksheet Romania:

http://www.aphis.usda.gov/vs/ceah/cei/IW_2005_files/hpai_Romania/hpairomania10142005.htm

Impact worksheet Ukraine:

http://www.aphis.usda.gov/vs/ceah/cei/IW_2005_files/hpai_ukraine_120605/hpai_ukraine_120602.htm

Map of HPAI affected provinces in Turkey:

http://www.ecdc.eu.int/images/maps/turkey_poultry_16jan06.BMP

Biweekly maps of international HPAI outbreaks:

<http://www.fao.org/ag/againfo/programmes/en/empres/maps.html>

Table of human cases:

http://www.who.int/csr/disease/avian_influenza/country/cases_table_2006_01_23/en/index.html

FAO avian influenza web page:

http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special_avian.html

OIE avian influenza web page:

http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm

WHO avian influenza web page:

http://www.who.int/csr/disease/avian_influenza/en/index.html

Newcastle disease

Newcastle disease outbreaks were reported to OIE by 9 countries during October – December 2005. This represents an increase over the previous three quarters of 2005, as there were OIE outbreak reports of Newcastle disease from one country in the first quarter, zero countries in the second quarter, and 3 countries in the third quarter. During the fourth quarter of 2004, there were OIE Newcastle disease outbreak reports from three countries. The increase in the number of reports of Newcastle disease outbreaks is likely due to heightened awareness and surveillance for avian influenza. Of the 9 countries reporting outbreaks in the fourth quarter of 2005, only three countries (Denmark, Slovakia, and Romania) had not reported an outbreak of Newcastle disease during the 18 months prior to the report.

Denmark officials reported in October 2005 a Newcastle disease outbreak on one farm of hens for hatching egg production. Newcastle disease was last reported to the OIE by Denmark in 2002. Slovakia reported in November 2005 Newcastle disease cases in 9 districts. Types of birds affected included racing pigeons, stray pigeons, and a turtledove. Newcastle disease was last reported to the OIE by Slovakia in 1980. Romanian officials reported during November and December 2005 Newcastle disease outbreaks in 15 villages and 2 districts of the city of Bucharest. Types of animals affected included hens in backyard flocks, domestic pigeons, a wild partridge, and a wild *Gavia Stellata* (type of water bird). Cases occurred in both vaccinated and unvaccinated birds. Newcastle disease was last reported to the OIE by Romania in 1985.

Source: World Organization for Animal Health (OIE)

For additional information, please see the Center for Emerging Issues (CEI) Impact Worksheet on Newcastle disease in Denmark at <http://www.aphis.usda.gov/vs/ceah/cei/worksheets.htm>

Foot and mouth disease (FMD)

FMD outbreaks were reported to the OIE by four countries from October – December 2005. Two of these countries, China and Russia, reported continuing outbreaks which had begun in earlier quarters of 2005. During the fourth quarter of 2005, China reported an additional FMD serotype Asia 1 outbreak in cattle in Shandong province, and Russia reported an additional outbreak of FMD serotype Asia 1 in the Amur region. Brazil and Israel reported new outbreaks of FMD to the OIE in October and December 2005, respectively.

Source: World Organization for Animal Health (OIE)

Brazil

An outbreak of FMD serotype O among cattle on a farm in the state of Mato Grosso do Sul was reported to the OIE on October 9, 2005. As of December 22, 2005, there had been 33 outbreaks in Mato Grosso do Sul. The only species affected has been cattle, although other susceptible animals on some farms included pigs, sheep and goats. The outbreak spread to the neighboring state of Parana, where 1 confirmed outbreak and 8 suspected outbreaks were reported. Both the states of Mato Grosso do Sul and Parana had been recognized as zones free of FMD with vaccination prior to the current outbreaks.

Source: World Organization for Animal Health (OIE)

Israel

An outbreak of FMD virus serotype O on a farm in northern Israel was reported to the OIE by Israeli officials in December 2005. The affected animals were 29 calves and 25 pregnant heifers in a feedlot with 1,670 cattle. The calves had been vaccinated once with a polyvalent vaccine that included virus strain type O. Control measures included quarantine, movement restriction within a 10 kilometer radius of the outbreak, and ring vaccination. FMD was last reported to the OIE by Israel in March 2004.

Source: World Organization for Animal Health (OIE)

Bonamia ostreae, Morocco

On November 15, 2005, Moroccan officials reported an outbreak of *Bonamia ostreae* in farmed flat oysters (*Ostrea edulis*). The outbreak began June 20, 2005 and was confirmed on October 13, 2005. Control measures included destruction of clinically diseased oysters. The source of the outbreak was thought to be introduction of new live

oysters. *Bonamia ostreae* is a protozoan parasite that affects the native oyster (*Ostrea edulis*). The parasite infects the granular blood cells of the oyster and gross pathologic signs include a yellowing of the tissues and non-specific gill lesions (perforations). Inapparent infection is also possible.

Source: World Organization for Animal Health (OIE);
<http://vetgate.ac.uk/browse/cabi/ab75305b7cf8cd708c8aa40eb98e36fd.html>

Vesicular stomatitis, United States

During October through December 2005, there were 113 new cases of vesicular stomatitis (VS) in horses and cattle which occurred in the following states: Colorado, Idaho, Montana, Nebraska, Wyoming and Utah. The current VS outbreak began on April 27, 2005, when the National Veterinary Services Laboratories (NVSL) in Ames, IA, confirmed the finding of vesicular stomatitis (VS) in horses at one premises in Grant County, New Mexico. The isolate was vesicular stomatitis virus - New Jersey. Prior to the positive cases identified in April 2005, the last case of vesicular stomatitis in the United States was confirmed in the State of Colorado in December 2004. Since April 2005, VS has occurred in livestock in Arizona, Colorado, Idaho, Montana, Nebraska, New Mexico, Texas, Utah, and Wyoming. The cumulative number of quarantined premises and affected cattle and horses as of December 25, 2005 is listed below.

Cumulative number of premises and animals since April 27, 2005:	AZ	CO	ID	MT	NE	NM	TX	UT	WY	Total
Total premises under quarantine	27	100	2	46	3	23	1	104	139	445
Total premises released from quarantine	27	100	2	46	3	23	1	104	139	445
Total positive equine species	30	89	6	112	1	27	2	122	195	584
Positive bovine species	0	44	0	40	4	3	0	54	57	202

For more information, please see
www.aphis.usda.gov/vs/ceah/ncahs/nsu/surveillance/vsv/vsv.htm.

Source: USDA, APHIS, VS

II. Other Significant Disease Events

Chronic wasting disease, United States

Wyoming: Since October 2005, animals positive for chronic wasting disease have been found in three Wyoming hunt areas (areas 9, 77, and 127) where cases had not been detected previously. A white-tailed deer killed on a ranch in hunt area 9, which borders the Wyoming/South Dakota state line, tested positive. In hunt area 77, located south of the city of Laramie, in the southeastern portion of the state, an adult female deer and elk tested positive. Two hunter killed mature mule deer bucks tested positive from hunt area 127, which is northwest of the city of Thermopolis, in the north central portion of the state.

Source: Wyoming Game and fish Department, <http://gf.state.wy.us/>

New Mexico: The New Mexico Department of Game and Fish confirmed that two free-ranging elk in the southern Sacramento Mountains tested positive for CWD. One of the positive elk was a mature male that showed no clinical signs of the disease and was killed by a hunter. The other case was a yearling female in poor condition and unable to stand, that was found by a Department of Game and Fish officer. These cases are the first in elk in New Mexico. The first CWD cases identified in New Mexico were in mule deer in 2002.

Source: New Mexico Department of Game and Fish,

www.wildlife.state.nm.us/publications/press_releases/documents/10-9cwwdelk.htm

CWD surveillance information and current distribution of CWD in captive U.S. herds and in free-ranging cervids can be found at

<http://www.aphis.usda.gov/vs/ceah/ncahs/nsu/surveillance/cwd.htm>.

West Nile virus disease, United States

During 2005, 42 states have reported 2,799 cases of human WNV illness as of December 20, 2005. A total of 102 cases were fatal. During 2005, a total of 1,074 WNV infections in non-human mammals (mostly horses) have been reported from 46 states as of December 14, 2005.

*Source: Centers for Disease Control and Prevention,
<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm>;*

Post-weaning multisystemic wasting syndrome, Australia

In November 2005, Australian officials reported to the OIE that after an in-depth investigation and ongoing surveillance for post-weaning multisystemic wasting syndrome (PMWS) on a farm in New South Wales, it has been determined that PMWS was not

present in the herd. Therefore, Australia remains free from PMWS. The investigation began in July 2005 after histopathological changes suggestive of PMWS were detected in samples collected due to low level weaner mortality and ill-thrift of animals on the farm.

Source: World Organization for Animal Health (OIE)

Besnoitiosis, United States

The first report of an outbreak of besnoitiosis in a herd of donkeys in the United States was published in the *Journal of Parasitology*. Besnoitiosis is caused by a tissue-cyst-forming coccidian parasite of *Besnoitia* sp. The definitive host is presumed to be a member of the cat family and the intermediate hosts vary with each of the specific parasite species but include cattle, sheep, goats, wildebeest, impala, zebra, horses, donkeys, reindeer, mules, and opossums. Clinical signs include tissue cysts in the ocular sclera, the buccal and nasal mucosa, and characteristic dermatitis in specific areas of the body. The disease is common in subtropical regions of Africa and Asia, but is much less common in nontropical regions of Asia, Europe, and the Americas. Isolated cases of infection in equids in the United States have been reported infrequently. This outbreak in miniature donkeys occurred on a small peri-urban farm in mid-Michigan. Clinical signs were present in 14 of the 38 donkeys on the farm.

Source: Elsheikha HM, Mackenzie CD, Rosenthal BM, et al. 2005. An outbreak of besnoitiosis in miniature donkeys. Journal of Parasitology 91:877-881.

This summary was produced in January 2005 by the Center for Emerging Issues, a part of USDA's Veterinary Services. This and other reports are available on the internet at: www.aphis.usda.gov/vs/ceah/cei/index.htm. Comments or questions concerning this edition may be addressed to Judy Akkina at judy.e.akkina@aphis.usda.gov or 970-494-7324.