Summary of Selected Disease Events October—December 2006

I. OIE Listed Diseases

Rift Valley Fever, Kenya

Kenya reported an outbreak of Rift Valley Fever in mid-December affecting livestock and humans in the North Eastern and Coast provinces; the disease has since spread to Kenya's Eastern Province and Somalia. The total number of animal cases, according to Kenya's January 9 report to OIE, was 1500 sheep, 1500 goats, 500 cattle, and 500 camels. The mortality rate ranges from 1.17% in sheep to 0.13% in camels. Control measures include quarantine, movement controls, vaccination, dipping/spraying, and a ban on the sale and slaughter of livestock. On January 22, the director of Kenya's Veterinary Services stated that 126,918 animals had been immunized and 41 veterinary officials will continue to target 120,000 animals each day, with the goal of reaching 2 million vaccinations within 3 weeks. A national surveillance plan is planned to assess the extent of the disease.
Source: OIE disease reports, Pro-Med

Bluetongue Virus Serotype 8, Europe

BTV-8 was first reported in Europe in The Netherlands in August 2006. As of January 18, 2007, 2073 herds in Belgium, France, Germany, The Netherlands and Luxembourg were affected. BTV-8 had been seen primarily in Africa until the 2006 European outbreaks.

Areas most affected by the 2006 outbreaks were those where the original cluster of cases occurred, near the shared borders of Belgium, Germany and The Netherlands, and in the Bergisches Land region of Germany. The latter is not a cattle-dense region but represents the cluster with the largest spatial distribution. During 2006, the virus also spread into or close to areas with high cattle density in Belgium, Germany and The Netherlands.

One question raised early in the European BTV-8 outbreaks was whether or not the virus would be able to overwinter. Since BTV is a *Culicoides*-borne disease, it was expected to disappear during the late autumn; however, much of Western Europe has had a warmer than normal winter and the virus has persisted. The number of cases peaked in mid-October, but from December to mid-January, BTV-8 cases have continued to be reported at a low level. Most of the new cases have been detected as a result of clinical disease reporting; some were detected from serological tests required prior to movement between zones within EU Member States or between Member States.

Information on BTV-8 in Europe is available at the European Food Safety Authority's website: http://www.efsa.europa.eu/en/in_focus/bluetongue/outbreak_overview.html
Sources: OIE Reports, Pro-Med, European Food Safety Authority

Foot and Mouth Disease (FMD)

Jordan, Serotypes A and O
Serotype A: An outbreak of FMD serotype A, similar to the A Iran 05 strain, was reported in cattle in Amman province. The outbreak started in October 2006. This is the first report of serotype A in Jordan since 1978. During 2005-2006, the Middle East experienced outbreaks of two distinct serotype A viruses. One type emerged in Iran in 2005-2006, and has since been detected in Turkey, Pakistan, and Saudi Arabia during 2006. Iran is also currently experiencing an outbreak of FMD serotype A. An African type A virus emerged in Egypt and caused 30 outbreaks in buffalo and cattle from January–July 2006. The Egyptian outbreaks resulted in 14% morbidity and 19% mortality in buffalo, with 62% morbidity and 6% mortality in cattle.
Serotype O: Two outbreaks of FMD serotype O were reported in cattle and sheep in Az Zarqa and Al Karak provinces. The last reported outbreak of serotype O in Jordan was in 1999.

Israel, Serotype O
Israel reported an outbreak of FMD type O in a goat herd near the Lebanese border in December. The herd contained 280 does, 20 males and 220 kids.

Approximately 40% of the kids died suddenly without any other clinical signs. About 60% of the does showed slight clinical signs (superficial ulcers on the mammary gland). Subsequent outbreaks were detected in cattle adjacent to the Syrian-Jordanian border, and in cattle in a densely populated agricultural area adjacent to large dairy farms and other livestock. FMDV-O is considered to be endemic in Israel. The last reported outbreak was in 2005.

Guinea
Guinea reported an FMD outbreak (serotype unknown) in November 2006, with subsequent outbreaks in December. Guinea had previously reported FMD in 2001.

Turkey
Turkey reported an outbreak of FMD serotype A, which began in January 2006 and was considered concluded October 2006. Turkey had previously reported an outbreak of Type O in 2001.

Classical Swine Fever

Croatia
From July 2006 until January 18, 2007, Croatia reported 15 outbreaks of CSF throughout the country with a loose cluster in the western half and a tight cluster of many outbreaks close to its farther eastern border. In July 2006, the eastern part of the country was affected by an outbreak of swine fever which turned into an epidemic that was brought under control by veterinary authorities. In the action, some 11,000 pigs were slaughtered, causing losses $1.43 million. The source of the outbreaks is thought to be wild boar. Croatia last reported CSF in 2002.

Ecuador
Ecuador reported outbreaks of classical swine fever on three farms. Ecuador last reported CSF in 2004.

Newcastle Disease

Romania
Romania reported a Newcastle disease outbreak, in layer hens imported from Austria, which began in September; the source of infection was undetermined. Subsequent outbreaks were confirmed in ostriches and broilers. Romania had been battling a series of Newcastle disease outbreaks from November 2005 through March 2006. Prior to this series of outbreaks, Romania had not reported Newcastle disease since December 1985.

Sweden
Sweden reported confirmation of a Newcastle disease outbreak on November 16 in a poultry facility in the county of Ostergotland. The affected establishment has two houses with 3 flocks with a total of 32,400 layer poultry. Ostergotland is also one of the counties where a December 2005–March 2006 outbreak occurred.

Great Britain
Newcastle disease was confirmed in a flock of 14,000 grey partridges. The premises also contained a number of rare species of non-poultry birds, including over 20 species of high conservation value as classified by the IUCN Red List of Threatened Species. These rare species included a number of rare pheasants, such as Elliot's pheasants, and other endangered birds, such as the Trinidad piping-guan, which is a critically endangered species. Approximately 12,000 partridges were culled, but 126 birds of rare species were exempted in accordance with the principles of compartmentalization outlined in Chapter 1.3.5. of the OIE *Terrestrial Animal Health Code*. These birds were vaccinated using ColomboVac PMV (inactivated vaccine), tested and kept for at least 60 days under strict biosecurity conditions. Testing was carried out by the OIE Reference Laboratory at VLA Weybridge. The birds tested negative for Newcastle disease virus and none of the exempted birds showed clinical signs of Newcastle disease, therefore the quarantine was released.

Summary of Other Newcastle Disease Outbreaks

Latvia reported its first outbreak of Newcastle Disease in November 2006. The outbreak occurred in wild pigeons in late September. The pigeons were found dead and sent for testing within the framework of the avian influenza passive surveillance program. No further notifications of increased mortality among wild pigeons were received nor has any suspicion been reported from poultry establishments, including backyards.

Bulgaria and Turkey reported ongoing Newcastle disease outbreaks, since January 2006 and August 2006, respectively, in chickens, turkey and pigeons. Newcastle disease is endemic in both countries. **Italy** reported an outbreak in homing pigeons in

August, and with no additional outbreaks reported, considered the event to have ended as of November 14. **France** reported Newcastle disease on a pigeon farm in September. No further outbreaks were reported and measures applied in the surveillance zone were lifted effective October 27. **Serbia and Montenegro**, which had not reported Newcastle diseases since 2002, reported an outbreak that occurred in backyard poultry in one village; a stamping-out and vaccination policy was employed.
Sources: OIE disease reports, Pro-Med

II. Other Significant Disease Events

Hendra, Australia (New South Wales)

The New South Wales (NSW) Department of Primary Industries reported a case of Hendra virus infection in a horse on the Far North Coast of NSW. The affected horse showed neurologic and respiratory signs consistent with Hendra infection. All previous cases of infection with Hendra virus in horses have occurred in the neighboring state of Queensland; this is the first case in a horse in NSW. The case occurred approximately 30 km from the Queensland border.

Ebola, Gabon, Democratic Republic of Congo

A visiting biologist at the University of California-San Diego and her collaborators found a linkage between Ebola fever outbreaks in human and wildlife populations by analyzing temporal and spatial data. The researchers found many additional wildlife and human populations, both within and outside of known epidemic zones, that were exposed to the virus. When they considered disease outbreaks in all mammals, not just humans, the spread of Ebola no longer seemed erratic. The research results are being published in the January 2007 issue of the Trans R Soc Trop Med Hyg. 2007 Jan;101(1):64-78, in a paper entitled: "Morbidity and mortality of wild animals in relation to outbreaks of Ebola hemorrhagic fever in Gabon, 1994-2003; by Lahm SA, Kombila M, Swanepoel R, Barnes RF.
Source: Pro-Med

Texas regains TB-free status

USDA reinstated Texas' cattle tuberculosis-free status in October. Texas had initially obtained TB-free status in 2000, but lost that status when two TB-infected herds were detected in 2002. Two more infected herds were detected in 2003; these infected herds were depopulated. Since September 2003, more than 335,000 cows in Texas' 818 dairies, and nearly 129,000 beef cattle in 2,014 of the state's seed stock or purebred herds have been tested for cattle TB, in a bid to ensure that all TB infection had been detected and eliminated, and that effective disease surveillance has been implemented. The TB-free status in 2000 extended to all of Texas, except the El Paso Milk Shed, where low levels of infection persisted or reoccurred for years, despite repeated quarantines, testing and removal of infected cows. The affected herds were depopulated with indemnity funds provided by USDA, and agreements specified that dairies could not be re-established in the El Paso Milk Shed. Thus, TB-free status now applies to the entire state.

Tuberculosis, Michigan farmed white-tailed deer

Bovine tuberculosis was detected in November 2006 on a private deer ranch in Montmorency, Michigan. This is the first time in nine years that tuberculosis has been detected in farmed deer in the state. The ranch, a private hunting establishment, had between 150 and 200 deer. The entire herd was destroyed. The only other discovery of bovine TB on a private deer ranch in Michigan was in 1997. Montmorency is within the five-county area of the northeastern Lower Peninsula where most TB cases have been found since the outbreak began in the mid-1990s. The disease has been found on 40 cattle farms, and 527 white-tailed deer, nearly all wild, have tested positive.
Source: Associated Press State and Local Wire

Equine Herpesvirus Type 1 (EHV-1)

Equine Herpesvirus Myeloencephalopathy: A Potentially Emerging Disease

The USDA APHIS Center for Emerging Issues issued a report titled *Equine Herpes Virus Myeloencephalopathy: A Potentially Emerging Disease*, available at: http://www.aphis.usda.gov/vs/ceah/cei/taf/emergingdiseasenotice_files/ehv.pdf
Concern has been voiced within the U.S. horse industry that the neurologic (also known as myeloencephalopathic or paralytic) form of equine herpesvirus type 1 (EHV-1) may be increasing in prevalence and/or morbidity and mortality. This concern is based on an increased number of neurologic cases reported in recent years, as well as the occurrence of several high-profile outbreaks of EHV-1 affecting several sectors of the U.S. equine industry. These outbreaks are the first reported EHV-1 outbreaks at large facilities or

events involving neurologic cases that resulted in euthanasia. At least part of the increased interest and concern is related to these highly publicized events. It is possible that reporting has increased, as opposed to an actual increase in number and severity of cases; more data is needed to determine the actual situation. The U.S. is not the only region or country that has recognized the issue regarding neurologic EHV-1 cases; other countries have also seen an increase in the number and virulence of reported neurologic EHV-1 outbreaks. In 2005, significant outbreaks occurred in Canada, Ireland, South Africa and Switzerland as well as the United Kingdom and the U.S.

United States, Imported Source

On November 24, 2006, a shipment of 15 horses from Germany arrived at the New York Animal Import Center. These horses were kept in federal quarantine together. While there, one of the horses developed a fever. This horse was treated and displayed no clinical signs of illness before it and the others were released on November 27.
Eight states received horses from the original shipment. One state, California, received a horse that shortly thereafter died of laboratory-confirmed equine herpesvirus (EHV). Florida, after receiving five horses from the original shipment, confirmed 13 cases of EHV-1 with 6 associated deaths (as of January 9). The other states that received horses closely monitored and finalized their quarantines with no deaths or new cases reported.
Source: USDA Animal and Plant Health Inspection Service:
http://www.aphis.usda.gov/vs/nahss/equine/ehv/index.htm

New Jersey

On October 25, 2006, four Monmouth Park-based horses were reported to have tested positive for the respiratory form of EHV-1. The barn where the horses were stabled was quarantined October 22, 2006, when 5 horses were reported to have high fevers. The quarantine has since been released.
Source: State of New Jersey Department of Agriculture:
http://www.state.nj.us/agriculture/news/press/2006/approved/news_archives.html

Colorado

The Colorado State University (CSU) Veterinary Teaching Hospital implemented precautionary suspension of elective equine admissions October 31 after three horses at the hospital were determined to have been affected by EHV-1. Admissions resumed November 18.
Source: CSU College of Veterinary Medicine and Biological Sciences:
http://www.csuvets.colostate.edu/biosecurity/eqherpesinfopressreleases.htm

Contagious Equine Metritis (CEM), Wisconsin stallions

In October, two Lipizzaner stallions imported into the U.S. from Eastern Europe were determined to be infected with contagious equine metritis (CEM). The two stallions have been continuously maintained at an equine breeding and research facility in Wisconsin where they recently tested positive for *Taylorella equigenitalis* during a breeding soundness test. These two stallions are still undergoing treatment and additional testing. Fourteen other susceptible horses are on the premises; all are clinically healthy. In addition, 18 susceptible horses (all mares) on an adjacent farm, which is part of the same breeding/research operation as the affected establishment, were sampled and tested with no detection of *T. equigenitalis*.
Source: OIE disease information reports

For more information, contact:

USDA:APHIS:VS:CEAH
Center for Emerging Issues
NRRC Building B, M.S. 2E5
2150 Centre Avenue
Fort Collins, CO 80526-8117
970.494.7000
Or visit CEI on the Web at
http://www.aphis.usda.gov/vs/ceah/cei/
