



Summary of Selected Disease Events

January-June 2003

I. OIE List A Diseases

Highly Pathogenic Avian Influenza (HPAI) –Europe



The **Netherlands** confirmed its first ever case of HPAI on March 31, 2003. Analysis of the virus suggests it developed in the wild bird population of the Netherlands. Prior to the outbreak, the Netherlands was a significant exporter of poultry and poultry products. On a per head basis, the Netherlands exported the most live chickens in the world, 22 percent of world trade in 2001. All poultry exports were banned during the outbreak. Eventually, 255 farms were infected with HPAI, with close to 27 million birds undergoing depopulation. The last

positive premise was found on May 23.

The outbreak spread to neighboring **Belgium**, and on April 18, 2003 HPAI was confirmed to be present. This was also Belgium's first ever documented outbreak of HPAI. Belgium is a smaller exporter of live poultry than the Netherlands, accounting for 6% of world trade in live poultry in 2002. Eight outbreaks occurred in Belgium during the disease progression. The last positive premise was found on April 28. Restrictions were lifted on June 12, with only surveillance remaining.

Germany had a single premise confirmed positive on May 13, 2003 in the state of North Rhine-Westphalia. The most recent outbreak of HPAI in Germany was in 1979. Exports of live chickens, geese and turkeys from Germany accounted for 12, 2, and 15 percent, respectively, of total world exports of these products. The disease was controlled to the single outbreak in Germany, and control measures were lifted on June 25.

The European HPAI outbreak is considered to be over, all measures except for surveillance have been lifted, and the poultry export ban has been lifted. An estimated 30 million birds were depopulated during the outbreak, with at least 90% of those birds residing in the Netherlands.

The United States does not consider the Netherlands, Germany or Belgium to be free of exotic Newcastle disease, so live poultry and poultry meat were not imported in 2002 and 2003 from those countries. The United States did import hatching eggs from the

Netherlands in 2002 for breeding purposes, but hatching eggs must undergo a 30-day quarantine, as well as have a health certificate and an import certificate from the USDA.

Source: CEI Impact Worksheets, Promed, Animal Network, OIE, AgWorldwide

Exotic Newcastle Disease (END)- United States: Update

END was confirmed on October 1, 2002 in game fowl near Los Angeles, California. The outbreak initially involved 6 backyard premises, and no commercial flocks. The disease eventually infected 22 commercial premises and hundreds of backyard flocks. It also spread to other states: it was identified in Nevada on January 16 and in Arizona on February 4. There was also an outbreak of END in Texas on April 9, but the virus was a different strain than the one in California. All of the outbreaks outside of California were confined to backyard flocks.

No new positive cases have been identified in backyard premises in California since May 31, 2003. The last infected commercial premise was declared on March 26, 2003. Complete eradication of the disease in Arizona, Nevada and Texas has resulted in the lifting of most of the federal quarantines in these three states. Authorities are working to lift the quarantines in California.

The maximum estimated direct trade impact due to the END outbreak in the United States is \$77 million as of June 27. The maximum estimated indirect impacts resulting from trade loss due to the outbreak are \$74 million as of June 27.

Source: CEI Impact Worksheets, Promed, Official APHIS Release, CEI

II. OIE List B Diseases

Bovine Spongiform Encephalopathy (BSE)

Canada

BSE was confirmed in Alberta, Canada on May 20, 2003 in an eight-year-old cow condemned at slaughter in January. The only previous case of BSE detected in Canada was in 1993 in a beef cow that had been imported from the UK in 1987. Canada has performed an extensive investigation and trace-back of the infected cow's history. More than 2000 cattle that had some link to the infected cow have been slaughtered and tested, and all tests have been negative.

In response to the Canadian BSE case, the United States closed the Canadian border to all ruminant imports, and most ruminant products on May 20, 2003. As of June 30, the border remains closed, although there are ongoing negotiations to get partial ruminant exports to the US re-instated. The Canadian beef market relies heavily on trade with the United States; more than 80% of Canadian beef exports are destined for United States markets. Thirty-three other countries have also banned Canadian beef imports.

An international team of BSE experts visited Canada in June, and made recommendations based on their findings. These recommendations center around keeping all high risk animal parts out of both the human and animal food supply and increased testing and surveillance of animals. Canada has indicated that they are willing to comply with all recommendations in the report, but has not given a timeline on the implementation of the changes.

Source: OIE, CEI Impact Worksheet, Promed, Ottawa Citizen

Europe

BSE continues to be present in much of Europe. In the first part of 2003, cases were identified in Great Britain, Belgium, Czech Republic, Denmark, France, Germany, Ireland, Netherlands, Poland, Portugal, Slovakia, Slovenia and Spain; all of these countries reported BSE in 2002. Several other European countries with cases reported in 2002 have not reported numbers yet for 2003.

Source: OIE

Other Areas

Japan has reported 2 cases in early 2003. The reported total in Japan for 2002 was 2 cases, and the reported total for 2001 was 3 cases, bringing Japan's overall total early in 2003 to 7 positive cases. Japan screens 100% of slaughtered cattle for BSE. The first case of BSE in Japan was identified in 2001.

Source: OIE, Promed

New World Screwworm-Mexico

A failure in the sterilization process at the Sterile Flies Production Plant Irradiating Unit #2 resulted in the release of fertile New World screwworm flies (*Cochliomyia hominivorax*) on January 28, 2003 in the State of Chiapas, Mexico. On February 5, field activities to promote the reporting of suspected cases and detection of screwworm lesions were begun. Subsequently, 88 positive cases were identified over the next 2 months. The last positive case was seen on March 23. This outbreak was contained within the State of Chiapas. Surveillance continued through the end of May, with no new positive cases identified. A variety of control strategies were implemented after the release to identify and contain the spread of the fertile *C. hominivorax*.

New World screwworm has been eradicated from the US, Mexico and much of Central America. Mexico was declared free of screwworm in 1991. In 1996, there was an outbreak of screwworm in Chiapas due to escape of fertile material from the screwworm sterilization plant.

Source: CEI Impact Worksheet, OIE, SAGARPA

III. Other Significant Disease Events

A. United States

Monkeypox

The first cases of monkeypox to occur in the United States were identified in both humans and animals in June of 2003 by the Centers for Disease Control (CDC). The first cases occurred in Wisconsin. The monkeypox virus is endemic in African rainforest rodents, and is thought to have entered the United States through imported exotic rodents. The presence of monkeypox virus in 6 rodents that were imported from Africa on April 6, 2003 was confirmed on July 2. The infected people all had some exposure to sick prairie dogs or exotic rodents that were traced back to a distributor in Illinois that had housed prairie dogs next to imported Gambian giant rats.



As of July 1, 2003, 81 probable cases of human monkeypox have been reported to the CDC, with 32 cases laboratory confirmed. Monkeypox is an orthopox virus. The symptoms that may be experienced in people are fever, headache, muscle ache, backache, fatigue, swollen lymph nodes and a rash.

Total number of infected prairie dogs and other rodents is not known.

The human cases are clustered in the Midwest: Wisconsin, Indiana, Illinois, Missouri, Kansas and Ohio all have confirmed or suspected cases. (*See map*)

In response to the outbreak, a ban on importation of rodents from Africa was implemented, as well as a ban within the United States on the distribution, sale and transport of prairie dogs and 6 specific African rodent species: tree squirrels, rope squirrels, dormices, Gambian giant rats, brushed tailed porcupines and striped mice.

Initially, exposed animals were being quarantined and monitored, but on July 2, with the confirmation of virus in the imported rodents, the CDC began recommending euthanasia of all animals from the African shipment and all exposed prairie dogs.

The yearly numbers of imported African rodents in the United States are variable. In the past five years they have ranged from several hundred to more than 1600 per year. This variability may be due to the trendy nature of exotic animals as pets. Several thousand prairie dogs were sold within the US as pets each year for the past several years, and it has been reported that the US exports approximately 15,000 prairie dogs as pets to other

countries. Japan was the main importer of the prairie dogs, but placed a ban on prairie dog importation in March of 2003.

Source: Promed, Animal Network, CDC MMWR Weekly, LEMIS-USFWS, Wall Street Journal, USHHS

Infectious Salmon Anemia (ISA)

An outbreak of ISA was confirmed on June 11, 2003 in Cobscook Bay, Maine. Two pens have been infected during this outbreak. The first pen required that 28,000 salmon be removed. Surveillance was increased in the bay after the outbreak from monthly sampling to weekly, which allowed early detection of the second infected pen. The second infected pen required the removal of 24,000 fish. The second infection was detected on June 30, 2003

This is the first outbreak of ISA in Maine since Spring of 2001. During the 2001 outbreak, 1.5 million fish were sent to slaughter to control the disease.

Source: OIE, Maine Department of Marine Resources, Animal Network

Chronic Wasting Disease (CWD): Update

The first cases of CWD were identified in wild deer in Utah. Last fall, a deer shot by a hunter tested positive. In April of 2003, an ill doe that died on a farmer's land was tested and was found to be positive for CWD. Prior to detection in Utah, CWD had been found in wild deer and elk only in 7 states: Colorado, Wyoming, New Mexico, Nebraska, South Dakota, Wisconsin and Illinois.

CWD in captive populations has been identified in Montana, Colorado, South Dakota, Nebraska, Kansas, Oklahoma, Minnesota and Wisconsin.

Source: Animal Network

B. Worldwide

Severe Acute Respiratory Syndrome (SARS)

SARS is a severe respiratory illness caused by a previously unidentified corona virus that caused a recent outbreak worldwide in humans. It is thought to have jumped to humans from civet cats, which are commonly sold live at food markets in China. The outbreak began in late February 2003, and escalated in April of 2003. The largest outbreaks were in mainland China, Hong Kong and Taiwan. The fatality rate from SARS is close to 10%.

Up until July 2, 2003, 8442 cases of probable SARS have been reported from 29 countries, including the United States. Total deaths reported are 812. The last reported

probable case was in Taiwan on June 15, 2003. Since 2 consecutive 10-day incubation periods have passed as of the time of this report, officials are hopeful that the SARS outbreak is nearing an end. Taiwan was the last country to report recent local transmission of SARS. Beijing has reportedly banned the consumption of more than 1800 species of wild animals from the city's restaurants. As of July 2, seventy-two probable cases have been reported in the United States, with no deaths.

Source: Promed, CDC MMWR Weekly, Animal Network

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