

Summary of Selected Disease Events

July-September 2003

I. OIE List A Diseases

Foot and Mouth Disease (FMD) in South America

Argentina reported an FMD outbreak in swine to the OIE on September 5, 2003. The last report of FMD in Argentina had occurred in January of 2002, and the OIE had declared Argentina “free of FMD with vaccine” on July 10, 2003. Argentina had been on alert since early July, when **Paraguay** confirmed an FMD outbreak in cattle on July 8 in its southwest region very close to the border of Argentina and Bolivia . The Paraguay outbreak was closely followed by an outbreak in **Bolivia** in cattle on July 10th. The Bolivia outbreak eventually also affected sheep, goats and pigs. Argentina only experienced the outbreak in swine, and the outbreak in Paraguay was limited to cattle. The outbreaks in all three countries involved FMD Type O. The outbreak in Paraguay involved FMD Type A in addition to Type O.

All three of the countries applied quarantines, decreased animal movement,

increased screening, vaccination and zoning. Paraguay declared their outbreak under control on August 21.

Bolivia and Argentina both declared control in early October.

Bolivia previously reported FMD in August of 2002 and Paraguay reported an outbreak of FMD in November 2002.



The USDA does not consider Argentina , Bolivia or Paraguay to be free of FMD, and US imports of cloven-hoofed animals and products are restricted. The USDA recognizes Chile as free of FMD, but takes into consideration that Chile may get imports of at-risk products and animals and shares borders with countries that are not free of FMD.

Sources: Promed, OIE, FAS, WTA, USDA Veterinary Services



Rift Valley Fever (RVF) in Egypt

An outbreak of Rift Valley fever in humans in Egypt was reported in August of 2003. Typically, animal cases of RVF will precede human cases. However, there have been no reported cases of RVF in animals. Surveillance of more than 5000 animals has shown no field strain of RVF, only vaccinate. The last Egyptian reporting of RVF in animals to the OIE was in 1993.

Sources: OIE, Promed, USDA International Services, World News Connection

African Swine Fever (ASF) in Burkina Faso-Update

Burkina Faso, Africa, reported the country's first occurrence of African swine fever (ASF) to the OIE on August 25, 2003. The outbreak was initially recognized in July 2003, in southern Burkina Faso and involved 400 swine. Neighboring countries to the south of Burkina Faso have experienced outbreaks of ASF in 2001 and 2002.

The USDA had not recognized Burkina Faso as free of ASF prior to the outbreak; therefore, the US does not currently accept live swine or pork products from this country. Burkina Faso has a small swine industry and did not export live swine, and exported only a negligible amount of pig meat in the world market in 2000 and 2001. Most agriculture in Burkina Faso is subsistence farming. There is little available information on the current status of the ASF outbreak in Burkina Faso. All reports indicate that it is still a significant problem in the area, and there are no reports of control having been obtained.



Source: CEI Impact Worksheets, USDA International Services, OIE, Promed

Bluetongue in Taiwan-Update

Bluetongue was confirmed in Taiwan for the first time in July 2003. Serologically positive goats and cattle were found in two locations. No clinical signs of bluetongue were seen in affected animals; no clinical signs would be expected since the acute form of bluetongue only occurs in sheep and some species of deer. Taiwan has almost no sheep production. The animals were identified through a routine sero-surveillance program. No new positive animals have been reported since July. Agricultural authorities have strengthened surveillance on goats and cattle, and the animal industries have been alerted to improve precautionary measures, including vector control.

Sources: CEI, OIE, Promed, USDA International Services

Exotic Newcastle Disease (END) in the United States-Update

The outbreak of END in California was declared to be over on September 16, 2003 by the USDA. All federal quarantines have been lifted. The outbreak was initially confirmed on October 1, 2002, in game fowl near Los Angeles, California.

Over 3 million birds were depopulated, and more than \$160 million was spent to combat the disease. Direct trade impacts from the beginning of the outbreak through September 19, 2003 are estimated at \$121 million.

The USDA is coordinating with other agencies in the formation of an Avian Health and Mitigation Group. This group will perform outreach, education, surveillance, research and will work with biosecurity issues. There will be a focus on non-commercial poultry. This cooperative effort will include additional staff members from USDA Veterinary Services, and will involve working in partnership with the California Department of Food and Agriculture, the poultry industry, university extensions, local agencies, laboratories and communities.

Sources: CEI, CEI Impact Worksheets, Official APHIS Release

II. OIE List B Diseases

Bovine Spongiform Encephalopathy (BSE)

Canada-Update

BSE was confirmed in Canada on May 20, 2003 in a single cow. In response to the finding, the US closed the Canadian border to all live ruminants and most ruminant products on the day the positive BSE case was reported.

On August 8, 2003, the USDA announced that the US will be accepting import permits for selected ruminant products from Canada. Imports have resumed of these selected products. Talks have continued on the possibility of opening the U.S. Canadian border to live animal ruminant imports. Information about ruminant product imports from Canada can be found at:

<http://www.aphis.usda.gov/lpa/issues/bse/bse.html>.

Canary Islands, Spain

The first case of BSE was reported on the Spanish Canary Islands, which lie off the western coast of Africa. Forty-nine BSE cases have been reported on mainland Spain in 2003. The affected cow was born in 1998. BSE contaminated feed was fed at



least as recently as 1998.

Japan

Japan reported its eighth case of BSE on October 7, 2003. This finding was significant because of the young age of the positive bull: 23 months. This is the third reported BSE case from Japan in 2003. The bull tested positive for BSE on an ELISA screening test and on a follow-up western blot analysis. Histopathological and immunohistochemical exams were negative. The prions detected in this case are considered “atypical.” Japan tests 100% of slaughtered cattle, with no age limitations.

In early October, 2003, Italy reported that two cases of BSE identified in December of 2002 also had “atypical prions,” similar to those found in the Japanese case.

Sources: OIE, Promed, USDA Veterinary Services

III. Arbovirus Update

West Nile Virus (WNV)

United States :

As of the end of September, 2003, only four states in the US are free of WNV: Hawaii, Alaska, Nevada and Oregon. The virus has continued its trend westward in the US. In 2003, Colorado experienced a surge in cases, while many states to the east of Colorado have seen a decrease in reported cases.

U.S. Cases of Reported WNV		
	Jan. 1-Oct. 1, 2003	Jan.1-Dec. 31, 2002
Equine	2499	14,717
Human	5861	4156

The actual number of WNV cases reported in horses has dropped dramatically from 2002 to 2003. This is

probably not due to a drop in the prevalence of the disease, but more likely due to multiple other factors. There is less testing and less reporting being done; in addition, there may also be more immunity from exposure and in response to the vaccine that is now available. In order for the data to reflect the true prevalence, appropriate surveillance must be performed and reported. Testing is now available at a variety of laboratories, making data gathering at the national level more difficult.

Canada :

Canada has experienced a westward movement of WNV, similar to the US. The majority of cases in Canada in 2002 were in Ontario, Quebec and Manitoba. In 2003, the majority of cases were located in Saskatchewan and Alberta.

Mexico :

In 2003, Mexico detected seroprevalence of WNV in equine, avian and human samples. However, the morbidity and mortality are very low, and do not correlate with what has been seen in the US and Canada . There is the possibility that the test is cross reacting with a closely related flavivirus; this could generate false positives as well as creating some protective immunity to WNV.

Sources: Promed, CDC, USDA-VS, PAHO, Colorado Department of Agriculture, Illinois Department of Agriculture

Eastern Equine Encephalitis (EEE) in the United States

EEE is an OIE List B arbovirus that is endemic at low levels in the US . The mortality rate for EEE is much higher in both humans and horses than it is for WNV. The equine case fatality rate in WNV is typically around 33%, while the case fatality rate with EEE approaches 90%. In 2003, several states experienced a dramatic rise in equine cases. It has been reported that EEE increases in ten-year cycles. Florida, Georgia , North Carolina and South Carolina have all seen a large increase in their confirmed EEE cases in 2003. Florida typically averages about 60 cases of EEE in horses per year; they reported 36 equine cases in 2002, and 25 in 2001. As of the end of September, Florida had 190 documented equine EEE cases for 2003. The last epidemic year for EEE in Florida was 1992, when 100 cases were reported. Human cases of EEE have also been above the national average for 2003.

Sources: Promed, CDC, USDA Veterinary Services, Florida Department of Agriculture, Georgia Department of Agriculture

IV. Other Significant Disease Events

Infectious Salmon Anemia (ISA) in Maine-Update

An outbreak of ISA was confirmed on June 11, 2003 in Cobscook Bay, Maine. Two sites were infected, with one pen initially confirmed positive in each site. A second pen at one of the original sites was discovered positive in mid-September from samples taken earlier. The second positive pen had been voluntarily harvested of the infected fish prior to completion of the tests. The companies have modified their harvesting practices to remove suspect pens of fish promptly. Surveillance continues weekly at the sites of infection, bi-weekly in nearby sites, and monthly in the management zone in Cobscook Bay. No other sites beyond the two original farms have reported fish positive for ISA since the outbreak in June.

The last outbreak of ISA in Maine was in the spring of 2001. In response to this outbreak, a surveillance program was implemented; this program helped in early detection of the recent outbreak.

Sources: USDA Veterinary Services, CEI Impact Worksheet, OIE, Animal Network, Maine Department of Marine resources

Hepatitis E in World/U.S.

In 2003 in Japan , the first direct evidence of zoonotic transmission of hepatitis E virus (HEV) was documented in two separate incidents involving human consumption of undercooked pork liver and raw sika deer meat. HEV was also isolated in Japan from raw packaged pork livers in grocery stores. HEV was previously thought to be endemic only in developing countries. In 1997, the first isolations of HEV from swine and a human patient with acute hepatitis were documented in the US . HEV is ubiquitous in US swine herds, but does not cause clinical illness in swine. Hepatitis E is a zoonotic disease risk and cross-species infection occurs. Antibody to HEV is prevalent in wild and domestic rodents in the US . To date, HEV has not been isolated from US rodents and the genetic relatedness of rodent HEV to US swine or human HEVs is unknown.

A fact sheet about hepatitis E virus is available from the National Pork Board at www.porkscience.org/documents/Other/hepatitisevirusfactsheet.pdf.

Source: Current Topics in Microbiology and Immunology 2003

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