



## Summary of Selected Disease Events April–June 2007

### Ruminants (bovine, caprine, ovine)

#### Foot-and-Mouth Disease (FMD)

##### Israel

Foot-and-mouth disease (FMD) serotype O outbreaks began in Israel at the end of 2006 and continued through the second quarter of 2007. The outbreaks started in northern Israel and spread into the southern part of the country. From December 2006 through June 2007, Israel reported a total of 31 FMD outbreaks to the OIE. Of these, fourteen outbreaks were reported between April and June. The affected animals were mainly cattle, but also included some sheep and goats.

In addition to affecting livestock, an FMD outbreak was reported among northern Israel's wild gazelle population. The outbreak occurred in close proximity to one of the cattle outbreaks and was the first outbreak reported in gazelles since 1985. In May 2007, Israel also reported positive test results for FMD antibodies in wild boars along Israel's northern frontier, providing further evidence of the circulation of FMD in Israeli wildlife.

##### Sources:

- 1) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5659](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5659)>. Accessed July 26, 2007.
- 2) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5618](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5618)>. Accessed July 26, 2007.
- 3) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5420](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5420)>. Accessed July 26, 2007.
- 4) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5207](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5207)>. Accessed July 26, 2007.
- 5) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5157](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5157)>. Accessed July 26, 2007.
- 6) ProMED reports. <<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive numbers 20070517.1571; 20070405.1153; 20070324.1025; 20070301.0729. Accessed July 26, 2007.

##### **Palestinian Autonomous Territories**

The Palestinian Autonomous Territories (PAT) continued to experience outbreaks of FMD serotype O in sheep

and goats from April to June 2007. Morbidity and mortality occurred mainly in younger lambs and kids, and thus far, over 500,000 cattle, sheep, and goats have been vaccinated for FMD throughout the West Bank.

##### Sources:

- 1) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5267](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5267)>. Accessed July 26, 2007.
- 2) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5185](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5185)>. Accessed July 26, 2007.
- 3) ProMED report. <<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive number 20070405.1153. Accessed July 26, 2007.

##### **Saudi Arabia**

At the end of April 2007, the Saudi Ministry of Agriculture and Water reported to Saudi Arabian media sources that the country was experiencing outbreaks of FMD in cattle, sheep, and goats. According to the reports, veterinary teams were conducting surveillance for FMD in all regions of the country. A Pirbright Molecular Epidemiology report published in June 2007 stated that five samples submitted by Saudi Arabia had tested positive for FMD serotype O virus. Both FMD serotypes O and A are believed to be circulating in Saudi Arabia.

##### Sources:

- 1) ProMED report. <<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive number 20070501.1415. Accessed July 26, 2007.
- 2) IAH Pirbright Molecular Epidemiology Report. <[http://www.iah.bbsrc.ac.uk/virus/Picornaviridae/Aphthovirus/md\\_genotyping/2007/WRLFMD-2007-00017-Saudi%20Arabia-O.pdf](http://www.iah.bbsrc.ac.uk/virus/Picornaviridae/Aphthovirus/md_genotyping/2007/WRLFMD-2007-00017-Saudi%20Arabia-O.pdf)>. Accessed July 26, 2007.

##### **Armenia**

On May 29, 2007, Armenian media reported that the Emergency Services of Armenia (ESA) confirmed an outbreak of FMD in the southern part of the country. The outbreak reportedly involved over 100 head of cattle. Two days later, the ESA press office withdrew the report stating that the confirmation of an outbreak was made in error. During 2006, Armenia repeatedly denied unofficial reports of FMD outbreaks. Armenia last reported an outbreak of FMD to the OIE in 2000.

##### Sources:

- 1) ProMED reports. <<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive numbers 20070605.1818; 20070530.1747. Accessed July 26, 2007.

## Ecuador

On June 19, 2007, Ecuador reported two outbreaks of FMD serotype O in cattle to the OIE. The outbreaks occurred in Manabi Province on the central coast of the country. Recent mass vaccination campaigns in Ecuador have been problematic and fraught with logistical and vaccine supply problems. Only 55% of cattle in Manabi were vaccinated during the most recent campaign which ended in June.

Also in June, Columbia and Ecuador entered an agreement to conduct joint FMD control activities at their common border.

### Sources:

- 1) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5603](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5603)>. Accessed July 26, 2007.
- 2) FMD News. <<http://fmd.ucdavis.edu/>>. "Ecuador. 55% cattle have been FMD vaccinated." email alert sent July 2, 2007; "Ecuador. Update on the status of the FMD control program." email alert sent June 10, 2007.

## Vietnam

In Vietnam, the number of FMD-affected provinces decreased from nine to three between mid-March and mid-April of 2007. However, by the end of June 2007, the number of affected provinces had increased to six. Several FMD Asia1 outbreaks occurred during June, affecting cattle and pigs in the northern province of Quang Tri. In Vietnam a locality is considered FMD-free if no new outbreaks are recorded for a period of 21 days. Vietnam is known to be affected by FMD serotype O along with more recent incursions of FMD serotype Asia1.

### Sources:

- 1) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5748](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5748)>. Accessed July 26, 2007.
- 2) FMD News. <<http://fmd.ucdavis.edu/>>. "FMD control program in Viet Nam." email alert sent April 17, 2007; "New outbreak in northern Viet Nam." email alert sent April 25, 2007.

## Kazakhstan

OIE received reports of FMD serotype O outbreaks in Kazakhstan during April and May 2007. The outbreaks affected more than 2,000 cattle and sheep. These were the first FMD outbreaks reported in Kazakhstan since 2001.

### Sources:

- 1) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5290](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5290)>. Accessed July 26, 2007.
- 2) FMD News. <<http://fmd.ucdavis.edu/>>. "Follow up: FMD outbreak in Kazakhstan." email alert sent May 22, 2007.

## Bluetongue Virus Serotype 8 in Europe

Between August and December 2006, over 2,000 cattle herds and sheep flocks in the Netherlands, Belgium, and

Germany were affected with bluetongue virus serotype 8 (BTV-8). BTV-8, found to be spread by *Culicoides obsoletus* midges, had not been documented in these countries prior to August 2006. There is concern that infective midges may have survived this year's mild winter.

## Germany

The end of the BTV-8 vector-free period in the Netherlands, Belgium and Germany was announced in April this year, and the first case of BTV-8 infection in Europe in 2007 was detected in a sentinel bovine in Germany in May. Two sheep and a clinically affected bovine were subsequently confirmed positive for BTV-8 within the German protection zone established during the disease outbreak in 2006. The species of *Culicoides* vector involved in these new infections has not yet been identified.

### Sources:

- 1) ProMED reports. <<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive numbers 20070713.2250; 20070613.1928; 20070612.1911; 20070426.1360; 20070719.2315. Accessed July 26, 2007.

## Bovine Tuberculosis in the United States

### Oklahoma

On May 1, 2007, the Oklahoma Department of Agriculture reported a case of bovine tuberculosis (TB) discovered as a result of slaughter surveillance. The affected cow was traced to a 1,100-head beef herd in Cimarron County in the Oklahoma panhandle. Subsequent testing of the index herd identified a TB-positive cow with a Colorado ID tag. The herd has been depopulated and TB surveillance was performed on neighboring herds. Bovine TB was last reported in Oklahoma in 1982, and Oklahoma has been classified by the USDA as tuberculosis-free since 1984. Oklahoma's tuberculosis-free status was not affected.

### Source:

- 1) ProMED report. <<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive number 20070501.1420. Accessed July 26, 2007.
- 2) NewsOK.com website. <http://newsok.com/article/3104683/>. Accessed August 29, 2007.

### New Mexico

On June 14, 2007, the State of New Mexico confirmed that a dairy herd in Curry County was infected with bovine tuberculosis. New Mexico has split State status for bovine tuberculosis: portions of two counties are modified accredited advanced (MAA) and the rest of the State is accredited free. The new infected herd is located in the accredited free portion of the State. Two infected herds were confirmed with TB in late 2002, resulting in portions of Curry and Roosevelt counties being classified as MAA, with associated TB testing requirements and movement controls. In March 2007, TB was confirmed in

a culled dairy cow from Eddy County; however, TB was not confirmed in the herd. An accredited TB-free State or zone can have one infected herd without being downgraded to MAA.

*Source:*

1) ProMED report.  
<<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive number 20070619.1980. Accessed July 26, 2007.

## **Brucellosis in the United States**

### **Montana**

In May 2007, seven cattle from a Montana herd tested positive for the *B. abortus* bacterium. The affected herd has been depopulated and trace-ins/outs have been initiated. Montana will retain its designation as a brucellosis-free State unless another herd tests positive within two years. If a State loses its brucellosis-free status, all cattle that are shipped from the State must undergo testing. This significantly adds to ranchers' production costs. Currently, Texas and Idaho are the only States not classified as brucellosis-free. Wyoming, lost its brucellosis-free status in 2004, but regained it in September 2006.

*Sources:*

1) ProMED reports.  
<<http://www.promedmail.org/pls/askus/f?p=2400:1200:2277352377492182477>>. Archive numbers 20070719.2311; 20070522.1632. Accessed July 26, 2007.

## **Equids**

### **African Horse Sickness Serotype 2 in Senegal**

On June 21, 2007, an outbreak of African horse sickness (AHS) serotype 2 was confirmed in Senegal. This is the first documented occurrence of this serotype in western Africa. There are 9 serotypes of AHS virus (AHSV), which is endemic to many parts of central and eastern sub-Saharan Africa. Serotype 9 is the most prevalent; serotypes 1 through 8 are less common and historically found only in very limited geographic areas. Senegal has had outbreaks of AHSV serotype 9 in the past and uses vaccination to combat the disease. AHSV serotype 9 carries a 70–95% mortality rate in horses and a 50% mortality rate in mules.

On June 4, 2007, the OIE reference laboratory for AHS at Onderstepoort, South Africa, received samples taken from a horse in Senegal. The horse was believed to have died from AHS on May 30 and originated at a farm where all 50 horses had been vaccinated with a live serotype 9 vaccine on March 22 and revaccinated on May 21, nine days before the horse died. The OIE reference laboratory extracted RNA from the samples and confirmed the presence of AHSV. RT-PCR identified the virus as AHSV serotype 2. On June 11, the laboratory received additional samples from Senegal

from another horse die-off that occurred on June 4. The viral RNA isolated from these samples also confirmed the presence of AHSV serotype 2.

Analysis of the serotype 2 isolates from Senegal matched the sequences to serotype 2 strains traditionally found in South Africa, Botswana, and, most recently, Nigeria.

AHSV serotype 2 had not previously been documented in Senegal and the source of this outbreak is unknown. The Nigerian border is approximately 1,200 miles away and an outbreak of AHSV serotype 2 in Nigeria in January 2006 is considered a possible source. AHSV is transmitted by arthropod vectors, most notably midges in the *Culicoides* genus. The extent of AHSV serotype 2 spread throughout Senegal is unknown.

*Sources:*

1) ProMED report. <<http://www.promedmail.org/>>. Archive numbers: 20070131.0399; 20070308.0815; 20070623.2031; and 20070627.2074. Accessed on July 16, 2007.  
2) OIE report.  
<[http://www.oie.int/eng/maladies/fiches/a\\_A110.htm](http://www.oie.int/eng/maladies/fiches/a_A110.htm)>. Accessed July 17, 2007.  
3) CIDRAP report.  
<<http://www.cidrap.umn.edu/cidrap/content/biosecurity/ag-biosec/anim-disease/ahs.html>>. Accessed July 17, 2007.  
4) Distance calculation.  
<<http://www.timeanddate.com/worldclock/distanceresult.html?p1=125&p2=74>>. Accessed July 16, 2007.

### **Equine Herpes Virus-1 (EHV-1) Neurological Form in the United States**

Outbreaks of neurological EHV-1 have occurred at various equine facilities in the United States in 2007, including at racetracks, horse show grounds, veterinary clinics and boarding stables. From January 1 through June 30, 2007, outbreaks of EHV-1 were reported in California, Connecticut, Maryland, Maine, Minnesota, New York, Virginia, and Wisconsin. Details are available in *Summary of Neurological EHV-1 Events: January 1- June 30, 2007*, at [http://www.aphis.usda.gov/vs/ceah/cei/taf/emergingdisease\\_notice\\_files/notices.htm](http://www.aphis.usda.gov/vs/ceah/cei/taf/emergingdisease_notice_files/notices.htm)

## **Poultry**

### **Low Pathogenic Avian Influenza H5N1 in Virginia**

On July 17, 2007, The USDA's National Veterinary Services Laboratories (NVSL) confirmed the presence of the North American strain of H5N1 virus in turkeys in Virginia. The strain was confirmed as a low pathogenic strain, and the presence of the highly pathogenic Asian strain of H5N1 was ruled out. The samples were collected as part of routine, pre-slaughter surveillance, and none of the birds showed signs of illness. State and industry officials depopulated the entire flock of approximately 54,000 birds according to H5 and H7

response guidelines. Because the producer was a participant in the National Poultry Improvement Plan, USDA provided 100% indemnity for the flock. Intensive surveillance has been conducted in commercial and backyard flocks within a six-mile radius around the affected farm as well as on farms associated with the affected farm. No additional infections have been found. The North American H5N1 strain is commonly detected in apparently healthy birds during routine surveillance and poses no health threat to humans.

*Sources:*

- 1) USDA News Release. <[http://www.aphis.usda.gov/newsroom/content/2007/07/va\\_lpa\\_i\\_statement.shtml](http://www.aphis.usda.gov/newsroom/content/2007/07/va_lpa_i_statement.shtml)>. Accessed July 30, 2007.
- 2) Virginia Department of Agriculture and Consumer Services. News release. <<http://www.vdacs.virginia.gov/news/releases-b/071907ailifts.shtml>>. Accessed July 30, 2007

### **Semi-annual Update on Highly Pathogenic Avian Influenza H5N1**

A separate update on the global highly pathogenic avian influenza situation has been issued by CEI. This report is available on CEI's website at: <[http://www.aphis.usda.gov/vs/ceah/cei/taf/emerginganimalhealthissues\\_files/hpaijanjun2007.pdf](http://www.aphis.usda.gov/vs/ceah/cei/taf/emerginganimalhealthissues_files/hpaijanjun2007.pdf)>.

## **Porcine**

### **African Swine Fever in Georgia**

On June 5, 2007, the country of Georgia reported an outbreak of African swine fever (ASF). This was the first documented case of ASF in the region. The outbreak, which began on April 22, was initially misdiagnosed as post weaning multi-systemic wasting syndrome caused by a porcine circovirus and reported as such to the OIE on May 22. Georgia submitted samples to the Institute for Animal Health's Pirbright Laboratory in the United Kingdom on June 3, and ASF was diagnosed by RT-PCR, ELISA, and virus isolation.

ASF, which is a highly contagious and often fatal viral disease of swine, was initially reported in 10 different regions across the country, but had as of mid-June spread to 52 of 65 districts in Georgia. Over 30,000 pigs have died and an additional 22,000 pigs have been culled. This accounts for almost 11.5% of Georgia's 2006 domestic pig population.

The ASF virus is endemic throughout sub-Saharan Africa and on the island of Sardinia, Italy, and there have been sporadic, isolated outbreaks in Europe, with the most recent outbreak occurring in 1999 in Portugal. The strain of ASF infecting Georgia's pigs had not previously been documented outside of the eastern coast of southern Africa. The source of the outbreak is under investigation.

Wild pigs can become adapted to ASF and act as natural reservoirs for the disease, which puts Georgia's abundant wild boar population at risk. If the wild boars become adapted to the virus, ASF could become established in Georgia; therefore, strict measures are being taken to quarantine infected areas and limit the contact between domestic and wild swine.

ASF is also a significant transboundary animal disease because the virus can remain viable for months and can spread in many ways, including swine eating contaminated swill, direct contact with infected swine or their excretions, or arthropod vectors. Bordering countries have begun to monitor their own pig populations, and ASF testing capability has been set up in Georgia and Azerbaijan.

*Sources:*

- 1) CIDRAP report. <<http://www.cidrap.umn.edu/cidrap/content/biosecurity/ag-biosec/anim-disease/asf.html>>. Accessed July 16, 2007.
- 2) FAO news release. <<http://www.fao.org/newsroom/en/news/2007/1000612/index.html>>. Accessed July 17, 2007.
- 3) FAO news release. <<http://www.fao.org/newsroom/en/news/2007/1000594/index.html>>. Accessed July 17, 2007.
- 4) FAO STAT report. <<http://faostat.fao.org/site/568/DesktopDefault.aspx?PageID=568>>. Accessed July 18, 2007.
- 5) Institute for Animal Health report. <[http://www.iah.bbsrc.ac.uk/ASF\\_Georgia\\_12jun07\\_copy\(1\).htm](http://www.iah.bbsrc.ac.uk/ASF_Georgia_12jun07_copy(1).htm)>. Accessed July 16, 2007
- 6) OIE press release. <[http://www.oie.int/eng/press/en\\_070607.htm](http://www.oie.int/eng/press/en_070607.htm)>. Accessed July 16, 2007.
- 7) ProMED reports. <<http://www.promedmail.org>>. Archive numbers: 20070607.1845; 20070608.1860; 20070609.1886; 20070610.1891; 20070611.1901; 20070615.1954; and 20070627.2066. Accessed July 17, 2007.

### **Swine Vesicular Disease in Portugal**

On June 26, 2007, Portugal reported an outbreak of swine vesicular disease (SVD). The outbreak, which began around June 7, was isolated to a breeding farm in Beja, which is located in southern Portugal. Portugal's national laboratory obtained positive results for SVD via ELISA and RT-PCR on June 15, and these laboratory findings were confirmed at the Institute for Animal Health's Pirbright Laboratory on June 26.

All 1,812 susceptible swine at the farm in Beja were stamped out and zoning restrictions were put in place. The source of the outbreak is still under investigation. While most of Western Europe is considered SVD-free, Portugal has had isolated outbreaks, including in September 1995, December 2003, and January 2004. Italy is considered endemic for SVD and experienced outbreaks from January through early April. The outbreaks occurred in Lazio, a region previously considered SVD-free, and in Abruzzo, Calabria, and Campania, regions not considered to be SVD-free.

SVD is a picornavirus with clinical signs indistinguishable from foot-and-mouth disease, which makes laboratory confirmation of SVD critical. While most animals recover and SVD associated mortality is rare, strict quarantine and elimination of infected pigs is critical because there is currently no treatment or vaccine available. The virus can spread through direct contact or contact with excretions from infected pigs, as well as through consumption of meat or swill derived from infected pigs.

*Sources:*

- 1) ProMED report. <<http://www.promedmail.org/>>. Archive numbers: 20070628.2084; and 20031224.3124. Accessed July 16, 2007.
- 2) USDA:APHIS:VS:CEAH:CEI. Impact Worksheet. <[http://www.aphis.usda.gov/vs/ceah/cei/taf/current\\_iw.htm](http://www.aphis.usda.gov/vs/ceah/cei/taf/current_iw.htm)>. Accessed July 16, 2007.
- 3) DEFRA, UK. <<http://www.defra.gov.uk/animalh/diseases/notifiable/svd/index.htm>>. Accessed July 16, 2007.
- 4) OIE report. <[http://www.oie.int/eng/maladies/fiches/a\\_a030.htm](http://www.oie.int/eng/maladies/fiches/a_a030.htm)>. Accessed July 16, 2007.
- 5) Europa website. <[http://ec.europa.eu/food/committees/regulatory/scfcah/animal\\_health/svd\\_italy11042007.pdf](http://ec.europa.eu/food/committees/regulatory/scfcah/animal_health/svd_italy11042007.pdf)>. Accessed July 23, 2007.

## **Porcine Respiratory and Reproductive Syndrome (PRRS)**

### **Vietnam**

Vietnam is experiencing ongoing outbreaks of PRRS and genotyping of the virus is underway. In May, reports indicated that PRRS had spread to several of Vietnam's northern provinces. After instructing farmers how to prevent and cure the disease, the deputy director of the Central Veterinary Diagnostic Centre has indicated that the disease is under control.

*Source:*

- 1) ProMED report. <<http://www.promedmail.org/>>. Archive number 20070512.151612.

Vietnam reported six outbreaks of PRRS, confirmed by PCR on March 26, 2007, to the OIE on April 11, 2007. The outbreaks, detected in northern Vietnam, were attributed to the introduction of live animals and legal movement of animals. Control measures applied include: movement control inside the country, disinfection of infected premises, quarantine, modified stamping out, and vaccination. A follow-up report on April 20 indicated the occurrence of an additional seven outbreaks, also in northern Vietnam. The attack rate for the outbreaks was 45%, with a 52% case fatality rate.

*Sources:*

- 1) OIE Report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5199](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5199)>. Accessed July 30, 2007.
- 2) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5248](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5248)>. Accessed July 30, 2007.

### **China**

Increased numbers of pig deaths in China have continued to be of concern as the specific cause still isn't clear. A June 28 ProMED post raised concern of an "unknown" disease not responding to PRRS vaccines. Media reports indicate a variety of vaccines are being used; however, it is not clear which are effective and which are believed to cause abortions and deaths.

Whatever the cause of the increased numbers of pig deaths, the situation has been ongoing since at least the summer of 2006. Initially called "high fever disease" by the Chinese, later reports were issued that implicated a complex of diseases including PRRS, classical swine fever (CSF), and porcine circovirus type 2 (PCV2). The official Chinese report to OIE in September 2006 excluded ASF.

China only submitted one report, dated May 9, of PRRS to OIE in 2007. This report indicated only one outbreak in a village in Guangdong with 2,981 susceptible animals. The attack rate was 55%, but the case fatality rate was only 20%, much lower than the 52% reported by Vietnam. Of the 1,640 reported cases, only 698 died or were destroyed.

*Sources:*

- 1) ProMED report. <<http://www.promedmail.org/>>. Archive number 20070628.2081. Accessed July 30, 2007.
- 2) OIE Report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5387](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5387)>. Accessed July 30, 2007.

### **PRRS-Strains**

Phylogenetic analysis of PRRSV isolates from different geographical regions worldwide, indicate the existence of 2 major genotypes: type I representing the European prototype (Lelystad virus, LV), and type II with a North American strain as a prototype. Genotyping of the Vietnamese PRRSV is underway. A recent paper included a detailed description of the 2006 Chinese outbreaks and provided the results of a whole-genome analysis of the isolated viruses. The study revealed that these highly pathogenic PRRSV isolates are grouped into type II.

*Sources:*

- 1) ProMED reports. <<http://www.promedmail.org/>>. Archive numbers 20070717.2293 and 20070622.2017.
- 2) Tian, Yu, Zhao, et al: *Emergence of fatal PRRSV variants: unparalleled outbreaks of atypical PRRS in China and molecular dissection of the unique hallmark*". Available at <<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1885284>>).

### **Pseudorabies in the United States (Wisconsin)**

Hogs on two swine farms in Wisconsin were confirmed to be positive for pseudorabies in April by USDA's National Veterinary Service Laboratories. Slaughter surveillance testing by the Wisconsin Veterinary Diagnostic Laboratory indicated a presumptive diagnosis of pseudorabies and led to identification of the first infected herd. The second infected herd had contact with the first herd through a breeding boar. Both herds were destroyed on April 27. The source of the outbreak is believed to be wild hogs. Sixty eight herds—the two infected herds and sixty six herds within a five-mile radius of each of the two infected herds—were tested. April tests were negative for the herds within a 5-mile radius of the infected herds. USDA requires subsequent testing on herds within a two-mile radius of infected herds 30-60 days after the infected farms have been cleaned and disinfected. Negative results have been obtained from herds within a two-mile radius of the first infected farm. The final round of testing will be on hog farms within a two-mile radius of the second infected herd.

*Sources:*

- 1) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1956](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1956)>.
- 2) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1957](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1957)>.
- 3) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007.
- 4) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1958](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1958)>.
- 5) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1961](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1961)>.
- 6) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1963](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1963)>.
- 7) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1966](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1966)>.
- 8) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1969](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1969)>.
- 9) Wisconsin Department of Agriculture, Trade & Consumer Protection Web site. Press release. Accessed July 23, 2007. <[http://www.datcp.state.wi.us/press\\_release/result.jsp?prid=1991](http://www.datcp.state.wi.us/press_release/result.jsp?prid=1991)>.

## **Aquaculture/Aquatic Species**

### **Spring Viremia of Carp in the United Kingdom (U.K.)**

The U.K. identified an outbreak of spring viremia of carp on May 31. The outbreak occurred at a commercial

angling operation. The facility had been recently re-engineered, and restocked from several different facilities. The two angling lakes on the site do not have any connection with other natural bodies of water. Control measures were implemented and sampling undertaken from the restocking sources. The outbreak was declared resolved on July 4.

*Source:*

- 1) OIE report. <[http://www.oie.int/wahid-prod/public.php?page=single\\_report&pop=1&reportid=5732](http://www.oie.int/wahid-prod/public.php?page=single_report&pop=1&reportid=5732)>.

### **White Spot Disease in Louisiana**

An outbreak of white spot disease occurred for the first time in Louisiana in early May in crawfish. Louisiana is the U.S.'s largest producer of crawfish, accounting for 95% of national production which includes both farmed and wild-caught crawfish, all of which are consumed domestically. The cause of the outbreak is unknown. As of early June, 18 parishes had been tested, with positive samples found in all parishes.

Prior to this outbreak, the last reported outbreak of white spot disease in the U.S. was in 2004 in Hawaii in shrimp.

*Sources:*

- 1) Louisiana State University AgCenter website. <[http://www.lsuagcenter.com/en/crops\\_livestock/aquaculture/crawfish/White+Spot+Syndrome+Virus+WSSV+Sampling+Results.htm](http://www.lsuagcenter.com/en/crops_livestock/aquaculture/crawfish/White+Spot+Syndrome+Virus+WSSV+Sampling+Results.htm)>. Accessed July 30, 2007.
- 2) Louisiana State University AgCenter website. <[http://www.lsuagcenter.com/en/crops\\_livestock/aquaculture/crawfish/White+Spot+Syndrome+Virus+WSSV+Has+Been+Confirmed+in+Louisiana+Crawfish.htm](http://www.lsuagcenter.com/en/crops_livestock/aquaculture/crawfish/White+Spot+Syndrome+Virus+WSSV+Has+Been+Confirmed+in+Louisiana+Crawfish.htm)>. Accessed July 30, 2007.
- 3) USDA:APHIS:VS:CEAH:CEI. Impact worksheet. May 16, 2007. <[http://www.aphis.usda.gov/vs/ceah/cei/taf/iw\\_2007\\_files/WSDUS\\_LA2007/wsd\\_us\\_la\\_05\\_17\\_07.pdf](http://www.aphis.usda.gov/vs/ceah/cei/taf/iw_2007_files/WSDUS_LA2007/wsd_us_la_05_17_07.pdf)>. Accessed July 30, 2007.

### **Whirling Disease in Arizona**

On June 13, 2007, whirling disease was identified in Arizona for the first time in wild fish in public waters. The disease was found in trout in the northeast corner of the State. The sampled fish were not showing any clinical signs, and were sampled as part of a surveillance program that has been in place since 1999.

Whirling disease is found mainly in the Western U.S., and is caused by a metazoan parasite that affects the balance center of the fish. It is present in half of the U.S. States.

*Source:*

- 1) US States News, June 15, 2007.
- 2) <http://www.whirling-disease.org>. Accessed Aug 7, 2007.

### **Viral Hemorrhagic Septicemia (VHS) Update**

In 2006, VHS was identified as an emerging disease of freshwater fish in the Great Lakes region of the United States and Canada. An Emerging Disease Notice was released by CEI in July of 2007 relative to this event.

This notice can be viewed at:

<[http://www.aphis.usda.gov/vs/ceah/cei/taf/emergingdiseasenotice\\_files/vhsgreatlakes.htm](http://www.aphis.usda.gov/vs/ceah/cei/taf/emergingdiseasenotice_files/vhsgreatlakes.htm)>.

In May 2007, VHS was identified in several new species of freshwater fish in new geographic locations within the Great Lakes watershed. VHS was found in the Budd Lake, Michigan, and Lake Winnebago, Wisconsin. Both are inland lakes considered impassible by natural fish migrations. VHS was also detected along the Wisconsin shore of Lake Michigan.

*Source:*

1) Heartland Outdoorsman. Web site.

<<http://www.illinoiswaters.net/heartland/phpBB2/viewtopic.php?t=18243>>. Accessed July 30, 2007.

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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/>

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