

ANTHRAX, BOVINE - RUSSIA (KURSK)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Tue, 11 Jan 2005 19:10:33 +0300

From: Natalia Pchenitchnaia, ProMED-mail RUS correspondent

<[crane@aanet.ru](mailto:crane@aanet.ru)>

Source: Russian news agency "Regions.ru" [edited]

<<http://www.regions.ru/article/any/id/1716578.html>>

A case of anthrax in a bull-calf has been registered in the village of Ivanovka in the Solntsensky district of the Kursk region. The animal belonged to one of the inhabitants of the village.

A preliminary diagnosis was confirmed at the local veterinary laboratory on 9 Jan 2005, according to the press-service of the Government Affairs of the Civil Defense and Extreme Situations. 10 people in contact with the animal were immediately vaccinated and are under medical supervision. The affected dead bull-calf was destroyed [presumably burnt].

ANTHRAX, BOVINE, CAPRINE - PERU: OIE

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A ProMED-mail post <<http://www.promedmail.org>>

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<<http://www.isid.org>>

Date: 15 Jan 2005

From: Alfonso Rodriguez, MD <[ajrm\\_msds@yahoo.es](mailto:ajrm_msds@yahoo.es)>

Source: OIE, Disease Information News 2005; 18(2), 14 Jan [edited]

<[http://www.oie.int/eng/info/hebdo/a\\_current.htm#Sec4](http://www.oie.int/eng/info/hebdo/a_current.htm#Sec4)>

Anthrax in Peru

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This report is a translation of information received on 12 Jan 2005 (dated 11 Jan) from Dr Oscar Dominguez Falcon, director general for animal health, National Animal Health Service (SENASA), Ministry of Agriculture, Lima:

Reason for immediate notification: a sudden and unexpected increase in the distribution, incidence, morbidity or mortality of a listed disease prevalent within a country or zone/compartiment.

Date of first confirmation of the event: 11 Jan 2005.

Date of start of the event: 27 Dec 2004.

Nature of diagnosis: postmortem.

First administrative division / species / new rate of disease incidence / new mortality rate

Pampa La Julia / bov / 20 per cent / 20 per cent

Pampa La Julia / cap / 12 per cent / 12 per cent

Description of affected population: the outbreak occurred in Sama Valley, Pampa La Julia division, in Tacna department, at the border with Chile. The outbreak area contains 55 head of cattle and 26 goats on a piece of land covering 36.8 hectares. In the perifocal area there are 2900 head of cattle. During the outbreak 11 cattle and 3 goats died.

Diagnosis:

Laboratory of diagnosis / Species examined / Diagnostic test used SENASA

Animal Health Laboratory / bov / culture on tryptone soya agar and blood agar;  
isolation of the bacterium

Date: 6 Jan 2005 / Results 11 Jan 2005

Source of outbreak: unknown or inconclusive.

Control measures undertaken:

- quarantine;
- movement control inside the country;
- vaccination;
- disinfection of infected premises/establishment(s).

Vaccination in response to the outbreak:

First administrative division / species / number of vaccinated animals / vaccine

Tacna district / bov / 1100 / attenuated live virus vaccine Sama district / bov /

2685 / attenuated live virus vaccine

Treatment of affected animals: no.

Other details/comments:

Without first checking the accuracy of their information with SENASA, some of the media incorrectly reported this outbreak of anthrax to be foot and mouth disease. The national directorate of SENASA sent the media concerned an explanatory letter to ask them to rectify their mistake and accept responsibility for any consequences that may result (the last outbreak of foot and mouth disease in the country was reported in July 2004 after more than 44 months of remission (Disease Information 2004; 17(38): 268, 17 Sep)).

ProMED-mail <promed@promedmail.org>

[Thanks very much to Dr Rodriguez for sending in this report, which again confirms that the outbreak referred to below is indeed anthrax. It is not the 1st time outbreaks in animals have been misreported in the media.

One useful epidemiologic tool veterinarians have is the distribution of disease among species, which can sometimes be helpful in eliminating FMD as the cause of outbreaks, particularly vesicular ones. The key in this case is that humans, cattle, and goats are susceptible to anthrax, while humans are not (for all practical purposes) susceptible to FMD. - Mod.PC]

ANTHRAX, HUMAN, BOVINE - ZIMBABWE (MASVINGO)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Thu 13 Jan 2005

From: ProMED-mail <promed@promedmail.org>

Source: The Herald/All Africa Global Media [edited]

[ProMED-mail regrets the delay in posting. - Mod.MPP]

Anthrax in humans hits Masvingo

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An outbreak of anthrax in humans has hit Chivi and Gutu districts in Masvingo, where over 70 cases of the disease have been reported to date, amid fears that 2 people died of the disease in Chivi.

The anthrax scourge has also claimed a lot of cattle in the 2 districts, raising suspicion that most of the affected people might have consumed meat infected with the disease.

The acting Masvingo Provincial Medical Director, Dr. Charles Sandy, yesterday [Wed 12 Jan 2005] confirmed the outbreak of the disease, saying Chivi had been the hardest hit. "About 53 cases of anthrax have been reported in humans in

Chivi, and we have treated some infected people. We cannot, however, confirm that 2 people died from anthrax in Chivi, because they were buried before we could verify that anthrax caused their deaths. In Gutu, about 20 cases of the disease have been reported to date, and we are intensifying our efforts to contain the disease by carrying out awareness campaigns in these districts," said Dr. Sandy. "The major handicap in containing the anthrax outbreak in humans was the shortage of anthrax vaccines in the veterinary department for cattle. We have enough vaccines to treat people infected by anthrax, but the veterinary department is experiencing an acute shortage of these vaccines for the inoculation of cattle from where people contract the disease."

In September last year [2004], there was another outbreak of anthrax in Bikita district's Ngorima, Mutikizizi and Devure 1 areas. Anthrax was also reported in Gutu and Chivi districts, where it killed a lot of cattle.

The shortage of anthrax vaccines -- most of which are imported -- in the veterinary department has resulted in the deaths of many cattle in Masvingo, stifling the province's efforts to replenish its beef herd decimated by drought more than a decade ago. The Department of Veterinary Services yesterday [Wed 12 Jan 2005] said that they were currently facing a shortage of anthrax vaccines. "We are not getting enough foreign currency to procure anthrax vaccines; as a result, we haven't been able to import adequate supplies of the drugs," said Dr. Welbourne Madzima.

ProMED-mail <promed@promedmail.org>

[From this report, it is now clear that this disease is uncontrolled in Zimbabwe. We can therefore only expect to see a significant increase in livestock and human cases as the summer progresses in the Southern Hemisphere. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - SOUTH AFRICA (NORTHERN CAPE)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

[1]

Date: Thu 13 Jan 2005

From: Lucille Blumberg <[lucilleb@nicd.ac.za](mailto:lucilleb@nicd.ac.za)>

South Africa - human anthrax cases

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3 laboratory-confirmed cases of cutaneous anthrax in humans have occurred in Schmidtsdrift and Delpportshoop in the Northern Cape province of South Africa. One of the cases also had fatal systemic involvement with *Bacillus anthracis*, identified on a blood culture. A further 9 suspected human cases of cutaneous anthrax have been identified. It appears that members of the community handled and ate the meat of a dead cow from a farm in Schmidtsdrift. It is unclear how widely the meat was distributed, and environmental health officials are attempting to confiscate any remains of the carcass.

The health authorities are actively looking for more clinical cases and investigating the farm from which the cattle allegedly originated. Extensive health promotion will be undertaken in the area. Animal anthrax is endemic in southern Africa, and recent outbreaks in animals have occurred in Zimbabwe, Botswana and Namibia. A program for annual immunization of cattle is in place in South Africa.

Dr. Lucille Blumberg

Prof. John Frean  
Dr. Gillian de Jong  
National Institute of Communicable Diseases  
Epidemiology and Outbreak Unit  
South Africa  
<lucilleb@nicd.ac.za>

[The prompt and accurate report from Drs. Blumberg, Frean & de Jong is greatly appreciated. I am sorry it could not be equally as quickly posted, but I was out in west Texas setting up field experiments for later this coming summer. - Mod.MHJ]

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[2]

Date: 19 Jan 2005

From: ProMED-mail <promed@promedmail.org>

Source: IOL/SAPA [edited]

<[http://www.iol.co.za/index.php?set\\_id=1&click\\_id=125&art\\_id=qw1106138882900B252](http://www.iol.co.za/index.php?set_id=1&click_id=125&art_id=qw1106138882900B252)>

Anthrax outbreak under control in Northern Cape

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The anthrax outbreak in the Northern Cape is under control, the Northern Cape department of health said on Wednesday [19 Jan 2005]. Health spokesperson Dineo Khechane said all patients treated for anthrax or suspected anthrax in the Northern Cape in the past 2 months have been discharged. They were treated in the Kimberley and Barkly West hospitals during December 2004 and January 2005.

"We have passed the 7 day incubation period. From 7 Jan 2005, no further cases were reported," Khechane said. It was reported earlier that 8 men from Schmidtsdrift became sick after eating meat from a dead cow just before Christmas.

Health officials later confirmed that 2 men from Schmidtsdrift were treated for anthrax at the Kimberley health complex after they were admitted on 31 Dec 2004. During the 1st week of January 2005, 2 more men from Delportshoop were admitted to the hospital with the same symptoms. A local newspaper also reported at the time that about 50 people were treated. Health officials, however, said that only 4 people were treated at the Kimberley hospital and one at the Barkly West hospital.

The Northern Cape MEC for health, Kagisho Molusi, thanked the province's outbreak response team and other health care practitioners on Wednesday [19 Jan 2005] for successfully managing the outbreak.

ProMED-mail [promed@promedmail.org](mailto:promed@promedmail.org)

ANTHRAX, HUMAN, BOVINE - ZIMBABWE (MASVINGO) (02)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: 26 Jan 2005

From: ProMED-mail <promed@promedmail.org>

Source: All Africa [edited] <<http://allafrica.com/stories/200501260058.html>>

Chivi livestock placed on indefinite quarantine

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The Department of Veterinary Services in Masvingo has imposed an indefinite

quarantine on the movement of livestock to and from Chivi, fearing the spread of anthrax, which has claimed over 80 cattle and goats up to now. The move to quarantine livestock in Chivi follows an increase in the number of animals that are succumbing to the disease in the district since the 1st outbreak was reported in November last year [2004].

Anthrax also claimed 3 people, after they had consumed meat from infected cattle.

The acting provincial veterinary officer, Dr. Charity Sibanda, yesterday [25 Jan 2005] said the quarantine of livestock in Chivi would remain in place until further notice. "No person shall move any infectious thing from Chivi district or otherwise in accordance with the conditions of a permit issued by veterinary services, and no person is allowed to let his livestock stray into or from Chivi district.

"We have decided to impose a quarantine in Chivi, because the situation has now gone out of hand, as more livestock and humans continue to suffer from the disease," said Dr. Sibanda. She said though anthrax had killed over 180 cattle and goats in Gutu and Zaka, the veterinary department believed Chivi had more livestock deaths that went unreported and that more people have continued to suffer from the disease there.

By last week [3rd week of January 2005], there were 31 reported cases of anthrax in humans in Gutu, while Chivi had 96 reported cases, a number which continued to increase. Dr. Sibanda said they had vaccinated over 40 000 cattle in Chivi district against anthrax but stressed that 30 000 more anthrax doses were needed to vaccinate cattle in the whole district.

"We do not have sufficient doses to complete the vaccination of cattle against anthrax in Chivi district, and we would be happy if we received more vaccine doses," she said. She added that it was important for people to realize that an animal that has died of anthrax would be infected on every part, and it was, therefore, not safe for consumption.

Efforts to fight the anthrax outbreak have been affected by an acute shortage of vaccines that are imported from countries such as South Africa and Botswana. Officials at the veterinary department have said that they were not getting sufficient allocations of foreign currency to import anthrax vaccines. Last year [2004], the disease wreaked havoc in Bikita district, where it killed hundreds of cattle in the Ngorima and Mutikizizi areas.

The death of livestock in Masvingo, especially cattle, has seriously dented efforts by the province to rebuild its cattle herd that was almost halved during the severe drought experienced in 1992.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[If something is not done soon to protect the other livestock in this region, much less district, we can expect this outbreak to progress unchecked and increasingly impact the rest of the country. In 1978-80, Southern Rhodesia/Zimbabwe suffered 10 000 human cases and untold livestock deaths. We may be seeing the onset of a 2nd such epidemic. - Mod.MHJ]

ANTHRAX, BOVINE - RUSSIA (KURSK) (02)

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A ProMED-mail post <<http://www.promedmail.org>>

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Date: Fri, 4 Feb 2005

From: Natalia Pchenitchnaia <[crane@aaanet.ru](mailto:crane@aaanet.ru)>

Source: Radio Kurs [edited] <<http://radiokurs.ru/content/view/1496/>>

A 2nd case of anthrax in a bull-calf has been registered in the Kursk region [a previous case was reported on ProMED-mail on 11 Jan 2005; see reference below - Corr.NP].

Kursk resident ShChigry Kurkogo killed an 11-month old bull-calf to sell its meat in the local market. However the analyses carried out by the local veterinary laboratory [detected the anthrax bacillus]. The Kursk laboratory has confirmed the veterinary diagnosis.

According to the Kursk area administration press office, the meat and hide from the animal have been destroyed using all precautions. Disinfection of the owner's yard has been carried out. All [livestock] along the street where the bull-calf lived, including a cow and 36 pigs, have been vaccinated and now are under constant veterinary supervision.

People in contact with the sick animal have passed a course of special treatment [vaccination - Corr.NP]. But experts are disturbed that the infected bull-calf had been vaccinated against anthrax twice. All [remaining batches of the] vaccine have been sent to the Scientific Research Institute in Moscow [branch not specified - Corr.NP] for testing.

ProMED-mail <promed@promedmail.org>

[The Kursk region is located in the center of the European part of Russia, at the convergence of transport lines from Russia to industrial areas of Ukraine and the Caucasus. In the north, the region borders on Bryansk, in the east with Oryol and Lipetsk, in the south with Voronezh and Belgorod, and in the West with Ukraine. The total area of region is 29.8 thousand sq km and the population is 1 235 600. - Corr.NP]

[It is interesting that this 2nd case was a bull-calf, like the 1st. As it is now midwinter, we can safely presume that both animals were housed and being fed a commercial calf feed and hay. This is also a different village from the 1st report, all of which points to distributed contaminated calf feed. If dairy cows had been involved, there would have been many more reports. Anthrax in calves is seldom reported, mainly because in the normal summer "anthrax" season they will be suckling and grazing lightly.

The apparent non-functionality of their vaccine is worrisome. The Russian livestock vaccines are usually very good, but one can get poor batches. The other possibility is that the animal for some reason was getting antibiotics at the time it was vaccinated and this killed the live vaccine. This scenario is not at all unknown and unfortunately too common. - Mod.MHJ]

ANTHRAX, HIPPOCAMUS - UGANDA

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Date: 7 Feb 2005

From: Joseph Dudley <[jdudley@intellibridge.com](mailto:jdudley@intellibridge.com)>

Subject: anthrax death toll for hippos in QENP has risen to 23 from 20.

Source: allAfrica.com [Edited] <<http://allafrica.com/stories/200502080114.html>>  
Livestock Vaccinated Against Anthrax

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Agriculture officials have vaccinated livestock in the areas outside Queen Elizabeth National Park against anthrax to prevent it from spreading. The death toll for the hippos that have been hit by a fresh outbreak of anthrax in the park has risen to 23 from 20. Anthrax killed various species of wild animals, including

about 200 hippos in the park last year.

The commissioner in charge of livestock health in the agriculture ministry, Dr. Nicholas Kauta, on Tuesday said the livestock in the most vulnerable areas near the park had been vaccinated. [Byline: Gerald Tenywa]

Joseph P. Dudley, Ph.D.

Senior Analyst, Biosecurity & Agriculture

INTELLIBRIDGE

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<jdudley@intellibridge.com>

[In the New Year there were reports of some 19 hippos dying of anthrax in the Queen Elizabeth National Park. In spite of repeated efforts it was impossible to get confirmation from the Ugandan authorities, so it was not posted. Apparently the '05 death toll has now risen to 23 dead hippos. And surrounding livestock at risk have been vaccinated. As it is not unusual to find cattle being grazed within National Park boundaries in Africa this is patently a wise thing to do. - Mod.MHJ] ANTHRAX, HIPPOPOTAMUS - UGANDA (03)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Thu 24 Feb 2005 8:35 PM

From: Dr Roy Bengis <[RoyB@nda.agric.za](mailto:RoyB@nda.agric.za)>

Some additional thoughts on the anthrax outbreak in hippos in Uganda, some of which support certain of your comments in previous correspondence:

1) Anthrax is endemic in many areas of Africa and the world, and these endemic areas are frequently associated with alkaline soils and alkaline surface water frequently related to volcanic /calcite geological formations. The Queen Elizabeth system fulfills most of these criteria.

2) In the *Bacillus anthracis* life cycle, long dormant periods in the environment in the resistant spore survival mode are interspersed with short periods of exponential replication of the germinated bacilli within suitable hosts during outbreaks. Interepidemic periods may be measured in years or decades, and in remote areas of the developing world, the disease may not have been previously recognised or documented.

3) Triggers for these outbreaks include local overabundance of hosts, poor soil drainage and stressors generally associated with resource depletion and intraand inter-specific competition.

Hippos have few natural enemies except man, and there is a cyclical tendency for their population growth to exceed the ecological carrying capacity of their nocturnal grazing range. Dry seasons and dry cycles compound the problem. In the Queen Elizabeth National Park system, Lake Edward and Lake George (linked by the Kazinga channel) are major aquatic features stretching for many square miles, and support a large hippo population. Census figures in 1958 reported a population in excess of 15 000 for the system, with resultant severe overgrazing, trampling and soil erosion. Between 1958 and 1966, more than 7000 hippos were culled to address this overabundance issue. A 1969 census showed that there were still 10 000 hippos in the system. Heavy poaching in the 1970s reduced this population by half, but by the 1990s the population had recovered again to over 7500. I unfortunately have no recent census figures.

4) Anthrax outbreaks may possibly be seen as a natural population-regulating

mechanism for some species (including hippos) under certain environmental conditions and relative population density situations. Epidemic outbreaks are relatively short-lived (generally measured in months) and in most species (except buffalo and bison) there appears to be no gender predilection. The male predilection seen in African buffalo and bison appears to be linked to wallowing behaviour. Another observation is that sub-adult animals are relatively underrepresented in carcass counts.

Potential transmission modes include:

- Contamination of grazing by the leaking of unclotted blood from body orifices of terminal or dead individuals [and from scavenged freshly dead carcasses.]
- Contamination of lake shallows and pools [and cattle troughs] by [bathing] vultures that have recently fed on infected carcasses.
- Percutaneous infection of fight wounds by spores in the environment or spores in the oral cavity of the aggressor.
- Mechanical transmission by large haematophagous biting flies (*Pangonia* spp.) which target hippos.
- Cannibalism with ingestion of tissues from infected carcasses.

Control of Anthrax:

From a purist's point of view, anthrax is an indigenous multi-species disease, and in natural free-ranging systems it should be considered an integral part of the ecology, and a periodic population regulator. However, in a not-so-perfect world, because the disease affects livestock and has zoonotic implications, control is attempted, based on 3 pillars :

- 1) Vaccination of endangered wildlife species that are at risk -- as many as possible -- where possible.
- 2) Public awareness campaigns stressing the danger of handling or utilising carcasses of dead animals.
- 3) Reduction of contamination of the environment by burning or [2nd best] burying carcasses. Alternately, making carcasses unattractive to scavengers by spraying with formalin or covering with branches or sheets of plastic until putrefaction, anaerobic conditions, acid pH and temperature destroy the bacilli in the carcass (2- 4 days). In the case of hippopotami, their aquatic habits frequently result in the carcasses of anthrax victims floating or surrounded by shallow water, making them relatively inaccessible to winged or terrestrial scavengers. Their thick hide is not easily penetrated (even by crocodiles) until putrefaction is fairly advanced. Most bacilli in the carcasses will therefore be destroyed by their anaerobic and acidic environment together with the massive growth of putrefactive organisms. Theoretically therefore, floating hippo carcasses should not be a major source of contamination by spores, with the exception of exudates from orifices (when present). Also, in the main bodies of water of large lakes, the dilution factor for spores should be such as to pose minimum risk. However, contamination of small pools and inlets will probably require the removal, beaching and burning or burying of carcasses.

For what they are worth, these are just a few more thoughts regarding this anthrax outbreak in hippos, and the potential management thereof.

Roy Bengis, Kruger National Park, Skukuza, South Africa, <RoyB@nda.agric.za>

[I have little to add to this excellent and concise description of the epidemiology of hippo anthrax. We are seeing large anthrax outbreaks these days in Africa which could well be related to temporarily high local population densities. Stress events will lower the LD50, causing individual grazing animals which would otherwise be unaffected to die. Other factors then facilitate disease spread. -

Mod.MHJ]  
ANTHRAX, HIPPOPOTAMUS - UGANDA (04)

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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: Thu 3 Mar 2005 8:30 AM

From: Dr. Patrick Atimnedi <[patrick.atimnedi@uwa.or.ug](mailto:patrick.atimnedi@uwa.or.ug)>

Below are some clarifications regarding the management of anthrax in Queen Elizabeth National Park, Uganda.

Due to the textbook caution that carcasses suspected to have died of anthrax should not be opened, and owing to the difficulty [of handling] hippos, we did an extensive PM on 6 hippo carcasses, did blood smears using both Giemsa and Methylene Blue stains, mice inoculations, brain squashes, staining of the spleen of both the hippos and the inoculated mice, and then culture. All these showed positive. We further confirmed using PCR from Robert Kock-Institute, Berlin, Germany, a reference lab, and therefore concluded the hippos are dying of mainly anthrax.

We have so far lost 287 hippos since July 2004 as follows: July 3; August 107; September 34; October 40; November 31; December 4, totaling to 219 in 2004. From 8 Jan 2005 to the present, we have lost 68 hippos. From the trend, August was the peak of mortality, gradually declining towards December. We initially thought it would run its course but were surprised with the resurgence from January 2005.

So far the source of infection is unclear. Hippo mortalities occurred in this park in the last 50 years, usually in 10-year cycles. These however would affect at most not more than 30 hippos and were mainly associated with "drought," as no diagnosis was made.

Carcass disposal is being done as soon as dead animals are sighted. Both marine and terrestrial surveillance teams are sent out every morning, 6:00AM and evening, 4:00PM. Depending on the findings, the hippo carcasses are immediately buried under lime, while other species, especially buffalo, are burned to ash on site. Ring vaccination of livestock, coupled with intense community awareness, continues in high-risk areas. The staff involved have adequate protective gear but are not vaccinated against anthrax, as the human vaccine is not yet readily available in the country.

Is it practical to vaccinate hippos? Has it been done elsewhere? What was the success rate -- if any?

The outbreak has been confirmed only in hippos, but 60 buffalo also died between July and December 2004, while 4 died in January 2005. A few Uganda kobs and waterbucks (fewer than 10 each) have also died since the outbreak started.

Dr. Patrick Atimnedi Veterinary Coordinator Uganda Wildlife Authority  
<[patrick.atimnedi@uwa.or.ug](mailto:patrick.atimnedi@uwa.or.ug)>

[In response to concerns about under-confirmation as to causes of hippo deaths, Dr Atimnedi replied:]

[2]

Date: Fri 4 Mar 2005 1:42 AM

From: Dr. Patrick Atimnedi <[patrick.atimnedi@uwa.or.ug](mailto:patrick.atimnedi@uwa.or.ug)>

All cases are actually being investigated. Dr. Fabian H. Leendertz from the

Robert Kock-Institute, Berlin was here in Uganda on PACE/GTZ support 12 Nov - 31 Dec 2004 to help with further investigation. He took with him water, soil, blood, and other tissue samples, including fish gut. [Their report confirmed anthrax in samples from 2 hippos. - Mod.MHJ]

Additionally, the Diagnostic and Epidemiology Laboratory of the Ministry of Agriculture, Animal Industry and Fisheries, Entebbe is processing 40 samples for shipment to reference laboratories for analysis. These samples are obtained from the dead animals before they are disposed off. The species are mainly hippos, but there are also samples from waterbucks, kobs, buffalo, and one warthog. We continue to investigate other cases as and when they occur.

Our diagnostic capacity is indeed limited, and this was equally pointed out in the ToR for Dr. Fabian, and we continue to seek further assistance in this area. We believe that through this effort, we will be able to build our own internal capacity. [Monday, March 07, 2005 6:48 AM]

We last registered a case on 1 Mar 2005, when 2 hippos died. Since then, our surveillance teams -- both marine and terrestrial -- have not come across any carcasses, but the surveillance exercise goes on daily.

According to the sample aerial count conducted in August 2004 by UWA, 2632 hippos were counted in Queen Elizabeth National Park. So far, since the epidemic broke out, 287 hippos died, representing about 10.9 percent of the hippo population in the park.

Patrick Atimnedi Veterinary Coordinator Uganda Wildlife Authority  
<patrick.atimnedi@uwa.or.ug>

[3]

Date: Thu 3 Mar 2005

From: Richard Kock <richard.kock@au-ibar.org>

The data are still minimal. My concern is more on whether it is truly persisting, as later cases have not been (are not being) rigorously investigated, even if they are managing to bury them.

The issue of the skin and flies is an interesting one. In fact, most of the skin's blood supply is situated in the epidermis; the relatively avascular thick dermis is probably what you think of as skin. The hippo epidermis is thin, so the fly hypothesis is quite attractive. I have noticed that exposed hippos are highly favoured by biting flies, which possibly relates to the ease of access to superficial capillaries -- and may be why hippos love water!! I remember seeing hippos rotating continuously in water in Ngorongoro crater during a fly epidemic some years ago to reduce the trauma caused from massive numbers of flies.

A critical epidemiological investigation is patently needed.

Richard Koch Technical Assistant Epidemiology Unit (Wildlife specialist)

Pan African Programme for the control of Epizootic Disease (PACE)

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For more information on the IUCN Veterinary Specialist Group, see  
<<http://www.iucn-vsg.org>>

[Bacillus anthracis will not survive in water in its unsporulated state; the spores will, though subject to dilution, of course. A number of very good points have been raised. The very small proportion of deaths confirmed as anthrax, with a presumption that all the rest are also anthrax; how to stop the ongoing epidemic and whether hippos can be usefully darted with Sterne vaccine; what part might biting flies be playing in the continuing problem; and, as expected, other wildlife

species may be involved. This epidemic has lasted much longer than anyone would normally expect for anthrax, and the reasons are unclear. Early on there were some 4 to 7 human deaths (accounts vary) associated with persons eating these dead hippos. - Mod.MHJ]

ANTHRAX, HUMAN - BELGIUM EX BOTSWANA (CHOBE NATIONAL PARK)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Date: Mon 7 Mar 2005

From: Fons Van Gompel <[fvgompel@itg.be](mailto:fvgompel@itg.be)>

Suspected cutaneous anthrax, Belgium ex Botswana

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A 30-year-old Belgian woman traveled, from 12 Dec 2004 to 22 Jan 2005, to Namibia, Botswana and South Africa. She visited several game parks with 2 different tourist groups (of 15 and 8 people). On 8 Jan 2005, shortly after a visit to Chobe National Park in Botswana, she developed a small painless vesicular lesion on the dorsum of her left 4th finger. There was a rather fast progression, with the center of the lesion becoming black. There was no pus. Peripheral swelling and redness followed, with discrete vesicular lesions at the edge of the central black lesion. Digital pictures were taken. Massive edema -- that involved the finger, the left hand, and the left arm -- followed quickly ("arm as thick as her leg"). There was no fever, no pain in the arm and the general condition was good. She developed a moderately painful left axillary lymphadenopathy. She quickly received 2 grams of augmentin [amoxicillin/clavulanate potassium] and was hospitalized in Johannesburg. A wound culture was positive for "viridans streptococci," although *Streptococcus viridans* does not normally cause erysipelas or gangrenous ecthyma [gangrenous ecthyma is usually associated with septicemia caused by gram negative organisms and is characterized by lesions that begin as vesicles that rapidly progress to pustules and gangrenous ulcers - Mod.MPP].

Ciprofloxacin, gentamycin, tetracyclin and cloxacillin, together with topical mupirocin, were administered. She was discharged after 6 days, returned home, took one more week of flucloxacillin and came in for advisement to our policlinic (Institute of Tropical Medicine in Antwerp, Belgium).

When we saw her at the beginning of February [2005], her general condition was excellent, but she still had a painless necrotic finger lesion, 1 x 4 cm, with limited peripheral edema. The lesion was clearly healing. There was limited damage to the extensor tendon of the distal phalanx of her 4th finger, and there was a 15 cm zone of hypoesthesia on the radial aspect of her left forearm. No additional antibiotics were prescribed. The possibility of anthrax was explained to the patient, together the lack of person-to-person transmission.

Upon questioning, she admitted that some people in her group touched the carcasses of dead antelopes in Chobe Park, and one member had climbed upon a dead hippo but subsequently sank into the carcass. Afterwards (before eating), all the members of the group washed their hands in a small plastic tub with some water and a bit of Dettol.

The aspect of the black dry skin lesion, the central necrotic character, the impressive peripheral edema with faint vesicles, the absence of leukocytosis, the normal ASLO [antistreptolysin O] and ESR [erythrocyte sedimentation rate], the absence of pain or fever (maximum temperature was

37.8 C at only one time) during all phases of her illness, as well as the history involved, were all suggestive of cutaneous anthrax.

Our lab was immediately notified. A culture, performed in a BSL3 lab, was negative. PCR-confirmation for *Bacillus anthracis* will be sought (on material prelevated on a Dacron swab as well as on wound crusts). We stored serum for anthrax serology, but we do not have the facilities to perform this test ourselves. A skin biopsy of the finger was not taken. The case was notified as "probably cutaneous anthrax" to the Belgian public health officials.

As many members of her (international) traveling group as possible were urgently contacted by email. We obtained indirect information from South Africa that 6 more people might have developed similar skin lesions (further data is lacking).

Colleagues active in travel medicine are asked to include a warning against touching dead animals.

Fons Van Gompel, MD, DTM Medical Services Institute of Tropical Medicine  
Antwerp Belgium <fvgompel@itg.be>

Erwin van den Enden, MD, DTM <EvdEnden@itg.be>

Koen De Schrijver, MD Flemish Public Health Service  
<koen.deschrijver@wvc.vlaanderen.be>

[One could not ask for a better pathognomonic description of cutaneous anthrax, except that fever can occur: local inflammation with vesicles, painless sores latterly turning black, edema, enlarged lymph nodes. In that folk regularly ascribe foolish actions to others when they were themselves involved, one might presume that she might have been a hippo-climber as well. In spite of the group hand washing "in a small plastic tub with some water and a bit of Dettol," one (plus 6 to 8?) persons developed a cutaneous lesion. And it is always wise not to interfere with the bodies of dead animals, unless you know what you are doing, and even then, we usually take automatic precautions. It is a good rule that, if you can get close to a wild animal, it is probably sick. Therefore, stop and step back. - Mod.MHJ]

ANTHRAX, MAIL FACILITIES - USA (VIRGINIA): NOT

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: Tue 15 Mar 2005 11:58 AM

From: Joseph Dudley <dudley@eurasiagroup.net>

Source: News release from the United States Department of Defense, No. 255-05, 14 Mar 2005 [edited]

Positive Initial Detection for Anthrax at Pentagon

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During routine mail operations, the Pentagon had a positive detection for the presence of anthrax bacteria at the Remote Delivery Facility (RDF). The RDF was evacuated while tests were conducted to determine if anthrax was present. Subsequent tests have proven negative. However, the Department is taking precautionary measures while [yet] further testing is conducted. Cultures are being taken from all personnel who may have had contact with deliveries. Those personnel have also been given the option to begin antibiotic treatment if desired.

The RDF will resume normal operations upon the conclusion of all testing.

DoD personnel can obtain additional information in the attached document at  
<<http://www.defenselink.mil/news/Mar2005/d20050314anthrax.pdf>>.

[Web Version: <<http://www.defenselink.mil/releases/2005/nr20050314-2230.html>>]

-- News Releases: <<http://www.defenselink.mil/releases/>>

-- DoD News: <<http://www.defenselink.mil/news/dodnews.html>>

-- U.S. Department of Defense Official Website - <<http://www.defenselink.mil>>

Media Contact: (703)697-5131

Public/Industry Contact: (703)428-0711

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

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[2]

Date: 15 Mar 2005

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: American Forces Press Service (Kathleen T. Rhem) [edited]

Biological Alarm Shuts Down 2nd DoD Facility

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Local officials shut down 3 buildings leased by the Defense Department in suburban Virginia after a biological-agent detection system sounded an alarm in one of the buildings 14 Mar 2005.

Initial test results indicated the presence of anthrax in the building, located in the Skyline office complex in Falls Church. "At this time, it is not clear if this is a false positive or a true positive result," advised a press release from the Fairfax County government. Officials said additional tests are being conducted.

This alarm came just hours after a mail-handling facility in a Pentagon outbuilding was shut down because of a similar incident. Employees of the Remote Delivery Facility were evacuated after an alarm indicated the presence of a chemical or biological agent during normal operations. That facility remains closed for further testing.

As of this morning, all 3 Skyline buildings, which are interconnected, remain closed as well. Fairfax County officials said this measure is a precaution until more testing can be completed. "However, health officials stress that the general public is not at risk of exposure," the county press release stated. The Skyline office complex houses several DoD agencies.

County officials required employees there to stay inside their buildings for several hours after the alarm sounded in the afternoon. They were later advised to wash their hands and faces before departing.

Information provided to all employees told them to go directly home and place their clothing in a plastic bag and tie it. A fact sheet employees received instructed them to keep the bag in a safe place and not to disturb or open it until they receive further instructions.

On a recorded information line, a Fairfax County official advised that the initial test results at the site are preliminary and that "confirmatory tests" are being conducted. "Decisions regarding the need for antibiotic treatment and follow-up will be based on these test results," the official said. The Fairfax County information line number is (703) 246-2411.

Employees of the Pentagon site that was evacuated were provided with a 3-day regimen of antibiotics after nasal swabs were taken from all individuals for culture to test for individual exposure to anthrax, DoD officials said.

Related Sites:

Fairfax County Health Department Information Update

<<http://www.co.fairfax.va.us/service/hd/fxhdpress0314.htm>>

Centers for Disease Control and Prevention Anthrax Information

<<http://www.bt.cdc.gov/agent/anthrax/index.asp>>

Related Articles:

Positive Initial Detection for Anthrax at Pentagon

<[http://www.defenselink.mil/news/Mar2005/20050314\\_180.html](http://www.defenselink.mil/news/Mar2005/20050314_180.html)>

Hazardous Materials Teams Investigating Alarm on Pentagon Reservation

<[http://www.defenselink.mil/news/Mar2005/20050314\\_177.html](http://www.defenselink.mil/news/Mar2005/20050314_177.html)>

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[3]

Date: 15 Mar 2005

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: Reuters [edited]

Anthrax Tests at Pentagon Prove Negative

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2 Defense Department mail handling facilities were shut down on Monday after sensitive detection devices indicated the presence of anthrax, but mail at the facilities had already been irradiated to kill any bacteria, Pentagon officials said. Initial tests at a delivery security facility on the grounds of the Pentagon and at a satellite facility in an office complex several miles away returned preliminary positive results, the Pentagon said.

But further tests were negative.

"During routine mail operations, the Pentagon had a positive detection for the presence of anthrax bacteria at the Remote Delivery Facility," the Pentagon said in a statement. "Subsequent tests have proven negative. These testing machines are very sensitive and we have had false alarms before. But we take these matters very seriously and are investigating," Defense Department spokesman Glenn Flood told Reuters.

More tests to confirm the results were being conducted at the U.S. Army Research Institute for Infectious Diseases at Fort Detrick in Frederick, Maryland, said Pentagon spokeswoman Lt. Commander Jane Campbell. The results are expected in 2-3 days.

The Pentagon said it was working closely with the FBI and the U.S. Postal Service.

About 175 people who normally work at the receiving facility -- designed to check everything coming into the building from letters to packages and construction materials -- were evacuated when the investigation was launched after an alarm was triggered. The Pentagon said cultures were being taken from workers and they were being offered antibiotic treatment.

Although the receiving facility at the outer edge of the Pentagon was closed, the public post office inside the world's biggest government office building remained open.

Some 3000 workers in 3 office towers connected to the Defense Department satellite facility were held inside late into the evening while emergency crews did their work, according to local television reports.

The Pentagon is considered a potential target after the 11 Sep 2001 attacks on the building and the World Trade Center in New York using hijacked commercial airliners.

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[4]

Date: 15 Mar 2005

From: ProMED-mail<promed@promedmail.org>  
Source: Washington Post [edited]  
<<http://www.washingtonpost.com/ac2/wp-dyn/A35943-2005Mar15?language=printer>>

The preliminary anthrax confirmation was done through polymerase chain reaction (PCR) testing and confirmed the alert initially reported by a defense contractor laboratory in Richmond last week.

Concerns were raised about the Pentagon mail facility after tests last week came back positive for anthrax, officials said. Interim tests there were negative, but officials yesterday closed the facility and evacuated employees there.

Shortly afterward, a sensor at the Department of Defense mailroom on Leesburg Pike in Fairfax signaled the presence of a suspicious biological substance, forcing hundreds of workers to remain inside the three buildings in that complex for almost six hours.

The Pentagon and Fairfax facilities remained closed today as officials continued investigating.

[The situation is somewhat more complex than the initial calming DOD reports suggested. There seems to be something going around that is successfully triggering the sensors. The authorities want to find out what is doing this.

At this time there is no indication that it is B. anthracis itself. - Mod.MHJ]

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[5]

Date: 15 Mar 2005

From: ProMED-mail<promed@promedmail.org>

Source: Reuters [edited]

<<http://www.reuters.com/newsArticle.jhtml?type=topNews&storyID=7909390>>

Pentagon Mail Center Tests Positive for Anthrax

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Samples collected from a Defense Department mail center near the Pentagon building have tested positive for deadly anthrax bacteria in a preliminary examination, the U.S. government said on Tuesday.

Bill Hall, a spokesman for the Department of Health and Human Services, said an additional, more definitive test was being conducted on the sample to confirm whether it is anthrax. Results could be available later in the day.

Hall said federal health officials would send a bulletin to doctors, hospitals and clinics asking them to watch for patients suffering from symptoms of exposure to anthrax. "It doesn't mean we're expecting anything out there, but it's just out of the abundance of caution," Hall said.

2 Defense Department mail-handling facilities were closed on Monday [14 Mar 2005] after sensitive detection devices indicated the presence of anthrax, but mail had already been irradiated to kill any bacteria, Pentagon officials said.

On Tuesday [15 Mar 2005], a Washington [DC] postal center also was closed and about 200 employees offered antibiotics as a precaution in case it had handled the Pentagon mail, officials said.

Hall said experts registered a positive indication for anthrax using a polymerase chain reaction (PCR) test on a sample taken from the Defense Department's remote mail distribution facility, located just outside the Pentagon building in Arlington County, Virginia. But Hall said the test was not considered definitive and the finding is considered preliminary. "That doesn't mean there is live anthrax and it doesn't mean that there is actually any anthrax," Hall said.

He said there were no results yet from either the preliminary or the definitive test

of samples taken from the other facility closed on Monday -- a separate satellite Defense Department mail center located in an office complex several miles away.

The Washington [DC] postal center that was closed on Tuesday was being screened for anthrax traces, said Dr. Gregg Pane, director of the District of Columbia's Department of Health. He said there was "no confirmed detection" nor had employees reported any illness. "This is a prudent course of action," Pane said. "I don't think there's cause for alarm or panic or undue worry."

[Byline: Will Dunham, and additional reporting by Patricia Wilson]

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[6]

Date: 15 Mar 2005

From: ProMED-mail<promed@promedmail.org>

Source: NBC [edited]

<<http://www.nbc4.com/health/4286042/detail.html>>

Feds Close Another Postal Facility; Health Officials Distribute Antibiotics

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The U.S. Postal Service confirms that it has shut down the V Street postal facility in northeast Washington [DC]. A spokesman said testing is under way to see if there is any contamination in that building.

D.C. Mayor Anthony Williams said in a news conference outside D.C. General Hospital that all mail headed to the Pentagon comes through the V Street facility at 3070 V St., N.E. Williams said about 250 people are employed there.

Dr. Gregg Pane, chief medical officer for the District, said employees will be given the antibiotic Cipro[floxacin] as a precaution against possible biohazards. Pane said the antibiotic would be distributed from D.C. General Hospital and health officials will continue giving it out until it has been received by all employees. But health officials said it is up to the individual employee to decide whether s/he would take it. [Prolonged courses of cipro have been associated with severe side-effects. - Mod.JW]

3 federal mailroom facilities in Fairfax County, VA, have been closed indefinitely until officials in Virginia learn what caused sensors that detect hazardous materials to sound off Monday. Fairfax County Fire and Rescue spokesman Dan Schmidt said a lab [USAMRIID] is testing the substance right now and officials hope to have results sometime on Tuesday [15 Mar 2005].

Schmidt said right now authorities don't know what triggered the alarms and they won't know until final testing is complete. Virginia Department of Health officials said there were signs of a suspicious substance at both a Pentagon mail facility and a Fairfax County military mailroom in the Bailey's Crossroads area.

ProMED-mail <promed@promedmail.org>

[The Washington Post has a long article on this event, with a lot of human interest: "Initial Pentagon Test Is Positive for Anthrax; Officials Trying to Determine if Bacteria Were Live" By Spencer Hsu, Jamie Stockwell and Fred Barbash, Washington Post Staff Writers <<http://www.washingtonpost.com/wpdyn/articles/A35943-2005Mar15.html>>

And in their hypersensitive manner the US stock prices fell in response to this news:

<<http://www.bloomberg.com/apps/news?>

pid=10000087&sid=aZ8VvrjZSJ4&refer=top\_world\_news>

"U.S. Stocks Fall on Anthrax Report; AIG, Technology Shares Drop "

By all accounts the Pentagon responded in a very responsible manner, even

though there is a small measure of uncertainty as to the confirmed "negative," which is sensible. We can assume that the sensors will occasionally sound the alarm, and let us hope that they will continue to be false positives. I am deeply appreciative to Joe Dudley for his phone call and for sharing these reports with us. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - RUSSIA (VORONEZH)(02)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

[It seems we may have had a translation error. The 1st report quoted infected "beef". It now appears it was a pig. My previous comments stand. As the infective dose for swine is significant higher than for ruminants, it is unlikely that the source was contaminated soil. Cutaneous infections from soil are extremely rare.

- Mod.MHJ]

[1]

Date: 15 Mar 2005

From: Beniyamin L. Cherkasskiy <[zoonoz@proc.ru](mailto:zoonoz@proc.ru)>

[I have spoken with] Michael Chubirko, Head Physician at the Regional State Epidemiological Surveillance Centre of Voronezh. He confirmed all the information about anthrax in the village of Veliky Marky in the district of Kamensk. Only one difference: it was a case in a pig, Mart 2. It was not determined exactly, but the local veterinarian supposed that the source of the microbes was some contaminated forage. The 1st known case of anthrax in the village of Veliky Marky was in 1907, the most recent one in 1950.

Prof. Beniyamin Cherkasskiy, MD, PhD, DMSc, Academician

Director, WHO Collaborating Center of Zoonoses

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<[zoonoz@proc.ru](mailto:zoonoz@proc.ru)>

[Thank you, Beniyamin. - Mod.MHJ]

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[2]

Date: 15 Mar 2005

From: Natalia Pchenitchnaia <[crane@aanet.ru](mailto:crane@aanet.ru)>

Via: Nilufar Rakhmanova <[Nilufar@zdravplus.uz](mailto:Nilufar@zdravplus.uz)>

Source: Open.ru news agency [translated Mod NR; edited]

<<http://openru.net/news/incident/detail.php?ID=43347>>

According to the information from the state sanitary epidemiological surveillance system, a case of anthrax has been registered in the city of Kamensk. During a test of slaughtered animal meat, infection was detected in the skin. It was determined that 5 people were in contact with the infected slaughtered animal; they all were isolated and are under medical observation.

The infection occurred in the village of Marki in the city of Kamensk. The last time the dangerous pathogen was identified was in the 1950s. However, according to the chief of sanitary epidemiological surveillance center Mihail Chubirko, the [spores of *Bacillus anthracis* can survive in the soil for many years. Swine

breeding is widespread in the village of Matki, and swine very often dig in the soil, where the virus is preserved.

According to Mihail Chubirko, the village of Marki is on sanitary epidemiological quarantine as a focal point for anthrax. There are 800 focal points for anthrax in the Voronej region, includes the city of Kamensk.

ProMED-mail [promed@promedmail.org](mailto:promed@promedmail.org)

ANTHRAX, EQUINE - MONGOLIA (DORNOD)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Wed, 16 Mar 2005 22:31:12 +0900 (JST)

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: Xinhua / ChinaView.com [edited]

<[http://news.xinhuanet.com/english/2005-03/16/content\\_2706630.htm](http://news.xinhuanet.com/english/2005-03/16/content_2706630.htm)>

2 horses die of anthrax in Mongolia

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2 horses in Mongolia's Dornod province died Monday from anthrax, the Mongolian General Authority for Emergency Management (GAEM) said here Wednesday.

Authorities in the province have enforced martial law in the Halhgoi County where the deaths occurred and have begun operations to disinfect the livestock in the district, a GAEM spokeswoman said. She said 13 horses were found to be infected with anthrax several days before in the county and 6 have subsequently died. The carcasses were buried and authorities in the region are closely observing the remaining animals to prevent further outbreaks.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[To say that this is unusual is an understatement. Horses are careful grazers and it is still wintertime in Mongolia, so the ground will be frozen, further decreasing any chances of acquiring spores in soil. Similarly it is certainly not the season for biting flies. My Mongolian contacts have been asked to comment as best they can on this event. We must await their informed replies. - Mod.MHJ]

ANTHRAX, MAIL FACILITIES - USA (VIRGINIA) (05)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Tue 22 Mar 2005 3:02 PM

From: Joseph Dudley <[dudley@eurasiagroup.net](mailto:dudley@eurasiagroup.net)>

Source: UPI 21 Mar 2005 [edited]

<<http://www.upi.com/view.cfm?StoryID=20050321-073641-8576r>>

2 labs confirmed Pentagon anthrax

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Anthrax has been confirmed in samples collected from the 2 Pentagon mail facilities that were at first closed last week and then declared free of the pathogen, United Press International has learned. The head of the company that was accused of contaminating the samples sent from those facilities -- a detached building on the Pentagon grounds in Arlington, Va., and the other in Falls Church, Va. -- said the presence of anthrax was detected independently by 2 government laboratories. Robert B. Harris, president and chief executive officer of Commonwealth Biotechnologies Inc. in Richmond, Va., also said the anthrax

found was the same genetic strain used in the 2001 attacks.

[There has since -- on Fri 18 Mar 2005-- been a 3rd alert at Bolling Air Force Base triggered by automatic sensors, which apparently is now regarded as a negative after FBI testing.]

The week of anthrax alarms began when the Pentagon mail facility was closed 14 Mar 2005, after tests on samples taken there the week before had been found positive for the presence of anthrax. The initial samples, consisting of swabs of surfaces from the facility, had been collected 10 Mar, but the results were not received and the facility was not shut down until 14 Mar. The delay was not the fault of CBI, Harris said, noting CBI had tested more than 2000 similar samples in the past 2 years and reported its results within 24 hours. "We reported our initial ...findings on (11 Mar)," Harris told UPI. "Our contracting officer told us to continue testing for further analysis over the weekend -- and that was done. On Monday ... the 14th we communicated additional test results to our contracting officer. From CBI's point of view, there was absolutely no delay in reporting the results."

CBI is a sub-contractor that conducts routine testing. The identity of the prime contractor who received the results is unclear. Defense Department spokesman Glenn Flood told UPI the 4-day delay was being investigated.

Harris also took issue with the anonymous suggestion in news reports that his lab had contaminated the original sample from the Pentagon site. "It is a fact that we had a presumptive positive test come up," he said. "That presumptive positive test was confirmed by us and by at least 2 other labs as being a true positive."

Carlee Vander Linden, a spokeswoman for the U.S. Army Medical Research Institute of Infectious Diseases in Frederick, Md., which tested the samples after CBI, confirmed that the follow-up tests on the 1st sample were positive and that 2 labs had done such tests.

"There is a component of the Homeland Security Department that has a laboratory that is located in our building," Vander Linden explained.

"They have a presence here at Fort Detrick. The samples were basically parted [portioned?] out, and there was analysis done by USAMRIID and by the forensics lab under DHS. I know that the negatives that we got were on the ones that came directly from the (mail) facility and did not pass through the contractor. The positives that we got were on samples that had been handled already by the people in Virginia."

Vander Linden also said: "USAMRIID is not saying that, 'Gee, there probably was a contamination event.' I think some people are surmising that. It certainly has been reported that way. I think that we'll just have to wait and see."

A DHS lab did conduct confirmatory tests, said Terry Bishop, a spokesman for DOD Health Affairs, but he did elaborate on the results.

"It is in our mind that this was truly a positive sample," said Harris, adding that his technicians had done everything possible to minimize contamination and were reviewing their lab and procedures. "I emphasize," Harris said, "in over 2000 of these samples and tens of thousands ... of other samples we have never experienced a false-positive test."

In response to a question from UPI, Harris confirmed CBI also had conducted other tests on the anthrax sample, but he would not reveal the results. ... Harris also said the anthrax in the initial samples was the same strain as the organism used during the 1st anthrax attack via U.S. Mail facilities in the fall of 2001. This was not surprising, however, he said, because it is the most common [sic; see comment below - Mod.MHJ] strain.

Questions over the 1st alarm were still swirling when the 3rd alarm sounded last Friday at Bolling, which is located along the Anacostia River in Washington, in a mail-handling facility used by the Defense Intelligence Agency.

"This morning, the DIA remote-delivery facility was closed due to an initial positive test of incoming mail for hazardous biological agents," Defense Department spokesman Maj. Paul Swiergosz told UPI last Friday afternoon [18 Mar]. Personnel on the scene were asked to stay, Swiergosz said, and local officials were called. An FBI team conducted further tests. As of late Friday, the follow-up tests at the scene had been negative, said FBI spokeswoman Debbie Weierman. Additional tests were planned at a laboratory.

The week's events raised concern about cross-contamination from a source of anthrax somewhere in the Defense Department mail system. All of the alerts occurred in defense-related mail facilities, and in each case the alerts were specific for anthrax, several federal and local DOD spokesmen confirmed during the week. The bioweapons sensors were not connected, UPI was told repeatedly by the spokesmen. The sensors in Fairfax and at Bolling were automatic and did not involve any CBI testing. UPI also was told by a Defense Department spokeswoman that, in at least one case, the alerts followed the mail flow. Specifically, the mail from the Pentagon site could have moved to the Falls Church location.

The Pentagon is working to gather more than 8000 pieces of mail that moved through its detached facility between 10 and 14 Mar 2005.

[Byline: Dee Ann Divis, Senior Science & Technology Editor]

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[Let me try to summarise this report: [1] CBI tested their 10 Mar samples, and on 11 Mar informed the prime contractor of the positive results that day. The latter told them to keep looking. Pentagon was informed on 14 Mar by the contractor. [2] USAMRIID says that the samples directly from the mail facility were negative but the samples from the contractor were positive. [3] The CEO/President of CBI says that their laboratory identified their positives as being "Ames", which he says "was not surprising ... because it is the most common strain."

What fun! Investigation will in due course determine where the "positive samples" originated, presumably with embarrassment in one quarter or another. And we now have the FBI analysing samples.

To claim that "Ames" is the most common strain must reflect that most US research laboratories now insist on having it, out of laboratory testosterone presumably. Why a surveillance laboratory might have this culture on hand surpasses all understanding -- when there is always the risk of crosscontamination.

Apropos, in my lab we not only kept it very, very clean but never ever allowed Sterne anywhere near because of its ability to fly around -- it was the most common contaminant in archival collections sent to us. If a laboratory must have a culture on hand for quality control, it would be logical to most people to use a most infrequent isolate, say "C," which has only been found once and has no close relatives. If a "positive" arose, a quick check would show whether it was an in-house contaminant. To be very charitable, it is less than wise to use Ames, which already has a Post Office reputation for trouble.

As ever, our thanks to Joe. - Mod.MHJ]

ANTHRAX, CHIMPANZEES, GORILLAS - CAMEROON (SOUTH EAST)

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A ProMED-mail post

<<http://www.promedmail.org>>

ProMED-mail is a program of the

International Society for Infectious Diseases <<http://www.isid.org>>

Date: 03/23/2005 11:47 AM

From: Joseph Dudley <[dudley@eurasiagroup.net](mailto:dudley@eurasiagroup.net)>

Source: Reuters [edited]

<<http://www.planetark.com/dailynewsstory.cfm/newsid/30045/story.htm>>

Anthrax Kills 2 Chimps, 2 Gorillas in Cameroon

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Anthrax has killed at least 2 gorillas and 2 chimpanzees in southeastern Cameroon, prompting fears that the highly infectious disease could spread to humans living nearby, government officials said on Tuesday.

"Analysis of samples taken from the dead animals indicates that the principal cause of their death is anthrax, a highly contagious disease to humans," the central African country's Ministry of Forestry and Wildlife said in a statement. It was the 1st time that a gorilla had been reported to have died from anthrax, [an infection acquired] when animals absorb bacterial spores that can live for decades in dry soil while they eat remnants of vegetation, officials said.

The wildlife ministry warned people living in the northern belt of the Dja nature reserve not to touch or eat any dead monkeys but rather to burn or bury them immediately.

A wildlife ministry official said the primates had probably died between November and December 2004, but authorities had had to send samples to Germany to determine the cause of death.

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[We have had previous reports of anthrax in primates and possibly bushmeat, so this is not unlikely. Also, chimpanzees are carnivores and regularly will kill and eat small game animals. If game animals were dying of anthrax, it is not as internationally newsworthy as chimpanzees and gorillas! They would also provide infected blood meals for biting flies. - Mod.MHJ]

ANTHRAX, CHIMPANZEES, GORILLAS - CAMEROON (SOUTHEAST) (02)

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A ProMED-mail post <<http://www.promedmail.org>>

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<<http://www.isid.org>>

Date: 24 Mar 2005

From: Mary Marshall <[tropical.forestry@btinternet.com](mailto:tropical.forestry@btinternet.com)>

Source: IRIN via Reuters [edited]

<<http://www.alertnet.org/thenews/newsdesk/IRIN/52e65eb7c7028074bd8c7b8e22c3fc48.htm>>

Primates die from anthrax, causing bush meat scare

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The government of Cameroon has warned people against eating monkey meat after discovering that several chimpanzees and gorillas in a game reserve near

the capital had died of anthrax. The warning was issued on Tuesday following medical tests on the bodies of 2 chimpanzees and 2 gorillas found dead in the Dja game reserve, 100 km southeast of Yaounde. "Analysis of samples taken from the dead animals indicates that the principal cause of their death is anthrax, a highly contagious disease to humans," the Ministry of Forestry and Wildlife said in a statement on Tuesday.

Law prohibits the killing of gorillas and chimpanzees, but the meat of both primates is a prized delicacy for many Cameroonians, who enjoy a wide variety of bush meat.

This is the first time that anthrax -- an acute and potentially fatal disease usually found in cattle, sheep and goats -- has been detected in gorillas and chimpanzees in Cameroon.

The government warned people living in and around the Dja reserve to avoid touching or consuming any monkey found dead. It also urged them to bury such animals without delay and to report their death to the authorities.

The official statement did not say when the 4 primates who died of anthrax were found, but a source in the Ministry of Forestry and Wildlife told IRIN that they died between November and December 2004. Samples from the dead animals had been sent to Germany for laboratory analysis, he added.

Stephen Tarkang Ebai, the national director of wildlife, said the government would soon launch a nationwide public awareness campaign against the killing and consumption of protected endangered primates.

"Chimpanzees and gorillas fall in class "A" of protected animals. We cannot deny that this highly valued species of animals which are protected are equally being poached by individuals," Ebai said. "Anyone caught either with a whole or part of these protected species of animals is liable to at least one month imprisonment, or a fine of between one and ten million CFA francs (US \$2,000 to 20,000)," he added.

The Last Great Ape Organization (LAGA), an Israeli-funded non-governmental organisation, has taken at least 20 Cameroonian poachers to court with the backing of the Ministry of Wildlife for killing protected species. "The laws protecting wildlife in Cameroon are there, but they need to be reinforced by organisations like us," said LAGA president Ofir Drori. "If endangered species like gorillas, chimpanzees and elephants among others are not protected, they will disappear in years to come," he added.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[Thank you Mary for forwarding this. With the increasing volumes of bushmeat being eaten these days, it might cause a temporary drop in local consumption. Of course, the industry being what it is, I would not be surprised if contaminated bushmeat were to turn up in London sometime in the next few days. If the UK Customs were to catch it en route, that would be best. Otherwise one can only ask that physicians caring for European communities given to eating these meats be aware of the possible symptoms when examining a patient presenting unusual gastro-enteric symptoms. - Mod.MHJ]

ANTHRAX, BOVINE - MONGOLIA (UVS)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Date: 6 Apr 2005

From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: Xinhuanet via Chinaview, 2 Apr 2005 [edited]  
Anthrax confirmed as cause of cattle deaths in Mongolia

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2 heads of cattle have died of anthrax infection in Mongolia's Uvs province, the Mongolian General Authority for Emergency Management (GAEM) said here on Saturday [2 Apr 2005].

The Uvs province authority has isolated Malchin county, where the cows died in recent days, and is disinfecting more than 1400 head of livestock nearby, GAEM said.

The cause of the anthrax is under investigation.

Anthrax is an infectious, usually fatal, disease of warm-blooded animals, especially cattle and sheep. The disease can be transmitted to humans through contact with contaminated animal substances.

Livestock-raising is the most important sector of Mongolia's economy, with about 1/3 of the population dependent on animals for food, transport and income.

ProMED-mail [promed@promedmail.org](mailto:promed@promedmail.org)

ANTHRAX, ZEBRAS - UGANDA (LAKE MBURO NATIONAL PARK)

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A ProMED-mail post <<http://www.promedmail.org>>

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[1]

Date: 25 Apr 2005

From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: All Africa [edited]

<<http://allafrica.com/stories/200504251187.html>>

Anthrax kills 50 zebras

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An outbreak of anthrax in Lake Mburo National Park in western Uganda has killed over 50 zebras, according to wildlife sources. The park was hit by anthrax about 2 years ago, killing animals including more than 100 zebras and cattle belonging to local herdsmen who graze in the park.

Moses Mapesa, the acting head of the Uganda Wildlife Authority (UWA), yesterday [25 Apr 2005] confirmed the reports, but declined to release details, saying he would provide a detailed report later this week.

Sources within UWA, who preferred to remain anonymous, said the death toll for last month [March 2005] increased, and, that every week, about 5 carcasses were being recovered. Sources said the zebras were also dying at the time anthrax hit Queen Elizabeth National Park, but the numbers of carcasses recovered every week were either one or 2. They, however, became concerned when the number of carcasses scattered in the park started increasing, especially in the last month.

UWA dispatched a team of veterinary doctors recently and found the strain that causes anthrax, contrary to an earlier test that did not find it, according to reliable sources within UWA.

Sources within UWA said rangers found carcasses scattered in the park and did not record the deaths, thinking that the small numbers were not a source of concern. However, they reported to higher authorities in UWA after they detected an increase in the deaths.

[Byline: Gerald Tenywa]

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

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[2]

Date: 26 Apr 2005

From: ProMED-mail <promed@promedmail.org>

Source: IOL [edited]

<[http://www.iol.co.za/index.php?set\\_id=14&click\\_id=143&art\\_id=qw1114515902445B225](http://www.iol.co.za/index.php?set_id=14&click_id=143&art_id=qw1114515902445B225)>

Anthrax hits 2nd Ugandan game park

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Anthrax has killed at least 43 zebras in a game preserve in western Uganda near another sanctuary, where more than 300 hippos have died of the disease since last year [2004], officials said on Tuesday [26 Apr 2005].

"43 zebras have died in the past 2 months at Lake Mburo National Park (LMNP), and tests indicate another anthrax outbreak," said Dr. Nicholas Kauta, the head of Uganda's anthrax task force. "We are trying to contain it before it spreads," he said, noting that vaccinations had been sent to inoculate domestic livestock in the area, along with instructions to completely incinerate any zebra corpses found.

"We do not want to leave them there for any moment after they die, because that will mean that they will produce spores that will remain in the soil, and the infestation will continue," Kauta said.

Only cattle and sheep are vaccinated against anthrax, because wild animals are notoriously difficult and dangerous to inoculate.

There are an estimated 4700 zebras in the Lake Mburo reserve, which is about 100 km from Queen Elizabeth National Park (QENP), where anthrax has killed at least 302 hippos since July of last year [2004].

Ugandan officials, who have appealed for assistance to stop the outbreak in Queen Elizabeth Park, say there is no natural corridor between the 2 sanctuaries but are concerned that anthrax spores could be spread by wind.

Anthrax last hit Lake Mburo in 2003, when 2 zebras died from the disease, but was contained quickly.

Anthrax occurs when animals eat remnants of vegetation in the driest months of September and October, absorbing bacterial spores that can live for decades in dry soil, officials say.

ProMED-mail <promed@promedmail.org>

[There have also been reports of heavy rains over the past several weeks in the region, and more are expected for another month or so.

Zebras are affected with anthrax but at rates significantly less than for many other grazing & browsing species, probably because they are mainly a savannah species in Africa. This open feeding pattern significantly reduces the probability of their finding and grazing a specific contaminated piece of ground. However the current rains indicate that they probably became infected via biting flies, e.g. tabanids, as the latter are frequently involved in anthrax epidemics when there have been rains. And these deaths can be wide spread as the female tabanid fly is a wandering feeder, having a number of blood meals before laying some eggs, then a few more meals, then some more egg laying. And they can fly 5-10 kms or further in all of this. Our experience in Texas in tabanid feeding areas is that the deaths are widely separated and can be singular, i.e. without any nearby deaths or sick animals.

Wind spread from the QENP to the LMNP will not have occurred. If the two are linked --- and this can be checked through molecular typing --- it is probably through leap-frogging infections via biting flies or maybe the inter-park migration

of incubating animals. A check on unexpected cattle deaths in herds associated with intervening villages may give a lead on this. That there were anthrax deaths in 2003 at Lake Mburo suggests a possible local contaminated site or two within the park. Grazing very close to the ground, as in droughts & hot weather, does present risks from soil ingestion. There is a common epidemiologic speculation that rains will 'float' the hydrophobic anthrax spores up into the grass mat from deeper down in the soil. While I believe this may happen, there is as yet zero scientific evidence to support it. (If someone is willing to put up the money, I have a Texas ranch owner who is willing to let us try it out on his ranch assuming that we first get permission from the TX Animal Health Commission .... ) Spores will survive longer in depressed areas which collect rain and thus stay moist longer in dry periods. Such places will also have grass long after dry areas have been grazed bare.

One must hope that the Lake Mburo park rangers are burning these zebra carcasses. We are involved in a retrospective analysis of bison deaths in northern Canada, and it is patently clear that efficient carcass burning will effectively prevent cases in future years, while leaving carcasses only encourages future cases. - Mod.MHJ]

ANTHRAX, ELEPHANT - INDIA (JHARKHAND): SUSPECTED

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Date: Fri, 13 May 2005 11:30:22 +0100

Source: Calcutta Telegraph, India, 13 May 2005 [edited]

<[http://www.telegraphindia.com/1050513/asp/jamshedpur/story\\_4733744.asp](http://www.telegraphindia.com/1050513/asp/jamshedpur/story_4733744.asp)>

The death of an elephant due to anthrax in Kharsawan forest area of adjoining Seraikela-Kharsawan district triggered an alarm for the forest department officials. According to the postmortem report submitted by a team of veterinary doctors, the elephant's death was due to anthrax. The Seraikela divisional forest officer Paritosh Upadhayaya also confirmed the cause of the death. "The symptoms confirmed the disease. Blood containing poisonous liquid oozed from the animal's nose, mouth, ears, and anus. Besides, the spleen was swollen enough to prove that the elephant was suffering from the deadly disease," said Upadhayaya.

The animal was found dead in Narayanbera village under Kharsawan block of adjoining Seraikela-Kharsawan district yesterday morning. This was the 4th elephant death in less than a year in the Seraikela forest division. The forest office has sent the viscera of the tusker to Patna-based animal forensic laboratory for investigation.

Upadhayaya said the disease is uncommon among the wildlife and there is no proper mechanism to prevent the spread of the disease. "For domestic animals like cattle, the animal husbandry department could restrict the spread of the bacteria through vaccination. But it is not possible for the wild animals", said Upadhayaya.

As the disease is transmissible to cattle and human beings, the forest department has sent an SOS to the state animal husbandry department.

Upadhayaya said the elephant's body did not have any external injury. However, forest officials said villagers have been witnessing sluggish movement among elephants for quite some time. However, some of the forest officials confessed

that due to extreme heat and unavailability of water and food, the elephants had restricted [their] movement to a small forest tract. Anthrax spread[s] among the animals in conditions of extreme heat, a forest department official added. This is the 4th reported case of elephant death within a year in Seraikela forest division. During 2004, 3 elephants were found dead in the Chandil range of the same forest division.

ProMED-mail <promed@promedmail.org>

[I have titled this "suspected" until there is laboratory confirmation, even though the account is persuasive. I have referred this report to New Delhi for any further available details.

We have had reports of elephant anthrax in India before (see below). However, it is generally not that common in India. In Namibia it has been reported in elephants in the Etosha National Park for about 80 years, initially in working elephants. Jharkhand is a new state, split out of Bihar in NE India in 2002. It is directly north of West Bengal, where anthrax is unfortunately very common. Those needing more information on the areas in question should go to <<http://www.seraikela.nic.in/>> or <<http://www.jharkhand.nic.in/>>.

Wild elephants can be vaccinated using Sterne vaccine and darts, if there is the desire. In this instance it is clear that a field necropsy was carried out. Burning a dead elephant is a major undertaking. I suspect it wasn't done in this case.

If anthrax is suspected, do not open the carcass. Take a blood sample -- from the description this would not have been problem -- let the swab dry and send it in to the laboratory for confirmation. All else that needs be done is to keep animal and human scavengers off the carcass for 5-7 days so that decomposition changes the pH to acid, killing all the vegetative cells. Sporulation will then be minimal. If one can clean up and disinfect any spilt blood it should be done. In this instance, opening the carcass has maximised the number of spores and the subsequent environmental contamination. This site will then present an ongoing risk to the local livestock and wildlife. I am sure that the animal's tusks have been salvaged -- officially or unofficially -- adding to the mess. - Mod.MHJ]

ANTHRAX, HUMAN, FATAL - ROMANIA (NEAMT)

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A ProMED-mail post <<http://www.promedmail.org/>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org/>>

Date: Tue, 17 May 2005 00:45:15 +0400

From: Natalia Pchenitchnaia, ProMEDmail-RUS correspondent <[crane@aaanet.ru](mailto:crane@aaanet.ru)>

Source: Russian news agency "Novosti" [trans. Corr.NP, edited] <<http://www.km.ru/news/view.asp>>

A human death from anthrax has been registered in Romania. Laboratory investigation has confirmed that a 45-year-old shepherd, who died on Friday [6 May 2005] in a hospital in the City of Piatra-Neamt in [the county, or judet, of Neamt] the northeast of the country, had been infected the anthrax. The patient was admitted into the hospital on 3 May 2005.

Infection by *Bacillus anthracis* had taken place through a cut on a finger; the patient died of a systemic infection of the blood. All people who had contact with the deceased shepherd (about 40 persons) have been inoculated. Hospital rooms occupied by the patient, as well as his house and a work cabinet, were disinfected.

Examination indicates that all animals owned by the shepherd are healthy and

have [been] inoculated against anthrax. Anthrax bacteria can survive in the ground, in blood, and in leather for 55 years. The last case of anthrax infection in the area was reported in 2003.

ProMED-mail <promed@promedmail.org>

[Human cutaneous cases directly from contaminated soil are frankly rare. The more usual backstory to such claimed events is that the affected person was involved in butchering a sick animal; for fear of the legal repercussions of failing reporting that the animal was sick and selling said meat in a local market, the true events get covered up. There is a steady pitter-patter of sporadic anthrax outbreaks and cases in Romania in spite of some 3.5 million cattle and over 9 million sheep and goats being vaccinated each year. Their control programme needs a critical re-examination to determine why it is not more cost-effective. Human cutaneous anthrax cases carry a 10 percent risk of lethality, especially if treatment is delayed or missed; prompt early treatment with appropriate antibiotics is virtually 100 percent successful. However, once a systemic infection has set in, death is almost inevitable in humans. Comments on this case have been requested from my Romanian contacts. - Mod.MHJ]

ANTHRAX, HUMAN, LIVESTOCK - GUINEA BISSAU

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: Tue 17 May 2005

From: Patrick Bastiaensen <[patrick.bastiaensen@pacereg.org](mailto:patrick.bastiaensen@pacereg.org)>

Anthrax in Guinea Bissau

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This is a copy of the joint appeal launched by the Ministers of Agriculture and Health of Guinea Bissau regarding an outbreak of anthrax in the Oio region of Guinea Bissau:

Appeal to control the Carbuncle epidemic in Guinea Bissau:

During the 3rd week of April 2005, in Mansoa Hospital, Oio Region, clinical analysis on patients confirmed the existence of *Bacillus anthracis*, responsible for Hematic Carbuncle disease, better known as anthrax. On 22 Apr 2005, the Minister of Health declared the Oio Region affected by a carbuncle epidemic and appealed for urgent support for an emergency vaccination campaign to control the epidemic and to prevent the spread of the disease to the nearby Capital town of Bissau or to bordering Senegal through infected cattle. Notwithstanding that carbuncle is a disease that affects mainly animals, humans can become infected with anthrax by handling products from infected animals. People also can become infected with gastrointestinal anthrax by eating undercooked meat from infected animals (source: CDC Atlanta web site).

Up to 28 Apr 2005, 80 cases of human infection have been reported, including 13 hospitalizations, resulting in 4 casualties [deaths presumably]. The affected area is, for the time being, restricted to the Mansaba sector within the Northern Region of Oio. In 12 villages affected, 126 bovine deaths have been reported. Lack of knowledge of the disease by the local population is increasing the risk of the spreading of the disease.

The Oio Region's economy depends, for a significant part, on animal husbandry exercised by small farmers in a regime of subsistence. The estimated cattle population in the capital is approximately 173 500 animals, including 52 128

bovines. The impact of the anthrax epidemic could be disastrous for the region in the event it is not quickly controlled.

The Ministries of Health and Agriculture have no means available to intervene and are appealing to the international community, aiming to obtain support for containing the epidemic and to avoid the risk of propagation to the neighboring Regions and Countries.

The immediate request done by the Ministries of Health and Agriculture include:  
Bacteria Vaccine [Sterne vaccine?, - Mod.MHJ]: 200 000 doses Symptomatic Vaccine: 200 000 doses Oxycycline 20 percent (Oxytetracycline): 500 flacons[vials]/100 ml Terramicine [Teramycin]: 300 flacons [vials]/100 ml Syringe automatic for vaccination: 30 units /30cc Syringe automatic for vaccination: 30 units /10cc Wasting Material as appropriate Support for vaccination brigades: USD 22 000

The value of the request is approximately USD 90 000.

Dr. P. Bastiaensen

PACE Regional Technical Assistant

Pan-African programme for the Control of Epizootics African Union - Interafrican Bureau for Animal Resources Regional Coordination Unit for West and Central Africa P.O.box (BP) 2954, Bamako, MALI <patrick.bastiaensen@pacereg.org>

[This report is at odds with Guinea-Bissau's routine report to OIE of not having even one case of livestock anthrax in a region of Africa where the disease is frequently rampant. Failure to report is not a cause for not helping. So this is posted to bring awareness of their problems to a wider audience. - Mod.MHJ]

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[2]

Date: Wed 18 May 2005

From: Peter Turnbull <peterturnbull@tesco.net>

[I referred the communication above [1] to my knowledgeable colleague, Peter Turnbull, for his take on it. - Mod.MHJ]

[Geneva] told me about this outbreak about 2 weeks ago and indicated that response was in the hands of OIE and FAO. This is the 2nd time in a few months we have seen this call for financial aid for dealing with anthrax, the other being the Uganda hippo epidemic.

Do we know they have got the diagnosis correct? Have OIE/FAO satisfied themselves of that? [Good question! - Mod.MHJ] If it is correct, the 1st action should be public education in not butchering and eating meat from sudden death animals. I suspect the bigger problem now is the hides (and bones??) which have been sold off elsewhere, but these may well still be drying outside the houses of the owners, in which case, they need to be confiscated before they do get sold off. (The letter does say lack of knowledge of the disease by the local population is a risk factor. Hopefully, they are already addressing that.)

Vaccination of cattle should, of course, have begun. In the list we have of countries which have producers of the livestock vaccine, the nearest are Mali and Niger; others in Africa are Kenya, Zambia and South Africa.

I have no idea what is meant by "Symptomatic vaccine," I'm afraid. [Nor do I - Mod.MHJ]. Human vaccine is to all intents and purposes unavailable. But even if it were, identifying the individuals at genuine risk would be nearly impossible and, as always with natural anthrax, control in humans is best exerted by control in their animals together with the relevant public health measures already described.

For humans, and animals too, penicillin is the best choice, possibly with

streptomycin, at least in the animals. Remember, I am not a clinician (human or animal!).

I hope this is of some help.

Peter Turnbull <peterturnbull@tesco.net>

[Many thanks, Peter. The bible on anthrax is the WHO Anthrax Guide, available on line at:

<[http://www.who.int/csr/resources/publications/anthrax/WHO EMC\\_ZDI\\_98\\_6/en/](http://www.who.int/csr/resources/publications/anthrax/WHO EMC_ZDI_98_6/en/)>

This covers treatment regimes for humans and animals. - Mod.MHJ]

[In the WHO Anthrax Guide, the recommendations for treatment state: "Prompt and timely antibiotic therapy usually results in dramatic recovery of the individual or animal infected with anthrax. Almost all isolates of *B. anthracis* can be expected to be highly sensitive to penicillin and, being cheap and readily available in most parts of the world, this remains the basis of treatment schedules, particularly in animals and in humans in developing countries. The organism is also sensitive to numerous other broad spectrum antibiotics; should the use of penicillin be contraindicated, a wide range of alternative choices exist from among the aminoglycosides, macrolides, quinolones and tetracyclines. Chloramphenicol is also a satisfactory alternative."

In the USA, there was a conference held in November 2001 in response to the intentional anthrax outbreak in the USA that year. A summary of the recommended treatment for anthrax can be found in Bell DM, Kozarsky PE, Stephenson DS. Clinical Issues in the Prophylaxis, Diagnosis, and Treatment of Anthrax, EID (8)/2 February 2002 <<http://www.cdc.gov/ncidod/EID/vol8no2/01-0521.htm>>. 65 isolates were tested and all those associated with the 2001 outbreak were sensitive to the quinolones, rifampin, tetracycline, vancomycin, imipenem, meropenem, chloramphenicol, clindamycin, and the aminoglycosides. The summary addresses the issue of not using penicillins: "The decision regarding the use of penicillins, the drugs historically used for treatment and prophylaxis of anthrax, is complicated. An inhibition assay shows beta-lactamase activity at low levels in the isolates. Genomic sequence data show two betalactamases: a potential penicillinase (class A) and a cephalosporinase (class B), which is expressed. Concern about the use of penicillin arises because an inducible penicillinase could be activated in the face of treatment with betalactams, particularly if the number of organisms present is high, as appears typical with inhalational disease. Concerns have also been raised about the poor penetration of beta-lactams into macrophages, the site where *B. anthracis* spores germinate."

At present the recommendations are for use of the Ciprofloxacin or doxycycline with the caution that the latter should not be used if meningitis is suspected as central nervous system penetration is insufficient for treatment purposes. A multidrug regimen is suggested when bacteremia is present, using either ciprofloxacin or doxycycline along with one or more agents to which the organism is typically sensitive. - Mod.MPP] .....mpp/mhj/msp/mpp ANTHRAX, HUMAN, LIVESTOCK - INDIA (WEST BENGAL)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Date: Wed 18 May 2005

From: Satadal Das <drsatdas@hotmail.com>

## Anthrax cases in Karimpore, West Bengal, India

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(Based on a report published in Anandabazar Patrika, 18 May 2005, by Susmit Halder).

In the Sahebpara village of Karimpore in West Bengal, 27 persons are now suffering from cutaneous anthrax, including 10 children, following handling of meat from a dead cow which had died due to anthrax. The health officials are closely watching all the cases so that no further spread occurs. A massive anthrax awareness program has been initiated in the area to prevent any such outbreak in the future.

Dr. Satadal Das, M.D., D.C.P.

Consultant Microbiologist,

Peerless Hospital & B. K. Roy Research Centre, 76, Satyen Roy Road, Kolkata-700034, India <drsatdas@hotmail.com>

[The problem with West Bengal is that their veterinary program consists of merely responding to outbreaks and human cases. What is needed, and would be more cost-effective, is a proactive livestock annual vaccination program that also monitors actual vaccination usage, provides ongoing public education, improved reporting, and has a Veterinary Assistant village presence in relation to unexpected deaths of livestock. The statement that "a massive anthrax awareness program has been initiated" is a much trumpeted stable-door action by the authorities. If you read back through the reports of the past few years below, there is a consistent history of reaction, not pro-activity, that each year results in human cases in significant numbers and deaths, quite apart from the regular livestock anthrax deaths feeding the situation. It is an ongoing tragedy. - Mod.MHJ]

ANTHRAX, PIG - RUSSIA (ROSTOV)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Date: 30 May 2005

From: Vadim Melnik <[vam@interdon.net](mailto:vam@interdon.net)>

Source: Gazeta.Ru information source [edited]

<<http://www.infectology.ru/news/news/calendar.asp?date=05/30/05>>

A case of anthrax in Rostov

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A single case of animal anthrax has been discovered in Dubovsk rayon of the Rostov region. The information came from the Ministry of Emergency Situations of the Russia Federation in Rostov. This case has been registered in the village of Sirotskiy in a pig.

According to the source, this animal (pig) was slaughtered by one of the households and brought for testing before sale. As a result of the test and sanitary epidemiological surveillance, the staff discovered *Bacillus anthracis* in the meat. The additional test confirmed that the pig in fact had anthrax.

92 people were vaccinated in Sirotski village, and quarantine was put into effect.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[There is a discontinuity in this report. If the carcass was submitted for testing "before sale," why did the authorities vaccinate 92 people? Logically, there had been a series of sick livestock and slaughtering in the village before someone tipped off the authorities. Pigs are somewhat resistant to this disease and will be

perceived to be ill before dying, and not all die. Oropharyngeal lesions and edema are not uncommon in pigs so afflicted. As it is now summertime, one can ask what the local authorities discovered as to the source of this outbreak. If these were commercially raised pigs, one would expect that their feed was contaminated, for which there is indirect Russian evidence. If rural backyard pigs, they may have had access to the viscera of butchered dead sheep & cows. -

Mod.MHJ]

ANTHRAX, HUMAN - GUINEA-BISSAU: OIE

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Wed 8 Jun 2005 5:35 PM

From: Maria Zampaglione <[m.zampaglione@oie.int](mailto:m.zampaglione@oie.int)>

Source: OIE press release [edited]

Anthrax in Guinea Bissau: the OIE responds to the call for assistance

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The Government of Guinea Bissau declared a human outbreak of anthrax in the Oio Region, affecting over 80 patients, with 13 hospitalisations and 4 deaths. The World Organisation for Animal Health (OIE) and the World Health Organization (WHO) were informed on 3 May 2005.

The Oio Region's economy depends, mostly, on animal husbandry by small farmers. The impact of the anthrax epidemic could be disastrous both for humans and the susceptible animal population if it is not quickly controlled.

The Authorities in Guinea Bissau have appealed to the international community for urgent and strong support to control the epidemic. The OIE has been in continuous contact with the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), and the Veterinary Authorities of Guinea Bissau in order to better assess the situation and to initiate the proper actions. As an immediate step in response to the urgent situation, the OIE has allocated a grant from its emergency fund to enable the Veterinary Authorities to begin a blanket [cattle] vaccination programme in the affected region, which contains over 50 000 cattle.

Since anthrax is a zoonosis, the OIE, together with the FAO and the WHO, are strongly committed to jointly provide the best possible assistance in their respective competencies to the Guinea Bissau Authorities in facing and controlling this crisis.

The Centers for Disease Control (CDC) in Atlanta, USA and several nongovernmental organizations have also proposed to provide support.

Maria Zampaglione OIE Communication Dept. Tel: +33 (1) 44151851  
<[m.zampaglione@oie.int](mailto:m.zampaglione@oie.int)>

[Guinea Bissau has enzootic anthrax but for some reason has not previously reported the presence of anthrax to OIE. - Mod.MHJ]

[This is confirmation of the report from the Pan-African Programme for the Control of Epizootics, African Union - Interafrican Bureau for Animal Resources Regional Coordination Unit for West & Central Africa, posted by ProMED on 18 May 2005 -- see ref. below. The figures for human cases are the same. Mod.JW]

ANTHRAX, HUMAN - INDIA (TAMIL NADU)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Mon 13 Jun 2005

From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: Newindpress, Chennai (Madras), India, 13 Jun 2005 [edited]  
<<http://www.newindpress.com/NewsItems.asp?ID=IEQ20050613005956&Page=Q&Title=ORISSA&Topic=0>>

2 persons have allegedly died of anthrax in the past 4 days in Bandhugam block. About 10 persons in Barlamunda village were afflicted with the disease after consuming raw meat during a festival. In the absence of any medical aid, 2 of them died. A team of doctors from Koraput rushed to the spot and treated the affected persons.

Tribal people living in the Narayanpatna, Bandhugam and Bargi areas said that the dreaded disease is spreading due to a lack of medical aid in their villages. The doctors and other staff posted there do not attend to their duties due to the Naxal menace [attacks by Maoist rebels - Copy Editor MSP].

Meanwhile, locals have demanded that the District Collector launch mobile health teams in all the villages of Narayanpatna and Bandhugam to examine all of the people ahead of the monsoon.

Although anthrax occurs in the tribal regions every year, little efforts have been made by the administration to post doctors in the area. Tribal people pointed out [that] doctors come from Koraput, which is 120 km away, to treat the patients once the case is reported. Delay in attending the patients has lead to deaths in several cases.

Admitting that 2 persons had died of anthrax, Koraput In-Charge CDMO K. Reddy said a medical team has been monitoring the situation in the areas.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[Anthrax has long been an ongoing problem in Tamil Nadu for many of the same disease control reasons plaguing the rest of India, and in the tribal areas, medical care has not always been a government priority. This has not been helped by unrest in some of these areas. This anthrax outbreak is clearly but part of a larger problem in Tamil Nadu of, among other things, inadequate medical and veterinary health care in rural areas. The good news is that, when treated early, human anthrax responds well to antibiotics. The bad news is that reactive livestock vaccination programs have little medium term impact and are not consistently effective in the short term. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - ZIMBABWE (MASVINGO) (03)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Tue, 14 Jun 2005 08:43:06 +0100

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: AllAfrica.com, 14 Jun 2005 [edited]  
<<http://allafrica.com/stories/200506131204.html>>

An anthrax outbreak in humans has resurfaced in Gutu district in Masvingo, with 5 cases having been reported since the beginning of last week and reports that the disease has claimed one person in the district. Health officials in Gutu said they were still investigating the death of one person who died recently after eating some beef suspected to have been contaminated with anthrax.

The resurgence of anthrax in Gutu comes a few months after the province had

successfully managed to tame the disease that had also resulted in the death of hundreds of livestock, mainly cattle.

The acting Masvingo provincial medical director Dr Charles Sandy last Friday confirmed that there had been an outbreak of anthrax in Gutu that had affected 5 people so far. "There has been another outbreak of anthrax in humans in Gutu, and we are closely monitoring the situation, as the whole district is affected. However, since the beginning of the week about 5 cases of anthrax have been reported in humans and we are dealing with the situation. We are also investigating one death that occurred in Gutu because the person might have died of the disease, but at the moment we are still investigating the cause of the death," said Dr Sandy.

He said the disease was more rampant in Bhasera and Chingombe communal lands, where it had wreaked havoc and had killed a lot of cattle. Dr Sandy said they had enough stocks of anthrax drugs to treat people infected by the deadly disease, adding that they were currently carrying out educational campaigns to teach villagers about the dangers of anthrax. He said the major cause of anthrax in humans was the consumption of beef from cattle that would have died of the disease. Hundreds of cattle had been dying of anthrax in Gutu recently. Most districts in Masvingo province have since 2004 been losing cattle and sometimes human lives to anthrax.

Early in 2005, the Veterinary Department was forced to impose an indefinite quarantine on the movement of cattle in Chivi as a result of the disease. The quarantine has since been lifted after anthrax had been contained.

ProMED-mail <promed@promedmail.org>

[Readers will note that ProMED has been reporting anthrax in Masvingo Province since December 2003, and there are anecdotal reports of it being there in 2000. Obviously the livestock control procedures lack 100 percent efficacy. With the ongoing government funding problems in that country, the present disease situation can only continue or get worse. - Mod.MHJ]

ANTHRAX, HUMAN - INDIA (TAMIL NADU): CORRECTION

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

[It has been pointed out that my geography of India is faulty, for which I apologise. This outbreak occurred in Orissa. -Mod.MHJ]

[1]

Date: Mon 13 Jun 2005 8:14 PM

From: Balaram Sahu <[balaram\\_sahu@hotmail.com](mailto:balaram_sahu@hotmail.com)>

The places mentioned in the digest are in the state of Orissa. The district called Koraput is bordering the State of Andhrapradesh. These interstate borders have these problems due to movement of cattle by tribals who do not get their cattle vaccinated.

Tribals in these areas eat the meat of dead carcasses and become affected. Summer days witness these episodes, as the soil temperature and other conditions are optimal for sporulation. In the last 4-5 years these news [reports] have come up in summer and pre-monsoon days.

Dr. Balaram Sahu <[balaram\\_sahu@hotmail.com](mailto:balaram_sahu@hotmail.com)>

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[2]

Date: Tue, 14 Jun 2005 10:11:20 +0000

From: Badri Badrinath <badrishanthy@hotmail.com>

With reference to the above posting in ProMED mail, I would like to draw your attention that the place mentioned in the the report is not in Tamil Nadu but in Orissa, which is an eastern state of India. Tamil Nadu is in the South of India. [Below] is a news item covering the anthrax cases mentioned in the report which shows that the cases are occurring in Orissa. Another point to note: attacks by Maoist rebels are not common in Tamil Nadu State.

Dr. P Badrinath

Consultant in Public Health & Recognised Clinical Teacher Suffolk West PCT & University of Cambridge, UK <<http://myprofile.cos.com/badrishanthy>> <badrishanthy@hotmail.com>

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[3]

Date: Tues 14 Jun 2005

From: ProMED-mail<promed@promedmail.org>

Source: The Statesman [edited]

<<http://www.thestatesman.net/page.news.php?clid=9&theme=&usrsess=1&id=79966>>

Anthrax toll rises to 3

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The anthrax death toll in this district [Koraput] has risen to 3 with the death of a 55-year-old resident of Charagaon village in Semiliguda block yesterday. 15 persons from the same village are still suffering from the disease. At least 5 persons from Sakiguda in the same block were reportedly suffering from the disease.

On his return from the affected areas, Koraput's sub-divisional veterinary officer Mr SK Takiri said that those affected had eaten rotten beef carrying anthrax germs. He and his colleagues have destroyed a quintal [a hundredweight, 100 000 grams or about 220 pounds] of infected beef by burning it. At least 21 cattle have also been affected. Even though the process of immunisation has begun, it might be difficult to control the outbreak, as the villagers were resisting the move to destroy the meat preserved in almost all the houses.

When contacted, CMOH Dr KH Reddy said he was unaware of the death. Many of the affected were already being treated with high doses of antibiotics such as ciprofloxacin and penicillin.

Given that the disease spreads through air, he advised anyone venturing into the area to take sufficient precautionary measures such as the use of masks and gloves. Earlier this month [June 2005] 2 persons had succumbed to the disease in Bandhugaon block.

ProMED-mail <promed@promedmail.org>

[From what the Statesman journalist wrote, it would appear that Dr Reddy believes that the disease is naturally airborne. It is not and is very rarely contagious, if ever. - Mod.MHJ]

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[4]

Date: Mon 13 Jun 2005 11:21 AM

From: Dr. Angamuthu Kumar <akm\_70@yahoo.com>

I am a medical microbiologist working with my mentor, Dr. M.K.Lalitha, at Christian Medical College & Hospital, Vellore, Tamil Nadu, India. I saw your message regarding the ongoing problem of human and animal anthrax in certain parts of India.

In fact I did mention the real problem of human anthrax, especially among the Indian villages where people tend to handle dead animals (sheep, goats, or cattle) either to bury or sacrifice the sick animal before its death and distribute the meat for consumption. The people are not aware of this dreaded disease, and once they[find out about it], the fear is there for a period of time, but they tend to forget and carry on with their routine until they face another attack.

Hence it should be the combined work of preventive medicine, the veterinary department, health officials, and experts on anthrax, to give adequate importance to the region affected with anthrax.

When I was working in the Government Medical College, I used to give educational lectures for both the public as well as clinicians who come across such patients in their day-to-day practice.

I do believe the veterinary departments are visiting villages where outbreaks have occurred to vaccinate the livestock.

Let's hope things will change for good.

Dr. A. Kumar

Department of Clinical Microbiology  
Almana General Hospital, Al-Khobar  
Saudi Arabia

<akm\_70@yahoo.com>

[A further 2 readers in Tamil Nadu wrote in to point out my geographic ignorance but also stated categorically that anthrax does not occur in Tamil Nadu. This claim puzzles me, because the Indian National Survey for 1989-94 had southern India and Tamil Nadu with the highest incidences for the disease. A companion document for 1991-1996 had it occurring in Tamil Nadu each year in cattle, buffalo, sheep, and goats in sometimes spectacular numbers.

In 1996 Drs Lalitha & Kumar published a paper in The Lancet --August 24, 348 (9026): 553-554 -- describing the human situation, including some 29 patients with anthrax meningitis with an unfortunately high lethality. A longer version can be found in the Indian Journal of Medical Microbiology, 1996, 14:63-67, with maps showing where cases have been seen in the state, including a spot-map of human and animal cases in the North Arcot Ambedkar district. Latterly, Sastry et al published a paper in 2003 based on some 27 patients seen at the Christian Medical College & Hospital, Vellore entitled "Identification of Bacillus anthracis by a simple protective antigen-specific mAb dot-ELISA" -- Journal of Medical Microbiology, 52: 47-49 -- so I think we can unfortunately assume that the disease continues both in humans and the rural livestock in Tamil Nadu, much as before. - Mod.MHJ]

ANTHRAX, HUMAN - KAZAKHSTAN (SOUTH)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: Thu, 23 Jun 2005 08:38:28 +0100

Source: Interfax-Kazakhstan news agency, Almaty, in Russian 0248 gmt 23 Jun 05  
Via: Monsters and Critics.com, Glasgow, UK, 23 Jun 2005 [edited]

<[http://news.monstersandcritics.com/mediamonitor/article\\_1019728.php/Woman with anthrax hospitalized in Kazakh\\_south](http://news.monstersandcritics.com/mediamonitor/article_1019728.php/Woman+with+anthrax+hospitalized+in+Kazakh_south)>

A 53 year old woman infected with anthrax has been taken to an infectious diseases hospital in Shymkent (the administrative centre of South Kazakhstan

Region).

The Kazakh Emergencies Ministry told Interfax-Kazakhstan today that the woman, who was admitted to hospital on Tuesday [21 Jun 2005], was probably infected with anthrax "when she was selling meat to a private shop".

The ministry said that 2 people who had had contact with the sick woman had been identified. They are under observation. "Laboratory tests are being carried out and preventive measures are being taken," the ministry said.

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[2]

Date: Fri 24 Jun 2005 3:16 AM

From: Tatyana V Meka-Mechenko <mtv@kscqzd.kz>

2 men have been admitted to the Shymkent Infectious Hospital (south-central Kazakhstan) with a preliminary diagnosis of cutaneous anthrax. Infection of the 1st person took place on 17 Jun 2005 in Shymkent, through purchase of meat in a market; the 2nd person has infected on 22 Jun 2005 at the slaughter of [a 2 month old] calf unvaccinated against anthrax.

The results of bacteriological tests for anthrax are negative. Results of biological tests will be available on 27 Jun and 2 Jul 2005.

In November 2004, 100 per cent of fine and fine horned livestock, 98 per cent of horses, and 95 per cent of camels were vaccinated. Vaccination of agricultural animals is now carried out according to the plan [using] a dry vaccine.

Tatyana V Meka-Mechenko, PhD

Head of Department of Zoonotic Diseases of M Aikimbayev's Kazakh Scientific Center for Quarantine and Zoonotic Diseases 14, Kapalskayay str. 050054, Almaty, Kazakhstan <mtv@kscqzd.kz>

[Thanks to Dr Meka-Mechenko's expert help, we know that they have 3 presumptive cases of human cutaneous anthrax. Southern Kazakhstan is endemic for this disease. It is not immediately obvious why these cases occurred, but vaccination cover for anthrax is only about 9 months, and noncommercial small farm units do get missed by official control programmes. If the calf's mother had been vaccinated, it would have had passive/maternal-antibody immunity for some 3 months. The nature of the contaminated market meat is not described, but it might have been from an unvaccinated dead sheep or goat. Laboratory confirmation of human cutaneous cases is difficult, because many people will have self-treated with antibiotics before being seen by a doctor or arrival at the hospital. At best it can sometimes be only 30 per cent confirmed. - Mod.MHJ]

ANTHRAX, HUMAN - KAZAKHSTAN (SOUTH) (02)

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A ProMED-mail post <<http://www.promedmail.org>>

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Date: 1 Jul 2005

From: Natalia Pshenichnaya <[crane@aanet.ru](mailto:crane@aanet.ru)>

Source: News agency "Kazinorm" [edited]

<[http://www.inform.kz/showarticle.php?lang=3Drus\\*id=3D129547](http://www.inform.kz/showarticle.php?lang=3Drus*id=3D129547)>

On 27 Jun 2005 a 67-year-old woman, an inhabitant of the Kyzyl-ata settlement in the Kasylgurtsky district of South Kazakhstan, was hospitalized in the Central district hospital with the diagnosis, "the infected wound of an index finger of the

right hand," according to the Ministry of Extreme Situations of the republic based upon the information received on 30 Jun 2005 from Department of the State Sanitary Epidemiological Supervision of Kazygurtsky District. On 28 Jun 2005 the preliminary diagnosis of "Anthrax, cutaneous form" was established. 14 persons who had contact with the sick woman have been traced, and all of them are under medical supervision. Laboratory investigation and antiepidemic actions are being carried out.

ProMED-mail <promed@promedmail.org>

[It would seem that the previous actions taken to prevent a recurrence of these events in southern Kazakhstan were not 100 percent effective. This region of Kazakhstan is the most severely afflicted with this disease. - Mod.MHJ]

ANTHRAX, HUMAN, OVINE, CAPRINE - TURKEY (BINGOL)

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A ProMED-mail post <<http://www.promedmail.org>>

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Sent: Wed 6 Jul 2005 9:10 AM

From: Joe Dudley <[jdudleyeaicorp.com](mailto:jdudleyeaicorp.com)>

Source: The Anatolian Times, 5 Jul 2005 [edited]

<<http://www.anatoliantimes.com/hbr2.asp?id=51033>>

Turkish village quarantined after anthrax outbreak

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Turkish authorities quarantined a village in the southeast of the country Tuesday after 8 villagers were diagnosed with anthrax, the Anatolia news agency reported. The outbreak was discovered when one of those taken ill, from the village of Cukurca, was taken to hospital in Bingol province.

Health authorities identified 7 other infected people in a subsequent check in the village. 2 of those, a brother and a sister aged 10 and 9 respectively, were in a life-threatening situation, the doctor treating them told Anatolia.

Officials immediately imposed a ban on animals leaving or entering the village and began to destroy all the meat found in households, the report said.

Mehmet Bayiltmis, the father of the sick children, told the agency that up to 85 sheep and goats had died in the past week and a vet called to the village declared there was nothing to worry about. "He (the vet) told us we could eat the meat of the animals except the internal organs. So some villagers gave the meat of the dead animals to relatives and others sent their sick animals to butchers in Bingol," he said. "We called the vet again when more animals died. This time he told us it was anthrax," he added.

There are occasional anthrax cases in Turkey, especially in central and eastern parts, although authorities says the disease is on the wane and under control.

Anthrax occurs when animals eat contaminated vegetation, absorbing bacterial spores that can live for decades.

ProMED-mail <promed@promedmail.org>

[Anthrax is probably hyperenzootic in Turkey, with the number of human cases reported annually in the >300 cases/year range: 1999 (690 cases); 2000 (396); 2001 (532); 2002 (368); & 2003 -- last year of available data -- (325). "Waning" is a relative term. It is under-reported in Turkish livestock. From this communication it is clear that the Turkish Ministry of Agriculture needs to improve the continuing education standards and curriculum for the veterinarians.

I have said this before and hold strongly by it -- that when there are human cases of anthrax it is because the veterinarians (my profession) have failed. There is a strange blindness by livestock owners to disregard deaths in sheep and goats. All too often I have heard accounts of ovine or caprine flock deaths having to reach 100 before a diagnosis is sought and control procedures are implemented. I suspect it is because cattle are kept by men and community leaders, and sheep and goats are looked after by women and marginal groups. This is a bit of an over-statement to make the point, but ignoring small ruminant health problems occurs far too often.

While the unit value of cattle is high and therefore the loss of one animal is significant, families and communities depend on sheep and goats for food, protein, wool and hair. Therefore their health may be affected more by the latter animals' health than by that of cattle. - Mod.MHJ]

ANTHRAX, WILD FELID SKIN - RUSSIA, IMPORTED

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Sponsored in part by Elsevier, publisher of The International Journal of Infectious Diseases <<http://tinyurl.com/bj3md>>

Date: 7 Jul 2005

From: Vadim Melnik <[amrad@inbox.ru](mailto:amrad@inbox.ru)>

Source: Komsomolez Newspaper [trans. Mod.NR; edited] <<http://www.mk.ru/numbers/1714/article57285.htm>>

Anthrax spores have been found in the City of Jukovskiy (Moscow region), in the vicinity of the state-owned Myasishev factory.

The deadly virus [sic] had been preserved in a leopard's skin. Spores have been identified by physicians from the sanitary epidemiological center in Ramensk rayon during preliminary analysis of the leopard's skin before stuffing it.

Since the skin was imported, physicians were obligated to check it. It was preliminarily checked by customs control and was held in a factory in Narkomvod street that makes hunters' trophies. The factory staff hid the [presence of the infected hide]. There was no quarantine established around the factory.

Epidemiologists from the state surveillance center conducted additional analysis of the leopard skin. It is planned to check for virus [sic; presumably other \_B. anthracis\_ in] other skins preserved in the studio as well.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[Unfortunately this report does not give the origin of this presumably sun-dried leopard skin taken from an already-dead animal and sold at a good price to an unsuspecting Russian, who may have thought he was getting a bargain. The disease is not common in African wild felidae, where it is more often reported in lions than leopards. In big cats the lesions are usually oro-pharyngeal -- and lethal. Infected hides are much more common from cows and sheep, because when these animals die or are found dead, the only part that can be harvested is the hide, with the wool or hair of course. This is why the disease is associated with tanneries, especially when the tannery is processing imported hides.

I have long suspected that Zheng He's trading expeditions to East Africa in the early 15th century may have been how anthrax reached eastern China, specifically the Sterne-Ames group of organisms, which are otherwise found in Natal. The Chinese were fascinated by African wild animals. He even managed to present a live young giraffe to his emperor. Logically the Chinese merchants

and traders would have purchased hides. - Mod.MHJ]  
ANTHRAX, WILDLIFE - NAMIBIA (EASTERN CAPRIVI)

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A ProMED-mail post <<http://www.promedmail.org>>

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Diseases <<http://tinyurl.com/bj3md>>

Date: Thu, 7 Jul 2005 10:11:29 +0100

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: The Namibian, 7 Jul 2005 [edited]

<<http://www.namibian.com.na/2005/July/national/05C1668565.html>>

11 wild animals have died of suspected anthrax in eastern Caprivi since June  
2005, Regional Governor Bernard Sibalatani told The Namibian yesterday. This  
is the same area where the disease broke out in September 2004, leaving more  
than 50 animals dead.

Sibalatani said officials from the Ministries of Environment and Agriculture had  
informed him this week that 6 buffaloes and 5 elephants found dead in the area  
along the Chobe River had anthrax symptoms. He said this area stretched from  
Kasika to Masikili, close to Botswana's Chobe National Park, where hundreds of  
animals died of the disease during 2004. The animal carcasses were discovered  
last week.

Sibalatani said after he was briefed on the matter, it was decided to inform  
people on the precautions they should take. "We have already launched the  
campaign on the NBC Silozi [radio] service here," said the Governor. When  
anthrax broke out in the Caprivi Region last September, some people were  
hospitalised after they touched or ate infected carcasses.

The Deputy Director of Parks and Wildlife Management in the Ministry of  
Environment and Tourism, Sacky Namugongo, told The Namibian yesterday that  
preliminary tests had shown that the 11 animals had in fact died of anthrax.

However, the blood had been sent to laboratories in Windhoek for further tests,  
he said. The carcasses have been burnt.

The Environment Ministry has sent teams to the area to monitor the situation,  
while the Ministry of Agriculture is set to vaccinate cattle in the affected area.  
People in the Caprivi are urged not to touch or eat the meat of any animals found  
dead in the veld.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[This appears to be an ongoing problem in this region of the Eastern Caprivi Strip  
and the adjacent areas of Botswana and Zambia. It might be constructive if the  
relevant regional officials of the 3 countries put their heads together on this and  
came up with a common plan to deal with it. Otherwise it will merely reappear  
each year and swing back and forth from one country to the other. Apart from  
vaccinating livestock, another logical response would be to better monitor the  
sale of meats in the various markets to prevent meat from infected animals --  
whether livestock or wildlife -- finding its way into domestic meals. - Mod.MHJ]

ANTHRAX, CERVIDAE, LIVESTOCK - USA (TEXAS)

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A ProMED-mail post <<http://www.promedmail.org>>

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<<http://www.isid.org>>

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Diseases <<http://tinyurl.com/bj3md>>

Date: 6 Jul 2005

From; Carla Everett <[ceverett@tahc.state.tx.us](mailto:ceverett@tahc.state.tx.us)>

Source: Official news release, Texas Animal Health Commission [edited]

Anthrax Confirmed in Sutton County, Texas

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2 ranches in Sutton County, Texas have laboratory-confirmed cases of anthrax in horses, deer and cattle, and laboratory results are pending for several other sites in the county, where livestock and deer losses have been reported. Although this bacterial disease occurs almost yearly in this region of the state, cases have not been confirmed within Sutton County for more than 20 years. Typically, outbreaks are in Val Verde, Edwards, Kinney and Uvalde counties, but on rare occasions, cases have been confirmed as far south as Starr County, reports Dr. Thurman Fancher, director of Area 6 (West Texas) for the Texas Animal Health Commission (TAHC).

"Anthrax is under-reported, because many ranchers in this area automatically dispose of carcasses and vaccinate livestock when they find dead animals that are bloated or bloody --common signs of the disease," said Dr. Fancher. "Anthrax is a reportable disease, however, and it's important to know when an outbreak occurs, so other ranchers can be notified to vaccinate."

Dr. Fancher explained that it is common to see death losses in one pasture, but not across the fence. However, all livestock in an infected area should be vaccinated, to prevent potential losses. There is no effective, approved manner to deliver anthrax vaccine to grazing wildlife that cannot be captured and confined.

Dr. Fancher said that, during the anthrax outbreak, deer owners enrolled in the chronic wasting disease (CWD) surveillance program are to report death losses, but they should check with their private veterinary practitioner before collecting brain tissue from the animal for CWD testing. "If a dead deer has clinical signs of anthrax, we may need to avoid opening the carcass," he said. CWD has not been detected in Texas.

"Anthrax is an ancient disease that occurs worldwide. The first reports in livestock date back to 1500 BC," noted Dr. Fancher. "When an infected animal dies, the ground becomes contaminated with the spores of *Bacillus anthracis* bacteria, unless the carcass and soil are purified with a very hot fire. Even though spores do not multiply or spread underground, they can lie dormant in soil for decades, awaiting the perfect combination of weather and soil conditions to become vegetative. Animals then are exposed to the disease when they eat grass contaminated with the bacteria."

TAHC regulations require that the affected animal's bedding, its carcass, and nearby manure be burned with wood, diesel or gasoline (tires and oil create too much pollution), to cleanse the ground. Do not open carcasses. If there is a burn ban in the area, contact the TAHC Area 6 office in Lampasas at 1-800-658-6642 for disposal information.

Livestock on the premises must then be vaccinated and held under quarantine for a short time, to ensure any anthrax-exposed animals are not moved from the premises. Laboratory tests, conducted by the Texas Veterinary Medical Diagnostic Laboratory in College Station, are needed to confirm infection, and suspected cases should be reported to private veterinary practitioners or the TAHC's headquarters in Austin at 1-800-550-8242.

Anyone handling or burning carcasses, or vaccinating livestock against anthrax

should wear long sleeves and gloves. Exposure can cause a nasty, black sore that requires medical attention and antibiotics. General sanitation procedures should be followed after handling livestock, and equipment used on the animals should be disinfected. Pets should be kept from dead carcasses or bones of dead animals, which may pose a disease risk. Healthy animals should be moved from anthrax-contaminated areas.

"Visitors to the area should not be alarmed by anthrax," said Dr. Fancher. "Just leave dead animals alone, and don't pick up shed antlers or old animal bones. By the time the area's hunting season begins, the cooler weather brings an outbreak to a close. If, after an outing, you develop an unusual sore, see your physician for treatment."

Actions that should be taken during an anthrax outbreak:

1. Properly dispose of animal carcasses by burning to prevent exposure to other animals, such as predators or dogs. Remove healthy livestock from the area.
2. Vaccinate livestock if cases occur in the surrounding areas. Because the anthrax vaccine is a "live" vaccine, it should not be administered concurrently with antibiotics. [You need to wait 7-10 days between injecting the antibiotics and then inoculating with the Sterne vaccine. - Mod.MHJ] Vaccinated animals are to be withheld from slaughter for 2 months.
3. Restrict movement of livestock from an affected premise until animals can develop immunity through vaccination. [Normally this takes 8 days. - Mod.MHJ] ProMED-mail <promed@promedmail.org>

[To make God laugh, make plans. The corollary to this rule is that disease outbreaks occur when the interested epidemiologist is traveling out of country; just as negative samples are never delivered to a diagnostic laboratory after 3pm on a Friday, only positives. I have been in Canada all week. Fortunately my graduate student is in West Texas trapping horseflies and radio-collaring deer on our study ranch just south of Sutton County. He has already made contact with the involved veterinarians there and elsewhere on the Edwards Plateau and shortly will be visiting with them and the involved ranchers. So far in Sutton County some 9-10 ranches have affected stock, mainly deer. Apparently there are reliable reports that a state experimental farm has some 15 dead deer; also that there is one human with a cutaneous lesion ... who and how is unknown at this time.

It is claimed that there have been no recorded cases of anthrax in the area in some 70 years. If that is true, which I severely doubt, it would have to have been brought in, possibly in latently infected replacement stock from a deer farm affected during the 2001 epidemic. It is more likely that it has been happening all along but the sporadic nature of scattered individual deaths allowed it to be seen but not observed. We will share Jason's [my graduate student] observations with members as well as those of others as the situation develops.

All affected dead animals should be burnt. Last summer we developed the "British Barbecue" system of burning deer carcasses, which involves three 20-lb sacks of the cheapest charcoal briquettes and a 10-lb bag; the 20-pounders go under the carcass, the 10-pounder under the head after slicing open the paper sacks and adding diesel fuel. Place the carcass on top and light carefully. This will effectively burn a deer carcass in 60 minutes, which is cheaper (cost less than USD 20), faster, and quicker than cutting wood and piling up rubber tires. Obviously with more dead deer efficiencies of scale can be obtained, which should bring the cost down to USD 10/deer. We call it the British Barbecue to differentiate it from the admirable Texas barbecue for cooking beef. With cows

you must get an airflow under the carcass if you want to burn it quickly, i.e. in one day.

With the continuous rains this winter and spring and the dry weather afterwards, we have been expecting such an event. This outbreak followed the classic Texas anthrax weather pattern of wet weather followed by hot and dry; whether we will see a parallel epidemic in Val Verde, Edwards, and Uvalde counties is not known but frankly expected. Just as we might well see outbreaks in Jim Hogg County to the south, where it is normally truly sporadic.

Interestingly, I have been told that the trigger is a brief shower in this long hot weather with deer deaths following 10 days later. The explanation would be that the brief shower provides a brief vegetative growth, especially in the already short dry grazing, and therefore the consumption of spore contaminated-soil during grazing. White-tailed deer are normally browsers but do graze. If one of this summer's hurricanes were to come ashore in south Texas, the resulting downpour inland would wash off all the spores deposited on leaf browse by the blow flies after they fed on infected carcasses. The onset of wet season rains normally terminates anthrax outbreaks in the African parks, and logically the same scenario should apply here. - Mod.MHJ]

ANTHRAX, BOVINE - USA (NORTH DAKOTA)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases <<http://www.isid.org>>

Sponsored in part by Elsevier, publisher of The International Journal of Infectious Diseases <<http://tinyurl.com/bj3md>>

Date: Thu, 7 Jul 2005 09:56:02 +0100

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: In-Forum, Fargo, USA, 7 Jul 2005 [edited] <<http://www.inforum.com/ap/index.cfm?page=view&id=D8B65UG00>>

Authorities quarantined 2 cattle herds after detecting anthrax

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Veterinarians said the discovery was expected, because recent heavy rains were likely to stir up dormant anthrax spores. Beth Carlson, a North Dakota deputy state veterinarian, said Wednesday the herds were located in the Sheyenne River valley in Ransom County, in southeastern North Dakota. Their owners and precise locations were not disclosed.

The suspected cases were confirmed at a North Dakota State University veterinary lab, Carlson said. "Anthrax is reported almost every year in North Dakota," she said. "With the amount of rainfall we have received, this is certainly not surprising news."

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[Anthrax has an infrequent but regular appearance in eastern North Dakota along the border with Minnesota. Its frequency in this region is probably inversely proportional to the annual vaccine usage by the potentially affected ranchers, i.e., in relation to the perceived threat. Get a few years without cases and animals don't get vaccinated. Unfortunately awareness falls off as well, and outbreaks then become bigger than they need to be. Further details have been requested from the veterinary authorities in the state. - Mod.MHJ]

ANTHRAX, HUMAN, OVINE - MONGOLIA (BULGAN)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Sponsored in part by Elsevier, publisher of The International Journal of Infectious Diseases <<http://tinyurl.com/bj3md>>

Date: Thu, 07 Jul 2005 11:05:38 +0900

From: Dan Silver <[dsilver@reedpointgroup.com](mailto:dsilver@reedpointgroup.com)>

Source: Xinhua 2005-07-05 13:46:16 [edited]

<[http://news.xinhuanet.com/english/2005-07/05/content\\_3177275.htm](http://news.xinhuanet.com/english/2005-07/05/content_3177275.htm)>

9 sheep die of Anthrax in Mongolia

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Anthrax has been confirmed to be the cause of the deaths of 9 sheep in the Orhon county of Mongolia's Bulgan province in early July, said the Mongolian General Authority for Emergency Management (GAEM) Tuesday. A press officer of the GAEM said that a herder in Bulgan province's Bugat county was diagnosed with anthrax in late June. He is now in hospital and in stable condition. The Bulgan province has enforced martial law in Orhon and Bugat counties and is disinfecting affected regions. The GAEM is inspecting the products from Bulgan province to avoid the spread of the infectious and usually fatal disease, which mainly affects warm-blooded animals, especially cattle and sheep.

Dan Silver <[dsilver@reedpointgroup.com](mailto:dsilver@reedpointgroup.com)>

[As this is a disease normally occurring in livestock, it is probable that the shepherd's disease and hospitalisation triggered a retrospective veterinary investigation revealing the ongoing cases in sheep reported here. This disease can be missed when it involves just the occasional dead sheep. Such are not considered worth following up. As a result the ground continues to be recontaminated and the pitter-patter of sporadic cases continues until events conspire to trigger an epidemic. Then an expensive fuss ensues. It would be cheaper if these sporadic cases were properly and promptly disposed of (i.e., burnt, or buried even, before scavengers get at the carcass and initiate a significant sporulation and ground contamination), as this would reduce the chances of grazing animals later coming upon spores, ingesting them in the graze, and dying. - Mod.MHJ]

ANTHRAX, LIVESTOCK - INDIA (TAMIL NADU)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: 18 Jul 2005

From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: Press Trust [edited]

<<http://www.presstrust.com/article437813.html>>

Anthrax scare: Kerala lifts ban on milk from Tamil Nadu

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Kerala has lifted the ban on milk and milk products from Tamil Nadu, imposed in the backdrop of an anthrax outbreak in the neighboring state, but the restriction on movement of cattle and sheep will continue. The ban was lifted after it had been confirmed that the incidence of the disease had been contained in the affected districts of Tamil Nadu, secretary to the state Animal Husbandry Department, Subrato Biswas and Director Ashok, said.

The outbreak of the disease was reported from Theni, Madurai, Virudunagar,

Dindigul, Coimbatore and Tirunelveli districts, all bordering Kerala. The department had mounted an awareness campaign and stopped movement of animals for slaughter through the border check posts. Tamil Nadu authorities had confirmed anthrax as the cause of death of 15 cattle and 4 sheep since the outbreak was reported in the last week of June 2005. The Tamil Nadu Animal Husbandry Director had stated that the outbreak had been totally contained by 13 Jul 2005 in the affected areas. After it was confirmed, the ban on milk and milk products was lifted on 14 Jul 2005, the officials said.

[2]

Date: 18 Jul 2005

From: ProMED-mail <promed@promedmail.org>

Source: The Hindu [edited]

<<http://www.hindu.com/2005/07/18/stories/2005071817510100.htm>>

No prevalence of anthrax in Tamil Nadu, says government

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There is no prevalence of anthrax in livestock in Tamil Nadu (TN), and the Animal Husbandry Department has taken all steps to tackle the situation following the recent ban by the Kerala Government on cattle movement, milk and milk products from the state, according to the director of veterinary services, Tamil Nadu.

The secretaries of the Tamil Nadu and Kerala governments and the directors of animal husbandry will conduct joint meetings every 3 months. The 1st meeting will be held in Chennai in the 1st week of August 2005, an official press release said. The functions of the Central Referral Laboratory, Chennai, will be modified to conduct constant surveillance of livestock to prevent them from getting affected by specific diseases, the release added.

Surveillance in Dindigul, Coimbatore, Virudhunagar, and Madurai by the [Tamil Nadu] Animal Husbandry Department ruled out spread of the anthrax-causing *Bacillus anthracis* bacteria, top animal husbandry officials told The Hindu. Following reports that the disease claimed the lives of 13 head of cattle in the Theni villages, the Kerala government imposed the ban on 9 Jul 2005.

Ban on cattle movement:

Though the movement of milk and milk products was allowed from Friday, the ban on cattle movement remains. The last cattle death in Tamil Nadu was reported in Koduvilarpatti near Theni on 3 Jul 2005.

The earlier deaths were from this village and neighboring Sivalinganaickenpatti. Kerala procured daily 50 000-70 000 liters of milk from Theni villages before the outbreak. "We have vaccinated 13 000 animals in 21 villages bordering Kerala's Idukki district. Surveillance has ruled out more cases, which has been corroborated by an official team from Kerala that visited the villages on Thursday. We are in touch with officials in Kerala to stress on the necessity to lift the ban on cattle movement, as cattle from many States pass through Tamil Nadu, and we cannot be held responsible for all of them," officials said. Sufficient medical supplies were available, they said.

ProMED-mail <promed@promedmail.org>

[This time, the Indian newspaper reports confirm that this outbreak in late June 2005 was in Tamil Nadu. It was near enough to the state of Kerala to initiate movement controls by the latter state. I am pleased to see that the 2 states are initiating what appears to be a joint surveillance program. The Kerala embargo on TN milk and animal movements should engender an awareness by the latter for the need for an active control program involving regular livestock vaccination

and surveillance for unexpected deaths. - Mod.MHJ]  
ANTHRAX, HUMAN - KAZAKHSTAN (EAST)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Tue, 19 Jul 2005 20:28:36 +0400

From: ProMED-mail Corresp. Natalia Pshenichnaya <[crane@aanet.ru](mailto:crane@aanet.ru)>

Source: News agency "Kazinform" 19 Jul 2005 [edited]

<<http://www.inform.kz/showarticle.php?lang=3Drus&id=3D131667>>

Anthrax, human, suspected, the East-Kazakhstan region, Kazakhstan

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On 16 Jul 2005 a resident of the Ajagozsky district of the East-Kazakhstan region was admitted to hospital in the infectious department of the district hospital. On 18 Jul a preliminary diagnosis of anthrax was made.

According to the press service of the Ministry of Extreme Situations of Kazakhstan, 9 people having contact with the individual have been identified and put under medical supervision.

The condition of the patient is satisfactory. Laboratory tests and counterepidemic measures at the focus of infection have been carried out.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[East Kazakhstan is the largest industrial, power, transport, and cultural region in the Republic of Kazakhstan. It is located in the northeast of the Republic, on the River Irtysh. In the north it borders Russia's Altay Mountains, and in the east and southeast borders China. The population is 1455 400. The administrative centre is Ust-Kamenogorsk with 294 500. - Corresp.NP

The anthrax sources in East Kazakhstan are usually sick cattle. The fact that 9 people are under medical supervision would indicate that it was either a family shade-tree slaughter or from the sale of contaminated meat in a local market. - Mod.MHJ]

ANTHRAX, HUMAN - KAZAKHSTAN (EAST)(02)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: 26 Jul 2005

From: ProMED-mail Corresp. Natalia Pshenichnaya <[crane@aanet.ru](mailto:crane@aanet.ru)>

Source: News agency "Kazinform" 26 Jul 2005 [trans. Mod NR; edited]

<<http://www.inform.kz/showarticle.php?lang=rus&id=132582>>

One more man with preliminary diagnosis of anthrax hospitalized

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According to the press-service of the state emergency situations department, an resident of the village of Jariq, Jarmin district of the eastern Kazakhstan region was admitted to the hospital with a preliminary diagnosis of anthrax.

A 49-year-old man applied for medical care after he reported an itching wound on his hand that appeared 19 Jul 2005. He was first diagnosed with some [other] skin disease, but then he was preliminarily diagnosed with anthrax. The man has been subjected to the necessary laboratory tests; the results will be ready in 2 weeks. At the present, the

patient is under medical observation. 3 other people, including the son of the patient, who were in contact with him, are under observation by sanitary epidemiological specialists.

It is presumed that the man was infected with anthrax while butchering a sick goat. According to the man, he noticed a caustic smell during the butchering and decided to bury the carcass in the ground.

Beforehand, another man from the village of Ayaguz had been preliminarily diagnosed with anthrax [on 18 Jul 2005]. The lab results will be known on 29 Jul 2005. Several districts of Kurgan region have been quarantined.

[Byline: Ludmila Malko]

ProMED-mail <promed@promedmail.org>

[If the goat carcass was not fresh -- as this report seems to indicate -- the risk of the man acquiring anthrax would have been reduced. If the goat had died of the disease, the acidification during decomposition would kill most vegetative cells. On the other hand, it might have been an uncastrated adult male, which can stink. It is difficult to diagnose human cutaneous cases, as many people self-treat with antibiotics before seeing their doctor. The Russians have a retrospective skin test, but this is usually done a few weeks later when antibodies may have developed. - Mod.MHJ]

#### ANTHRAX, HUMAN, FATAL - MONGOLIA (DARHAN-UUL)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Wed 27 Jul 2005 8:57 AM

From: Joe Dudley <[jdudley@eaicorp.com](mailto:jdudley@eaicorp.com)>

Source: China View, 26 Jul 2005 [edited] <[http://news.xinhuanet.com/english/2005-07/26/content\\_3271483.htm](http://news.xinhuanet.com/english/2005-07/26/content_3271483.htm)>

Man dies from anthrax, neighborhood in Mongolia quarantined

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A neighborhood in the Mongolian province of Darhan-Uul has been quarantined and disinfection procedures are being carried out in the surroundings after a man died from anthrax several days ago in a local hospital, authorities said on Tuesday.

Another man was also confirmed to have caught anthrax, the Mongolian General Authority for Emergency Management (GAEM) said, adding that the person was now in hospital and his condition was stable.

The man who died from anthrax was about 50 years old and was a tramp in the Darhan-Uul province, the GAEM said. He was found to have symptoms of anthrax in mid-July 2005 and was sent to hospital, where he was confirmed to have caught the fatal infectious disease, it said.

ProMED-mail <promed@promedmail.org>

[The previous outbreak, in sheep, was in Bulgan Province, which is to the south of Darhan-Uul, which is on the northern central border of Mongolia. Obviously this tramp got infected from contact with an infected carcass, possibly a dead sheep which they

(presuming that the 2 were exposed at the same time) might have butchered for themselves or were given. I would put my money on them taking lethal advantage of the opportunity presented by a dead sheep. - Mod.MHJ]

#### ANTHRAX, BOVINE - CANADA (MANITOBA)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Thu 28 Jul 2005 11:19 AM

From: Bob Parkinson <[partkinsonb@em.agr.ca](mailto:partkinsonb@em.agr.ca)>

Source: Brandon Sun online [edited]

<[http://www.brandonsun.com/story.php?story\\_id=196](http://www.brandonsun.com/story.php?story_id=196)>

Anthrax kills area cattle [edited]

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8 cattle are dead after a Rock Lake-area herd came into contact with anthrax earlier this week -- the 1st such case in Manitoba since 2003. The herd's remaining 37 cows and calves have since been quarantined and vaccinated, and appear to be healthy, according to federal and provincial officials. Rock Lake is approximately 130 kilometres southeast of Brandon.

Anthrax bacteria that affect cattle isn't the same as that which is associated with terrorism. The Canadian Food Inspection Agency (CFIA) said yesterday there is no cause for alarm. "This disease does not spread from animal to animal," said Dr. George Luterbach, chief veterinarian in this area for the CFIA, who confirmed yesterday that 8 cattle died. The bacteria is linked to animals that died but weren't buried, and can remain idle in soil for decades.

Small pockets of anthrax exist across the country and wet weather, such as that experienced in southern Manitoba this summer, can cause outbreaks. Cattle and sheep are the most susceptible to the disease. The illness typically kills cattle within 12 to 24 hours of exposure. [Actually the incubation is longer, usually 4 days, but can be as long as 14 days. - Mod.MHJ]

Agriculture Minister Rosann Wowchuk expects this summer's wet weather will result in additional anthrax infections. "It's always a concern when we have an outbreak of a disease," Wowchuk said. However, "it's not unusual for this to happen in these kinds of conditions when there's flooding and it's very, very warm." It's possible Manitoba could see more infections before winter, she said.

CFIA laboratories confirmed Manitoba cows died from anthrax exposure in 2003, 2001 and 2000.

The owner of the infected cattle called a veterinarian Sunday night after discovering the dead animals. Tissue samples of one animal were sent to a provincial laboratory in Winnipeg. The CFIA was contacted Tuesday morning after preliminary tests showed evidence of anthrax, a reportable disease.

These samples were sent to the CFIA laboratory in Alberta Tuesday, the same day the surviving herd was removed from the pasture believed to have anthrax. They were quarantined elsewhere on the owner's property.

The cattle cannot be sold for human consumption for at least 6 weeks, according to CFIA regulations. "The dead animals were buried and the ground cleaned up around it," Luterbach said. The herd will remain in quarantine for 30 days. "All unexpected deaths should be checked out to rule out the chance of anthrax," Luterbach said. Infected animals need to be either buried or burned to prevent future contamination. An anthrax vaccine is available for cattle, sheep, horses, goats and swine.

The provincial government reminds livestock owners to consider vaccination if their animals are grazing on pastures that were recently flooded or eroded.

[Byline: Marcy Nicholson]

Bob Parkinson Regional GIS Specialist

Prairie Farm Rehabilitation Administration Calgary, Canada <partkinsonb@em.agr.ca>

[Ranchers in southern Manitoba would be wise to get their stock vaccinated immediately, if that has not been done earlier this year. In the past there were regular outbreaks in Southern Manitoba. As a result of recent changes in the law, Manitoba ranchers can now buy the vaccine from their veterinarians and vaccinate the animals themselves. This is markedly cheaper and very effective in preventing the disease. - Mod.MHJ]

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[2]

Date: 28 Jul 2005

From: ProMED-mail<promed@promedmail.org>

Source: Canadian Press [edited]

<<http://www.canada.com/news/story.html?id=c4f6809a-ad40-4bda-9e08-59ad6a32b76d>>

Anthrax found in 8 dead cattle in south-central Manitoba

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A suspected outbreak of anthrax has been reported in south-central Manitoba where 8 cattle have died. The remaining 37 animals on a cow-calf ranch have been quarantined for 30 days, said Dr. George Luterbach, chief veterinarian in the West for the Canadian Food Inspection Agency. "We were informed by veterinary services that the examination of the tissues led them to suspect anthrax," Luterbach said from Winnipeg on Wednesday. "We responded to the farm and quarantined the herd. Tissue samples have been sent to a federal lab for confirmation.

The surviving animals were being treated, Luterbach said. "The owner's already taken some preventative action such as removing the animals from the fields and the animals . . . will be vaccinated." They will not be sold for human consumption for at least 6 weeks," he said.

High temperatures and humidity can expose the spores that carry the disease, which usually doesn't spread from animal to animal. Many parts of Manitoba have been deluged with rain this summer followed by warm temperatures. There have been only a handful of cases in Manitoba in the last 4 years. The infected farm is near Rock Lake, about 200 kilometres southwest of Winnipeg, but officials were not releasing the precise location.

Also:

DOWJONES CattleNetwork.com

<<http://www.cattleNetwork.com/content.asp?contentid=6739>>

CBS.CA Saskatchewan

<<http://sask.cbc.ca/regional/servlet/View?filename=anthrax050727&ref=rss>>

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[It seems to be the summer for anthrax in North America. At this rate with outbreaks in Manitoba, North Dakota, and South Dakota, we can expect cases in Minnesota, unless they have taken advantage of the regional warning to get their stock vaccinated beforehand and therefore successfully prevented it. MN outbreaks are usually in the northwest corner of the state, bordering both ND & MB. The MN & MB outbreaks are part of the same Roseau River Drainage anthrax zone that was enzootic until recently, when the vaccination policy was changed in both areas, thereby significantly reducing the ranchers' costs. May I take this opportunity to remind veterinarians and others that it is a waste of good Sterne vaccine to treat simultaneously with antibiotics. Sterne vaccine is a live vaccine, and therefore any circulating antibiotic in the cows' blood will kill any germinating Sterne organisms as well as an incubating infection. So make sure that any animals treated with antibiotic -- always a good idea if you suspect that your herd is incubating disease -- are vaccinated some 7-10 days later, when the antibiotic levels are much reduced. - Mod.MHJ]

#### ANTHRAX, BOVINE - USA (NORTH DAKOTA) (03)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

[1]

Date: Thu 28 Jul 2005 6:03 PM

From: Susan J. Keller <[skeller@state.nd.us](mailto:skeller@state.nd.us)>

This is to inform you that we now have confirmed cases of anthrax in 8 counties on 56 premises. The number of animals that have succumbed to anthrax this summer is still unknown, but I would estimate it is over 200 head at this time. Species affected to date are: cattle, horses, bison, farmed cervidae, sheep, and llamas.

Since conditions will likely continue to be conducive for the next few weeks, we are strongly suggesting vaccination in the risk areas. The vaccine so far has proven to be very safe and efficacious.

In the future, producers in areas known to have had cases of anthrax can add this vaccine to their protocols on a routine basis.

This situation is not unique to ND, since Minnesota, South Dakota, Texas, and Manitoba have also reported cases of anthrax this season.

Anthrax cases have historically been reported in ND. The number of cases is higher than average years. Excessive rainfall early in the summer seems to have spurred the rash of cases that we're experiencing in ND.

Susan J. Keller, DVM State Veterinarian 600 E. Boulevard Ave. Dept 602 Bismarck, ND  
58505-0020 701-328-2655 701-328-4567 (fax) <skeller@state.nd.us>

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[2]

Date: Thu 28 Jul 2005 4:22 PM

From: Neil Dyer <Neil.Dyer@ndsu.edu>

Yes, we have had a time of it thus far. SE North Dakota is hit hard -- on more than 50 premises -- most of them along the James and Cheyenne River drainages. This is an old hot spot but has never had a blow-up like this that I can find.

With most of the susceptible population being vaccinated, I expect the incidence to drop a bit. More recently it has appeared in northeast ND and northwest MN. I expect it to be less severe in these areas since recent outbreaks have caused many of those folks to vaccinate. We have had cattle, bison, sheep, elk, horses, and deer killed.

Big picture -- I think the heavy June rains and severe flooding have caused this epizootic on the eastern end of the state (Valley City to Fargo) from Manitoba to South Dakota. The worst area is near a town called Lisbon south of Valley City (32 different premises affected so far).

Dr. Neil Dyer Veterinary Diagnostic Laboratory North Dakota State University Fargo, ND  
<Neil.Dyer@ndsu.edu>

[I am very grateful to Dr Keller for her informed account of what is happening in North Dakota; Dr Dyer's estimate is not dissimilar. It is a fraught time there. I have been speaking with Dr. Keller frequently and had requested this report which gives us all a sound idea of the situation.

One Russian blogger claimed: "Russian Intelligence Analysts are reporting today that a vast area of the United States Midwestern Regions have been flooded with Scientists, Military and Intelligence Organizations attempting to stop a massive Anthrax Epidemic that to date has killed (estimated) over 15 000 animals" -- whom I am sorry to disappoint.

The locals are managing it all on their own and efficiently. But the reality in North Dakota has been difficult for all concerned including the ranchers, who have been burning the carcasses, which is never easy especially if you have never done it before. The vets are constantly out vaccinating clients' herds.

There is a major regional effort in hand to control this multi-state epidemic. The problem in the southeast of ND is that the frequency of anthrax had fallen off over the years and many ranchers had given up vaccinating. Thus a large number of livestock were susceptible when it broke out. Where it had been hiding is unknown, but with a significant wild cervid population, it could have been ticking over in the background. -  
Mod.MHJ]

ANTHRAX, BISON, BOVINE - USA (SOUTH DAKOTA)(02)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: 29 Jul 2005

From: ProMED-mail<promed@promedmail.org>

From data and information provided by Dr. Sam Holland, SD State Veterinarian, Pierre, SD:

The outbreak began in a 660-head cattle and bison herd with deaths first noted on 18 Jul; confirmed on 20 Jul 2005. Since then 155 head have died.

"These were buffalo in some rough country, in fact they never were able to gather the entire herd of 500-600 cows and calves. About 30 pair refused to be gathered. They were losing 20-40 head per day when they gathered and worked them. The owner called this morning [29 Jul 2005] and after 6 days all carcasses have been burned and buried and one trench left over for the stragglers. They will re-gather the buffalo and revaccinate early next week.

The owner was thankful that he did treat and vaccinate as he said it 'shut the dying off over nite.' Very difficult and stressful with the extremely high temperatures, very rough country with canyons and breaks into the river bottom, and corralling buffalo is not easy, especially in hot weather.

Since then there have been 3 more herds (50 to 400 head) in Sully confirmed (first called in on 26-27 Jul 2005) and one is awaiting confirmation; 3 herds in Potter county with presumptive diagnoses reported on 27 Jul awaiting confirmation; 2 in Marshall county, 26 Jul, with one confirmed; one confirmed outbreak in Brown county, first reported 26 Jul; and one presumptive outbreak in Hyde county reported today.

We had 3 ranchers call 29 Jul 2005 saying they had vaccinated yesterday and the day before without simultaneously treating with antibiotics and had lost 2-10 cows overnight. One reported he vaccinated yesterday, had lost a cow a few days back and didn't attribute it to anthrax. This morning he had 8 dead and 2 were down and in the throes of death while we spoke."

ProMED-mail <promed@promedmail.org>

[With thanks to Sam Holland for providing all this information. The owner of the Sully bison ranch is to be highly commended for his efforts at treating and then burning and burying such a large number in such a short time. No mean feat. - Mod.MHJ]

ANTHRAX, BOVINE - USA (MINNESOTA)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Fri 29 Jul 2005 12:19 PM

From: Terry Boldingh <[Terry.Boldingh@bah.state.mn.us](mailto:Terry.Boldingh@bah.state.mn.us)>

Just a brief update on our situation here in NW Minnesota. We have had 2 cases of anthrax so far in NW MN, the first in Polk County between Red Lake Falls and Crookston; a commercial beef herd with 10 deaths in a 50-cow herd.

The 2nd (yet unconfirmed by NDSU) is in southern Roseau County; 5 deaths so far in a 560-cow beef herd. The remarkable thing with this case is that this is the herd currently

under quarantine and scheduled for depopulation due to bovine tuberculosis. This is Minnesota's 1st TB case since 1971.

The Polk county case falls directly on one of the old Red River cart trails mapped by ProMED-mail Moderator Martin Hugh-Jones in 2001. This is a new area for anthrax, with no previous cases within about 50 miles. Same thing with the Roseau county site. The nearest site was about 30 miles NW in 2001.

I am not certain how much vaccine has been used in the old anthrax-endemic areas this year, but I will check on this.

Terry Boldingh, DVM District Veterinarian Minnesota Board of Animal Health 2018 320th St.

Breckenridge, MN 56520 <terry.boldingh@bah.state.mn.us>

[Thanks, Terry. The cattle trails project was to verify the traditional belief that anthrax was related to the cattle trails of the 19th century. We found that if your ranch/farm was in a county within some 10 km of a cattle trail going from the south to the north, there was a significant risk, approx. 10 percent, of historical anthrax in that county. This did not apply to the emigrant trails from east to west. This made sense, as the south-to-north trails, including those from Texas to California, involved longhorn cattle moving from an historic enzootic region of southern Texas and Louisiana. The east-west trails involved less cattle and these were largely British breeds, mainly Herefords, from breeding areas without anthrax. The Red River trails were to get people, goods, and livestock from St. Paul up into northwestern Minnesota and on to southern Manitoba and Winnipeg. - Mod.MHJ]

#### ANTHRAX, BOVINE - USA (NORTH DAKOTA) (04)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

[1]

Date: 4 Aug 2005

From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: KXMA News, 3 Aug 2005 [edited]

<<http://www.kxma.com/news/local.asp?ID=5657>>

Health officials advise livestock handlers to be cautious

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State Epidemiologist Kirby Kruger is urging people who work with livestock to take precautions to avoid contracting anthrax from sick animals.

The anthrax outbreak has affected animals in 9 eastern North Dakota counties. There have been no human cases.

Kruger says the risk of anthrax being transmitted to humans is low. But he says people who work with livestock should still take precautions. They include wearing the proper clothing, washing hands and exposed skin, and minimizing direct contact with the animals.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

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[2]

Date: Wed 3 Aug 2005

From: Susan Keller <skeller@state.nd.us>

There are 10 counties and 69 premises as of today [Wed 3 Aug 2005]. There have been deaths reported after vaccination, at least that's what I'm aware of in North Dakota.

Dr. Susan Keller State Veterinarian ND Department of Animal Health 600 East Blvd  
Bismark, ND 58505

[The main affected counties are Dickey, Lemore, Ransom, and Sargeant; also Barnes, Griggs, Grand Forks, Steele, Trail, and Walsh.

The common experience with Sterne vaccine is that you will get deaths up to 8 days post-vaccination because it is only at that point that protection has been fully developed. And because of that 8-day risk window, ranchers are encouraged to 1st treat their stock with long-acting antibiotics to treat any apparently healthy animals that are incubating an infection. LA200 gives a 3-day cover but cannot be used with lactating dairy cows. Benzathine Penicillin with Penicillin G Procaine gives a 48-hour cover and can be used with dairy cows. Because the latter is shorter acting, it may not be as efficacious and may need to be given twice or in larger doses than specified on the bottle.

Anyway, if there have been deaths in a dairy herd, animals' temperatures should be checked morning and afternoon when they come in for milking until the vaccination has taken effect; any animal with a temperature or seeming to be ill (dairymen know their animals) should be taken out of the line and treated. There is no risk to humans from the vaccine when they drink the milk from healthy vaccinated cows.

If you use the antibiotics after the vaccine, it can stop the vaccine from developing a full immunity by killing circulating live vaccine organisms. So the best course of action is to 1st treat with antibiotics, wait 7-10 days, and then vaccinate. If you use antibiotics simultaneously with vaccine, you will have to revaccinate the animals 2 weeks later to get any long term protection.

Once a herd has had anthrax, you should revaccinate each following spring for at least 3 years because of any pasture contamination. This also applies to ranchers who may not have had any anthrax deaths but whose neighbors have. You cannot count on the latter remembering to revaccinate next year, and when they are reminded by cows dying, it may be too late for you to protect your animals. I have seen this happen more than a few times.

Thanks to Susan for the update. - Mod.MHJ]

#### ANTHRAX, HUMAN, BOVINE - CHINA (LIAONING)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: 7 Aug 2005

From: Mary Marshall <[tropical\\_forestry@btinternet.com](mailto:tropical_forestry@btinternet.com)>

Source: Reuters [edited]

<<http://www.alertnet.org/thenews/newsdesk/PEK131976.htm>>

Anthrax hits China as pig disease festers

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Anthrax has killed one person and infected 12 in northeast China, state media reported on Sunday [7 Aug 2005], in the latest outbreak of animal-borne disease to hit the country in recent weeks. Anthrax, a disease caused by spore-forming bacteria normally contracted through contact with infected livestock, struck on 29 Jul 2005 outside Shenyang, in Liaoning province, Xinhua news agency said on its Web site <<http://www.xinhuanet.com>>.

By Friday [5 Aug 2005], no new cases had been reported in the town of Damintun for 5 consecutive days, and the lives and work of people in the area have returned to normal, Xinhua said. 11 victims had been treated in the hospital and were recovering, it said.

Livestock in the affected areas had been inoculated with anti-anthrax vaccine or culled and safely buried, it said. Local officials had carefully checked all local meat sales points and banned people from bringing sick animals to markets. Echoing an ongoing outbreak of a pig disease that has killed at least 39 people in southwestern China, all the victims in Damintun were infected through slaughtering, handling or eating infected cows.

One new death and 2 more infections of the swine-borne bacteria *Streptococcus suis* were reported on Saturday [6 Aug 2005] in Sichuan province, Xinhua said. China has repeatedly insisted the disease is under control.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[For some reason, certain countries will cull animals sick with anthrax instead of treating them. The reason for this remains obscure. - Mod.MHJ]

#### ANTHRAX, LIVESTOCK - ROMANIA

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Sun 7 Aug 2005

From: Pablo Nart <[pablo11@hotPOP.com](mailto:pablo11@hotPOP.com)>

Source: Ganaderia.com (Mexico) [edited]

<[http://www.ganaderia.com.mx/noticias/?no=noticia&noticia=notago005\\_2](http://www.ganaderia.com.mx/noticias/?no=noticia&noticia=notago005_2)>

7500 cattle will be slaughtered because of anthrax in Romania

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The Romanian authorities plan to slaughter and incinerate around 7500 horses and cattle infected with anthrax living in the wild in the Danube delta biosphere reserve. The health authorities consider these animals a public health threat for the general population, the Danube delta ecosystem and its agricultural production.

"Almost half of the domestic animals in the area live in the wild. They are not registered, nor vaccinated, nor receive any veterinary treatment," Alina Monea said, speaking for the Food and Veterinary Safety Authority.

Monea said that many of these animals are infected with the anthrax bacillus, very active this summer [2005] due to the frequent rains, and that they can transmit the disease to humans.

The animals will be captured and slaughtered if nobody claims them.  
Pablo Nart <pablo11@hotmail.com>

[This is an indirect report of outbreaks in the Danube Delta which needs confirmation. Anthrax is not a chronic infection, so the risk is not as described, nor is it contagious.

In July 2000, there were widespread outbreaks in the Danube Delta, and some 29 people were hospitalized. The government spent USD 230 000 in emergency control activities.

Semi-feral populations like this can readily maintain a range of problems, especially if not routinely rounded up, vaccinated and treated for parasites. However, it would be unlikely that these animals are not owned and, thus, will be branded if only to limit rustling. If that is the case, there will be annual collections to brand new young stock, culling to meet family debts and to sell selected unbroken horses. Farmers there are reluctant to vaccinate animals, preferring to let them graze at large on the extensive wild expanses of the Delta. Thus, it would seem that the problem may be wider than claimed by the Romanian authorities. On the other hand, they may just have lost all patience with the owners' lack of responsibility. - Mod.MHJ]

#### ANTHRAX, BOVINE - CANADA (MANITOBA) (02)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Thu 11 Aug 2005

From: Shelagh Copeland <[SCopeland@gov.mb.ca](mailto:SCopeland@gov.mb.ca)>

Update on Anthrax in Manitoba

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Since 25 Jul 2005 the Provincial Veterinary Laboratory in Winnipeg, Manitoba has identified anthrax in 4 separate cattle herds in south central Manitoba. The herds are all within 5 km or less of each other.

The highest mortality was 10 in one herd; the remainder has had one or 2 animals to date. In all herds at least one of the mortalities was a mature bull and in 3 herds was the 1st death noticed.

In 2000, 2001 and 2003 anthrax was diagnosed in cattle herds in southeastern Manitoba, but this present area has not had a previous diagnosis of anthrax to our knowledge. The source of this outbreak is unknown. This area, along with much of Manitoba, underwent extensive flooding this spring which was followed by hot often humid weather.

Anthrax is a federally reportable disease in Canada, and follow-up quarantine, trace-backs, clean-up, vaccination and confirmation for indemnification are under the authority of the Canadian Food Inspection Agency (CFIA).

Dr. Shelagh Copeland Livestock Branch Manitoba Agriculture, Food, and Rural Initiatives Brandon, Manitoba Canada <[SCopeland@gov.mb.ca](mailto:SCopeland@gov.mb.ca)>

[The index outbreak suffered the highest mortality. The latter outbreaks were called in 2-5 Aug 2005 and would seem to follow from biting flies flying out from the index herd. In this, it echoes the recent outbreaks in SE South Dakota where the primary outbreak involved some 155 deaths and single-digit deaths in the secondary outbreaks.

Why bulls are so prominent is hard to determine -- Valerius de Vos of South Africa's Kruger National Park and I have had many arguments over this over the years, and he has not seen sexual preferences there -- but recalling the severe loss of cattle we had a few years ago in south Louisiana from a massive mosquito hatch that similarly picked on bulls, we came to the conclusion that the bulls, being essentially solitary, did not have the collective benefit of switching tails in deterring flying insects as cows do when the latter bunch up together. Possibly the same applies here.

How and why this series of outbreaks occurred where it has is a mystery. It is some 400 km to the west of the known enzootic area in SE Manitoba. The most likely explanation, while we await the results of Dr. Copeland's investigation, is to suspect an old forgotten anthrax grave on the primary ranch. With the heavy rains, spores might have been forced to the surface, unless the rancher had been earth moving (clearing ditches, trenching, bulldozing, scrub clearing).

Our thanks to Shelagh for updating us on this interesting outbreak. - Mod.MHJ]

[Elsevier reference:

Laurence Abrami, Nuria Reig & F. Gisou van der Goot 2005. Anthrax toxin: the long and winding road that leads to the kill. Trends in Microbiology 13 (2): 72-78.  
<<http://dx.doi.org/10.1016/j.tim.2004.12.004>>]

#### ANTHRAX, HUMAN, BOVINE - RUSSIA (ALTAI): SUSPECTED

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date 15 Aug 2005

From: Mary Marshall <[tropical.forest@btinternet.com](mailto:tropical.forest@btinternet.com)>

Source: Reuters [edited]

<<http://www.alertnet.org/thenews/newsdesk/L15392882.htm>>

Russia reports suspected case of anthrax

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2 Russian butchers in the southern Siberian region of Altai were suspected of having contracted anthrax on Monday [15 Aug 2005] after slaughtering an infected cow, local media reported. Itar-Tass news agency reported that the men had already sold contaminated meat to a client, possibly from the neighboring region of Kemerovo, raising fears the disease could spread. "Their preliminary diagnosis is anthrax," Ria-Novosti news agency quoted a regional health official as saying.

Altai, a steppe region near Russia's border with China, Mongolia and Kazakhstan, is one of the country's suppliers of meat products and grain.

The news came at a time when Russia is trying to contain an outbreak of deadly bird flu that is being spread by birds migrating towards European Russia from Siberia.

ProMED-mail <promed@promedmail.org>

[A case of the same-old, same-old, while there is a certain hypersensitivity in government quarters to cases of anthrax, the reality is that humans are moderately resistant and that natural cutaneous cases are most likely to occur when individuals are slaughtering and butchering or necropsying an infected carcass, when infected blood gets into cuts and abrasions, usually on the hands and forearms, face infections only occurring when scratched with a bloody finger. Modest precautions, like wearing gloves and afterwards washing up with soap and water, are frequently adequate, as is common sense not to necropsy a possible anthrax case without 1st checking by making a stained blood smear to check for capsulated organisms. Frankly, humans are poor canaries for this disease, which is why effective control programs target unexpected and sudden deaths in livestock and regard human cases as backups if the former are missed.

Kyriakus Polydoru, one of my veterinary heroes and a most effective Chief Veterinary Officer for Cyprus, eradicated anthrax from Cyprus in a relatively short campaign. One of his tools was to make it a legal duty of the owner to report any livestock death to the village policeman, with a mandatory 21-day incarceration for non-reporters... and there was a reward if a neighbor turned you in when you hadn't reported it first. This made surveillance effective. There were carrots, like free vaccines and help with disposal, but also a sturdy stick. Sticks without carrots are counterproductive, which is one of the Russian problems with this disease.

- Mod.MHJ]

#### ANTHRAX, OVINE - RUSSIA (ROSTOV)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Mon 15 Aug 2005

From: Natalia Pshenichnaya <[crane@aaanet.ru](mailto:crane@aaanet.ru)>

Source: Agency of national news, Annews.ru, 11 Aug 2005 [translated, edited]

<<http://annews.ru/modules.php?name=3DNews&file=3Darticle&sid=3D12861>>

Anthrax, sheep, Rostov region, Russia

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A case [cases?] of anthrax has/have been registered in the Zavetninskiy district of the Rostov region [The main city of the region is Rostov-on-Don. - Mod.NP]. This case [the cases?] took place in [the] agricultural cooperative Phedoseevskoye, where the sheep had fallen ill and had died. A diagnosis of anthrax has been confirmed after laboratory tests in a veterinary laboratory.

The dead sheep was/were burnt, and the dangerous zone was disinfected. Quarantine measures have been applied in the cooperative. Entrance into and departure from the cooperative are controlled. According to some data, the sheep in the cooperative was/were ill due to the absence of vaccination following the previous case of anthrax in the district.

Now classified as a zone of "extreme incident," vaccination of animals has begun in the area, and 2200 sheep, 416 livestock [presumably cattle] and 75 pigs have been inoculated. Local residents have been put under medical supervision.

In May 2005, a case of anthrax was registered in the Dubovskiy district of the Rostov region, where an ill pig was found in Khutor Syrotskiy, an area farm. The infectious agent was found during routine veterinary analysis of pork in a slaughterhouse. The tested meat had been brought in by a local resident planning to sell it at the market. All of the refrigerators at the slaughterhouse have been sealed, and the products stored in them have been burned.

[Byline: Andrey Sysuev]

ProMED-mail <promed@promedmail.org>

[The Rostov Region is in the south of Russia at the mouth of the river Don. The area of the region comprises 100 800 sq km (as of 2003); the population of the region is 2 977 500 inhabitants (as of 2003). The capital of the region is Rostov-on-Don (1 068 300 inhabitants). Khutor Syrotskiy farm, in the Dubovskiy district, where, in May 2005, the case of anthrax in pork was registered, almost borders the Zavetninskiy district. - Mod.NP]

[Due to the limitations of translation, it is hard to tell from this report whether one sheep or a number of sheep were found to be affected. I strongly suspect the latter, as sheep tend to die in numbers greater than one, sometimes in significant numbers, before help is sought. As I pointed out in relation to the previous porcine report, when one has anthrax reports in pigs, it can be due to contaminated feed or from farmers feeding the viscera from dead animals to their pigs. I suspect that the true dimensions of the anthrax outbreaks in the adjoining districts of Dubovskiy and Zavetninskiy may only be known to the authorities and the communities involved. - Mod.MHJ]

#### ANTHRAX, BISON, BOVINE - USA (SOUTH DAKOTA) (03)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Wed 17 Aug 2005

From: Sam Holland <[Dr.Holland@state.sd.us](mailto:Dr.Holland@state.sd.us)>

Anthrax cases cause cattle raisers to act

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This year's [2005] anthrax season started on 18 Jul 2005 with a diagnosis of anthrax in a buffalo and beef herd. To date, there have been 38 herds with anthrax diagnosed by laboratory testing. Total death losses have reached 330 head of beef cattle and bison. Livestock producers are vaccinating animals in the affected locales, and some producers have vaccinated animals, as a precautionary measure, in areas of the state where anthrax has not been active for a number of years.

Please access our website at <http://www.state.sd.us/aib> for a map of the anthrax affected counties in South Dakota.

Dr. Sam Holland, DVM State Veterinarian South Dakota Animal Industry Board Pierre, SD

[I strongly advise members to visit this site. The last official update/newsletter was from 28 Jul 2005. The 16 Aug 2005 map has the following numbers of outbreaks in the following 11 South Dakota counties: Brown (4), Day (1), Dewey (7), Hand (2), Hughes

(2), Hyde (2), Marshall (3), Potter (7), Spink (2), Sully (9), and Walworth (1), which sum to 39 outbreaks. But the map, for some reason, is titled "2004-2005 Anthrax Cases in South Dakota." It would seem that the cases in northeast South Dakota may be epidemiologically linked to the cases in southeast North Dakota, where the weight of the latter state's outbreaks are. See <http://www.agdepartment.com/Programs/Livestock/BOAH/2005Anthrax.pdf> for the North Dakota Department of Agriculture anthrax map. As of yesterday, 16 Aug 2005, North Dakota has had 86 cases (premises) in 13 counties.

The veterinary authorities in both states are to be commended for keeping their maps updated. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - KAZAKHSTAN (WESTERN REGION): SUSPECTED  
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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>  
Date: Thu 25 Aug 2005  
From: Natalia Pshenichnaya <[crane@aanet.ru](mailto:crane@aanet.ru)>  
Source: News agency Centralno-Asiatskie novosti, 24 Aug 2005 [edited]  
<[http://www.centran.ru/cgi-bin/index.pl?text\\_id=3D21488&all=3Dyes](http://www.centran.ru/cgi-bin/index.pl?text_id=3D21488&all=3Dyes)>

According to the Department of Emergency Situations, 5 inhabitants of the settlement Talovka, in the Zhanibekskiy district, have been delivered to the district hospital with symptoms of cutaneous anthrax, a form of the disease less dangerous than the pulmonary form. In the settlement, the deaths of 4 cattle have also been recorded.

According to Alexander Grazhdanov, chief of the anti-plague station, the infection of people takes place during the butchering of sick animals.

Presently, representatives from the management of the state sanitary epidemiological supervision and anti-plague station have arrived in Talovka. The focus of infection and patients are protected by the police.

The last case of anthrax in the western Kazakhstan region was registered 8 years ago. At that time, the focus of the epidemic was located by the efforts of physicians, and all patients received medical treatment and recovered.  
ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[Western Kazakhstan borders 5 Russian regions: Astrakhan, Volgograd, Saratov, Samara and Orenburg and 2 regions in the Republic of Kazakhstan: Aktyubinsk and Atyrausk. The total area of the region is 151 300 sq km. The city Uralsk is the capital of western Kazakhstan. - Mod.NP]

[Unfortunately, the activities of the Kazakh Ministry of Agriculture do not receive equal news coverage, so it is unclear whether the Kazakh Veterinary Service was involved before or after the human cases were found, if at all. And thus, the laboratory confirmation on the 4 dead cows is not provided. In a number of countries, it is an unfortunate fact of life that anthrax control procedures are invoked only after human cases are found or suspected. As only a proportion of livestock cases result in human

cases, the true situation is, thus, not known, and by only activating control programs for this minority of human-related outbreaks, the disease continues expensively on its merry way. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - KAZAKHSTAN (WESTERN REGION) (02):  
CONFIRMED

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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>  
Date: Sun 28 Aug 2005  
From: Natalia Pshenichnaya <[crane@aaanet.ru](mailto:crane@aaanet.ru)>  
Source: News agency Gazeta.ru, 27 Aug 2005 [edited]  
<[http://www.gazeta.ru/lenta/2005/08/27/news\\_362557.shtml](http://www.gazeta.ru/lenta/2005/08/27/news_362557.shtml)>

Anthrax, human, confirmed, western Kazakhstan  
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The regional center of the state sanitary epidemiological supervision reported, on Sat 27 Aug 2005, that bacteriological researchers have confirmed a preliminary diagnosis of anthrax in 3 inhabitants of the settlement Talovka of the Zhanibekskiy district of the western Kazakhstan region.

In total, 2 women, 2 men and the 12-year-old child were hospitalized on 23 Aug 2005 in a local hospital with a preliminary diagnosis of anthrax.

ProMED-mail [promed@promedmail.org](mailto:promed@promedmail.org)

ANTHRAX, PIG - RUSSIA (ROSTOV)(02)

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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>  
Date: 1 Sep 2005  
From: ProMED Correspondent Natalia Pshenichnaya <[crane@aaanet.ru](mailto:crane@aaanet.ru)>  
Source: News agency Yuzhniy region INFO [edited]  
<[http://www.yugmedia.ru/ne\\_3479452](http://www.yugmedia.ru/ne_3479452)>

The 3rd case of anthrax in 2005 in the Rostov region has been discovered  
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A representative of the regional veterinary laboratory, Vladimir Rudenko, has reported that *Bacillus anthracis* has been identified in the carcass of a pig following analysis at the Zavetninskiy district [Rostov region] veterinary laboratory. This result has been confirmed by the regional laboratory in Rostov-on-Don. However, officially the disease can be confirmed only after carrying out a 3rd analysis.

The infected animal belonged to a resident of the village of Zavetnoye. It was found that the pig had not been vaccinated against anthrax.

The regional representative for animal disease control, Leonid Kudlaenko, has gone to the village. The carcass of the infected pig was burnt. Quarantine measures have been

applied on the affected homestead (pasture of cattle and export of agricultural products forbidden, animals vaccinated). All cattle in the adjacent farm were also vaccinated.

Health surveillance of the village inhabitants was established. Quarantine will be in place for the next 2 weeks.

ProMED-mail <promed@promedmail.org>

[This is already the 3rd case of anthrax in the Rostov region in 2005 and the 2nd in the Zavetninskiy district -- see map at <[http://marriage.albion.su/i/rostov-on-don\\_map.gif](http://marriage.albion.su/i/rostov-on-don_map.gif)>. The 1st case (also in a pig) was discovered in the Dubovskiy district of the Rostov region in May 2005 -- see ref. below. In the Zavetninskiy district anthrax was found in sheep. It is remarkable that these 2 districts are adjacent.

The Rostov Region is in the south of Russia at the mouth of the river Don. Its area is 100 800 sq km; the population of the region is 2 977 500 inhabitants (as of 2003). The capital of the region is Rostov-on-Don (pop. 1 068 300). - Corresp.NP]

[Pigs are rarely vaccinated unless they are at risk from contaminated feed or from an ongoing outbreak, as they are relatively resistant. In poor rural areas, pigs become infected from access to dead animals or their viscera. Some 30 years ago in the UK, there was a prolonged outbreak among sheep and pigs on a farm because, as the sheep died, the pigs got to the carcasses before the farmer could remove them. Pigs dying of anthrax is a marker event for a more widespread problem. How this pig was found to be sick and submitted for analysis is not reported. These Russian animal cases are unfortunately too often [discovered as] the result of human cases. One can optimistically hope that this event was in the proper order, livestock without human cases. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - KAZAKHSTAN (WESTERN REGION) (03):  
CONFIRMED, OIE

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: 6 Sep 2005

From: ProMED-mail <promed@promedmail.org>

Source: OIE Disease Alert [edited]

<<http://www.oie.int/Messages/050902KAZ.htm>>

Anthrax in Kazakhstan

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Date of previous outbreak of anthrax in Kazakhstan reported to the OIE: June 2004.

Immediate notification report and final report.

Translation of information received on (and dated) 2 Sep 2005 from Dr Asilbek A Kozhumratov, director, Veterinary Control Department, Ministry of Agriculture, Astana:

Reason for immediate notification: re-occurrence of a listed disease or infection in a country or zone/compartiment following a report declaring the outbreak(s) ended.

Date of 1st confirmation of the event: 28 Aug 2005.

Date of start of the event: 23 Aug 2005.

Nature of diagnosis: clinical and laboratory.  
Location of the outbreak: Talov, Zhanibek, West Kazakhstan region.  
Number of susceptible animals in the outbreak: 144 head of cattle.  
Number of deaths: 9.  
Source of outbreak or origin of infection: infected soil.

Control measures undertaken:

- quarantine;
- booster vaccination of susceptible animals (vaccination of 2000 bovines, 3000 sheep/goats and 170 horses) in the outbreak and the infected zone using a liquid live vaccine against anthrax strain 55;
- implementation of disinfection measures in the outbreak and the infected zone;
- regular surveillance of animals in the outbreak and the infected zone;
- movement control inside the country;
- zoning.

Further details will be published in the next issue of weekly Disease Information, available on line from Fri 9 Sep 2005 afternoon (GMT).

OIE Animal Health Information Department <information.dept@oie.int>  
ProMED-mail <promed@promedmail.org>

[This report confirms the bovine cases in the outbreak queried as suspected in an earlier posting; see references below. The human aspect of this outbreak has similarly been confirmed in a prior posting. - Mod.PC]

#### ANTHRAX, BOVINE - USA (MONTANA)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: Fri, 16 Sep 2005 08:44:58 +0100

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: Washington Post, USA, 16 Sep 2005 [edited]

<<http://www.washingtonpost.com/wp-dyn/content/article/2005/09/15/AR2005091502519.html>>

Anthrax has killed 37 cattle on a northeast Montana ranch now under quarantine, the state veterinarian said Thursday.

Anthrax was last confirmed in the state in 1999, the Department of Livestock said. But hundreds of cases have been reported this year in neighboring North Dakota and South Dakota. The Montana ranch, northwest of Culbertson, was placed under quarantine Monday on suspicion of anthrax, later confirmed. Hundreds of remaining cattle were moved to a different pasture, and animals deemed susceptible or possibly exposed were given antibiotics and vaccinations, state veterinarian Tom Linfield said. He said it's reasonable to expect more local cases following an outbreak, and ranchers in the area were told to be vigilant.

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[2]

Date: Fri 16 Sep 2005 9:40 AM

From: Paul Cheek <paul@starkville.org>

Source: Cattlenetwork.com (AP) [Edited]

<<http://www.cattlenetwork.com/content.asp?contentid=9403>>

Anthrax has killed 37 cattle in northeast Montana, and additional cases wouldn't be surprising, the state veterinarian said Thursday.

The ranch where the cattle lived, northwest of Culbertson, is under quarantine and has been since Monday, Tom Linfield said. That's when the Montana Department of Livestock first learned that anthrax was suspected, he said. Hundreds of remaining cattle were moved to a different pasture, and animals deemed susceptible or possibly exposed were given antibiotics and vaccinations, he said. A 2nd round of vaccinations is due within 10 days, and the premise will remain under quarantine for about 40 days, the department said.

Anthrax was last confirmed in the state in 1999, the department said.

Meanwhile, the state Department of Public Health and Human Services said in a statement that the outbreak poses "little threat" to humans.

Jim Murphy, a disease surveillance specialist with the department, said officials came to that conclusion after consulting with the Centers for Disease Control and Prevention. Paul Cheek President, Global Technology Resources 1 Research Blvd., Suite 104 Mississippi Research & Technology Park Starkville, MS 39759  
<<http://www.paul.cheek@gtr-datastar.com>>

[Further information has been requested from Helena, MT, on this outbreak. - Mod.MHJ]

ANTHRAX, BOVINE - USA (MONTANA) (02)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Fri 16 Sep 2005 9:44 PM

From: Dr. Thomas Linfield <[tlinfield@state.mt.us](mailto:tlinfield@state.mt.us)>

Regarding this outbreak, the rancher had one cow die approximately 28-30 Aug 2005, followed by 8 more on 4-5 Sep. At that time he moved the cows to a different pasture; all were okay until 10 Sep, then started losing more cows. All said, 37 cows dead (no calves).

The pasture the cows were in initially was pretty well grubbed down. The owner indicated he had probably left them in a week or 2 too long. Also, some pretty nasty, stagnant water in the "creek" -- a very alkaline area.

Initial source of infection -- not sure. Would think either along the stream or soil in the pasture, with the cows inhaling/ingesting spores on the short pasture.

I think perhaps the 1st dead cow may have served as a point source for at least the next wave of deaths.

Tom Linfield <tlinfield@state.mt.us>

[I have seen this before where the primary case sets off a chain of cases, each link about an incubation period apart. It comes about through the animals being attracted to the extravasated fluids, which contain salt; plus curiosity of course. There could be several very speculative reasons for only the adult cows being affected; if they were fitter than their mothers, they would need a higher infective dose; if they grazed less, there would be less chance of exposure, ingesting less contaminated soil; if frightened of the carcasses, they would have less chance of exposure. In general, young stock have much lower attack rates than adult cattle. Because there are as yet no reports of cases on adjoining ranches, one must assume that the index case got infected from ingesting spores somewhere near the creek, where an anthrax-infected cow might have been buried in the past. Spores survive best in moist, alkaline soil. Unless one is frankly lucky (with ranch histories, rancher memories) it is sometimes difficult to determine the "whys."

Many thanks to Tom and Jeanne Rankin. - Mod.MHJ]

#### ANTHRAX, HUMAN, BOVINE - KYRGYZSTAN (OSH)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Thu 15 Sep 2005

From: Alexander Peredkov <[dgsm@elcat.kg](mailto:dgsm@elcat.kg)>

Source: Kyrgyz State department of disease surveillance, [translated by Mod.NR, edited]

<<http://www.gsen.in.kg/ru/?news=3D15>>

#### Outbreak of anthrax in Osh region

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In Osh region, Alayskiy district, in the village Josholu, 6 people were hospitalized from 5 to 7 Sep 2005. These 6 people were participating in the slaughter of an ill cow. All 6 were diagnosed with cutaneous anthrax with involvement of the upper extremities. 11 people in total were participating in the cow's slaughter. Currently, people that were in contact are under preventive care. A soil sample has been taken for laboratory testing from the slaughter location.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[Kyrgystan has modest numbers of livestock cases but a constant ratio of about 10:1 human to livestock cases -- much like the situation in Central Africa -- with official numbers prior to 2000 of some 30 to 70 human cases a year; only 4 human cases were officially reported in 2001. This is not a new problem in Osh; there were 32 human cases in 1999 and 73 in 1997. - Mod.MHJ]

[Elsevier reference:

Opore C, Nsiire A, Awumbilla B, Akanmori BD. Human behavioural factors implicated in outbreaks of human anthrax in the Tamale municipality of northern Ghana. *Acta Tropica* 21 Jul 2000, 76(1):49-52<[http://dx.doi.org/10.1016/S0001-706X\(00\)00089-9](http://dx.doi.org/10.1016/S0001-706X(00)00089-9)>]

ANTHRAX, HUMAN, BOVINE - KYRGYZSTAN (JALAL ABAD)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

[1]

Date: 11 Oct 2005

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: RIA Novosti [edited]

<<http://en.rian.ru/russia/20051010/41655254.html>>

9 people have been hospitalized in south western Kyrgyzstan due to an anthrax outbreak, the Kyrgyz Health Ministry said on Monday.

Quarantine has been declared in the Bazarkorgoon district in the Jalal Abad region, where people have been admitted to the local hospital since 26 Sep 2005 with symptoms of anthrax infection. Dairy, meat, and cattle markets have been temporarily closed.

Local veterinary specialists said the disease was spread when people ate the meat of infected animals. Meat slaughterers have also been infected.

Medics are monitoring the local population for new cases.

[2]

Date: 11 Oct 2005

From: Alexander Peredkov <[dgsm@elcat.kg](mailto:dgsm@elcat.kg)>

Source: Ferghana Aki Press, [translated; edited]

<<http://fergana.akipress.org/?id=3D17305>>

An anthrax outbreak has been reported in the Bazarkorganskiy district of the Jalalabad region. Quarantine measures have been initiated in several villages.

Starting on 8 Oct 2005 at 8 a.m., the "Epizootiya" plan was introduced in this district of the Jalalabad region, which requires closing milk, meat, and livestock markets. This information came from the Ministry of Internal Affairs, dated 10 Oct 2005.

According to a report dated 7 Oct, the Bazarkorganskiy district state veterinary department, starting from 27 Sep up until 6 Oct, 9 people were taken to the Batken hospital with symptoms of anthrax. These patients were from the villages of Beshbadam, Pravda, Chkalov, Ogantala, Charbak, and Jon.

Veterinarians are tracing people who had consumed meat from "ill animal." [Singular or plural?].

ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

[Starting 7 Oct 2005, the district state authority introduced quarantine. Central Asia for some reason may have anthrax cases later in the year than other northern latitude countries, for reasons that escape me. Merely from the look of this report, meat from a number of slaughtered sick animals at an unknown number of varied (?) sites found its

way to various markets in the district, with both slaughtermen and consumers put at risk.  
- Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - RUSSIA ((BASHKORTOSTAN)

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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>  
Date: Tue 18 Oct 2005  
From: ProMED-mail Russian correspondent <[promed@promedmail.org](mailto:promed@promedmail.org)>  
Source: News agency Rostbalt.ru [edited]  
<<http://www.rosbalt.ru/2005/10/18/231127.html>>

Anthrax, human, cattle; confirmed in the Republic of Bashkortostan, Russia  
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A case of anthrax has been confirmed in the Gafurijskiy district of the Republic of Bashkortostan. A 74-year-old inhabitant of the village of Kovardy was hospitalized with this diagnosis in the local hospital. The management of Veterinary Science of Bashkortostan reported on Tuesday [18 Oct 2005] that the source of her infection was the [meat] of a cow which the woman [had bought in the market]. Suspicions of anthrax appeared in Gafurijskiy district on 12 Oct 2005. Veterinary examination in the local market revealed signs of changes in lungs and in lymph nodes, typical for this dangerous infection, in the carcass of one of the cows brought there for sale.

The carcass was immediately burnt. In the village from where the cow came, counter-epidemic measures, including disinfection of the ground, have been carried out, and quarantine has been established. Physicians later discovered the presence of *Bacillus anthracis* in the owner of the cow. Research has shown that the woman had fallen ill with the cutaneous form of anthrax, which is curable.

According to the experts, contamination took place [through an open wound on the woman's face after her handling of the contaminated meat.] Now the woman is receiving medical treatment, and her condition is satisfactory. In the village of Kovardy, vaccination of the population against anthrax has been carried out. According to the Management of Veterinary Science of Bashkortostan, "the focus of disease has been liquidated, the reasons for the anxiety connected to mass outbreak of people and animals by anthrax are not present." At the same time, experts could not establish a source of infection for the cow. The last single case of bovine anthrax had been registered in Bashkiria in 1998.

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[The total area of the Republic of Bashkortostan is 143 000 sq. km (0.8 percent of the common area of Russia). The capital of Bashkortostan is the city of Ufa. Bashkortostan occupies the largest part of Southern Ural, and adjoining it are plains. In the north, Bashkortostan borders the Perm and Sverdlovsk regions; in the east, the Chelyabinsk region; in the southeast, the south and southwest, the Orenburg region; in the west, the Republic of Tatarstan; and in the northwest, the Udmurt Republic. - ProMED-mail Russian correspondent]

[This poor lady, going home from the market with her bloody package of cow beef, scratched or rubbed her face and infected a cut with the result that we see. Being elderly, she was probably victim to a minimal dose. She and the putative owner of that cow were apparently the only 2 victims. Suspicions were aroused on 12 Oct 2005 when the market veterinary inspectors found a carcass with suspect changes in the bovine lung and lymph node and ordered "immediate incineration." Yet our customer had been able to buy some meat from this carcass. At best, the inspectors got to this carcass late. When one considers that the incubation for cutaneous anthrax is some 3-5 days, minimum, and then there are the problems of getting samples from human lesions (at best 30 percent) and then the culture interval, it makes me suspect that our lady got ill before 12 Oct 2005; the hospital reported cutaneous anthrax; and then the inspectors descended on the Kovardy market on the 12th, discovered this sick dead cow, and it may have been sampled and cultured. Back tracing found the owner, who seemingly had a skin lesion; whether old or new is not clear. I suspect that there was an earlier sick cow which was butchered and disappeared. For whatever reason, there is no account of the livestock in Kovardy being vaccinated. This would have been far more cost effective in disease control than any human vaccination, other than annoying the locals because of the cow owner's stupidity. It is one way through community pressure, I suppose, of persuading livestock owners to vaccinate their stock. One can only wonder at how much livestock anthrax occurs in Russia without human cases and thus without public health reporting. I have yet to see any Russian veterinary statistics on this disease. - Mod.MHJ]

#### ANTHRAX, HUMAN, BOVINE - KYRGYZSTAN (OSH) (02)

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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>  
Date: 19 Oct 2005  
From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>  
Source: AKI Press (Kyrgyzstan News Agency) [edited]  
<[http://www.akipress.com/\\_en\\_news.php?id=14368](http://www.akipress.com/_en_news.php?id=14368)>

#### Criminal cases begun against 3 citizens for sale of anthrax meat

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The session of the Extreme Anti-epidemic Commission (EAC) under the Osh regional administration was passed on 18 Oct 2005 and was devoted to preventive maintenance and the struggle against anthrax.

The head doctor of the regional sanitary epidemiological station Abdimalik Parhanov made a report on the anthrax situation in the region. 14 cases of anthrax were registered in the region for [the 1st] 9 months of 2005. Presently, land analysis and cattle checking is being carried out in anthrax areas. [I think this means the affected farms are being rechecked in relation to other possible cases and present and historic foci. - Mod.MHJ]. Anthrax infected people are being placed in hospitals and receive treatment.

This year's [2005] anthrax outbreak occurred in the Alai, Kara-Suu and Uzgen regions of Osh Oblast. 3 inhabitants of Osh Oblast killed their anthrax-infected cattle and sold [the meat] to people. It is necessary to note that all sellers of infected meat knew about it and consciously sold the meat for profit. Criminal cases have begun against these 3 people.

At the present time, according to experts, there are 236 officially registered anthrax areas in the Osh region. The head of the Osh regional veterinary department, Islam Abdimomunov, noted that it is necessary to disinfect these areas every year and that the state has not allocated funds for such purpose for the past 2 years. Anthrax pesthole can be preserved during hundred years. [An anthrax area may remain infectious for 100 years. - Copyeditor MSP]

Now, according to the participants of EAC, the vaccination of cows is being carried out on all pastures, reservoirs, fields and farms where anthrax spores were found. 6000 animal vaccine doses and 5 tons of chlorine will be brought from Bishkek, but it is obviously not enough, participants in the session noted.

Additionally, it was found during the session that regional leaders did not allot money in the budget for the struggle against dangerous diseases.

The EAC members decided to assemble on 10-11 Nov 2005 to discuss the situation. ProMED-mail <promed@promedmail.org>

[It is a hangover from the old Soviet control procedures to do annual checks of all known cattle burial sites. Positivity, if and when found, usually lasted some 5-6 years. It was noted that some sites, though bacillus-positive, developed apathogenic strains of Bacillus anthracis towards the end of this period. Disinfecting positive sites clearly has some value, but it is far more important to vaccinate livestock annually. How long any positive cattle grave will remain a risk is ill-recorded in spite of the decades of Russian observations. I think that the reality is that most revert to being negative in less than 10 years and only a special minority, with yet to be defined characteristics, present any long term risk. If it were otherwise, we would never see the end of this disease, considering the thousands of past outbreaks. The reality is that when properly controlled, it fades away. - Mod.MHJ]

#### ANTHRAX, HUMAN, BOVINE - KYRGYZSTAN (OSH) (03)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Wed, 26 Oct 2005 15:22:21 +0100

From: Mary Marshall <[tropical.forestry@btinternet.com](mailto:tropical.forestry@btinternet.com)>

Source: IRIN [edited]

<<http://www.alertnet.org/thenews/newsdesk/IRIN/d5caa4e6a83eab9d7c0f26e24a36188d.htm>>

Anthrax is spreading in southern Kyrgyzstan, where upwards of 24 cases have been registered over the past few months, health officials said on Wednesday. Epidemiologists in the south of the former Soviet republic reported that in September and October 2005 alone some 25 cases of anthrax were registered in the 2 southern provinces of Osh and Jalal-Abad, describing recent months as some of the worst over the past few years in terms of the disease dynamics.

The serious infection was detected in 4 districts of the provinces and in Osh city, the capital of the province with the same name, while the condition of one infected patient at the intensive care unit in Osh remained serious.

Quarantine has been introduced in the 4 districts and cattle markets were closed down as well, while veterinary control officials were going from household to household in the villages, where infection was detected in order to find cattle not vaccinated against infectious diseases and vaccinate them. "Despite our numerous warnings about the creeping threat [of anthrax], some residents, particularly cattle owners and butchers, continued to ignore veterinary control measures," Artykbai Eraliev, deputy head of the provincial sanitary and epidemiological control department, said on Wednesday in Osh.

"The source of the [human] disease is the consumption of infected animals' meat. The cutaneous [skin] form of the disease can easily be treated, while in other cases it is not easy to save the patient," Jura Umurzakov, a doctor at the Osh provincial hospital, explained. Anthrax can occur in 3 forms: cutaneous (skin), inhalational, and gastrointestinal.

A butcher in Osh, currently undergoing treatment at the provincial hospital after contracting the disease, conceded to doctors that before the beginning of Ramadan -- the traditional season of weddings in the region -- he was slaughtering several bulls and sheep every day. "I don't know how many infected animals I slaughtered," he said.

Local officials told IRIN that poor veterinary control in cattle markets was also contributing to the problem. Vet experts point to inadequate cattle breeding practices and lack of resources, when farmers do not vaccinate their animals to avoid extra costs. They also urged the local population to be vigilant and purchase only good-quality meat, staying away from cheap meat of suspicious quality.

However, experts cite places where infected animals were buried in the past as the major cause of the problem. There are more than 550 such spots in southern Kyrgyzstan, while only 350 of them had been detected, registered, fenced and covered with concrete to prevent infection. [Somewhat different numbers are quoted in (02), - Mod.MHJ] But the majority of these spots remained unattended. "There are no warning signs and local people do not know that those are dangerous areas and continue to graze their cattle there," Kadyraly Samiev, a farmer from the Kara-Suu district, said casually.

Meanwhile, 4 residents from Kara-Suu district have been charged with deliberately selling the meat of an animal infected with anthrax. If found guilty, the unscrupulous sellers would face a hefty fine and are likely to pay damages to the 11 infected locals as well. The case is the 1st in the Central Asian state of charging people with propagating anthrax.

ProMED-mail <promed@promedmail.org>

[Thanks to Dr. Asankadyr Junushov, D/ Biotechnology Institute of the National Academy of Sciences of Kyrgyzstan, Bishtek, the regional breakdown of 2005 human cases is as follows: North Kyrgyzstan (Chui Valley) one; Southern Kyrgyzstan, Jalalabad oblast (14), Osh oblast (13). Most have been due to exposure to contaminated beef. That this recent increase in human cases is ascribed to the extra demand for meat during Ramadan has logic.

However, the livestock disease is more common in the hot summer months, so what we are apparently seeing is an increased incidence in humans due to customs and an insistence on butchering sick animals, all riding on the owners' reluctance to routinely vaccinate their stock. The true background incidence in livestock is very probably less than that seen during the summer. - Mod.MHJ]

#### ANTHRAX, BOVINE - RUSSIA (BASHKORTOSTAN)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

Date: Fri, 28 Oct 2005

From: ProMED-mail Russian Correspondents<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: Rosbalt Information Service, 27 Oct 2005 [edited]

<<http://www.rosbalt.ru/2005/10/27/232505.html>>

In Russia (Bashkortostan) a new case of bovine anthrax has been registered. According to the press service of the state department of emergency situations, the dangerous infection was discovered in a 14-month-old heifer in one of the private farmsteads in the village of Zyak-Ishmetovo in the Kuyurgazin district. The ill animal was killed and burnt. The [source] of the infection has not been identified yet. The diagnosis has been established by the district veterinary laboratory but has yet to be confirmed at the republic's laboratory.

The group of specialists arrived on 26 Oct 2005 and conducted measures to prevent spread of the infection. According to the veterinary department in the Ministry of Agricultural Affairs, the chief personnel of the district administration have introduced quarantine in the village of Zyak-Ishmetovo. Vaccination will be conducted on the 760 cattle and 16 people that were in contact with the infected animal.

This is the 2nd case in October 2005 registered in Russia (Bashkortostan). On 12 Oct, anthrax was discovered in Gafuriyaskiy district. A female resident of the village of Kovardi was infected with the cutaneous form of infection from her own cow; she was under treatment in the local hospital. The residents of the village and their animals were vaccinated, and the area disinfected.

Cases of animal anthrax have been registered in Bashkortostan from time to time, the last one in 1998

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[During 1999-2004 in Russia 155 cases of anthrax were registered in humans, including 16 in 2004. All had taken part in the slaughter of cattle, butchering carcasses, and/or the transportation of meat.

Regarding anthrax in animals, in 2004, 3 outbreaks occurred in Russia with a total of 9 animals affected. In 2003 there were 11 outbreaks and 18 animals affected. In Russia there are unreported cases, and frequently cattle are not vaccinated prophylactically, which maintains the threat of disease. In 2003, 125 048 persons were vaccinated against anthrax; in 2004, 114 390.

The widespread anthrax in Russia in the past and the repeated annual outbreaks mean that there is a constant threat of anthrax in animals and people. The above data are taken from the state report "About sanitary and epidemiological situation in the Russian Federation in 2004" <<http://www.gsen.ru/doc/gosdoclad/report2004.pdf>> )  
- ProMED Russian Correspondents]

[There is, unfortunately, a long tradition of vaccinating humans against anthrax in Russia. These annual figures starkly underline the failure of the Russian veterinary services in controlling this disease, even if one were to claim that the risk of infection is sometimes applied with a broad public health brush.

Unless one is dealing with occupational industrial exposure to infected hides or contaminated wool or hair, any human case of anthrax and any need to vaccinate humans (outside of research laboratories) reflects a failure of the veterinary profession wherever such a situation exists. - Mod.MHJ]

#### ANTHRAX, HUMAN - ARMENIA: SUSPECTED

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A ProMED-mail post <<http://www.promedmail.org>>  
ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>  
Date: Wed 9 Nov 2005  
From: ProMED-mail Russian correspondent <[promed@promedmail.org](mailto:promed@promedmail.org)>  
Source: News agency Regnum.ru [edited]  
<<http://www.regnum.ru/news/541366.html>>

A case of anthrax in a person has been registered in the Armenian city of Gjumri. A 47-year-old woman bought some meat in the local market and, after preparing the food, developed an ulcer on her hand. The woman went to the medical aid clinic and was sent to the infectious disease hospital.

The press-secretary of the Ministry of Health of Armenia has stated that, after having carried out bacteriological analysis, experts from Gjumri have diagnosed anthrax in the woman. Nevertheless, the Ministry of Health has not yet received final confirmation. Results will be known in the near future. It is necessary to note that this is the 1st discovery of a case of anthrax in Armenia.  
ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[They wish! The government has not submitted any disease reports to OIE in 2003 nor in 2004. The last official case of anthrax was in 2001 in a cow. But in 2003, there was a newspaper report of a bovine case in Armavir; it had not been vaccinated. The annual vaccination levels are some 1.2 million cattle per year, 1.5 million sheep, 16 000 horses, and 27 000 pigs. 3 large cats in the Yerevan Zoo were infected from contaminated meat in 2002. And the numbers of human cases in recent years has been from 2 to 12+ people each year. In 2004, there was a severe outbreak in Shirak involving 40 cattle, a number of dogs and presumably some human cases, as meat from the infected herd was sold in an adjoining market 2 days before the cattle deaths were reported. The poor quality of the national livestock vaccine was blamed for this outbreak. The Minister of Health needs to talk to his colleague, the Minister of Agriculture, about improving the national anthrax control program. - Mod.MHJ]

ANTHRAX, HUMAN - KAZAKHSTAN (EAST)(03)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Fri, 11 Nov 2005 19:26:59 +0300

From: ProMED-mail RUS correspondent <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: News agency "Kazinform" [edited]

<<http://www.inform.kz/showarticle.php?lang=rus&id=140784>>

The State Department of Sanitary and Epidemiologic Supervision of the City of Semipalatinsk has reported that a resident of the village of Teristanbaly in the Zharminskiy district of the East Kazakhstan region has been hospitalized in the Semipalatinsk infectious disease hospital. The preliminary diagnosis is cutaneous anthrax. Anti-epidemic measures have been carried out at the focus of infection.

[Byline: Ludmila Malko]

ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

[This is the 2nd case of anthrax in the East-Kazakhstan region in 2005. In July an anthrax case was registered in a resident of the Ajagozsky district of the East-Kazakhstan region, which is the largest industrial, power, transport, and cultural region of the Republic of Kazakhstan. It is located in the northeast, at the source of the Irtysh river, and includes the Kazakhstan part of Altay. On the north it borders the Altay region of Russia; in the east and southeast, China. The population is 1 455 400. The administrative centre is Ust-Kamenogorsk, with 294 500 inhabitants. - Russian Correspondent]

[Unfortunately, in spite of the hard work to control this disease, there is a constant drumbeat of cases. - Mod.MHJ]

ANTHRAX, HUMAN, LIVESTOCK - INDONESIA (WEST JAVA)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

Date: Fri 18 Nov 2005 5:08 AM

From: Peter Roeder (AGAH) <[Peter.Roeder@fao.org](mailto:Peter.Roeder@fao.org)>

Source: US Embassy Jakarta Home Page [edited]

<<http://www.usembassyjakarta.org/index.html>

<<http://www.usembassyjakarta.org/econ/anthrax04.html>>

An anthrax outbreak near Bogor, West Java has claimed 6 lives and hospitalized 8 people since 16 Oct 2005. The virus [sic; see Moderator's comment below] may have affected as many as 65 people so far. Ministry of Health officials report that infected goat meat was the cause. To stem the spread of the [infection], the GOI [Government of Indonesia] has ordered a quarantine of the affected villages, as well as the slaughter of all goats and goat pens in the district. Officials say they are tightening controls on livestock shipped to Jakarta-area slaughterhouses. Anthrax is endemic to this part of

West Java -- about 60 kilometers from Jakarta -- due to poor animal husbandry practices as well as ineffective prevention and treatment. The government's response to this anthrax outbreak will be an early test of inter-ministry and central-regional coordination.

Anthrax outbreak in Bogor Regency:  
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The district health office in Bogor, West Java reported that an anthrax outbreak had occurred in the village of Citaringgul, Babakan sub-district, on 16 Oct 2005. According to the health office, 6 people died and 8 more were hospitalized after eating infected goat meat. The district health office said an initial health survey shows that the virus has affected as many as 65 people, the largest outbreak in years.

Anthrax is endemic to nearly all of Indonesia. However, it is particularly common to this sub-district in West Java, which covers 208 square kilometers and is home to 35 villages and over 430 000 people. Since 2001, the Bogor Health Agency has recorded 47 cases of anthrax infection and 11 fatalities. The *Bacillus anthracis* bacterium is normally found in soil and ingested by livestock, who then transmit [it] to humans.

Central and regional governments respond:  
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President Susilo Bambang Yudhoyono (SBY) reacted quickly, expressing his condolences to the families of the victims and directing his ministers to take action. Health minister Dr Siti Fadilah Supario warned the public to report immediately to health facilities any evidence of anthrax symptoms in people or livestock. She also visited Bogor victims on 23 Oct 2005, informing them that the government would cover the costs of their medical treatment.

Agriculture minister Apriyanto ordered the distribution of 300 000 doses of anthrax vaccine across the country to prevent the spread of the disease. He also directed the Bogor district government and its agencies to isolate and ban inter-regional transportation of livestock from the affected sub-district of Babakan. Bogor agriculture officials have ordered locals to slaughter and burn all goats and goat pens in the sub-district. The Agriculture Ministry's director of Vectorborne Disease Eradication also deployed an investigation team to the area.

The regional disease prevention health office has placed warning signs in 9 villages within the endemic area. Additionally, the regional livestock office is vaccinating other cattle not yet infected by the anthrax [bacillus]. The office oversees the regular vaccination of livestock in the endemic area. The last anthrax vaccination occurred 19-30 Aug 2005. The next vaccination will occur in November-December 2005, prior to the January 2006 Idul Adha religious holiday. During Idul Adha, large numbers of livestock are slaughtered throughout the country and given as gifts to less fortunate people.

The National Institute of Health has asked the US Mission's Naval Medical Research Unit (NAMRU-2) to confirm the presence of anthrax in 5 samples taken from the affected area. NAMRU-2 is currently testing those samples.

Obstacles to anthrax eradication:  
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According to the Health Ministry's director of Vectorborne Disease Eradication, Dr Rusmini, there are several reasons why anthrax is such a persistent problem in the

Bogor district. He cited a 2002 study conducted by the National Institute of Health and Balivet Laboratory in Bogor, which noted the following concerns:

-- longevity: anthrax bacterial spores can remain active for decades in dry soil. The study recommends that the central and regional governments relocate villagers and help them develop new farmland outside the endemic area.

-- education: low education levels among the local population hinder government efforts to educate the public about anthrax prevention and control.

-- limited vaccine supply: according to the study, the supply of anthrax vaccine is only enough to cover about 12 per cent of at-risk animals.

Inadequate inspections and biosecurity measures also contribute to the recurring cycle of anthrax outbreaks. Pre-mortem or post-mortem inspection by competent officials can identify diseased animals/meat and prevent them from entering the food chain. However, it is common in rural areas of Indonesia for animals to be slaughtered in back yards or in unregulated abattoirs, where inspection officials and appropriate sanitary measures are completely absent. Weak slaughterhouse controls and lack of implementation on feed requirements (such as, to prevent contamination of the feed supply) compound the risk.

Comment: Anthrax outbreaks are regular events in this area and local animal health authorities should have been closely monitoring livestock for telltale signs of disease. The public has praised the SBY government's quick response so far. However, enforcing the quarantine, destroying other diseased animals, and implementing biosecurity measures will provide an early test for the new Minister of Agriculture and his team. Indonesia has less than a stellar record in these areas. Stopping the cycle of outbreaks is a longer-term issue that will require closer monitoring of livestock in endemic areas and enhanced sanitary and inspection procedures.

ProMED-mail <promed@promedmail.org>

[There is little to add to the US Embassy comments, except that with competent control measures involving both annual vaccination and the proper handling of outbreaks when they occur, the risk of this disease can be radically reduced, and in time eradicated. Ground contamination is not eternal. The spores do die and others lose their plasmids, thereby becoming apathogenic. Effective disease control has been successfully demonstrated by many countries. The "causes" given above are excuses, not reasons. The vaccine is one of the easiest and cheapest to produce, so claims of limited supplies reflect deeper problems. The slaughter of preclinical cases represents a slight public health risk, as the bacteremia at that time in cattle, sheep and goats is low and can be hard to detect. The public health problems come from slaughtering sick animals (which do have high bacteraemia) in an effort to minimise the financial cost of disease -- in the absence of treatment and if it is feared the animal will die. In Muslim and Jewish communities, dead animals may not be eaten and a common characteristic of anthrax is that ruminants are found dead. If the meat is to be (sold and) eaten, the sick animal must have been killed first. This adds to the frequency of shade-tree slaughter and butchering of sick stock, non-inspection, and informal and irregular sales.

While goats do graze, they are primarily browsers. When they graze it is not close to the ground, as it is with cattle. So this probably started with cattle and the subsequent contamination of nearby browse by blowflies which had fed on the abandoned carcass(es). Goats can be successfully vaccinated, as can sheep and cattle. And vaccination is a lot cheaper than relocating villages.

Thanks to Peter for bringing this report to our notice. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - ZIMBABWE (MASVINGO)(04)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases

<<http://www.isid.org>>

[1]

Date: Fri 18 Nov 2005

From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: AllAfrica.com [edited]

<<http://allafrica.com/stories/200511180367.html>>

3 people and 130 cattle have succumbed to an anthrax outbreak that has hit most parts of Masvingo Province in the past few weeks. The dead are from Bikita, the worst affected area, where 14 livestock deaths were reported. The resurgence of anthrax cases in both humans and livestock has raised alarm bells in the Department of Veterinary Services, which has expressed concern at the impact of the outbreak on the province's beef herd. Acting provincial veterinary officer for Masvingo Dr. Charity Sibanda yesterday [17 Nov 2005] confirmed the anthrax-related deaths of the 3 people and scores of cattle in Bikita.

Dr. Sibanda said it was disturbing that the highly contagious disease had resurfaced in Masvingo this year [2005] in the aftermath of a massive anthrax outbreak last year, which almost decimated the province's beef herd. "There has been an outbreak of anthrax in the province over the past few weeks which has already claimed 3 human lives and 14 livestock in Bikita. We suspect that most people who were affected by the disease might have contracted it from biltong made from beef from animals that died during last year's outbreak," said Dr. Sibanda.

She added that the outbreak had to date been reported in 6 districts, namely Masvingo, Bikita, Zaka, Chivi, Gutu and Chiredzi. Zaka was the worst affected in terms of livestock fatalities, with 64 cattle having already succumbed to anthrax. In Gutu, the disease has claimed 32 cattle, while 17 cattle died in Masvingo district, with Chiredzi and Chivi recording less than 10 deaths each.

Dr. Sibanda said the veterinary department did not have sufficient stocks of anthrax vaccines to inoculate all the cattle. "We only have enough stocks to cater for areas where outbreaks of the disease would have been reported. We would have wanted to go on a wholesale vaccination exercise of all the cattle in the province, but we cannot do that because we do not have enough stocks to inject all the cattle at once," said Dr. Sibanda.

Last year [2004], anthrax killed hundreds of cattle in Masvingo Province. The disease has already severely dented Masvingo's efforts to replenish its beef herd.

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[2]

Date: 18 Nov 2005

From: ProMED-mail <[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: SW Radio Africa Zimbabwe news [edited]  
<<http://www.swradioafrica.com/news181105/water181105.htm>>

The water crisis that has gripped the whole country has continued. Experts say that urgent solutions are needed. Animals are dying in the National Parks; citizens are going without water for months.

According to the state paper The Herald, the National Parks and Wildlife Management Authority has so far lost 99 animals at Hwange National Park. The authority's public relations manager, Retired Major Edward Mbewe, told journalists on Tuesday [15 Nov 2005] during a tour of the park that more than 40 elephants, 53 buffaloes, a giraffe, 3 zebras and 2 impalas had succumbed to thirst and black leg, a disease that affects animals when the ground is too dry. He also said his office had sent recommendations to the government seeking authority to cull the elephants from 75 000 to "manageable figures."

Meanwhile, the Namibian government has rejected Zimbabwe's request to take some of the country's starving elephants, saying it was already facing serious problems with its own. Our correspondent, Warren Moroka, reports that Zimbabwean deputy environment minister Andrew Langa had suggested that some of the starving elephants in Hwange National Park could be moved to Namibia. But Ben Beytell, the director of the country's parks and wildlife department, said Namibia was also facing worsening serious water shortages and a lack of grazing pasture for its 16 000-strong elephant population. He added that the northern Caprivi Strip was already under siege from elephants escaping hunger and drought in Botswana's Chobe National Park.

What has not been reported is how Dr. Beytell and Namibian authorities feared receiving Zimbabwe's animals because they might be diseased. Outbreaks of foot and mouth and anthrax have been common on the Zimbabwe side, and Namibia did not want to take any chances. Zimbabwe's neighbors are also experiencing water shortages, but they are better prepared and well staffed. They also have the spare parts for pumps and other irrigation equipment. In comparison, the Zimbabwe government is literally broke, and animals are the least of its concerns.

The parks department needs over ZWD 500 million [USD 7700] to purchase a minimum of 5 new water engines in order to restore water services in the park.

While the animals suffer, the water crisis has continued to deteriorate in many towns around the country. The Herald reported that some suburbs in Harare and its satellite towns will have water cuts of up to 12 hours in every 48 hours. It says local authorities and the Zimbabwe National Water Authority (Zinwa) have agreed to the rotational cuts in order to cope, as demand exceeds the maximum supply of 600 million liters a day. But these are not permanent solutions. An injection of money is what is needed to fix and maintain the infrastructure.

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[In June 2005 I wrote: "With the ongoing government funding problems in that country, the present disease situation can only continue or get worse." It does not give pleasure to be proven correct in such a prediction. Climatic stress reduces the innate resistance of livestock (and humans) quite apart from the malnutrition and starvation that occurs

during droughts. The rainy season should have terminated the earlier epidemic. It hasn't. Obviously, the rural malnutrition will add to the probability, nay certainty, of people eating dead animals. - Mod.MHJ]

ANTHRAX, HUMAN, LIVESTOCK - INDONESIA (SULAWESI)(02)

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A ProMED-mail post <<http://www.promedmail.org>>

ProMED-mail is a program of the International Society for Infectious Diseases  
<<http://www.isid.org>>

[1]

Date: 26 Nov 2005

From: ProMED-mail<[promed@promedmail.org](mailto:promed@promedmail.org)>

Source: AFX News Limited via Forbes.Com [edited]

<<http://www.forbes.com/home/feeds/afx/2005/11/17/afx2342725.html>>

Health officials in the South Sulawesi city of Makassar carried out house-to-house checks for signs of anthrax infections in humans following the deaths of at least 20 animals. 60 officials were deployed to 'inform the population about the disease and what to do to prevent it, and at the same time... detect any cases of human infection,' Makassar's health office head Naisah said.

Naisah told Agence France-Pressé that after the 1st case of animal anthrax infection was confirmed on 11 Nov 2005, local authorities set up a centre to deal with the outbreak at Tamangapa village, with more than 200 people appearing for checks. She said health officials had taken blood samples from 11 people. 4 of them showed superficial symptoms of anthrax and the rest were people with a high susceptibility to the disease because of their work.

Nurlina Saking, from the Makassar animal husbandry office, said more than 20 cows and water buffalos were believed to have died of anthrax although only 4 cases were confirmed.

A ban on the movement of livestock in and out of the area was being enforced, she said, while officials were gearing up for a massive vaccination campaign, with 65 000 doses being prepared for distribution.

Sick animals were being treated with antibiotics, she added.

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[A version of this was published in the Daily Times, Pakistan, 24 Nov 2005,  
<[http://www.dailytimes.com.pk/default.asp?page=2005%5C11%5C21%5Cstory\\_21-11-2005\\_pg6\\_19](http://www.dailytimes.com.pk/default.asp?page=2005%5C11%5C21%5Cstory_21-11-2005_pg6_19)>

According to INDOSIAR, some 50 000 doses of vaccine have been ordered with 15 000 designated specifically for Makasar.

<[http://news.indosiar.com/news\\_read.htm?id=3D46467](http://news.indosiar.com/news_read.htm?id=3D46467)>

Apparently the last case reported in Makasar was some 10 years previous to this outbreak. While various hypotheses have been proposed, it is notable that there are always more cases of anthrax reported at this time. This may not be unrelated to upcoming Muslim Idul Adha festivities, which involves sacrificing animals. So it may just

reflect increased activities in slaughterhouses, including veterinary inspection and surveillance. - Mod.MHJ]

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[2]

Date: 25 Nov 2005

From: ProMED-mail<promed@promedmail.org>

Source: Source: The Jakarta Post (JP) [edited] <<http://www.thejakartapost.com>>

Via: ASEAN-Disease-Surveillance.Net

<[http://www.asean-disease-surveillance.net/ASNNews\\_Detail.asp?ID=3512](http://www.asean-disease-surveillance.net/ASNNews_Detail.asp?ID=3512)>

Amid rising concerns over the spread of anthrax in the region, the Bogor Health and the Bogor Husbandry Agencies will increase monitoring by coordinating with community health centers (Puskesmas) and integrated health service posts (Posyandu), an official of the Bogor Health Agency told The Jakarta Post on Saturday.

"Their roles will be monitoring their respective areas to detect a possible anthrax outbreak," the head of prevention and eradication of infectious diseases and community health of the Health Agency, Eulis Wulantari, said. She said that her office had found an anthrax case in October 2005 from Babakan Madang district and that the person had since recovered.

Fears of anthrax infection in humans have been high following the deaths of at least 20 head of cattle and water buffaloes in Makassar, South Sulawesi, recently. After taking blood samples of people with high exposure to cattle, 4 cases were confirmed.

West Java -- along with other livestock breeding areas such as East Java and East Nusa Tenggara -- has long dealt with anthrax infection in animals, but has never reached epidemic proportions until 2004, when 6 people died in Babakan Madang district, Bogor regency after they consumed goat meat infected with anthrax.

Eulis said that there were at least 9 endemic locations for anthrax in the Bogor regency including the Babakan Madang, Cibinong, Citeurep, Kelapa Nunggal, Tajur Halang, Sukaraja, Jonggol, Sukamulya and Cilengsi districts.

"Human anthrax infection has also occurred in 4 districts, namely Babakan Madang, Cibinong, Sukaraja and Citeurep," Eulis said.

Eulis said that anthrax infection usually happens at the start of the rainy season when grass turns green and anthrax spores thrive and are eaten by livestock.

Separately, the Bogor Husbandry Agency's prevention and eradication of animal diseases head Tinnie Mulyawati said that the Bogor Husbandry and Fisheries Agency has vaccinated some 30 000 livestock in Citaringgul village in Babakan Madang. The agency has also disseminated information about the disease through posters and brochures warning people about the dangers of the disease. "We urge breeders in Bogor to immediately report to us or related institutions if they find symptoms of anthrax in sick livestock," Tinnie said.

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[Why the Indonesian outbreaks traditionally occur at the beginning of the rains is obscure and awaiting clarification. Claims that B. anthracis multiplies in soil are not new

and recently gained support by the finding that the vegetative organism liked to multiply close to grass roots. Unfortunately this laboratory experiment was done in sterile circumstances. Way back in 1944, Minette and Dhanda showed that *B. anthracis* could multiply in soil but only if the soil had been sterilised first; in normal soil it apparently was unable to compete for nutrients and/or was killed by proximity to organisms such as *Streptomyces*. Speculatively, these outbreaks follow upon the forage growth-rush in response to the first rain, and the rain-softened soil is pulled up and eaten by the grazing cow(s) along with any spores in the soil. Animals at this time will be relatively malnourished and thus with poor innate resistance. In a few more weeks of good and abundant grazing the situation will be different. - Mod.MHJ]