

ANTHRAX, HUMAN, LIVESTOCK, WILDLIFE - KENYA (MARAGUA, SAMBURU)

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 Jan 2006

From: Joe Dudley <jdudley@eaicorp.com>

Source: The Standard, 3 Jan 2006 [edited]

<http://www.eastandard.net/hm_news/news_s.php?articleid=34484>

Panic as anthrax kills 2

2 people have died following an anthrax outbreak in Maragua and Samburu districts. A 73-year-old man died on Monday [2 Jan 2006] while undergoing treatment at Murang'a District Hospital, while a 7-year-old boy died in Samburu district. The man was among the 1st victims to test positive for the anthrax virus following an outbreak in Ichagaki, Maragua.

There was panic in Itara, Gikomora, Irembu and Kiriti villages, where the disease was 1st reported. 70 people have so far been treated after screening started at Maragua District Hospital and Itara primary school last Thursday [29 Dec 2005]. Medics in the district have also intensified campaigns to sensitize locals against buying un-inspected meat.

The human infections were reported last week [final week December 2005], after area residents ate meat from weak cows, which later turned out to have been infected with anthrax. Last week, the District Commissioner ordered farmers in the affected villages to take their livestock for vaccination against the disease.

In Samburu, an outbreak was reported in Wamba Division, where the 7-year-old boy died. Several wild and domestic animals are also said to have died from the disease. The disease, which had been raging undetected, now threatens the Grevy zebra, which is an endangered species, with only 2000 in the world. The animals have more stripes than other zebras and are only found in Isiolo, Samburu, and parts of Marsabit.

District Veterinary Officer, Dr. Daniel Thuo, said the outbreak was detected about a week ago [final week December 2005] by American scientists researching in the area. The scientists discovered carcasses of 12 Grevy zebras. "Samples taken to laboratories showed that the animals had died as a result of anthrax. There have been sporadic deaths of both animals and people in the area," he said.

Experts have launched measures to control spread of the disease. They fear more livestock would have been infected if herdsmen had not moved their cattle to higher lands in search of pasture.

[Byline: Boniface Gikandi and Amos Kareithi]

[2]

Date: 4 Jan 2006

From: Joe Dudley <jdudley@eaicorp.com>

Source: Daily Nation [edited]

<http://www.nationmedia.com/dailynation/nmgcontententry.asp?category_id=1&newsid=64582>

Villagers jammed hospitals for tests after one of them died of anthrax. Hundreds of villagers who had eaten the infected meat of at least 9 cows that had died in Itara village over the past month rushed to hospitals in fear on learning of the man's death over the weekend. The 74-year-old man died over the weekend of complications related to anthrax. A woman of Itara Village, Maragua District, survived after eating anthrax-infected beef that left one person dead last week [final week December 2005]. More than 500 people who suspected they had been infected turned up for treatment at the Maragua district hospital.

29 [people] tested positive for anthrax, a highly infectious disease of animals, especially cattle and sheep. [The 1st report has 70 treated after screening, so we are witnessing a significant outbreak. - Mod.MHJ]

2 were admitted to the hospital; one is under observation at Murang'a District Hospital, while the other was transferred to Kenyatta National Hospital, Nairobi for specialized treatment. The male victim at the Murang'a hospital said that he ate the meat on 3 different occasions and that he fell ill after slaughtering one of the animals.

Most of the victims had swollen legs, hands and boils all over their bodies.

Villagers said a local inspector checked meat from all of the 9 cows and said it was safe. He is now being sought for questioning.

The Murang'a medical officers of health, Dr. Lyndon Marani and Dr. Ephantus Maree, said medical and public health personnel had been mobilized to check the disease. And in Nairobi, the Ministry of Livestock and Fisheries Development issued a statement saying emergency vaccination will be carried out on livestock at Iremba, Gikomora and Ichagaki in Maragua district. The ministry is expected to address a press conference on the matter at Kilimo House today [4 Jan 2006].

Joe Dudley <jdudley@eaicorp.com>

[Unfortunately, this is a severely under-reported ongoing enzootic problem in Kenya, with minimal official notifications. This outbreak is but a repeat of a serious outbreak in Murang'a, Nyeri, Thika and Wajir districts in 2001, when contaminated meat was sold in the local markets. In Maragua alone in November 2001, 441 villagers received treatment, with 10 hospitalized; 4 people had been affected in the previous March in Murang'a. But officially, only 15 human cases had occurred. Following the March 2001 outbreak, when some 15 cattle died, 2000 doses of vaccine were sent to Maragua and 2000 to Thika. This

should have been sufficient to have prevented the Maragua cases in November 2001 if properly deployed. The situation is not helped by ongoing inadequate veterinary inspection and butchers bringing un-inspected meat to markets, with or without forged documents. In 2001, there was a major bureaucratic fuss when such meat was sold in Nairobi. Wildlife cases are occasionally reported in various species in the Nairobi National Park, Tsavo Park, and the Nakuru Game Park. These have included buffalo, impala, elephants, zebras, and rhinoceros. In general in East and Southern Africa, it is more usual to see anthrax in browsing wildlife species than in grazing species. - Mod.MHJ]

ANTHRAX, HUMAN, LIVESTOCK, WILDLIFE - KENYA (02)

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, 10 Jan 2006 12:22:42 -0500

From: Joe Dudley <jdudley@eaicorp.com>

Source: AllAfrica.Com [edited]

<<http://allafrica.com/stories/200601090837.html>>

<http://www.eastandard.net/hm_news/news.php?articleid=34724>

The outbreak of anthrax in the country is a threat to the growth of the livestock sub-sector, findings by the Kenya Livestock Marketing Council (KLMC) reveal.

Research conducted by the council disclosed that the prevalence of livestock diseases, especially anthrax, in livestock rearing regions is likely to dent Kenya's hope of capturing the lucrative European Union and Gulf states markets.

Abass Mohammed, the chief executive officer of KLMC, expressed fears that poor sanitary conditions may derail the sector from its growth path at a time when the international market is showing interest for Kenya's beef. "Kenya's access to lucrative international markets has been slowed by disease outbreaks," Mohammed told The Standard on Sunday. "Our relaxed disease surveillance mechanism appears to be our biggest let-down, as the international market needs the assurance that beef coming from Kenya is disease-free."

He said Mauritius, Kenya's largest export market, has begun to show jitters following the recent outbreak of the highly infectious anthrax disease in Maragua, Samburu and Nairobi. During 2005, the industry exported 7000 head of cattle to Mauritius after a 5-year lull, earning the country Sh140 million [USD 1.95 million] in foreign exchange. There has also been renewed interest for Kenya's beef from the Gulf nations, who slapped a ban on Kenya's beef after an outbreak of foot and mouth disease at a Taita Taveta ranch which used to fatten animals destined for the export market.

However, players in the industry warn that growth of the industry is likely to be subdued by the poor veterinary services, which they blame on the minimal support the sector gets from the Government. The sector has been thrown into disarray due to lack of Government support. Countries such as Botswana, which learnt a lot from Kenya, have made great strides, said Mohammed.

Botswana earns more from livestock than what Kenya gets from tea exports yet it holds 1/3 of Kenya's livestock, according to the Institute of Policy Analysis and Research (IPAR). Botswana, adds IPAR, has not reported a single case of anthrax, foot and mouth or rinderpest over the past decade. Animal health service delivery has been cited in the study as the major obstacle in reviving the industry.

In the early 1990s, the [Kenya] Veterinary department bore the brunt of civil service reforms that saw it lose a huge chunk of its workforce, forcing it to operate with a skeleton staff.

Following the collapse of Kenya Meat Commission, which was a major outlet for livestock products, due to institutional and financial problems, livestock farmers have been made to contend with a diminished market. The sub-sector contributes 10 per cent of the national Gross Domestic Product. However, according to Mohammed, less than one per cent of the country's GDP is invested in the sub sector. "The expansive North Eastern province which holds over 40 per cent of the country's livestock has fewer than 10 veterinary doctors," Mohammed said.

[byline: Michael Omondi]

Joseph P Dudley, PhD Chief Scientist, EAI Corporation 4301 North Fairfax Drive Suite 200 Arlington, VA 22203 jdudley@eai.com <joseph.p.dudley@saic.com>

[This was referred to Sebastian Heath, APHIS disaster expert, for his comments.]

[2]

Date: Thu 19 Jan 2006

From: Sebastian Heath <Sebastian.E.Heath@aphis.usda.gov>

This setback for the Kenya Livestock Marketing Council is an illustration that the cost of animal diseases goes beyond the losses incurred by farmers. The costs of an animal disease can affect a country as a whole. It is also an example of how commonly used methods (tallies) for determining the cost of animal disease outbreaks can underestimate the much greater indirect costs resulting from loss of trade. Trade is an important value-added contribution to a country's exports from livestock and livestock production and particularly valuable to low-income countries.

Sebastian E Heath, Vet MB, PhD USDA-APHIS-VS-EP Riverdale, MD 20737

Sebastian.E.Heath@aphis.usda.gov

ANTHRAX, HUMAN, LIVESTOCK, WILDLIFE - KENYA (03)

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: Sat 21 Jan 2006

From: S K Sharif <sksharif@ikenya.com>

The Kenya Wildlife Services (KWS) have confirmed the deaths of 10 Grevy's zebras in Samburu Game Reserve in Kenya due to anthrax. Grevy's zebras are rare, and their deaths have prompted the veterinary officers of KWS to start vaccinating other zebras in the reserve. The Veterinary Department has also started immunizing animals in the surrounding areas to stop domestic animals from being affected.

Dr. S K Sharif Ministry of Health Kenya <sksharif@ikenya.com>

[Our thanks to Dr. Sharif. I must admit to being somewhat puzzled, as the American field team found and sampled the 1st dead Grevy's zebras in the Samburu Game Reserve in mid-December 2005. We posted the 1st Kenya report on 4 Jan 2006. This report of an official Kenya response is dated 21 Jan 2006. I can remember a similar response reaction time when there was an epidemic of Rift Valley Fever some years ago. It too was over the Christmas holidays. - Mod.MHJ]

[2]

Date: 23 Jan 2006

From: Joe Dudley <jdudley@eaicorp.com>

Source: AllAfrica.com, 16 Jan 2006 [edited]

<<http://allafrica.com/stories/200601160296.html>>

<http://www.nationmedia.com/dailynation/nmgcontententry.asp?category_id=25&newsid=65257>

Anthrax outbreak could have been averted

That anthrax has broken out in Maragua and elsewhere with animal and human victims is a tragedy. The media have done very well to sensitize the public on the issue, and hopefully, readers and listeners will learn and act to prevent further prevalence of the disease.

The Kenya Veterinary Association is concerned that the full story has not yet been told, and as such, great lessons are likely to be lost. A study of all media reports reveals that the following questions have not yet been answered:

- * Could the outbreak in animals have been prevented, and if so, why was it not?
- * Could the outbreaks among people have been averted?
- * Who takes responsibility for the tragedy?
- * Is the Maragua case all there is, or is it just the tip of the iceberg?
- * Is there a law to prevent such a tragedy?

The animal outbreak could have been prevented. Indeed, the Department of Veterinary Services jointly with the Kenya Veterinary Association (KVA) carried out a mass

vaccination campaign in the district hardly a month before the outbreak, covering over 17 000 cattle. The vaccine used protects cattle adequately for a period of 6 months to a year.

The turnout of cattle was low, about 40 percent of the target. Many farmers failed to present their animals, thereby precipitating this tragedy. This low turnout was not just in the affected Ichagaki location but also in other highly contaminated areas of Kandara division and parts of neighboring Murang'a district. A large percentage of cattle in these areas are still unprotected and are prone to anthrax.

The spread of anthrax from animals to people is easily preventable when farmers and the general public take certain farm and personal hygiene measures.

Firstly, farmers should seek the advice of registered veterinary surgeons in the event of sickness or death of their animals. Reporting of suspected cases or cadavers of notifiable diseases, including anthrax, to the veterinary officer is a legal requirement that all farmers should abide with. Opening up of any cadaver should be left to the veterinary surgeon, who is the only person qualified to make a diagnosis and give the required advice. The law specifically prohibits opening up of anthrax cadavers by anyone, including the veterinary surgeon. This is intended to prevent environmental contamination with the long-surviving anthrax spores.

Secondly, farmers and other members of the public should only buy and eat meat from licensed butcheries. Such meat must have been slaughtered in licensed abattoirs and inspected by government personnel and must bear a "GK approved" stamp. Eating meat from cadavers or from home-slaughtered animals leads to such tragedies as the Maragua one.

Some farmers do slaughter animals in their terminal stages of disease with the wrong belief that so long as the animal bleeds, "the disease will come out with the blood." The truth is that disease-causing organisms are not just in the blood but are in all other tissues, and in any case, not all blood comes out during slaughter.

Other farmers believe that burying cadavers without severing the head or removing the skin will lead to a bad omen so that surviving animals will not multiply. It is such beliefs that precipitate human infection with anthrax, and they should, therefore, be corrected and farmers properly advised.

The farmers of the affected area take most of the blame for this tragedy. They failed to present their animals for vaccination when called upon to do so. And when animals started getting sick, they failed to report the disease or consult the relevant qualified veterinarians. And then, when animals were terminally ill or had died, they ate them and sold the meat to their neighbors. Had the animals been vaccinated or a qualified vet called for advice, this tragedy would not have happened.

The veterinary profession also takes part of the blame. Reports of a quack meat inspector who had passed the meat as fit for human consumption indicates that the profession was

not in full control. The Kenya Veterinary Board will need to crack the whip and curb illegal veterinary services, meat inspection included. And the veterinary professional fraternity will need to work harder to sensitize farmers on good livestock practices.

The government itself cannot escape blame. Mass vaccinations of animals are compulsory according to the Animal Diseases Act. The veterinary officer has authority to enforce compliance to calls for mass vaccinations. However, over the years, enforcement of this law has become lax such that farmers have forgotten their legal responsibilities.

Vaccination defaulters retain the disease-causing organisms in the environment and lead to outbreaks even in areas where mass vaccination projects have been undertaken, as was the case in Maragua. And when defaulters' animals come down with notifiable disease, quarantine restrictions will have to be imposed in the entire neighborhood, thereby harming the marketing interests of even the compliant farmers.

The government will need to enforce the law on mass vaccinations and this, coupled with more intense public education by the veterinary professionals, will finally succeed in averting anthrax and other diseases once and for all.

[Comments of Dr. Ouko, Kenya Veterinary Association, Central Region Branch]
Joe Dudley <jdudley@eaicorp.com>

[With thanks to Joe for forwarding this report, and through him to Dr. Ouko for his frank comments. - Mod.MHJ]

ANTHRAX, LIVESTOCK - ZIMBABWE (BUHERA & CHIVU)

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

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

Date: Tue, 24 Jan 2006 11:47:46 -0500

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

Source: All Africa, 23 Jan 2006 [edited]

<<http://allafrica.com/stories/200601231548.html>>

The department of veterinary services yesterday said it has managed to contain the anthrax outbreak that killed several cattle 3 weeks ago in some parts of the country.

The department's principal director, Dr Stuart Hargreaves, said the situation was now under control in the affected districts that included Buhera and Chivhu. "We embarked on a massive programme of vaccinating livestock in the affected areas and now this programme has been completed," he said.

The department, Dr Hargreaves said, had enough stocks of anthrax vaccine to deal with any future outbreaks.

The veterinary chief said the department was fully alert as anthrax outbreaks were more likely during the rainy season. He urged farmers to report any suspected cases of anthrax in livestock to their nearest veterinary offices and in the same vein warned the public to desist from eating uninspected meat or slaughtering sick animals. Such animals could have been suffering from anthrax.

Any major climatic change such as severe drought or heavy rainfall leads to an outbreak of the disease, as the anthrax spores would be exposed to livestock.
ProMED-mail <promed@promedmail.org>

[This appears to be a different set of outbreaks from the ongoing problems in Masvingo of previous years (see below). Though Dr Hargreaves sounds optimistic it is clear from his comments that any vaccinations will be reactive and not proactive in areas of known high risk. - Mod.MHJ]

ANTHRAX, HUMAN, LIVESTOCK, WILDLIFE - KENYA (04): SAMBURU

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, 26 Jan 2006 09:20:37 -0500

From: Joe Dudley <jdudley@eaicorp.com>

Source: Kenya Broadcasting Corporation, 25 Jan 2006 [edited]
<<http://www.kbc.co.ke/story.asp?ID=34678>>

9 people, including 5 members of one family, are admitted at the Meru General Hospital after eating meat suspected to be infected with anthrax.

The people started vomiting and complaining of stomach ailments after eating uninspected meat in Ngarendare Village in Timau Division, Meru central District on Friday. Speaking to reporters from their hospital beds, some of the victims said a villager whose cow died as it was calving down gave them the meat.

Those admitted at the Meru General hospital include 5 children aged between one and 10 years who were all rushed to the facility on Sunday, 2 days after feasting on the beef. A man (45 years old), his wife (43), 2 daughters (27 and 20) and another person (20) were admitted to the same hospital, while their son was treated and discharged on Sunday. A grandson was admitted alongside the others.

However, the MOH's Dr Ndegwa Wanjuki said the victims are being treated for food poisoning but the patients have been put on a dose to counter anthrax effects. He described their condition as "serious but stable".

The 45-year-old man revealed that he decided to slaughter the cow to save it from dying after difficulties while giving birth. "The healthy-looking cow was about to die due to calving down complications and I thought it posed no health problems requiring a

veterinarian to inspect the meat", he said. Over 20 villagers are said to have carried home portions of the suspected beef.

In December 2005, the District Public Health Officer Joseph M'Arimi cautioned residents against eating meat that is not inspected.
ProMED-mail <promed@promedmail.org>

[Meru is located in the same region of central Kenya as Samburu Game Reserve, site of the anthrax outbreak in zebras reported in a posting earlier this month (20060123.0223); for a map, see: <<http://africanadrenalin.co.za/cca/kenyabigmap2.jpg>>
Mod.MHJ]

ANTHRAX, HUMAN, LIVESTOCK - ITALY (BOLZANO)

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 27 Jan 2006

From: Antonio Fasanella <a.fasanella@izsfg.it>

We have an anthrax outbreak in North Italy (Bolzano).

The outbreak developed in a non-endemic area. During this outbreak, 6 bovines died. This is an atypical outbreak because, during this period (winter), the animals don't graze because they live in a mountainous area, and during this season, the pastures are snow-covered.

Probably, the origin of the outbreak is the hay (fed to the cows). The farmer produces hay and imports hay from another region.

The farmer wasn't familiar with anthrax, and he slaughtered 2 bovines during the agonic phase. The infected blood was collected in a tank that usually is used to collect manure. The tank is very big, 20 meters x 6 meters x 3 meters. The official veterinary service is using 5 percent formaldehyde for sterilization. (Is this correct?).

The farmer and his wife contracted cutaneous anthrax.

I have received the DNA of the isolated strain and am working on the hay. We will vaccinate the animals in the next week. I will further inform you within the next few days.

Antonio Fasanella <a.fasanella@izsfg.it>

[Many thanks, Antonio. Dr. Fasanella is the Director of The Italian Anthrax Reference Laboratory in Foggia, so we can accept this report as correct and authoritative. Firstly, anthrax is, frankly, very uncommon if not rare outside of Southern Italy, Sicily and

Sardinia. The outbreaks in the north are historically connected to industrial sources, hides, hair mills, etc. It is not impossible for hay to be contaminated. This happens when it rains during hay making, and muddy contaminated soil gets mixed in with the hay. If I were to make a bet, it would be that the farmer unknowingly bought contaminated hay, in which case there may well be outbreaks in other herds that bought hay from the same source. Winter bovine cases are more usually from contaminated dairy concentrate feed containing contaminated bone meals. Genomic characterization of the isolates will go far to indicate the source, as historic northern isolates have been of typical industrial strains, as of Turkey, Pakistan, and India, and very different from the strains in Southern Italy.

Whether 5 percent formaldehyde will work depends on how much is used, obviously, as one normally aims at a final concentration near this value. Contact with organic materials will degrade it fairly quickly. On the other hand, if oxygen is not introduced, sporulation will be minimal (on the top surface where the formaldehyde may come to be anyway), and anaerobic fermentation in the tank contents will deal with the vegetative bacteria in the blood. I imagine that Antonio will be taking samples in his thorough investigation. - Mod.MHJ]

ANTHRAX, INHALATION, HUMAN - USA (PENNSYLVANIA, NEW YORK) EX COTE D'IVOIRE

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: Wed 22 Feb 2006

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

Source: ABC News [edited]

<<http://abclocal.go.com/wabc/story?section=local&id=3931683>>

Mayor Bloomberg: Man exposed to anthrax in isolated incident

Mayor Michael Bloomberg and other city officials are reassuring the public there is no danger after a man of African descent was exposed to anthrax in New York City. The man traveled recently to the west coast of Africa and became ill after his return. A federal law enforcement official told the Associated Press that the anthrax may have been on animal skins he was importing.

Aides to the mayor said only the one man was injured and is recovering in a hospital in Sayre, Pennsylvania. Federal and city officials reportedly traced the exposure to New York City after the man became ill there. Officials stressed that the case is NOT related to any kind of terrorist attack.

Weeks after the 2001 terrorist attacks on the World Trade Center and the Pentagon, the nation was on high alert, as anthrax-laced letters popped up in several places, including

New York City. NBC anchor Tom Brokaw, 2 American senators and the offices of the New York Post were among the targets.

Contracting anthrax from rawhide is said to be a common threat among ranchers. The CDC says that anthrax can be carried by cattle, sheep and horses, and that other animals can be infected. They can get it by breathing in spores from infected soil. In some cases, those spores can live in the dirt for decades.

Animals that are infected are clearly sick within days, with signs like weakness, staggering and trouble breathing. It's often fatal to them within days.

The CDC says that while the disease does not usually spread between animals, dead animals can be a point of infection. Federal rules require that anthrax-infected carcasses be burned or buried in deep pits, since moving them could further contaminate the ground or send the bacteria into the air.

ProMED-mail <promed@promedmail.org>

[From the ongoing news conference, it appears that the individual has inhalation anthrax, confirmed by CDC, but he is doing well in a hospital in Pennsylvania. 4 other individuals apparently exposed to the same untreated animal hides are being evaluated, and the 3 evaluated so far (one is in transit) are well and are receiving antimicrobial prophylaxis. The news conference also stated that the man had visited the Cote d'Ivoire, West Africa, in December 2005. - Mod.LL]

[Mary Marshall, Jerry M. Zuckerman, MD, & ProMED's own web wizard, Jon Nash, also sent in this report from various media sources. - Mod.JW]

[2]

Date: Wed, 22 Feb 2006 16:04:31

From: "Health Alert Network" <healthalert@cdc.gov>

Via: ProMED alumnus Steve Morse <ssm20@columbia.edu>

Subject: CDC Update 00241 - Inhalation Anthrax Case in Pennsylvania [edited]

This is an official CDC Health Update
Distributed via Health Alert Network
February 22, 2006, 15:58 EST (03:58 PM EST)
CDCHAN-00241-06-02-22-UPD-N

Inhalation Anthrax Case in Pennsylvania

On 16 Feb 2006, a 44 year old male presented to a hospital in Pennsylvania with respiratory symptoms including dry cough, shortness of breath and general malaise. Laboratory Response Network (LRN) and Polymerase Chain Reaction (PCR) on 21 Feb 2006 and gamma phage lysis on 22 Feb 2006 from blood culture isolate were positive for *Bacillus anthracis*.

Patient resides in New York City and makes drums from unprocessed domestic and imported (Africa) animal hides (cow and goat). Patient reports frequent travel to Africa (most recent travel 12/4/05 [4 Dec 2005] & 12/21/05 [21 Dec 2005]). Patient reports last work with animal hides on 15 Feb 2006. Process includes cleaning and removal of hair from hides without chemical fixatives. While traveling to Pennsylvania on 16 Feb 2006, the patient collapsed with rigors and was transported and admitted to a small local hospital.

Patient transferred to a tertiary care center on 18 Feb 2006. Patient is reported to be stable on antibiotic therapy in the ICU without mechanical ventilation. No signs of cutaneous or pharyngeal anthrax lesions. Preliminary clinical impression suggests anthrax sepsis secondary to inhalation route of exposure due to spores from contaminated animal hides.

Ongoing investigation by PA and NYC departments of health in coordination with law enforcement includes environmental assessment of patients storage/work facility and home, and identification of individuals who may have had contact with unprocessed hides.

Anthrax causes and transmission

Anthrax is caused by exposure to *B. anthracis*, an encapsulated, aerobic, gram-positive, spore-forming, rod-shaped bacterium. Depending on the route of infection, human anthrax can occur in 3 clinical forms: cutaneous, inhalational, and gastrointestinal. Direct skin contact with contaminated animal products can result in cutaneous anthrax. Inhalation of aerosolized spores, such as through industrial processing of contaminated wool, hair, or hides, can result in inhalational anthrax. Hemorrhagic meningitis can result from hematogenous spread of the organism following any form of the disease.

The incubation period for anthrax is generally less than 2 weeks. However, due to spore dormancy and slow clearance from the lungs, the incubation period for inhalational anthrax may be prolonged. This phenomenon of delayed onset of disease is not recognized to occur with cutaneous or gastrointestinal exposures.

Skin/cutaneous anthrax

Skin or cutaneous anthrax is the most common type of naturally-acquired infection. Infection begins as a pruritic papule or vesicle that enlarges and erodes (1-2 days) leaving a necrotic ulcer with subsequent formation of a central black eschar (Images at <http://www.bt.cdc.gov/Agent/cutaneous.asp>.) The lesion is usually painless with surrounding edema, hyperemia, and regional lymphadenopathy. Patients may have associated fever, malaise and headache. Historically, the case-fatality rate for cutaneous anthrax has been less than 1 percent with antibiotic treatment and 20 percent without antibiotic treatment. There are rare case reports of person-to-person transmission of cutaneous disease.

See <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5042a1.htm#tab2> for specific treatment of cutaneous anthrax.

Inhalational anthrax

Inhalational anthrax is rare but is the most lethal form of the disease. Disease may initially involve a prodrome of fever, chills, nonproductive cough, chest pain, headache, myalgias, and malaise. However, more distinctive clinical hallmarks include hemorrhagic mediastinal lymphadenitis, hemorrhagic pleural effusions, bacteremia and toxemia resulting in severe dyspnea, hypoxia and septic shock. Widened mediastinum is the classic finding on imaging of the chest, but may initially be subtle (Images at <http://www.bt.cdc.gov/Agent/inhalational.asp> and in the appendices).

Case-fatality rates for inhalational anthrax are high, even with appropriate antibiotics, and supportive care. Following the bioterrorist attack in fall [autumn] 2001, the case-fatality rate among patients with inhalational disease was 45 percent (5/11). Person-to person spread of inhalational anthrax has not been documented.

For case definitions, treatment guidelines, laboratory testing procedures, etc, see Anthrax Information for Health Care Providers
<<http://www.bt.cdc.gov/agent/anthrax/anthrax-hcp-factsheet.asp>>

Categories of Health Alert messages:

Health Alert conveys the highest level of importance; warrants immediate action or attention.

Health Advisory provides important information for a specific incident or situation; may not require immediate action.

Health Update provides updated information regarding an incident or situation; unlikely to require immediate action.

##This Message was distributed to State and Local Health Officers, Public Information Officers, Epidemiologists, State Laboratory Directors, Weapons of Mass Destruction Coordinators and HAN Coordinators, as well as Public Health Associations and Clinician organizations## ProMED-mail <promed@promedmail.org>

[I think we can assume that this drum-maker brought a heavily contaminated hide back with him from Africa and while handling it inhaled the bloody dirt embedded in the hair. As he had collapsed before being diagnosed & treated he is extraordinarily lucky, not just fortunate, in surviving. Frankly he should be dead. Survival after symptoms have started can be rare. They had a positive blood culture which indicates that treatment had not been started at the time the blood sample was taken. The 2 hospitals are to be congratulated. It will now be interesting to see what genomic strain is identified. - Mod.MHJ]

[One might speculate that the person who skinned the animal and the seller(s) in Africa may have died undiagnosed. - Mod.JW]

ANTHRAX, INHALATIONAL, HUMAN - USA (PENNSYLVANIA, NEW YORK)
(02)

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: 23 Feb 2006

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

Source: New York Times [various URLs listed below; edited]

New York city man has inhalation anthrax, officials say

<http://www.nytimes.com/2006/02/23/nyregion/23anthrax.html?_r=1&oref=slogin>

A dancer apparently felled by the animal skins on drums

<<http://www.nytimes.com/2006/02/23/nyregion/23vado.html>>

Official try to trace the journey of a disease

<<http://www.nytimes.com/2006/02/23/nyregion/23regulate.html>>

Graphic: Timeline

<http://www.nytimes.com/imagepages/2006/02/23/nyregion/20060223_ANTHRAX_GRAPHIC.html>

[1] Graphic: Timeline

21 Dec 2005: Vado Diomande, a dance performer and drum maker, returns from the Ivory Coast with (4 unprocessed goat) hides.

15 Feb 2006: Mr Diomande last works with the animal hides at his workplace near the foot of the Manhattan Bridge in Brooklyn.

16 Feb: Mr Diomande collapses after a dance performance at the Steadman Theatre in Mansfield, PA. He is taken to Solders & Sailors Memorial Hospital in Wellsboro, PA.

17 Feb: The hospital takes a blood sample to determine if Mr Diomande has an infection.

18 Feb: Mr Diomande is transferred from Solders & Sailors Memorial Hospital to Robert Packer Hospital in Sayre, PA.

20 Feb: The samples of Mr. Diomande's blood begin to show signs of anthrax. A sample is sent to the Pennsylvania Department of Health for further testing.

21 Feb: The Pennsylvania Dept of Health detects anthrax, and a public health investigation begins. Officials notify the New York City Department of Health and

Mental Hygiene, the Centers for Disease Control & Prevention, and the F.B.I. The CDC receives a sample for its own testing.

22 Feb: The CDC confirms the diagnosis of anthrax. New York City officials announce that Mr Diomande has inhalation anthrax. They say they have sealed his workplace in Brooklyn and his apartment building in the West Village. Officials suggest that the case is isolated, and discount terrorism. At least 3 other people are given antibiotics.

[2] Possible prior exposure:

Dr. Melanie A. MacLennan, a friend and personal physician of Mr. Diomande, said she believed that he had been infected with anthrax overseas in the past. In December 2003, she said, he was hospitalized for 6 weeks in the Netherlands with a skin infection so severe that he had to receive several skin grafts on his left thigh. She said he probably contracted the bacteria in Africa. "When he became ill in 2003, in the Netherlands with a serious skin infection, his friends worried whether he would live. He was deathly ill, almost to the point where people didn't think he was going to survive," Ms. Becker said. "He was very, very, very sick. Somehow he came through it, and is back in tiptop form."

[3] Hide handling by Diomande:

In his work as a maker of drums, Mr. Diomande has used both domestic and imported skins, but he and his relatives have told investigators that he worked with the imported skins in the Brooklyn warehouse in the days preceding his trip to Pennsylvania.

He made the drums by "soaking the hide and then stretching and scraping it to remove the hair, which is potentially a scenario where he could aerosolize any spores," said Dr. Lisa Rotz, a medical epidemiologist at the Centers for Disease Control and Prevention in Atlanta. [This is the traditional means of removing hair from a sun-dried hide. - Mod.MHJ] [But] Mr. Diomande told investigators that he uses a razor to strip off the hair, then pours water over it so he can more easily manipulate the skin.

In fact, the [CDC] officials said they could not rule out the possibility that the germs had come from some of the domestic animal skins that Mr. Diomande also worked with in his Brooklyn warehouse. The authorities were just beginning their search and examination of the musician's warehouse and his Manhattan home last night.

Even though Mr. Diomande might have traveled across the city with contaminated hides, officials said that it likely took aggressive handling to release enough anthrax spores to do any damage. The process of making a drum is ideal for such a release.

[4] Hide importation:

Mayor Bloomberg and officials in Pennsylvania said the chain of events leading to Mr. Diomande's illness began on 21 Dec 2005, when he returned from a 2-week trip to Ivory Coast. There, he obtained raw animal hides to bring home with him, the mayor said. A

city official who is close to the investigation and spoke on the condition of anonymity because of the sensitivity of the case said Mr. Diomande arrived at Kennedy International Airport with 4 goat skins and took them in suitcases directly to his studio in Brooklyn. The skins were probably never taken to his Manhattan apartment, the official said. A relative disputed the officials' account. "I think the officials are confused," said a brother-in-law, Alexander Harman, 43, a computer animator in Jersey City. "He is not importing, by hand this quantity of skins. I've always understood that he buys them from local distributors, and I am positive that he does not carry skins through customs himself. They are heavy, and he goes through sometimes 100 in a month. He's only made 2 trips to Africa in the last 14 years."

Mark J. Mershon, the assistant director in charge of the F.B.I. field office in New York City, said there was no indication that the skins were smuggled into the country.

[5] Official Responses:

(a) NYC Building:

Yesterday [22 Feb.] morning, federal authorities concluded definitively that Mr. Diomande had inhalational anthrax. About 5 p.m. yesterday, federal agents, police officers, firefighters and other city workers surrounded Mr. Diomande's apartment building at 31 Downing Street in the West Village of Manhattan and the warehouse at 2 Prince Street, near the foot of the Manhattan Bridge in Brooklyn, where he used animal skins to make drums for his dance troupe and for other musicians. Mr. Diomande's 5th-floor apartment was sealed. Residents on the first 4 floors were allowed to enter the building.

The officials set up a command post near the warehouse, an 8-story building, and police cordoned off the area as workers -- some carrying radiation detectors, others wearing protective suits -- prepared for a floor-to-floor search.

At 8:30 p.m. [22 Feb], Paul J. Browne, a police spokesman, said the tests at both the apartment building and the warehouse were complete and showed no evidence that anthrax had been produced there. Outside Mr. Diomande's apartment building, city health officials distributed fliers saying the residents were not "at risk for anthrax," but federal officials said they were actively investigating whether any of the hides were passed along to others.

The warehouse, identified as Pinnacle Storage on a sign, is mostly used for storage, but parts of several floors have been converted to recording and art studios and other commercial uses over the past year or so, according to occupants.

(b) USDA/APHIS:

Officials with the United States Department of Agriculture said no animals or animal products are allowed into the country from Africa. Customs officials said agents

generally questioned anyone trying to import animal skins and seized any untanned or partially tanned hides.

Among the animals plagued by anthrax are goats, which are prized for their skins. When stretched tight, those skins provide the perfect acoustical top for a drum. And that most pre-modern of instruments is wildly popular in the most modern of cities, sold on street corners from London to New York. It is through this bit of commerce, the authorities now suspect, that the germ was brought to New York in December 2005, lurking in the hairs of a hide that was carried in a suitcase through Kennedy International Airport by an unsuspecting African musician. Now, officials are investigating how that musician, Vado Diomande, was able to transport infected animal carcasses thousands of miles without being detected.

Regulations on the importation of animals or animal byproducts from Africa are clear, said Teresa Howes, a spokeswoman for the United States Department of Agriculture's Animal and Plant Inspection Service. "We restrict the importation of animal product from slaughtered animals, including hides, skins, wool, hair, and bristles from countries where anthrax infections occur," she said, noting that she was based in Colorado and not familiar with the details of Mr. Diomande's case. "African animals and animal byproducts are prohibited entry into this country entirely."

Judging, however, by even a cursory survey of the brisk trade among sidewalk vendors, shop owners and Internet vendors in drums made with African animal skins, it seems to be a difficult ban to enforce.

The agency responsible for regulating the importation of animal skins, along with the Agriculture Department, is Customs and Border Protection, part of the Department of Homeland Security. "If you're trying to come into the country and you have animal skins, we're going to question you about your use of them," said Kelly Klundt, a spokeswoman for Customs and Border Protection. The goal, she said, is to determine whether the goods are illegal and whether they pose any danger. [Note the FBI comment above.]
ProMED-mail <promed@promedmail.org>

[It would seem that Mr. Diomande's good fortune may have resulted from a prior exposure in 2003. The print version has him having a skin transplant to his thigh at some point in the Netherlands in 2003. It is not unusual for physicians without prior experience attending a cutaneous anthrax case to see the grossly inflamed oedematous lesion as worse than it is and resort to surgery. Left to themselves and antibiotics, cutaneous lesions do heal well if slowly. In the weeks to come we will hear much about the official speed or lack of it in responding to this incident.

Haiti has long been recognised as a source of anthrax-contaminated goat hides for drums. We can clearly add West Africa to this list of risky sources. Regardless of what is said, the USDA's major concern regarding importing raw animal products is not anthrax but serious contagious diseases such as foot & mouth. Until the industry went abroad, New England imported enormous volumes of hides, hair, and wool for processing, with

resultant risks to downstream livestock from the contaminated washwater. Since that industry shut down in the 1960s, anthrax has disappeared from the eastern states. Obviously it has re-emerged as a metropolitan niche-risk to humans. - Mod.MHJ]

ANTHRAX, INHALATION - USA (PENNSYLVANIA, NEW YORK) (03)

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 Feb 2006

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

Source: New York Times, 26 Feb 2006 [edited]

<http://www.nytimes.com/2006/02/26/nyregion/26anthrax.html?_r=1&oref=slogin>

City officials await anthrax test results

The New York City man who contracted inhalation anthrax after working with untreated animal hides remained in a serious condition yesterday [25 Feb 2006], as the authorities awaited results of laboratory tests from the Crown Heights, Brooklyn home of one of the man's colleagues. The 44 year old man is believed to have inhaled anthrax spores while working with unprocessed goatskins he brought into the United States from Africa. The man, who used the hides to make traditional African drums, collapsed on 16 Feb 2006 after performing in Mansfield, Pennsylvania.

His apartment in Manhattan and his studio at a warehouse in Brooklyn where he worked with the skins tested positive for anthrax on Friday [24 Feb 2006].

A Dodge van the man is believed to have used to transport the hides also tested positive. A residence in Crown Heights, where his drumming colleague lived, has also been tested, but results are still pending. Officials said untreated hides from the man's studio were taken to the Crown Heights apartment at 1100 Dean Street and processed.

The man's colleague, whose name has not been released, knows him because he would often have his drums fixed by him, said a woman who identified herself as the man's girlfriend. The woman, who did not want her name used, said she was one of 7 people officials have given antibiotics to as a precaution.

At a building on Argyle Road in Ditmas Park West in Brooklyn, the police said they found 50 to 60 animal skins in the garage of another man they believe sold the victim additional hides. The supplier is not the subject of a police investigation and did not appear to have any criminal ties, said Paul J Browne, the Police Department's chief spokesman.

Andrew Tucker, a spokesman for the city's Department of Health and Mental Hygiene, said the agency was investigating areas where the hides were processed. He said no

processing occurred at the Argyle Road location, and no tests for anthrax were done there, since it did not pose a health risk.

The man's health worsened on Friday [24 Feb 2006], when he was downgraded from stable to serious condition at Robert Packer Hospital in Sayre, Pennsylvania. A hospital spokeswoman did not provide details on his condition yesterday [25 Feb 2006], except to say that doctors were working with experts from the Pennsylvania Department of Health and the federal Centers for Disease Control and Prevention on his treatment.

[byline: Manny Fernandez, Kareem Fahim, John Holl, Winnie Huand, Jeremy Smerd]
ProMED-mail <promed@promedmail.org>

[Since I doubt that the man is the only person in New York city bringing/importing goat hides from abroad, including from West Africa, one must wonder whether anyone has considered doing a check on the actual bacteriological status of these sun dried hides, anecdotally for sale in various parts of the city. If nothing else, it would ensure that some graduate students at the various public health schools in the city would get some fresh air and exercise as well as practising their skills at obtaining voluntary compliance from members of the public.

In addition, I hope that multiple cultures were made from the man's establishments and car and checked for heterology of the genetic strains. If they are all the same -- I am told that his infection has been strain typed -- one might presume that the contamination is a one-off, unless of course more than one of his recently acquired hides was infected and assuming that they are still available for rechecking. - Mod.MHJ]

ANTHRAX, INHALATION - USA (PENNSYLVANIA, NEW YORK) (04)

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: 1 Mar 2006

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

Source: Center for Infectious Disease Research & Policy, University of Minnesota, 28 Feb 2006 [edited]

<<http://www.cidrap.umn.edu/cidrap/content/bt/anthrax/news/feb2806anthrax.html>>

Tests back hides as anthrax source in New York case

Laboratory testing in the case of the New York City drum maker who recently contracted anthrax has supported the belief that he inhaled anthrax spores while working with contaminated animal hides, according to federal health officials. The Centers for Disease Control and Prevention (CDC) said on 24 Feb 2006 that tests revealed *Bacillus anthracis* in the workplace, home, and van of the 44 year old man. He fell ill with inhalational anthrax after performing in a concert in Mansfield, PA, on 16 Feb 2006. The test results "are consistent with the hypothesis that the patient's exposure occurred while working on

contaminated hides while making traditional drums," CDC said in a notice sent through its Health Alert Network.

The man, who is the 1st known US anthrax case since 2001, remains in serious condition in a Pennsylvania hospital, according to a New York Times report today [1 Mar 2006]. He was reported to have made drums from goat hides imported from Africa.

The Environmental Protection Agency planned to begin cleaning the man's Greenwich Village apartment and his studio near the Brooklyn waterfront this week, the Times reported yesterday [28 Feb 2006]. The agency intended to clean the apartment hallways and other common areas, plus other residents' apartments on request, the story said.

The Times also reported yesterday [28 Feb 2006] that testing had revealed no anthrax in an apartment in Crown Heights, Brooklyn, where a man worked on unprocessed hides obtained from the drum maker.

The CDC said about 2/3rds of anthrax cases in the United States in recent decades were linked to handling animal hides or hair, but hides nonetheless pose little risk of causing anthrax. Hides "pose a low risk of cutaneous [skin] anthrax, and an extremely low risk of inhalation anthrax," the agency said. However, the industrial handling of large numbers of hides or of hair from many animals has been linked historically with an increased risk. Among 236 anthrax cases reported to CDC from 1955 through 1999, 153 (65 per cent) were tied to industrial handling of hides or hair, the CDC said. But only 9 of the 153 cases (6 per cent) were inhalation anthrax, the most dangerous form.

"No cases of inhalation anthrax in the US have ever been associated with animal hide drums," the agency said. The man's exposure "occurred when he was making and finishing drums made from un-tanned animal hides and was not associated with playing finished drums. His exposure was similar to that experienced during industrial handling of hides."

While CDC does not recommend preventive treatment for people who have had contact with animal-hide drums, drum owners or players should report any unexplained fever or skin lesions to their health care provider, the agency said.

The man's illness worried parents of children attending a New York area school, where he performed about a week before he got sick, according to a report in today's [1 Mar 2006] Journal News in White Plains, NY. At a meeting last night, 4 doctors assured about 50 parents there was virtually no chance that their children would contract anthrax as a result of the man's performance at Hillside School in Hastings-on-Hudson, NY, the newspaper reported.

Ada Huang of the Westchester County Health Department said the drums the man used had been treated with chemicals that would kill anthrax spores. And school superintendent John Russell said public health agencies would not test for anthrax at the school, because there was next to no chance of finding any spores, according to the story.

However, some parents asked whether the rooms where the man performed could be chemically decontaminated, and school board members said they would consider that, the report said.

The story said the man's dance troupe has traveled globally promoting the culture of Ivory Coast through chant, mime, dance, and music.
ProMED-mail <promed@promedmail.org>

[Thanks to the awareness policies of Homeland Security, the public is more than sensitive of possible risks from anthrax but not of the true level of risk, which is modest. Plus the disease is essentially not contagious. Historically, those at greatest risk from contaminated hides were stevedores. When hoisted out of a ship's hold, the hides could slam down onto the dock, and hide dust and sharp particles would go flying. Handling them put them at direct risk of cuts from the sharp dry hides. Over the decades of tourists and others buying Haitian Voodoo dolls and drums, the risk was more a footnote by enthusiastic public health laboratory folk sampling them. In West Africa, Bacillus anthracis has been isolated from a significant proportion of shade-tree slaughtering of sick livestock. So anyone casually buying goat hides from street vendors in West Africa should be aware of the risk they are taking. Properly processed, however, the tanned hides present no risk. - Mod.MHJ]

[2]

Date: 1 Mar 2006

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

Source: New York Times [edited]

<http://www.nytimes.com/2006/03/01/nyregion/01anthrax.html?_r=1&oref=slogin>

Tenants irked as anthrax keeps a Brooklyn warehouse closed

As government workers prepared to decontaminate the apartment of a man who contracted anthrax, tenants of the warehouse where he kept unprocessed animal skins complained yesterday [28 Feb 2006] that the closing of the building had hurt their livelihoods.

An Australian fashion designer, who pays USD 850 a month to rent a 500 square foot studio in the 8 storey building, said that his 5 employees had not been paid in a week and that 2 of them were planning to quit. "It affects the momentum of my business," he said. He also said he had 2000 T-shirts in the studio worth USD 2200 that were supposed to be shipped on Friday.

The anthrax patient, a 44 year old man, remained in serious condition yesterday [28 Feb 2006] at Robert Packer Hospital in Sayre, PA, although doctors there said that he had shown improvement. Officials believe he contracted inhalation anthrax, the 1st naturally occurring case of the disease in the United States since 1976, after working with unprocessed animal skins to make drums.

Last Friday, laboratory tests confirmed the presence of anthrax spores in the man's apartment in Greenwich Village, his work studio in the Brooklyn warehouse and in a Dodge van he is thought to have used to transport the skins. Officials have struggled with how to decontaminate the 2 buildings.

The man's 5th floor apartment remains sealed, but other residents of the building have been allowed to come and go. Starting tomorrow [2 Mar 2006], workers for the federal Environmental Protection Agency will use a bleach solution and a high-efficiency particulate air-filter vacuum to clean the apartment and the building's common areas, including hallways. Several of the man's possessions may have to be destroyed, but his family will be consulted before any such decision is made, said Mary Mears, a regional spokeswoman for the agency. The work is to be completed by Friday.

The fate of the warehouse is less certain. The building is mostly occupied by a self-storage company, but about 30 loft studios on the 3rd and 6th floors have been rented, mostly to artists and musicians.

One of the tenants who runs an online bookstore with his partner out of a 1000-square-foot studio that costs USD 1400 a month in rent, said his business had been crippled. "If the doors aren't open, we can't sell," he said.

A sculptor who pays USD 860 a month to rent a 600-square-foot studio said he had asked government representatives when he could return, to no avail. "I've had one client who wanted to see my work, but he is leaving the country on Tuesday," the sculptor said. "I was told it would be 7 to 10 days before we could go back in. It's an incredible frustration and inconvenience."

Erik T Ekstein, one of 3 owners who hold the lease on the building, said they had hired a contractor to do the cleanup and were awaiting approval by the city's Department of Health and Mental Hygiene and by the Environmental Protection Agency, which will oversee the work. "We definitely feel for our tenants," he said in a telephone interview. "We will do everything in our power to get them back into the building as quickly as possible." He said he hoped the plans would be approved by tomorrow [2 Mar 2006]. The environmental agency has scheduled a meeting with the tenants tomorrow night.

[byline: Sewell Chan and Colin Moynihan]
ProMED-mail <promed@promedmail.org>

[The difference between this situation and 2001 is that the latter materiel was virtually pure spores, most individual spores, some in very small 5 micron clumps. Contaminated material found in hides and wool and hair is relatively large chunks of dirt and grease with some embedded spores; very few are small enough to be aerosolizable, which is why inhalational anthrax is unusual, even in Bradford in the 19th century. (Occupational inhalational anthrax was known in the UK as Bradford disease.) So the contamination in the 2 buildings will be qualitatively different from that involved in the 2001 events, even though there were patently enough small particles to infect the man and thus to add to the contamination in his apartment, studio, and vehicle. - Mod.MHJ]

ANTHRAX, BOVINE - INDIA (GUJARAT)

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: 4 Mar 2006

From: Mary Marshall <tropical.forestry@btinternet.com>

Source: WEBIndia1234.com [edited]

<<http://news.webindia123.com/news/showdetails.asp?id=267598&cat=Health>>

Even as the Bhopal-based High Security Diseases Laboratory confirmed the death of one cow due to anthrax at Dedakiyali village in Mendarda [in Gujarat], at least 13 more cows are suspected to have died of the deadly disease in the village during the last 3 months. District officials reacted only after the viscera of the cow that died about 10 days ago was confirmed positive by the Bhopal laboratory, villagers told UNI today.

At least 13 more cattle are suspected to have died of the disease with symptoms similar to anthrax in the last 3 months.

Meanwhile, ... the first lot of anthrax vaccine had arrived from Bangalore ... and 175 cattle were vaccinated today. There are about 540 cattle in the village and [those] remaining would be vaccinated tomorrow.

Earlier reports had said the one confirmed death due to anthrax and 10 other suspected cases had prompted the district administration to declare the area as anthrax-hit and to ask the people to help officials in combat operations.

ProMED-mail <promed@promedmail.org>

[Anthrax is not frequent in western India but not unknown. As you can see from our past postings -- refs. below -- it is most common in the south and through the eastern states. One can only hope that the formal declaration of anthrax will result in herd re-vaccinations during the next 2-3 years. With a possible 14 cases and official reaction only with the last, one can assume that there has been a probable significant environmental contamination. Repeat vaccinations will prevent new cases in the next few years: a cheap way to control what can be a very expensive disease to the livestock owner.

In November 2005 we had a report -- see ref. below -- of undiagnosed deaths in a Gujarat village involving 171 cattle, 3 camels, 4 buffaloes, and an undisclosed number of 'stray' dogs after eating the dead cattle. We never received clarification on the cause of that outbreak. - Mod.MHJ]

ANTHRAX, HUMAN - GHANA (UPPER EAST)

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, 6 Mar 2006
From: ProMED-mail<promed@promedmail.org>
Source: Ghana Web [edited]
<<http://www.ghanaweb.com/GhanaHomePage/regional/artikel.php?ID=100390>>

4 people died during the last 2 weeks of February 2006 as a result of an anthrax outbreak in the Garu Tempene District of the Upper East region.

The district assembly has therefore provided 5700 doses of anthrax vaccines free of charge to help remedy the situation. So far, only 2270 animals have been vaccinated due to the refusal of most farmers. Mr. Emmanuel Sin-Nyet Asigri, the Garu-Tempene District Chief Executive, (DCE), announced these at a durbar of chief opinion and religious leaders at Garu on Thursday. The aim of the durbar was to explain government policies to them and to solicit their views on how best to move the district forward as a united team. [the term durbar is derived from a Hindi word for a formal reception and audience held by a ruler. - CopyEd.PG]

Mr. Asigri expressed displeasure about the farmers' refusal to vaccinate their animals adding, " you are not endangering your lives only, but the whole of the district ". He appealed to them to reconsider their stance since there were no ill motive against them as been rumoured. He also appealed to the people to desist from feeding on dead or sick animals, which might be infected with the disease.
ProMED-mail <promed@promedmail.org>

[Ghana is severely afflicted with anthrax in all livestock species, especially in the Northern Region, but also Upper East, Eastern, and parts of Volta and Central Regions. The number of humans affected is always a worry, though the numbers have declined over the past 6 years. Why the farmers in Garu Tempene are reluctant to vaccinate is unclear, but it might parallel the similar problems over human vaccination in Nigeria. The Ghanaian veterinary service is one of the best in West Africa. Garu is in the northeast corner of Ghana. - Mod.MHJ]

CDC MMWR Weekly
March 17, 2006 / 55(10);280-282

Inhalation Anthrax Associated with Dried Animal Hides --- Pennsylvania and New York City, 2006

On February 21, 2006, the Pennsylvania Department of Health (PDOH) reported to CDC and the New York City (NYC) Department of Health and Mental Hygiene (DOHMH) a case of inhalation anthrax in a man who resided in New York City. This report summarizes the joint epidemiologic and environmental investigation conducted by local,

state, and federal public health, animal health, and law enforcement authorities in Pennsylvania and NYC to determine the source of exposure and identify other persons who were potentially at risk.

On February 16, the patient had traveled from NYC to northern Pennsylvania for a performance with his dance troupe. He collapsed later that evening with rigors and was admitted to a local hospital, where he reported a 3-day history of shortness of breath, dry cough, and malaise. A chest radiograph revealed bilateral infiltrates and pleural effusions.

On February 17, the patient was transferred to a tertiary care center because of worsening respiratory status. All four blood culture bottles grew gram-positive rods. Isolates were sent to the PDOH laboratory and confirmed on February 21 as *Bacillus anthracis* by polymerase chain reaction and susceptibility to lysis by gamma phage. On February 22, CDC identified the isolate as *B. anthracis* genotype 1 by multiple-locus variable-number tandem repeat analysis (1). Isolates were susceptible to all antimicrobials tested. Preliminary anti-protective antigen (PA) antibody testing by enzyme-linked immunosorbent assay was below the lower limit of quantification of the assay (2), consistent with early infection. Anti-PA IgG was detectable in the patient's plasma on February 22 and reached a four-fold elevation above the assay reactivity threshold by February 23, thus confirming seroconversion. As of March 14, the patient remained hospitalized in Pennsylvania.

The joint epidemiologic and environmental investigation sought to 1) determine the source of exposure, 2) identify other persons who were exposed and required postexposure prophylaxis, 3) enhance surveillance for additional cases through outreach to the medical community, and 4) provide frequent updates as soon as available and consistent messages regarding risk to the public.

Interviews were conducted with the patient, his family, and his colleagues. The patient made traditional African drums by using hard-dried animal hides (e.g., air-dried until brittle enough to crack) obtained in NYC from importers who primarily sold African goat and cow hides. Making the drums involved soaking hides for 1 hour in water and then scraping hair from the hides with a razor, which reportedly generated a large amount of aerosolized dust in the patient's workspace as the hides dried. The man did not wear any personal protective equipment (e.g., mask or gloves) while working. After working on the hides, he usually returned home to his apartment and immediately removed his clothing and showered.

On December 20, 2005, after a 3-week trip to Côte d'Ivoire, the patient returned to NYC with four hard-dried goat hides wrapped in a plastic bag. He transported them in his van to his storage facility workspace, a windowless unit (12 ft x 10 ft x 30 ft) with no operating air conditioning or window ventilation. The man did not take the hides to his home. He worked on the last of these hides on February 12, 2006, and cleaned the workspace on February 15.

To confirm the hypothesis that the primary source of exposure to aerosolized *B. anthracis* spores occurred in the workspace and to determine whether the patient's home and van were contaminated, a targeted environmental evaluation was conducted by CDC and NYCDOHMH. Surface wet swab, wet wipe, and vacuum samples were obtained at locations selected to maximize the possibility of detecting *B. anthracis* spores in the patient's residence, van, and workspace. Samples were sent to NYCDOHMH and CDC laboratories, both of which confirmed the presence of *B. anthracis* by culture and polymerase chain reaction; samples sent to CDC were identified as genotype 1 by multiple-locus variable-number tandem repeat analysis. All samples from the workspace were positive for *B. anthracis*, including those from an inactive air conditioning vent 12 feet above the floor. Consistent with secondary contamination, some samples from the patient's apartment (e.g., shoes and entryway) and van (e.g., floorboard) tested positive for *B. anthracis*; others were negative (e.g., most surfaces above ground level). Environmental and epidemiologic findings suggested that the patient's primary exposure to aerosolized *B. anthracis* spores resulted from scraping a contaminated hide in his workspace.

Postexposure prophylaxis for inhalation anthrax was recommended for four persons who had been present in the patient's workspace during procedures that generated aerosols from the animal hides and hair (e.g., mechanical hide manipulation with a razor or sweeping/vacuuming of hairs). As of March 14, interviews and enhanced surveillance had not identified additional cases of suspected or confirmed anthrax. NYCDOHMH provided regular updates on the status of the investigation and informed the public that other persons in the patient's apartment building or the storage facility where the patient's workspace was located had no risk of contracting inhalation anthrax.

Reported by: J Walsh, MD, Robert Packer Hospital, Sayre; G Fraser, E Hunt, B Husband, K Nalluswami, MD, K Pollard, S Reynolds, V Urdaneta, MD, A Weltman MD, Pennsylvania Dept of Health. C Aston, PhD, S Balter, MD, S Beatrice, PhD, G Beaudry, PhD, D Berg, MD, N Clark, MA, T Frieden, MD, A Karpati, MD, M Layton, MD, L Lee, MS, J Leighton, PhD, L Moskin, MD, S Mullin, M Phillips, MD, A Paykin, PhD, J Prud'homme, S Slavinski, DVM, A Tucker, I Weisfuse, MD, D Weiss, MD, G Wolsk, LMSW, New York City Dept of Health and Mental Hygiene. C Bacon, DVM, E Glasgow, T Gomez, DVM, W Swartz, Animal and Plant Health Inspection Svc, US Dept of Agriculture. D Baden, MD, T Clark, MD, LA Dauphin, PhD, P Diaz, MD, CA Dykewicz, MD, A Fleischauer, PhD, M Frank, MPH, JE Gee, PhD, A Hoffmaster, PhD, H Kim, PharmD, C Marston, R Meyer, PhD, J McQuiston, DVM, B Newton, MS, S Papagiotas, MPH, N Pesik, MD, T Piester, C Quinn, PhD, S Reagan, MPH, L Rotz, MD, P Rosenberg, MA, N Rosenstein, MD, S Shadomy, DVM, V Semanova, PhD, T Treadwell, DVM, P Wilkins, PhD, J Winchell, PhD, National Center for Infectious Diseases; G Burr, C Dowell, MS, J Hornsby-Myers, MS, M Kiefer, MS, B King, MPH, National Institute for Occupational Safety and Health; TQ Nguyen, PhD, N Arboleda, MD, B Tsoi, MD, EIS officers, CDC.

Editorial Note:

This report describes the first case of naturally acquired inhalation anthrax in the United States since 1976 (3). Coordinated epidemiologic and environmental investigations and laboratory analyses indicated that the likely source of infection for this patient was exposure to *B. anthracis* spore--containing aerosols produced by mechanical scraping of a contaminated animal hide in a nonventilated workspace.

B. anthracis spores are present in soil in much of the world, causing infection in herbivorous mammals (e.g., cattle, sheep, goats, or antelope) when they ingest spores from soil. Anthrax can occur in humans exposed to infected animals or tissues such as hides or fur. Anthrax in humans takes one of three forms: cutaneous, gastrointestinal, or inhalation.

Industrial processing of animal hair or hides accounted for 153 (65%) of 236 anthrax cases reported to CDC during 1955--1999 (CDC, unpublished data, 2001). Commercial products made from animal hair or hides accounted for an additional five (2%) cases. The majority of these 158 cases were cutaneous anthrax; only 10 (6%) cases were inhalation anthrax. Improvements in industrial hygiene and introduction of practices such as improved ventilation, decreased use of imported animal materials, and vaccination of at-risk workers helped limit the incidence of industrial inhalation anthrax (4,5). In contrast, anthrax associated with the handling of individual animal hides is rare (4). One case of cutaneous anthrax reported in the United States was associated with a goat hide drum purchased in Haiti (6,7). No reported cases of inhalation anthrax in the United States have been associated with finished animal hide drums.

The U.S. Department of Agriculture regulates the importation of animal products, including animal hides,* although these regulations are not specific to, nor are, in general, the hide import disinfection procedures evaluated for, *B. anthracis*. The safest way to eliminate risk for inhalation anthrax from animal hides or hair is to work only with hides that have been tanned or otherwise treated to render *B. anthracis* spores nonviable. Air drying does not destroy *B. anthracis* spores. If hard-dried hides are used, certain precautions can minimize but not necessarily eliminate exposures to *B. anthracis*, including 1) regularly washing hands thoroughly with soap and warm water, 2) wearing durable protective gloves and a designated pair of shoes in the workspace, and 3) working in a well-ventilated workspace. Spores on hides and tools can be inactivated by heating them to an internal temperature of 158°F (70°C) or by placing them in boiling water for >30 minutes (8). Clothes worn during work should be removed before leaving the workspace and laundered. The workspace should be cleaned using a high-efficiency particulate air vacuum. Workers should avoid vigorously shaking or beating hides, dry sweeping, using compressed air, and working in areas where other persons might be present. CDC does not routinely recommend prophylaxis for persons who have had contact with animal hide drums or animal hides. Drum makers, drum owners, or drummers should report new skin lesions or serious respiratory illnesses to their health-care providers and describe any contact with animal hide drums or animal hides.

A priority for local, state, and federal agencies involved in this investigation was providing updates on the investigation as soon as available and frequent outreach to the

public and medical community and to persons who resided in the patient's apartment building or worked at the storage facility. Risk communication emphasized the patient's natural exposure, the rarity of inhalation anthrax, and that exposure risk was limited to persons in the patient's workspace during aerosol-generating procedures. Risk messages also highlighted the absence of any documented risk for inhalation anthrax from environmental contamination of the patient's apartment and workspace, playing or owning African drums, or attending African dance performances.

After the initial diagnosis of inhalation anthrax was made, the rapid epidemiologic response and environmental investigations by public health, animal health, and law enforcement authorities contributed to a prompt understanding of the patient's exposure and possible risk to others. The coordinated responses were critical to minimizing risk for exposure and infection and alleviating concern among the public.

Acknowledgments

The findings in this report are based, in part, on contributions by Soldiers and Sailors Memorial Hospital, Wellsboro, Pennsylvania; NYC Police Dept; NYC Office of Emergency Management; and NYC Dept of Environmental Protection; Customs and Border Protection; Federal Bureau of Investigation; US Dept of Homeland Security; US Environmental Protection Agency; and US Dept of Agriculture.

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ANTHRAX, BOVINE - INDIA (MADHYA PRADESH)

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, 7 Apr 2006 12:42:54 +0100

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

Source: NewKerala.com, India [edited]

<<http://www.newkerala.com/news2.php?action=fullnews&id=38800>>

Around 50 head of cattle are feared to have died from anthrax since December 2005 in Kartaj village, 8 km from Narsinghpur, official sources said today. "Tests on cattle samples sent to the disease investigation laboratory at Jabalpur have confirmed anthrax," Dr P K Sharma, posted at the government veterinary hospital, said.

After the 1st death due to suspected anthrax in December 2005, cattle in the area were vaccinated, and a major drive was launched on 28 Feb 2006, he said, adding that the number of deaths continued to rise, with cattle showing typical symptoms of anthrax.

Around 50 head of cattle, including cows, bulls and calves, have died, department sources said, adding that soon after the test report was received from Jabalpur, the cattle were again vaccinated and fresh tissue samples sent to Bhopal for further tests.

ProMED-mail <promed@promedmail.org>

[Normally all livestock deaths should stop within 8-9 days of effective vaccination. Continuing deaths suggest that either the vaccine is useless or that the owners have been treating with antibiotics and thus killing the live vaccine organisms before they can provide any benefit. Such a scenario would also suggest that the local strain of B. anthracis may now be resistant to the antibiotics being used. It would be appreciated if any ProMED-mail readers in Madhya Pradesh could enlighten us as to why in fact this outbreak has continued. While anthrax is not unknown in Madhya Pradesh, this is the first report in ProMED-mail. - Mod.MHJ.]

ANTHRAX, LIVESTOCK - MONGOLIA

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, 6 Apr 2006 12:08:24 +0100

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

Source: People's Daily Online, China, 6 Apr 2006,

<http://english.people.com.cn/200604/06/eng20060406_256461.html>

The Mongolian Emergency Case Bureau announced that they have recently found 3 persons infected with anthrax in the provinces of Bulgan, Dzavhan and Hovsgol. More than 20 head of livestock died of the disease.

The Mongolian government has closed off these areas and is requiring permits and inspection certificates for all food exported to Ulaanbaatar. Related staff and experts from the National Animal Health Bureau and the Center for Infectious Disease Prevention & Control will meet to identify countermeasures in a week.

ProMED-mail <promed@promedmail.org>

[Comments have been requested from Ulaanbaatar but as yet nothing has arrived. - Mod.MHJ]

ANTHRAX, BOVINE - UNITED KINGDOM (WALES)

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: Pablo Nart <pablo.nart@terra.es>, Dr Keith C Marshall <kcm@cix.co.uk>, and Andrea Jones <agency@hjones-sons.co.uk>

Date: Sun, 23 Apr 2006 18:07:29 +0000

Source: BBC

<http://news.bbc.co.uk/1/hi/wales/4936592.stm>

Two cows die of anthrax on farm

Two cows have died of anthrax on a beef farm in south Wales, it has been confirmed by the assembly government. Tests were carried out on the unnamed farm in Rhondda Cynon Taf after the sudden death of 5 cows in April. The assembly government said all 5 carcasses had been burnt on site to ensure there was no risk to the public.

The anthrax was discovered through routine testing. It is the 1st case in Britain since 2002, when a cow died at a farm in Wrexham.

An assembly government spokeswoman confirmed the farm in the latest cases had once tested positive for anthrax 35 years ago. Anthrax spores can persist in the environment, notably soil, for years. The small farm has been sealed off, with the remaining herd of suckler cows confined to their field while tests continue.

Chief veterinary officer for Wales Dr Christianne Glossop said: "The assembly government and state veterinary service have worked quickly to ensure that there is no threat from anthrax to the public, farmers or any other livestock in Rhondda Cynon Taff. Officials are liaising with the Environment Agency and medical authorities to ensure that all necessary precautions are being taken. Anthrax is very rare - it last occurred in Wales in 2002. We are working to trace the source of the current outbreak."

In a statement, the assembly government said no cattle from the farm had been sent for food for almost 12 months.

The Food Standards Agency has been informed of the outbreak.

The 2002 outbreak in Wrexham was considered to be a sporadic incident on a farm which had 3 anthrax cases in the previous 2 decades. There was also a case in cattle in Clwyd in 1992 and pigs were confirmed with the disease at a farm in Wrexham in 1989.

Alan Morris, a spokesman for the Farmers' Union of Wales, said there was no need for the public to be anxious. He said: "We are satisfied that the contingency plans put in place are working very, very effectively. We are pleased that the disease was identified quickly."

ProMED-mail <promed@promedmail.org>

[A number of comments: Firstly, while the major tenor of the government response is to calm fears, there is a suspicion of a present lack of experience. For example: "The small farm has been sealed off, with the remaining herd of suckler cows confined to their field

while tests continue." Quarantine is routine for a limited period after vaccination, usually 14 to 21 days, but why not mention vaccination and exactly what tests on the suckler cows? Or are they attempting soil sampling? If the latter, I wish them good luck as it is much harder than many realise even with modern techniques. And I do hope that they vaccinated those cows.

Secondly, the pattern of UK anthrax outbreaks in the past 25 years is essentially no longer from contaminated livestock feed --- the Wrexham pigs were a notable exception -- but usually occur following an environmental disturbance, such as trenching, bulldozing, or river dredging, disturbing buried spores at cattle grave sites or occur in relation to mills & tanneries that handled contaminated imported hair & hides. This is a common epidemiologic pattern once an area is considered to be in a true sporadic state epidemiologically.

Thirdly: About 18 months ago, with Peter Durr's help & assistance, I attempted a file review of the past 100 outbreaks in the UK. We got about 25 replies and then it dried up as the regional Defra chiefs refused to recall the files from their archives. Two dozen survey docs do not an hypothesis challenge. If Defra would like me to continue and participate, please contact me.

Lastly: by the nature of this disease it is frankly hard to find a farm that has not had an outbreak in the past 100 years. Thus the observation that it has "recurred" proves nothing. If one could plot where recurrences are truly probable, one might then come up with some soil parameters favouring spore survival, other than the usual high calcium levels combined with high pH and presence of organic matter in the soil.

At one time the UK had some 425 outbreaks each year over the course of decades thanks to contaminated feed. Once this was cleaned up, the rate dropped precipitously to the present situation when years go by without cases. It is now frankly a rare event subject to specific trigger events and as time goes by, it will potentially become even rarer, as spores are not immortal and can also lose their plasmids over time. Otherwise we would be vaccinating cattle annually in Europe & North America. We don't. And we have a situation where livestock veterinarians are ignorant of the disease (not having seen much of it during their careers), which delays recognition. This is further exaggerated in the UK where far too many farmers are now too poor to regularly employ a veterinarian. This Welsh outbreak is a good example as 5 cows had to die before it was diagnosed.

I am mildly puzzled at the timing. April is early for this disease in the UK for it to be due to environmental exposure; theoretically dirty feed is available year round. But without details one can only muse about possible sources. And before anyone comes up with claims of Lazarus spores, my colleague & good friend Peter Turnbull once investigated an outbreak in Dorset, southern England, where some 5-6 steers were affected from a cow buried some 60 plus years previously; Peter located the grave in the pasture and showed the presence of viable spores in the surface soil. - Mod.MHJ]

ANTHRAX, BOVINE - UNITED KINGDOM (WALES)(04)

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

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

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

Date: 29 Apr 2006

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

Source: BBC News [edited]

<<http://news.bbc.co.uk/1/hi/wales/4958184.stm>>

Tests have found no evidence of anthrax in samples of soil, sediment and water at a south Wales farm where 2 cows died of the disease. Anthrax was confirmed on Ynys Gau farm at Gwaelod-y-Garth, near Cardiff, last Sunday after 2 of 6 dead cattle were shown to be infected.

Restrictions remain in places around Ynys Gau farm. But the Welsh Assembly Government said negative results in the latest tests indicated the risk to animals was low. Restrictions on land and livestock may be lifted if there are no more cases. Consideration will be given to the lifting of any restrictions on the livestock and land should no further cases occur. [Usually this is 14-21 days after herd vaccination or last known case. While it is not reported one might presume that the herd has been vaccinated. - Mod.MHJ]

Environment Minister Carwyn Jones had said last week that vets believed a pool was the source of the anthrax on the farm. Officials also said they thought the outbreak was linked to a similar positive anthrax test at the same farm 35 years ago.

Since the latest case was confirmed, the farm has remained sealed off, with footpaths shut and the dead cows' carcasses incinerated. The Health Protection Agency said it had now found no evidence of anthrax in any of the 15 environmental samples it took from locations considered the most likely sources of infection.

In a statement, the assembly government said: "It is impossible to pinpoint the specific location in the risk area that led to the cattle becoming infected. These negative results will be used to advise the farmer on animal health measures, and taking action as appropriate should any further cases occur."

"Monitoring of the remaining stock will continue. Consideration will be given to the lifting of any restrictions on the livestock and land should no further cases occur. Public health concerns have been carefully considered and implications are minimal. The main risk is to the farmer from direct contact with infected animals. He has been given appropriate advice," it went on.

The risk to users of the local river was described as "negligible," while the danger to walkers and their paths after restrictions were lifted would be "minimal." The statement said: "Consequently, once we are certain that the infection is no longer present in the stock, we will consider lifting the restrictions on the rights of way. As illness in humans

is usually caused by direct contact with diseased animals, it is unlikely that any persons using the public rights of way would be exposed to the infection. The possibility of infection through inhalation or ingestion of the spores is even more remote and does not present a risk in these circumstances."

This is the 1st case of anthrax in Britain since a cow died on a farm in Wrexham 4 years ago. ProMED-mail <promed@promedmail.org>

[This rabbiting on about negligible risks to humans is very necessary in this day and age, but to us who know the disease it seems a bit over the top. I once was taken on as a consultant by a lawyer -- I will not say where -- who, without consulting me first privately, started his public questioning on behalf of the new owner of a property, where anthrax broke out soon after the ink was dry on the sale documents, on the basis that merely opening the farm gate put one at lethal risk. He was unhappy to say the least when I told the court that it takes some effort to find the spores in soil and the number of verified cases of human anthrax from direct access to contaminated soil can be counted on the fingers of one hand, clenched.

Russian statistics claim otherwise, but this comes from criminal investigations of outbreaks into the non-reporting of livestock cases. Saying that you were "hoeing a field and developed a cutaneous lesion" is the excuse given when someone had been butchering the dead animal which now is nowhere to be seen and the meat has been sold in the local market and given to neighbours.

Many years ago (1972) I investigated an anthrax outbreak at Compton. It had started with one cow death which was followed about a week later by 3 more dead cows. The index cow died from a contaminated Spanish mineral mix. The secondary cases were from the extravasated blood from the 1st cow's nose; when her carcass was burnt, a small patch of bloody soil, say 12 by 18 inches, was not dung up and burnt with the carcass. The institute had constructed a small barbed wired fence around the burn site, but this bloody soil patch was right at the edge; you could see that her herd mates had found it by the wire being bent upwards and with hair attached at that specific place, presumably attracted by the smell and salt. We monitored it for some 6 months, finding it positive all the while. Unfortunately the director or someone didn't like what we were doing and the fence was removed and thus the landmarks.

Based on his time in Natal, Max Stern told me that in his experience, surface-soil contamination would remain a risk for between 3 months and 3 years, which is why it is a good idea to annually vaccinate such exposed herds for 2-3 years after an outbreak. Experience has confirmed the value of his observation.

While the cause of this Welsh outbreak is a matter of speculation and may never be resolved, it is interesting how other events later in the year can throw a light on a probable cause. - Mod.MHJ]

ANTHRAX, BOVINE - ZIMBABWE (MATABELELAND)

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: Joseph Dudley <jdudley@eaicorp.com>

Date: 04/30/2006 09:57 AM Source: Andnetwork.com

<<http://www.andnetwork.com/index?service=direct/0/Home/recent.fullStory&sp=132180>>

Zimbabwe: Anthrax outbreak hits Matabeleland again

An anthrax outbreak has been reported in Lupane District in Matabeleland North where several cattle have died, Chronicle learnt yesterday.

The Department of Veterinary Services officials told Chronicle at the Zimbabwe International Trade Fair that the disease was reported in some parts of Lupane 3 weeks ago. "Some officers went to Lupane yesterday (Tuesday) for a vaccination campaign programme," said the official.

The Bulawayo Veterinary Officer, Dr Ndabezinhle Mkhwananzi was quick to mention that a vaccination programme was under way in parts of Matabeleland North but declined to confirm the outbreak. "We are taking measures to contain any anthrax outbreak cases through vaccinating the cattle for a minimum of 3 years," he said.

Dr Mkhwananzi said animal diseases were increasing because of heavy rains received this year. He said his office was focusing on educating farmers on better methods of livestock production.

Joseph P. Dudley, Ph.D. Chief Scientist EAI Corporation <www.eaicorp.com>
4301 North Fairfax Drive, Suite 200 Arlington, VA 22203 <jdudley@eaicorp.com>

[Anthrax has unfortunately been a chronic problem in Matabeleland for many years now and this reflects the ongoing deficiencies in the veterinary control programme. Instead of being proactive it now reacts to outbreaks as and when they are discovered, and when there are funds available. - Mod.MHJ]

[A map of Zimbabwe by provinces can be found at
<<http://www.un.org/Depts/Cartographic/map/profile/zimbabwe.pdf>> The town of Lupane can be seen on the map. - Mod.MPP]

ANTHRAX, PORCINE - RUSSIA (KRASNOYARSK)

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 May 2006

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

Source: "Trud" website [in Russian, trans by ProMED-RUS moderator]
<<http://www.trud.ru/trud.php?id=200605230900304>>

An outbreak of anthrax has been registered in the town of Novotroizkiy in Minusin. In one household, a hog has become ill. Later, veterinary scientists diagnosed anthrax. As required, the carcass was burnt and all nearby buildings were disinfected with chlorine solution. Tissue samples have been sent to Minusin district laboratory for further analysis and confirmation [of the anthrax diagnosis].

A few days later, the owner of the hog had felt ill, suffering from fever and rash. The man was urgently hospitalized to the infectious diseases hospital. According to physicians he is currently in serious condition.

Quarantine has been declared in Novotroizkiy. According to the chief veterinary physician Nikolay Molin, the key thing now is to identify the source of infection; otherwise an epidemic is unavoidable. It [could] affect the 2000 people residing in Novotroizkiy and 700 livestock.

ProMED-mail <promed@promedmail.org>

[It is clear that this report is incomplete. If the disease was diagnosed early, e.g., before the index carcass was butchered, an area-wide quarantine would be a stretch. On the other hand if the reported sick pig was the 2nd or 3rd animal affected, the response makes more sense, as the earlier cases might well have been butchered and the meat sold in a local street market or wherever. Also at this time, a formal diagnosis of human cutaneous anthrax has not been released -- the report has symptoms of a fever and "rash" -- but this could otherwise be any of a number of clinical conditions unrelated to anthrax. Note the earlier outbreak in Novosibirsk eventually diagnosed as a *S. aureus* and *S. epidermidis* infection. Krasnoyarsk is in Eastern Russia, east of Novosibirsk and north of western Mongolia. Not normally a hotbed of anthrax. - Mod.MHJ]

ANTHRAX, LIVESTOCK - UKRAINE (ODESSA, KHMELNITSKIY)

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: 3 Jun 2006

From: Natalia Pshenichnaya <crane@aanet.ru>

Source: News agency Podrobnosti.ua [edited]

<<http://www.podrobnosti.ua/accidents/outbreaks/2006/06/02/318529.html>>

Ivan Pustovit, head of veterinary medicine in the Odessa region, cannot understand the reason for the occurrence of anthrax in pigs in the Berezovskiy district of the Odessa region in the Ukraine. He reported it on Fri 2 Jun 2006, noting the deaths of 2 pigs (sows) on the Bogdan Khmelnytsky private farm, and said that the reason the outbreak of

anthrax was puzzling was because the animals had been kept in an enclosed space indoors on a farm. Probably, the disease was brought onto the farm with food or instruments used for the animals' care.

As he noted, this is not the 1st case of anthrax this year [2006]. A similar case was registered in the spring in the Ivanovo district of the same region. The head of the department also noted that, except for 2 dead pigs, similar clinical symptoms have been noted at the same farm in 8 pigs as well. However, all sick animals have been cured.

At this moment, the animals are undergoing treatment. Pustovit added that the carcasses of the 2 dead animals have been utilized [sic!], and disinfection of pens has been carried out. Quarantine has been established on the farm, and the cattle are under the constant control of experts.

ProMED-mail <promed@promedmail.org>

[As the animals were penned, it would be logical to expect that contaminated pig feed was the cause. Multi-site outbreaks (see following reports) can only strengthen such speculation. Of course, proof depends upon the local epidemiologic expertise available and willingness to deal with the results and political fallout. What is meant by "utilizing" the 2 pig carcasses is open to speculation; hopefully, they have been sequestered and burnt. Fortunately, pigs are moderately resistant to this disease. - Mod.MHJ]

[2]

Date: 2 Jun 2006

From: Natalia Pshenichnaya <crane@aanet.ru>

Source: News agency Dni.ru [edited]

<<http://www.dni.ru/news/incidents/2006/6/2/84462.html>>

The focus of anthrax has been found in the village of Kreminna in the Khmelnytskyi region of Ukraine. The Central Administrative Board of the Ministry of Emergency Measures of the Khmelnytskyi area has reported that, during a pre-sale check at the Khmelnytsk market, *Bacillus anthracis* was found. The diagnosis has been laboratory confirmed. How the animals became infected is unknown at this time.

Six persons were exposed from contact with the infected meat. All these people now are under medical supervision and taking preventative treatment. Experts of the sanitary epidemiological station and veterinary services are carrying out anti-epidemic and anti-epizootic measures in the village.

ProMED-mail <promed@promedmail.org>

[Unfortunately, the species of animal affected is not revealed. - Mod.MHJ]

[3]

Date: 2 Jun 2006

From: Natalia Pshenichnaya <crane@aanet.ru>

Source: News agency AmiTass.ru [edited]

<<http://www.ami-tass.ru/article/9581.html>>

The Epizootic Branch of the State Department of Veterinary Medicine in the Ministry of Agrarian Policy has declared that the epizootic situation in the Ukraine is stable and is under veterinary control.

The OIE has recognized the Ukraine as one of the safe countries in the field of veterinary medicine. All pets have been vaccinated, cases of anthrax are rare and similar extraordinary incidents of anthrax are considered to be a "break of immunity in animals." Contamination of cattle with the most dangerous diseases, e.g., foot and mouth disease and CJD, have not been registered during the last 4 years.
ProMED-mail <promed@promedmail.org>

[...so we can all sleep soundly. On the other hand, from 2000 through 2004, there were 26 bovine anthrax outbreaks in the Ukraine with some 141 animals affected, 3 sheep/goat outbreaks reported (in these species, un-reporting is the norm) with 13 deaths, 2 equine outbreaks with 7 deaths, and 5 pig outbreaks and only 5 deaths reported. The give-away is that in the same period, there have been 15 human cases reported. If the disease is under proper control, there should be zero human cases. Though the disease is "sporadic" in the Ukraine, it is equally obvious that the control and vaccination programs are patently inadequate, whatever the official ministerial statements. -
Mod.MHJ]

ANTHRAX, BOVINE - USA (MINNESOTA)

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: 15 Jun 2006

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

Source: MN Board of Animal Health [edited]

<http://www.bah.state.mn.us/diseases/anthrax/anthrax_prgm.htm>

Over the weekend of 10-11 Jun 2006, 5 cows and one bull were found dead in a Kittson County beef herd. A blood sample was collected and sent to the North Dakota State University Veterinary Diagnostic Laboratory in Fargo, North Dakota. On 14 Jun, the Board received confirmation from the lab that the sample was positive for the disease. The herd had not been vaccinated for anthrax.

The bacterium that causes anthrax, *Bacillus anthracis*, is naturally occurring throughout the United States. Anthrax spores in the soil can become active following flooding and subsequent drought, posing a risk to grazing livestock. Though anthrax can infect humans, these sporadic livestock infections pose no known threat to public health.

Grazing animals are most likely to become infected with anthrax in the summer after periods of heavy rain, flooding, or excavation. Cases typically occur in areas where

animals have previously died of anthrax. Anthrax is not spread by animal-to -animal contact.

"Typically, heavy rain and flooding brings spores to the surface where grazing animals ingest them" said Board of Animal Health Senior Veterinarian Dr. Linda Glaser. "That's why it is so important for livestock producers in northwestern Minnesota to vaccinate their livestock for anthrax." Information on vaccinating animals can be obtained by contacting a veterinarian.

Any animal that dies suddenly of unknown causes in northwestern Minnesota should be treated as an anthrax suspect. Producers should contact their veterinarian immediately so blood samples can be submitted for testing. Any remaining animals should be vaccinated and treated for anthrax. Autopsies should not be performed on suspect carcasses as the procedure can result in contamination of surrounding soil. After confirmation of the disease, carcasses must be incinerated onsite. All suspect cases of anthrax must be reported to the Minnesota Board of Animal Health by calling 651-296-6831.

[2]

Date: Thu 15 Jun 2006 11:35 AM

From: Dr. Charlie Stoltenow <cstolten@ndsuxext.nodak.edu>

Some additional anthrax information. I called the clinic for additional information.

Original report was Sunday (11 Jun 2006) with 3 dead animals. A total of 17 animals in the herd. As of today a total of 6 dead. MN state vet's office was there yesterday. Remaining animals vaccinated and treated with penicillin. Will revaccinate in 2 weeks. [It is better to treat with antibiotics first and then 7-10 days later vaccinate. - Mod.MHJ]

This herd had never been vaccinated previously. They were on pasture. Some question as to involvement of water. Report relayed to me that there is standing water on this ground where standing water has not been reported previously.

NDSU will be putting a news release out today. [See above] Main point, "It's not too late to vaccinate!"

Charles L. Stoltenow, D.V.M., Diplomate ACVPM Extension Veterinarian North Dakota State University Department of Animal and Range Sciences Hultz Hall, Room 165 Fargo, ND 58105 <cstolten@ndsuxext.nodak.edu>

[There is an excellent map on the website showing Kittson County in the farthest northwest corner of the state. The nearby counties of Roseau, Polk, and Pennington had outbreaks in 2005. In March 2006 the State Veterinarian posted an advisory to all the ranchers in northwest MN to get their cattle vaccinated.

<<http://www.bah.state.mn.us/index/publications/State%20Vet%20Column/March%2006%20-%20TB%20Testing%20Area.pdf>>

And yet again -- it seems to be fore-ordained -- this Kittson County rancher thought he could get away with not vaccinating and is now paying for it. Whether there had been anthrax on this ranch earlier and the spores had been floated up by the flooding or they have it in the background in deer is hard to tell. Sometimes I suspect the one, other times the other. A brief note from Terry Bolding says that 2 herds southeast of this herd had large losses in the 2001 outbreaks, which makes me suspect undetected background cases in the interim. Single deaths in cattle are rarely investigated -- and in deer, never. - Mod.MHJ]

ANTHRAX, WILDLIFE - SOUTH AFRICA (KRUGER NATIONAL PARK)

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: 15 Jun 2006

From: Joe Dudley <jdudley@eai.com>

Source: iol.co, 12 Jun 2006 [edited]

<http://www.int.iol.co.za/index.php?set_id=1&click_id=13&art_id=qw1150110540884B253>

Wildlife authorities in South Africa's Kruger National Park [KNP] on Monday said an anthrax outbreak that has claimed around 15 animals was being monitored. The outbreak was detected in an area 20km south of the park's far northern Pafuri reserve near South Africa's border with Zimbabwe, KNP spokesperson Raymond Travers said.

Wildlife officials have found kudu, nyala, buffalo and giraffe that died of the disease that occurs naturally, he said. "We started picking up the 1st carcasses about 2-3 weeks ago. Last week we found more and that's when we became very concerned," Travers told South African radio. Park authorities and veterinarians did not believe that the outbreak would spread beyond the area, but were preparing for this eventuality, he said.

In the event of a spread, the area might have to be burned or cattle might have to be vaccinated against the disease, he said. The outbreak has been attributed to the recent high rainfall that followed unusually dry conditions in the park -- conditions regarded as typical for anthrax outbreaks that affect all animals.

The 2-million-hectare KNP is home to a wide range of wildlife species including the big 5 animals -- lion, elephant, buffalo, leopard and rhino. Nearly a million people visit the park every year.

[2]

Date: 15 Jun 2006

From: Joe Dudley <JDUDLEY@EAI.COM>

Source: iafrica.com, 13 Jun 2006 [edited] <<http://iafrica.com/news/sa/837270.htm>>

A task team has been set up to investigate an outbreak of anthrax which left 15 animals dead in the Kruger National Park (KNP) in the past few weeks. "They will decide what to do based on the evidence," KNP spokesperson Raymond Travers said on Monday.

The carcasses of kudu, nyala, buffalo and giraffe found in the extreme northern area of the park had all contained traces of anthrax, SA National Parks (SANParks) said in a statement. Travers said the task team would include the park's head of conservation services, Freek Venter, the head of veterinary services, Dr Markus Hofmeyr, a few other vets and representatives of the Department of Agriculture.

An option open to them would be to burn the block affected to destroy the disease and ensure it did not spread, he said.

There was very little chance of human infection as the area was remote with no tourist facilities nearby. Animals -- mainly browsers -- were infected by eating the anthrax covered leaves of trees or bushes. Sometimes vultures transferred the anthrax to bushes they landed on after flying away from the infected carcasses on which they had fed.

He said there had been quite a few helicopter monitoring flights over the area in the past few weeks. While no more carcasses had yet been found, it was possible that the situation could escalate. "We would like to assure the public that this is a minor outbreak of this disease and, at this stage, there is no major cause for concern as similar outbreaks have occurred in the past without spreading further," said KNP executive director Bandile Mkhize.

SANParks said the far north of the KNP was historically an endemic anthrax area and a few sporadic cases were seen annually. Large outbreaks -- in which anything between 100 and 300 animals died -- had been recorded in the area in 1959/1960, 1970/71 and 1990/91.

Joseph P. Dudley, PhD, Chief Scientist Biosecurity and Bioinformatics EAI Corporation
4301 North Fairfax Drive, Suite 200
Arlington, VA 22203
<jdudley@eai.com>

[The Kruger National Park has one of the best veterinary teams in the world and is an outstandingly run wildlife park. In the past there were regular anthrax outbreaks in the northern part of the park along the Pafuri but following severe floods and suspected major soil erosion associated with the flooding the disease had disappeared from that area. Obviously it has now returned. It would be interesting to know whether intra-park strains had moved north or extra-park Zimbabwean strains had moved south into the Pafuri.

Burning does nothing to the disease but it does move animals away from browse contaminated by vomiting necrophilic flies; blow flies vomit their meals in order to better

digest them when the vomit is eaten, thus leaves acquire spores; burning will remove the spore-covered leaves near to the carcasses that the flies have been feeding upon. This is why anthrax stops with the onset of the rainy season in Africa.

Rain within dry weather and just before outbreaks has been recorded elsewhere. How it works is speculative. The old Pasteur hands insisted that it was because the spores in the soil germinated and multiplied but there is no field proof of that. I suspect it is more likely to be that the rain brings buried spores to the soil surface and the sprouting ground vegetation gets grazed along with the soil (and spores) about the roots. And the necrophilic flies then act as simple case multipliers.

We have been investigating turkey vultures in relation of outbreaks in West Texas and failed to recover any spores from their faeces under roosts. Traditionally vultures only present a risk when after feeding they go and bathe in a cattle trough or shallow pond. Animals later drinking this water may come down with the disease. I have recovered live organisms from vulture vomit though -- don't we epidemiologists have fun? My daughter in Hollywood can silence a room when recounting tales of family dinner conversations. - Mod.MHJ]

ANTHRAX, WILDLIFE - NAMIBIA (CAPRIVI)

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: 13 Jun 2006

From: Joe Dudley <jdudley@eai.com>

Source: African News Dimension, 7 Jun 2006 [edited]

<<http://72.14.209.104/search?q=cache:TFBv5QEJNKsJ:www.andnetwork.com/index%3Fservice%3Ddirect/0/Home/top.fullStory%26sp%3D137964+anthrax+namibia&hl=en&gl=us&ct=clnk&cd=1>>

In the last 2 weeks, 11 wild animals have been reported dead of suspected anthrax in Namibia's eastern Caprivi Strip. The carcasses have been burnt.

Caprivi regional governor Bernard Sibalatani said the suspected outbreak was in the same area where the disease broke in September 2005, leaving more than 50 animals dead. Some people were hospitalised after they got in contact and ate carcasses of animals that had died of the disease.

Some 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 highly contagious disease during 2005.

Namibian veterinary authorities last week started vaccinating cattle in the affected areas. Dr Frans Joubert, the chief veterinarian for animal disease control in the ministry of agriculture, said although so far no death of livestock had been reported, the vaccination had been introduced as a precaution. Joubert said the vaccination was currently concentrated on the affected areas as the vaccine was very expensive. "We are hoping to get more vaccine so that we can extend it to a larger area," he said.

Namibia imports the anthrax vaccine from Botswana and South Africa. The deputy director of parks and wildlife management in the ministry of environment and tourism, Sacky Namugongo, said preliminary tests had shown that the 11 animals that died recently had succumbed from anthrax. However, the blood had been sent to laboratories in Windhoek for further tests, he said.

During 2005, anthrax was believed to have spread into the Caprivi Strip from the neighbouring Chobe National Park in Botswana. This resulted in Namibia's directorate of veterinary services imposing restrictions on the movement of livestock from Botswana. Botswana's department of wildlife and national parks has said "the outbreak of anthrax in the Chobe National Park is now subsiding." To hinder the further spread of the disease, which is also highly lethal to humans, "a small portion" of the Chobe National Park was closed by Botswana authorities.

In October 2005, 56 buffalo and 4 zebras also died of the disease in eastern Caprivi. Approximately 40 cattle have died since the start of the outbreak, and several scavengers such as jackals, hyenas and wolves are also believed to have died.

Veterinary officials have once again appealed to people in the affected areas not to eat the meat of animals that died of anthrax as the disease is highly contagious. [Sic: Contaminated meat is infectious, not contagious. A constant problem in Africa is that villagers close to national parks will graze their animals within the park boundaries -- whatever the authorities command. And virtually without exception the African parks have anthrax in their wildlife on an annual basis. - Mod.MHJ]

Joseph P. Dudley, PhD, Chief Scientist Biosecurity and Bioinformatics EAI Corporation
4301 North Fairfax Drive
Suite 200
Arlington, VA 22203
<jdudley@eai.com>

[Actually the animal vaccine Sterne is one of the world's cheapest, so Joubert's claim that it is expensive merely reflects their badly stretched budget and inability to proactively protect livestock at high risk through routine vaccination. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - INDIA (WEST BENGAL)

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 18 Jun 2006

From: Satadal Das <drsatdas@hotmail.com>

Source: Anandabazar Patrika [edited]

<<http://www.anandabazar.com/>>

17 suspected anthrax cases at Hariharpara in Murshidabad district, West Bengal

In the Kedartala area of Hariharpara in Murshidabad district, there are again reports of anthrax cases.

17 villagers are now suffering from anthrax following consumption of infected beef. One cow of a villager became sick, and instead of treating the diseased cow, the villagers sacrificed it and sold the meat at a cheaper rate, which was purchased by many poor villagers. It was 2 days after intake of that cooked meat that villagers noticed the development of ulcers on their palms and in the corners of their mouths, followed by an onset of fever.

Although a total of 17 persons, including 7 females, have been reported as suffering from anthrax in this way, there are many other villagers who are also suspected to be suffering as a result of handling the infected meat. Health department personnel collected blood samples of the suspected anthrax cases for confirmation.

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

Consultant Microbiologist & Infection Control Officer,

Peerless Hospital & B. K. Roy Research Centre,

76, Satyen Roy Road, Kolkata- 700034, India

<drsatdas@hotmail.com>

[If you wish, you may locate Murshidabad at

<<http://www.fallingrain.com/world/IN/28/Murshidabad.html>>.

Though the account refers to the meat being cooked, these hand and mouth lesions are characteristic of exposure to infected blood and fluids. Oropharyngeal anthrax carries a high risk of mortality, not just from the lesion but also from being unable to breath. Dr. Das has sent us, over the years, a regular accounting of this disease in West Bengal, which is tragic, as this disease in humans is readily prevented if livestock are routinely vaccinated. Obviously, though the disease is patently enzootic in the region, this is not being done. - Mod.MHJ]

ANTHRAX, BOVINE - USA (MINNESOTA) (02)

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 20 Jun 2006

From: Linda Glaser <Linda.glaser@bah.state.mn.us>

We will be posting updates on our BAH website as we receive additional information on anthrax this year 2006. Our website address is:

<http://www.bah.state.mn.us/diseases/anthrax/anthrax_prgm.htm>.

Please do not hesitate to contact us with any questions you may have on these investigations.

MN Anthrax Summary 20 Jun 2006:

Two cattle herds in northwest Minnesota have lost animals to anthrax this year [2006]. Over the weekend of 10-11 Jun 2006, 5 cows and one bull were found dead in a Kittson County beef herd. A blood sample was collected and sent to the North Dakota State University (NDSU) Veterinary Diagnostic Laboratory in Fargo, North Dakota. The clinical diagnosis was anthrax, and on 12 Jun 2006, the remaining cattle on this pasture were given one dose of anthrax vaccine and a therapeutic dose of benzathine penicillin. This herd had not been vaccinated for anthrax previously. On 14 Jun 2006, the Board received confirmation from the lab that the sample was positive for the disease. No additional deaths have been reported in this herd. The herd is quarantined for 30 days.

On 15 Jun 2006, another farm in the same township reported a dead bull on pasture. This beef herd had been vaccinated for anthrax in 2004 but not in 2005 or 2006. Testing at NDSU confirmed anthrax. On 15 Jun 2006, the herd was vaccinated for anthrax and treated with penicillin. The herd was removed from the pasture, quarantined, and carcasses incinerated. On 19 Jun 2006, the farmer reported that 3 additional animals were found dead.

Linda C. Glaser, DVM Minnesota Board of Animal Health

625 North Robert Street St. Paul, MN 55155

<Linda.Glaser@bah.state.mn.us>

<<http://www.bah.state.mn.us>>

[I made some queries of the District Veterinarian, Randy Lindemann, and the 2 herds are some 2-3 miles apart. The 1st herd had never been vaccinated, and the 2nd herd of 200 head had been vaccinated in 2004, possibly in earlier years, but not in 2005 nor 2006. This 2nd farm appears to be a jumble of pastures and woodland. The 1st death was a 5-year-old Angus bull found on Thu 15 Jun 2006 lying next to a man-made watering hole some 200 meters from the farm buildings. The cattle in that pasture were collected up, vaccinated and treated with benzathine penicillin, and moved to a 2nd pasture. Last Sunday night 18 Jun 2006 -- 3 days after the 1st death was noted -- they checked the stock and found 3 more deaths; these included 2 cows each in separate pastures from the dead index bull. These 2 were separated by a fence but in distant sight of each other. The 3rd Sunday "death" was another bull in a wooded pasture with standing water found close to another water hole. From the state of the carcass, he had been dead longer than the 2 cows. Animals sick with anthrax and fevered will seek out shade and water in an attempt to cool themselves. All the deaths on this farm were in the same half-section. The latter

deaths were reported on Mon 19 Jun 2006. As of this morning, Wed 21 Jun 2006, there have been no more deaths.

On the face of it, it would seem that the antibiotic herd treatment with benzathine penicillin failed. Why, I am unsure, but it may be related to the mixed cocktail nature of this product (short and long acting components) and difficulties in delivery. But on further questioning, it was only the animals in the pasture with the index case that received benzathine penicillin. As this family has nearly 200 head scattered throughout different pasture lots, vaccinating them requires considerable effort and time. It is unclear whether they were completely done with one round of vaccination or whether they were still in progress when the latest deaths occurred. So these later 3 may not have received any antibiotics. Also, the spread of cases from 15 to 18 Jun 2006 is within one incubation period, and so the primary case may be elsewhere, and the spread could have been via horseflies. Local chat has a dead horse between the 2 farms. The latter is being investigated.

I have gone over this before, but Midwest experience to the contrary, it is pointless treating possibly incubating stock with antibiotics and simultaneously vaccinating them, as Sterne is a live vaccine and the antibiotics will rapidly negate the vaccine. LA200 followed 7 to 10 days later with the Sterne vaccine is the optimum for cattle. If you are handling the animals twice a day, i.e. a small to medium dairy herd, you can get away with just vaccinating, while for the next week, regularly checking each and every animal for a raised temperature; any animal with a fever should be pulled out of the line and treated with antibiotics immediately and later re-vaccinated. - Mod.MHJ]

ANTHRAX, BISON - CANADA (NORTHWEST TERRITORIES)

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 3 Jul 2006 7:56 PM

From: Brett Elkin<Brett_Elkin@gov.nt.ca>

An outbreak of anthrax has been detected in free-ranging wood bison in the Slave River Lowlands (SRL) in the Northwest Territories, Canada. This area is under jurisdiction of the Government of the Northwest Territories (GNWT), Department of Environment and Natural Resources (ENR). The range of the Slave River Lowland wood bison herd includes a series of prairies located east (population approx. 350) and west (population approx. 400) of the Slave River, and located northeast of Wood Buffalo National Park. Anthrax is endemic in this region, with 6 document outbreaks between 1963 and 2001 killing at least 925 bison.

During a routine anthrax surveillance flight by fixed-wing aircraft on Monday 26 Jun 2006, a single dead bison (mature bull) was found in a northwestern prairie within the SRL. Its location was marked by GPS, and an ENR crew returned to the site by helicopter

that afternoon to sample the carcass for anthrax testing, and sprayed the carcass with formaldehyde (22 liters of 10 percent formalin) to prevent scavenging and do a superficial site decontamination. During an additional surveillance of the area by helicopter, a 2nd mature bull was found dead in the same prairie; given its location and condition, it is believed to have died after the morning surveillance flight. A field diagnostic test was run on both animals (a US Navy field ELISA test), and one animal tested positive for anthrax. No new carcasses were detected during surveillance flight on Tuesday 27 Jun 2006.

An additional case was found on Thu 29 Jun -- a mature male that was found recumbent and displaying terminal thrashing -- it died within an hour. The field ELISA was positive for anthrax. Samples from all 3 carcasses were also collected and shipped to the Canadian Food Inspection Agency's Animal Disease Research Institute in Lethbridge, Alberta for official confirmation. A surveillance flight conducted on Saturday 1 Jul 2006 detected an additional 11 fresh carcasses, bringing the total to date to 14. All but one of the cases are mature males, consistent with the pattern seen in anthrax outbreaks in bison in northern Canada. A subsequent flight on Sunday 2 Jul found no new cases.

The GNWT's Anthrax Emergency Response Plan was immediately implemented in response to the index cases. In addition to media communications and area closures to reduce disease risk to humans, this plan includes surveillance, testing and carcass treatment/disposal (by burning and chemical disinfection). The principal goal of proper and timely carcass disposal is to reduce environmental contamination with anthrax spores, and thereby reduce the severity and/or frequency of future outbreaks.

Given the remote location of the outbreak, logistics are difficult and are all done by helicopter. Field crews are cutting wood, which will be used in combination with coal to burn carcasses (approximately one cord of wood and 1000 pounds [450 kg] of coal per carcass). Carcass incinerations are tentatively scheduled to start within 2 days once fuel is positioned at carcass sites. Aerial surveillance will continue to monitor for additional cases, and we are planning to use an infrared heat detecting system to find carcasses under forest cover that are difficult to pick up visually.

Anthrax outbreaks in bison in northern Canada tend to occur in summers when there is a wet spring followed by hot dry weather, and usually occur in mid July to mid-August. The onset of this outbreak in late June is unusual, and likely related to a very early spring/summer with extended periods of hot weather in June. The last time an outbreak was seen this early in northern Canada was in 1963, when there was a biphasic outbreak - a small (15) outbreak in late June, followed by a large outbreak (242) in mid-July.

Anthrax surveillance flights are also being conducted for the Mackenzie [Sanctuary] bison herd, a separate herd in the NWT west of Great Slave Lake, with no evidence of any cases as of Sunday 2 Jul 2006. The last anthrax outbreak detected in the Mackenzie herd was in 1993, killing 169 bison. [Actually it killed some 182 animals. Burning was very efficient, with all but a very few carcasses burnt where they lay. It is probable that this has successfully prevented further outbreaks. -Mod.MHJ]

Brett Elkins, John Nishi & Troy Ellsworth <Brett_Elkin@gov.nt.ca>

[Talk about good timing! The northern anthrax group had their pre-season meeting on 16 Jun 2006 in Fort Smith and were patently ready to roll. These mature wood bison bulls can weigh some 2500 pounds [1130 kg] so burning them is not simple. 'Hot-shot' forest fire-fighting teams are used to do the burning. Experience over the years has demonstrated that a mixed wood plus coal fuel is the most cost-effective. The infra-red heat detectors, used for forest fire fighting, can locate a bull carcass for some 5-6 days after death even when tucked in under the trees; their great bulk ferments the different tissue series (rumen and intestines to viscera to muscle), in turn keeping it above the ambient temperature. Why males are more commonly affected than females -- a uniform rule until the outbreaks in the Peace River delta when it was 50:50 -- is hard to explain once past the index case. As bull behaviour is centered on their individual wallows and dust-tossing displays, it would follow that a bull will drop dead near its wallow and the wallow inheritor would also gain a patch of contaminated grazing. That others are involved would suggest that tabanid flies yet again play a part in spreading the infection. Obviously we need a keen grad student up there to take comparative fly counts on bulls and cows. It might be a good idea to vaccinate them before they head out. The bison are going into their summer breeding season and the mature bulls are trying to collect bunches of cows. A stressful time for them. It is one of my favourite places in the world up there, and wood bison cows are superb navigators. - Mod.MHJ]

ANTHRAX, HUMAN, OVINE - RUSSIA (ORENBURG)

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, 4 Jul 2006 09:15:32 +0100

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

Source: ITAR-TASS, Moscow, Russia [edited] <<http://www.itar-tass.com/eng/level2.html?NewsID=10590583&PageNum=0>>

Original Russian: <<http://www.trud.ru/trud.php?id=3D200605230900304>>

- ProMED-mail correspondent NP]

A [human] anthrax case has been reported in the settlement of Istemas in Russia's Orenburg region, the press service of the regional department of the Rospotrebnadzor consumer rights watchdog reported on Tuesday. According to the press service, a local villager contacted anthrax from a sheep he had slaughtered. The disease was confirmed by lab tests. The man was hospitalized.

In 2004, 10 people got ill with anthrax in the settlement of Istemas after eating meat from a local marketplace. The meat was from the neighboring town of Orsk.

People can get infected when they take care of ill animals, when cattle are slaughtered or when meat is [butchered]. That is why the situation in Istemas is being monitored by specialists. All animals are subject to vaccination. In this case, the sheep was slaughtered before reaching the age of 3 months, when animals are vaccinated. The rest of the family had no contact with the animal and were not infected.

ProMED-mail <promed@promedmail.org>

[The index case was apparently a sick lamb under 3 months of age. Anthrax in young stock is unusual, so I suspect that there is more to this story than has been reported. That "all animals are subject to vaccination" suggests that they might have a proactive vaccination control programme in place now. One hopes so.

ANTHRAX, BOVINE - CANADA (SASKATCHEWAN)

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

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

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

Date: Wed 5 Jul 2006

From: A-Lan Banks <a-Lan.Banks@thomson.com>

Source: [Saskatoonhomepage.ca](http://www.saskatoonhomepage.ca) - Saskatoon, Saskatchewan, Canada [edited]

<<http://www.saskatoonhomepage.ca/news_view_story_2147496306.php?story_id=2147502325&cat_id=2147483654>http://www.saskatoonhomepage.ca/news_view_story_2147496306.php?story_id=2147502325&cat_id=2147483654>

Anthrax Outbreak in the Melfort Area

The Canadian Food Inspection Agency (CFIA) is investigating an anthrax outbreak in the Melfort area. So far, there are only 2 positive cases in cattle. However, another 50-55 animals have died in the past 4 days. The cases are concentrated on farms within the Rural Municipalities of Kinistino and Willow Creek. The farms are within an area of 10 to 15 km. 35 samples have been sent to the CFIA lab in Lethbridge to determine whether the animals died of anthrax. Results are expected Wednesday or Thursday [5, 6 Jul 2006].

Dr. Greg Douglas is a CFIA Veterinary Program Specialist. He says 600 head have been vaccinated for anthrax to prevent further spread of the disease. Additional vaccine is being shipped from the CFIA depot in Winnipeg. Horses, sheep and goats will also be vaccinated.

Anthrax is carried by spores, which can live in the soil for decades. The disease is not spread from animal to animal. Dr. Douglas says the spores were likely exposed by heavy rain and erosion over the last several weeks. This could be the largest anthrax outbreak in Saskatchewan in recent memory. Last year [2005] in Manitoba, there was a cluster of 20 positive cases.

Dr. Douglas says farmers in the Melfort area should check their herds regularly and immediately report any suspicious deaths to the CFIA or their local veterinarian.

[Byline: Neil Billinger]

ProMED-mail <promed@promedmail.org>

[Over the years, there have been regular but sporadic outbreaks of livestock anthrax in Saskatchewan. Obviously, soil contamination has played a part, but I must admit to a personal suspicion that maybe contaminated bone meal may sometimes have played a part, especially on ranches with no previous history of anthrax, a relative freedom at best, as ranch memories can sometimes be uncertain. Also, a number of ranchers do not get out regularly to check their stock and can find an animal dead and call the local renderer to deal with it without reference to probable cause. All in all, it encourages non-vaccination. With 55 dead, the outbreak has probably been going for a week to 10 days. Reading between the lines, there have been heavy rains lately. Quite apart from eroding old cattle graves, this encourages horse fly numbers, and with some 55 infected animals to feed upon, the local ranchers within 10 miles would be wise to get their stock up and vaccinated pronto. - Mod.MHJ]

ANTHRAX, BOVINE - CANADA (SASKATCHEWAN)(02)

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, 6 Jul 2006 18:05:55 -0400

From: Joe Dudley <jdudley@eaicorp.com>

Source: SaskatoonHomepage.ca [edited]

<http://www.saskatoonhomepage.ca/news_view_story_2147496306.php?story_id=2147502465&cat_id=2147483654>

The Canadian Food Inspection Agency (CFIA) reports 76 suspicious cattle deaths within the past 10 days. Lab tests have confirmed 3 positive cases, with ongoing tests being conducted on other samples.

21 farms have been quarantined in the Rural Municipalities of Willow Creek and Kinistino, located north and west of Melfort. Another farm is also quarantined south of Melfort. CFIA veterinarian Dr. Greg Douglas says the farm is being investigated to see if the environment is responsible. Heavy runoff and erosion can expose anthrax spores to livestock.

5000 animals have been vaccinated in the Melfort area. Supplies of vaccine are being shipped in from other parts of Canada and the United States. Dr. Douglas recommends that cows, horses, sheep and goats within a 5-mile radius of a positive case be vaccinated. There is a booster shot given 3 weeks after the original vaccination. The animal should also have an annual booster shot for the next 3 years.

The CFIA pays for the original vaccination, if it is on a farm with a positive anthrax case. Otherwise, the producer is responsible for the cost. As well, there is a 42-day waiting period between the vaccination and when the animal can be slaughtered.

Meantime, Saskatchewan Agriculture and Food is warning farmers in wet areas of the province to be on the lookout for signs of anthrax in their livestock.

Affected animals are usually found dead without any signs of illness. Typically, the carcass shows rapid decomposition and there is bleeding from body openings. [Actually only a small minority of affected carcasses have blood extravasation, textbooks notwithstanding. - Mod.MHJ] Affected animals in the herd may show weakness, laboured breathing, fever, depression and a lack of co-ordination. [Death is very sudden. - Mod.MHJ] The carcass of any animal suspected of having anthrax should not be moved or disturbed to prevent spreading spores in the environment. Any suspicious livestock deaths should be immediately reported to a veterinarian.

[Byline: Neil Billinger-CJWW News]

Joe Dudley <jdudley@eaicorp.com>

[To prevent recontamination of the soil, carcasses should be incinerated where they fall. If there is going to be a delay, the carcass can be sprayed with 5 percent formaldehyde which will disinfect some of the surface contamination but more importantly it discourages canine scavengers. The Canadian local authorities are wisely advising folk to keep their dogs and cats away from affected carcasses. I would also advise that one extend this advice to small boys of all ages and -- apropos last year's experiences in Africa -- to tourists with cameras. Stupidity can sometimes be boundless. - Mod.MHJ]

[2]

Date: Thu, 6 Jul 2006 18:05:55 -0400

From: Joe Dudley <jdudley@eaicorp.com>

Source: Reuters [edited]

<http://ca.today.reuters.com/news/newsArticle.aspx?type=domesticNews&storyID=2006-07-06T172257Z_01_N06399301_RTRIDST_0_CANADA-FOOD-CANADA-ANTHRAX-COL.XML>

An anthrax outbreak in the Canadian Prairies, caused by spring flooding that exposed soil bacteria, is believed to have killed 73 cattle, the Canadian Food Inspection Agency said on Thursday. The CFIA has confirmed anthrax caused 2 of the deaths, and it said the rest were "suspicious." It has quarantined 22 farms in Saskatchewan, an agricultural province in Western Canada.

"It's south of a forest reserve that had significant flooding in the area and likely, it all comes from that particular weather event that exposed the spores to the suspected population," said Greg Douglas, CFIA veterinarian.

Anthrax is a fatal disease caused by a spore-forming bacterium that has been shed by an infected animal. Exposure from contaminated soil is a natural occurrence in the Prairies

[In fact it is fairly sporadic in the Canadian prairies. - Mod.MHJ] and cattle are the most common victims, although it can be transmitted to humans.

Douglas said the high number of cattle deaths in this outbreak was "significant."

The agency quarantined 21 farms within an 8-kilometer (5-mile) radius, where the bulk of the deaths have occurred since 26 Jun 2006, and one farm 100 km (60 miles) south of the general area following a suspicious death. 5000 animals have since been vaccinated against anthrax and Douglas said the situation appeared to be under control.

The CFIA is tracing the whereabouts of cattle that had been moved from the quarantined farms 30 days before the outbreak, to ensure they did not enter the human food chain, but did not have any food safety concerns on Thursday, Douglas said.

Joseph P. Dudley, Ph.D.

Chief Scientist,

Biosecurity and Bioinformatics

EAI Corporation

Arlington, VA 22203 <jdudley@eai.com>

["... it said the rest were suspicious." Reminds me of the Scottish 'foot-test' where dead animals from whatever cause are nudged with one's foot to check that the gross appearance is the same. Joking apart, it is worth laboratory checking as many as possible to confirm that a 2nd disease has not crept in. Also in this day of rapid PCR tests it is worth fingerprinting as many as you can to check for genetic consistency. If they are all the same you have a probable single or limited number of sources; previous epidemics will have limited the strains in an area. If they are heterogeneous, the probable cause is contaminated bone meal; bones get collected up and processed together and thus bones from widely different outbreaks get mixed together. With a separate case 100 km away from the rest it is worth checking to see how similar the strains are in the affected areas. And as usual many thanks to Joe. - Mod.MHJ]

ANTHRAX, BOVINE - USA (MINNESOTA) (04)

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 7 Jul 2006 8:33 AM

From: Dr. Charlie Stoltenow <cstolten@ndsnext.nodak.edu>

Since the Minnesota Board of Animal Health first reported anthrax deaths at 2 premises in mid-June of 2006, an additional 9 premises have confirmed anthrax as a cause of death in livestock. 24 animals died on these 9 premises for a total of 31 deaths.

7 premises are in Kittson County. One premises in Kittson confirmed anthrax in the death of horses and another confirmed anthrax in the death of farmed buffalo.

65 miles to the east, in Roseau and Lake of the Woods Counties, 2 additional premises have confirmed anthrax mortalities. This is the 1st documented anthrax mortality in livestock in Lake of the Woods County. Minnesota Board of Animal Health and U.S. Department of Agriculture district veterinarians are investigating these mortalities and assisting owners in disposal of carcasses by incineration and burial of ash. None of the affected animals were vaccinated in 2006.

Charles L. Stoltenow, D.V.M., Diplomate ACVPM Extension Veterinarian North Dakota State University Department of Animal and Range Sciences Hultz Hall, Room 165 Fargo, ND 58105 <cstolten@ndsuent.nodak.edu>

[The most recent report, date 7 Jul 2006, can be viewed at the website of the MN Board of Animal Health: <http://www.bah.state.mn.us/diseases/anthrax/anthrax_prgm.htm>

This latter report has a map showing the various MN counties, and specifically where Roseau and Lake of the Woods are. All 3 affected MN counties lie along the Manitoba [Canada] border and so it would not surprise me if these easterly MN outbreaks reflect outbreaks in Manitoba; if not, Manitoba will [conversely] be at risk from these MN outbreaks. Historically anthrax has occurred in those southern Manitoba counties. It has been a problem in these easterly counties (in both Manitoba and in Minnesota) [where stock are] not vaccinated, and these are the herds that get hit -- surprise! surprise! All in all, it looks more and more likely that there is a background epizootic in wildlife that is reflected in these odd farm outbreaks. - Mod.MHJ]

ANTHRAX, BOVINE - CANADA (SASKATCHEWAN) (04)

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: Mon 10 Jul 2006

From: Joe Dudley <dudleyjp@saic.com>

Source: Canada.com, 8 Jul 2006 [edited]

<http://www.canada.com/reginaleaderpost/news/business_agriculture/story.html?id=44aa9dd7-a7ae-487f-b8e4-e07d970b4f19>

Anthrax keeps killing

More animals have succumbed to the anthrax outbreak around Melfort, including farmed bison and farmed white-tail deer, as farmers and the Canadian Food Inspection Agency (CFIA) try to keep the toxin [sic] contained. "We have 27 quarantined premises in the Melfort area, and we've had 106 suspected or questionable deaths," said Dr. Greg Douglas, a veterinarian with the CFIA. Five deaths of anthrax have been confirmed so far, and many more results are pending, Douglas said. He said most of the dead animals

are cattle, but there have been positive anthrax test results for bison and white-tail deer carcasses too.

A crew of about 25 people, including veterinarians, inspectors and support staff, is dealing with the outbreak. Local veterinarians from Melfort are also helping farmers vaccinate their herds. "As of today [8 Jul 2006], we have dispensed 5000 doses of vaccine," said Ross Hawkes, a summer student at a veterinary clinic in Melfort. "We are also in charge of distributing the vaccines to necessary areas. It's in such short supply," he added. Hawkes said most animals in the affected areas are being vaccinated, including cattle, horses, goats and sheep. He said the CFIA bought an emergency supply of vaccinations from the United States. [Presumably from the Colorado Serum Company. - Mod.MHJ]

There have been anthrax outbreaks in Saskatchewan before, Douglas said, but nothing quite like this. Anthrax spores can survive in soil for 50 to 250 years, he explained.

[Byline: Sarah Macdonald]

Joe Dudley <dudleyjp@saic.com>

[2]

Date: 10 Jul 2006

From: Joe Dudley <dudleyjp@saic.com>

Source: Canada.com [edited]

<<http://www.canada.com/saskatoonstarphoenix/news/local/story.html?id=13329b09-22e4-4133-85fb-49dff6ad9dc3>>

Melfort livestock death toll rises

Animals are continuing to die in more and more areas near Melfort, while farmers try desperately to stave off an anthrax outbreak by vaccinating their animals.

But even after vaccinating all the sheep and cattle on his farm, Lloyd Haugerud is still losing animals. Another one of his cows died on Saturday [8 Jul 2006] night, bringing the total of dead animals on his farm up to 9. Outside his window, he can see the dead animals' carcasses burning.

People working with the Canadian Food Inspection Agency have been visiting Haugerud's farm to keep track of the cattle deaths. They have given Haugerud hints that the government may compensate him for his lost cattle. "They just said, 'Keep track of what it's costing you,'" said Haugerud. At this point, he estimates the labor, vaccinations, lost cows and other expenses of this incident have cost him at least CAD 10 000 [USD 8900]. He said he planned to vaccinate his cattle for a 2nd time on Sunday [9 Jul 2006] "to stop them from dying." But he found out vaccine supplies have run out, meaning he will have to wait until Wednesday to give his cattle a booster shot.

As of Friday [7 Jul 2006], there were 27 quarantined premises in the Melfort area and 106 suspicious deaths. Five deaths from anthrax had been confirmed at that time. Dr. Eldon Pederson, a veterinarian in the area, said he couldn't give an official update of those numbers but said the outbreak has not been contained. "We are still continuing to get some new cases," he said Sunday.

Ken Tegstrom didn't start losing animals until after he had vaccinated his 200-strong herd. But 5 days after vaccinating his herd, he's lost 3 bulls, and his farm has been quarantined. Tegstrom said the disease seems to have started popping up outside of the 1st heavily affected area. On Saturday [8 Jul 2006], his farm was the furthest west to have been hit with animal deaths, but by Sunday, another farm to the west of him had lost an animal. "They're still dying fairly regularly," he said. Like Haugerud, Tegstrom is counting the days until the vaccine has its full effect.

Both men have been told that cattle will have stronger immunity 4 to 12 days after being vaccinated.

"I'm on day 5," said Tegstrom. "By day 12, you should be pretty safe."

[Byline: Janani Gopal <jgopal@sp.canwest.com>]

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Bioinformatics EAI Corporation

4301 North Fairfax Drive

Suite 200

Arlington, VA 22203

<dudleyjp@saic.com>

[Deaths from animals incubating disease at the time of vaccination will occur up to 8 days following vaccination. By about day 9, there is usually adequate acquired immunity to stave off infections. And the above experiences are why it is strongly advised that ranchers/farmers 1st treat their stock with a long-acting antibiotic, wait 7-10 days, and then vaccinate. Spores can survive in soil for some 50-60 years but 250 years is a bit of a stretch. The latter is based on an anecdotal report of a South African colleague, but his spore isolation from those old bones has not been confirmed by others. And frankly, if 100 year survivals were common, we would never see the end of this disease, while the reality is that it is getting less and less common, and significant areas of the world are now essentially free of this disease thanks to proper control. The flip side is that as outbreaks become infrequent, ranchers stop vaccinating, and if an outbreak occurs, the neighboring cattle are susceptible. - Mod.MHJ]

ANTHRAX, DEER - USA (TEXAS)

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 10 Jul 2006

From: Martin Hugh-Jones, ProMED-mail Animal Disease Assistant Moderator
<promed@promedmail.org>

Anthrax was reported in a white-tailed one-year-old buck, part of a penned herd that had been found dead in Val Verde county. The diagnosis was confirmed by TVMDL, College Station.

I spoke with the local veterinarian who confirmed this report on a client's herd. In addition, during his visit, an old doe was seen ill, and she died subsequently. One dead wild deer was noted some distance from the affected herd. After a prolonged hot dry period, there had been around 1/2 to one inch of scattered rain about a week before these deer were affected.

This deer herd is 5 miles northeast of Del Rio. This is an area which, until last summer [2005], had rarely seen anthrax.

Last summer [2005], there were a number of severe, localized outbreaks on the western part of the Edwards Plateau. The veterinarian's report of scattered showers a week before would seem to confirm the experience of a veterinarian colleague in southern Texas in an area of sporadic anthrax that when cases occurred, it was in hot dry weather but 7-10 days after a brief shower. It is not unlikely that there have been other affected deer ranches.

Martin Hugh-Jones
ProMED-mail Animal Disease Assistant Moderator
promed@promedmail.org

ANTHRAX, BOVINE - CANADA (SASKATCHEWAN) (05)

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 Jul 2006

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

Source: Saskatoonhomepage.org [edited]

<http://www.saskatoonhomepage.ca/news_view_story_2147496306.php?story_id=2147502708&cat_id=2147483654>

A veterinarian with the Canadian Food Inspection Agency (CFIA) warns we could potentially see cases of anthrax for the rest of the summer in parts of northeast Saskatchewan. Dr. Sandra Stephens can't explain it, but in past instances, there are usually clusters of outbreaks, followed by a lull . . . and then more cases.

There was a bit of a lull over the weekend, with only one new quarantined farm and 7 suspicious animal deaths. The total is now 28 farms and 113 deaths, with 26 producers in the Rural Municipalities of Kinistino and Willow Creek, north and west of Melfort. The

other 2 are in the Rural Municipalities of Rose Valley and Spalding, south and east of Melfort.

There have been media reports of vaccine shortages. Dr. Stephens says the C.F.I.A. maintains a stockpile to use on farms with positive cases. The supply problems have occurred for farmers wanting preventative vaccinations. Private veterinary clinics did not carry a large supply of anthrax vaccine because the disease was relatively rare in the region until the heavy rain last fall and this spring disturbed the bacteria in the soil. The vet clinics have been busy vaccinating thousands of animals and have been using the vaccine as quickly as it comes in. Dr. Stephens says there are no supply shortages on the manufacturing side and shipments are expected by Wednesday.

The vaccine usually takes 7 to 10 days before it provides full protection. A booster shot is required about 3 weeks later.

[Byline: Neil Billinger-CJWW News]

ProMED-mail <promed@promedmail.org>

[Booster shots with the Sterne vaccine for cattle are not necessary unless you started with a mixed treatment of antibiotics and vaccine. In that case the antibiotics will have neutralised the live vaccine. For cattle, one injection of vaccine is sufficient to provide some 9 months coverage. - Mod.MHJ]

ANTHRAX, BISON - CANADA (NORTHWEST TERRITORIES) (02)

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: Tues 11 Jul 2006 1:14 PM

From: Brett Elkin <Brett_Elkin@gov.nt.ca>

Current total is 26 bison --- most are of similar vintage (died about 10-14 days ago), but with one that died about 3 days ago.

All have been treated with formaldehyde, and we are currently in carcass burning mode -- 16 done, and should finish up over the next few days (unless additional cases are found).

We are collecting data for all of the cases, and will put that all together once things slow down (very little time in the office while field ops are ongoing).

Brett Elkins, DVM

Wildlife & Fisheries Division

GNWT Dept of Resources, Wildlife & Economic Development Yellowknife, NT Canada

<Brett_Elkin@gov.nt.ca>

[With many thanks to Brett and John for finding the time. Burning these carcasses is hard work. - Mod.MHJ]

ANTHRAX, BOVINE - CANADA (SASKATCHEWAN) (06)

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: 12 Jul 2006

From: Sylvia MacBean <s.macbean@sasktel.net>

Source: Sasktoon StarPhoenix [edited]

<<http://www.canada.com/saskatoonstarphoenix/news/index.html>>

Sask. anthrax outbreak forces farms under quarantine

Saskatchewan's worst ever anthrax outbreak has led to 113 suspected cases in livestock and 76 confirmed deaths.

At least 28 herds in Saskatchewan are under quarantine after 113 suspicious animal deaths in connection with the worst anthrax outbreak in the province's recorded history. The Canadian Food Inspection Agency (CFIA) is continuing to vaccinate all animals on farms that have tested positive for anthrax located east of Saskatoon from its reserve supply, but some veterinarians in private practice have run out of vaccine.

"This is an area that doesn't typically see anthrax, so veterinarians don't typically have it in stock," said Dr. Sandra Stephens, a Saskatoon-based veterinary program specialist with CFIA, adding there is no shortage of vaccine with the manufacturer, only a challenge of getting it to the area quickly enough.

More than half of the quarantined farms have been retested and confirmed for anthrax at the CFIA's laboratory in Lethbridge, Alta.

Most farms under quarantine raise cattle, but operations with horses, swine, bison and white-tailed deer have also been quarantined, Stephens said. Farmers who have lost animals to anthrax may qualify for an indemnity of CAD 500 [USD 441] a head for cattle and CAD 350 [309] per horse. The indemnity is available to encourage farmers to report anthrax cases and properly dispose of carcasses.

[Byline: Richard Marjan]

Sylvia MacBean

Regina-Leader-Post

<s.macbean@sasktel.net>

[2]

Date: 12 Jul 2006

From: Joe Dudley <jdudley@eaicorp.com>

Source: Globe & Mail [edited]

<<http://www.theglobeandmail.com/servlet/story/RTGAM.20060712.wxanthrax12/BNStory/National/home>>

Farmers struggle to halt anthrax outbreak

Thin ribbons of smoke curling into the northern Saskatchewan sky have become the marker of death for farmers battling to contain an anthrax outbreak that may have lain dormant in the soil since wild bison roamed the land generations ago.

In the 2 weeks since anthrax was discovered in a dead bull in Melfort, 136 animals on 21 properties have died of the disease. The Canadian Food Inspection Agency said there is no way to know the extent of contamination, which emerged for the 1st time around Melfort after spring rains saturated the ground and brought the spores to the surface. But it may be the most widespread anthrax outbreak in Saskatchewan since CFIA started keeping records 25 years ago, said Dr. Sandra Stephens, a Saskatoon-based veterinarian with the agency.

A vaccination campaign is being hamstrung by a lack of vaccine, and farmers are roaming their pastures trying to identify sick animals before the fast-acting anthrax kills them.

Livestock anthrax does not spread between living animals or through the air, but Dr. Stephens said spores could be on any property that was flooded, and could have been there for decades. "This could be a problem in a very wide area. We could potentially see outbreaks through the rest of summer," Ms. Stephens said.

So far, anthrax has killed cattle, horses, bison, sheep, goats and whitetail deer, sometimes in a matter of hours. The CFIA says the outbreak does not pose a significant human health threat. No animals from the quarantined properties were sent to slaughter, and livestock anthrax rarely affects people, an agency bulletin states.

The outbreak is centered on Melfort, a town of about 6000 people 175 km northeast of Saskatoon. Most of the affected premises lie to the northwest toward Prince Albert, which is 75 km away, while 2 properties are toward the town of Wynyard, which lies 130 km to the south. There are about 180 000 head of cattle in the affected area.

Cattle farmer Ken Tegstrom has lost 4 bulls on his 200-head property 35 km northwest of Melfort and now spends his days roaming his pastures to check for early signs of illness. But the increasing summer heat is making that job even more difficult as the animals become docile. "You drive around inspecting your animals, and you expect the worst all the time. You see smoke 2 to 3 miles down the road, and you know your neighbor is burning another animal. It's quite depressing," Mr. Tegstrom said in a phone interview.

Carcasses of infected animals must be disposed of quickly and the contamination contained to prevent other animals from coming into contact with anthrax-laden bodily fluids. Mr. Tegstrom said that so many animals died last week, farmers had no time to

bury or burn them. Instead, the CFIA decontaminated the carcasses by dousing them in formaldehyde and then covered them with tarpaulins for later disposal. "The odor is a bad part and hard to deal with. It's harder to see and more stressful than getting rid of them quickly," he said. Farmers are now banding together to provide wood for the pyres, he said.

The Tegstrom family has worked that property since the 1940s, and Mr. Tegstrom said he had never seen anything like the current situation. "It's very stressful. The whole community is exhausted. Anthrax is going to be something we never forget," he said.

All livestock -- more than 5000 animals -- have been vaccinated in a 10-km radius around the anthrax-positive properties to create a buffer zone, said veterinarian Eldon Pederson, co-owner of the Mohawk Animal Clinic in Melfort. But as more properties test positive, he said vaccine supplies have run out. He has 11 500 doses on order, and a neighboring clinic is waiting for 6000. "We still have people [sic] in that 6-mile zone that are not vaccinated yet," Dr. Pederson said. "There's urgency all right, especially for animals close to the outbreak. Animals at high risk need to be vaccinated again in 2 or 3 weeks after the initial dose."

It takes about 8 days for the vaccine to take effect, during which time further deaths may occur. Because anthrax was not known to be in the area, animals have not been routinely vaccinated against it, but Dr. Pederson said that is likely to change now.

[Byline: Tenille Bonoguore]

[3]

Date: 12 Jul 2006

From: Sandra Stephens <sstephens@inspection.gc.ca>

As of 12 Jul 2006 at 12:00 noon MST, there are 30 premises that have regulatory controls applied to them for the purpose of investigating an outbreak of anthrax in northeastern Saskatchewan. Four Rural Municipalities are involved at this time. A positive diagnosis on samples submitted for diagnostic testing at either a provincial or federal veterinary laboratory has been received for 23 of these premises. Samples from 6 of these premises are still under test, and samples from one premises has tested negative.

137 animals on the 30 premises being investigated have died, including 113 cattle, 3 horses, one pig, 12 bison and 8 White tail deer.

Carcasses have been disposed of by burning or deep burial using methods aimed at minimizing/preventing environmental contamination with anthrax spores.

The Canadian Food Inspection Agency has vaccinated 1449 animals on these 30 premises. Private practitioners in the area have vaccinated approximately 5000 animals in the surrounding area; this surrounding area also experienced flooding and soil saturation this spring [2006].

Sandra Stephens

Veterinary Program Specialist
Animal Health and Production Program Network,
Canadian Food Inspection Agency
247-111 Research Drive, Saskatoon, SK. S7N 3R2
Government of Canada
<<http://www.inspection.gc.ca>>
<ssstephens@inspection.gc.ca>

[Many thanks to Sandra for her comments. I spoke with her this morning, and she provided some background information. This epidemic seems to be in relation to a large swampy area which has drainage ditches. But the recent heavy rains have resulted in extensive flooding, and this is believed to have initiated the outbreaks. Canada Cooperative Wildlife is checking on wildlife deaths in parallel with the veterinary responses; see above for bison and white tailed deer. The affected area is within the northerly border of the Canadian prairie black (chernozem steppe) soils, which are an ideal environment for spore survival. This means that efficient carcass disposal is very important. - Mod.MHJ]

ANTHRAX, LIVESTOCK - TURKEY (HAKKARI)

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: 14 Jul 2006.

From: Alfonso Rodriguez, M.D.<ajrm_msds@yahoo.es>

Source: [Kurdishinfo.com](http://www.kurdishinfo.com), Turkey, 13 Jul 2006 [edited]

<<http://www.kurdishinfo.com/modules.php?name=News&file=article&sid=8323>>

Officials say 5 villages in Hakkari's Yuksekova district have been placed under quarantine in fear of anthrax outbreak after loss of 80 livestock. The District Agriculture Director is warning locals against contracting the disease. The Agricultural Director of Yuksekova district in the Southeast province of Hakkari has ordered a 15-day quarantine on 4 local villages and a hamlet to contain a possible anthrax outbreak and asked villagers to take measures against contracting the disease.

Director Mehmet Bilgin said the quarantine was imposed after reports of loss of 30 small [sheep and goats] and 50 large livestock [cattle] and that it would be in effect for 2 weeks until all of the animals have been vaccinated. Bilgin said the required vaccine had arrived from capital Ankara and that the vaccination had started. The municipality, he added, is burying the dead animals.

The chieftain of the Gurdere villages where [the livestock were] lost, Tahir Duzce, said they had been aware of the spread for 15 days but measures had only been taken in the past week.

ProMED-mail <promed@promedmail.org>

[This problem had certainly existed for more than 15 days, if 4 villages and a hamlet were involved. To find this area, go to:

<<http://www.fallingrain.com/world/TU/0/Yuksekoa.html>><http://www.fallingrain.com/world/TU/0/Yuksekoa.html>>

Turkey regularly reports outbreaks involving large and small ruminants. The disease is very common in Turkey, especially in eastern Turkey. Human cases have been reported for many years and latterly the not atypical numbers are: 1999 (690), 2000 (396), 2001 (532), 2002 (368), 2003 (325). - Mod.MHJ

ANTHRAX, HUMAN, BOVINE - CANADA (SASKATCHEWAN)

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 14 Jul 2006

From: Joe Dudley <jdudley@eaicorp.com>

Source: CBC News [edited]

<<http://www.cbc.ca/canada/saskatchewan/story/2006/07/14/anthrax-man.html>>

Saskatchewan man develops anthrax in quarantine area

A man in Melfort, Saskatchewan has developed skin anthrax in the midst of the largest outbreak of the disease among livestock in the province's history. The man is being treated with antibiotics and is expected to recover fully, according to a news release issued Friday [14 Jul 2006] by the provincial government. Cutaneous or skin anthrax is the most common and least serious form of the disease.

Federal officials who are investigating the suspicious deaths of 149 livestock -- mostly cattle -- in Saskatchewan have quarantined 36 farms as of Friday [14 Jul 2006] because of the anthrax outbreak. Most of the farms under quarantine are in the Melfort area, northeast of Saskatoon, and around Wynyard, north of Regina.

According to the news release, cutaneous anthrax can be contracted when a person has a break in their skin -- through a cut or abrasion -- that comes into direct contact with anthrax spores on a sick or dead animal. A resulting itchy bump appears one to 12 days later. Within 36 hours, the bump turns into a blister and then a skin ulcer with a black center. In most cases, the lesion disappears in about 6 weeks. But in some cases, symptoms can include headaches, muscle aches, fever and vomiting.

Cutaneous anthrax is not a significant public health problem because the disease is usually not transmitted from person to person, Ross Findlater, chief medical officer for the province, said in the news release. "In the case of cutaneous anthrax, there is small theoretical risk of infection from direct contact with the lesions on another person's body

before antibiotics are started," Findlater said. However, he said, it is not of major public health concern because cutaneous anthrax responds to antibiotics very well.

Joseph P. Dudley, Ph.D.

Chief Scientist

EAI Corporation

4301 North Fairfax Drive, Suite 200

Arlington, VA 22203

<joseph.p.dudley@saic.com>

[An earlier CBC report was issued:

<http://www.cbc.ca/cp/health/060714/x071404.html> and had this fellow being treated as an outpatient. According to Dr. Sandra Stephens, this individual did a "postmortem" for a neighbor; the animal, it was later determined, had died from anthrax. There is some justice in this world, as one should never, but never do a necropsy on a suspect anthrax case. Firstly, it results in a high possibility of significant environmental contamination, and certainly sporulation will follow. Secondly, get a blood swab into the nearest laboratory PDQ for them to culture it. Thirdly, if you have the facilities, make and fix a blood smear, stain it with polychrome methylene blue (Loeffler's or M'Fadyean's) stain, and look for capsulated box car gram positive organisms.

Anthrax cutaneous lesions do respond well to antibiotic treatment, but it must be prompt, otherwise it can carry a 10 percent lethality risk. The lesion is pathognomic in that it will be as described above, itchy, but not locally painful in spite of the edema and the inflamed lymph nodes in one's axilla. The skin lesion is slow to heal and impatient surgeons are tempted to excise the area. Don't. I know of a butt-less Aussie from this. Just give it time, and the edema goes down, and it all heals really very nicely. If you ever see someone with a US quarter-sized mild scar on their forearm, you will know what caused it.

[From Sandra Stephenson:] As of 14 Jul 2006, 36 premises are involved with 32 quarantined premises (26 confirmed, 6 awaiting test results); 2 premises had negative samples, and anthrax could not be ruled out on another 2 premises because of questions concerning the samples submitted. The total mortality to date is 149 animals: Cattle (123), horses (3), Swine (1), sheep (1), bison (13) in the counties of Kinistino, Willow Creek, Spalding, and St. Peter. Some 69 percent of carcasses have been burnt, 28 percent buried, and 3 percent are inaccessible (i.e. out in the swamp in the water, while the authorities decide what to do with them). - Mod.MHJ]

ANTHRAX, BOVINE - CANADA (SASKATCHEWAN) (08)

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 17 Jul 2006

From: Sandra Stephens <ssstephens@inspection.gc.ca>

13 new premises were found over the weekend; 5 new Rural Municipalities are involved.
Sandra Stephens
Canadian Food Inspection Agency - CFIA
<sstephens@inspection.gc.ca>

[The official tally now has 49 premises involved, with 45 premises quarantined; 39 confirmed positive and 6 awaiting laboratory confirmation. The newly affected municipalities (counties) are Ponass Lake, Humboldt, Pleasantdale, Nipawin and Torch River. The previous municipalities are Kinistino, Willow Creek, Spalding, and St Peter. Our thanks to Sandra for this update in the midst of what must be a very busy time. - Mod.MHJ]

ANTHRAX, BOVINE - CANADA (SASKATCHEWAN) (09)

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 19 Jul 2006 11:38 AM
From: Sandra Stephens <sstephens@inspection.gc.ca>
Source: Canadian Food Inspection Agency - CFIA 18 Jul 2006 [edited]

As of 18 Jul 2006 18:00 MST:

[1] 47 premises have been quarantined

[2] 42 confirmed premises: 35 cattle ranches, 1 horse, 1 swine, 5 bison, 1 white-tailed deer (WTD), 1 both cattle & horses affected, 1 both cattle & sheep affected, 1 sheep. 10 premises have samples awaiting results either from further deaths or from initial sampling. Note that the bison and WTD deaths were on ranches without any affected livestock.

[3] Mortality by species: cattle 148, horses 6, swine 1, sheep 3, bison 34, WTD 8

[4] Carcass disposal: 50 percent burnt, 24 percent buried, 26 percent pending or inaccessible.

[5] Rural municipalities:

Kinistino: 24 premises (positive 20, negative 4); deaths cattle 86, horses 5, swine 1, bison 3, sheep 2 Willow Creek: 16 premises (positive 12, under test 5), deaths cattle 41, horses 1, WTD 8 Spalding: 1 premise (positive 1): deaths cattle 11 St. Peter: 1 premise (positive 1): deaths bison 10 Ponass Lake: 1 premise (positive 1): deaths bison 1 Humboldt: 1 premise (positive 1): deaths cattle 1 Pleasantdale: 1 premise (positive 1): deaths bison 1 Nipawin: 1 premise (positive 3): deaths cattle 1 Torch River: 3 premises (positive 3): deaths cattle 8, bison 19 Flett's Springs: 1 premise (positive 1): deaths cattle 1
ProMED-mail <promed@promedmail.org>

[I extracted these data from the 18 Jul 2006 report sheet sent me so kindly by Sandra Stephens. Any errors are mine. I am promised an update from Minnesota. - Mod.MHJ]

ANTHRAX, DEER - USA (TEXAS) (02): SUSPECTED

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 19 Jul 2006 11:13 AM

From: Wylie Skelton <docwylie@hctc.net>

Yesterday I was called to a ranch up on the divide, which is 30 miles north of Leakey, to see a dead axis buck in the tank. He was not there the day before but was there the next morning. The owners dragged him out and away from the tank into the trees. They got to thinking and then called me, so I went to look and found sure enough a dead axis buck. They had rain around 2 Jul 2006 so the time frame is about right. There were no eyes or anus when I got there -- buzzards -- but also he was in the tank possibly all night. I tried to get some blood from the jugular but no luck there, but I did get some of the bloody liquid from beneath the skin there. I went ahead and ran the quick [anthrax] test you [Mod.MHJ] sent me and when it diffused across the test well, a line appeared immediately and remained there [signifying positive. - Mod.JW].

I did not open the carcass -- buzzards had opened the rumen already. The owner will do the charcoal thing to destroy it and I may have an opportunity to see another one if one should die, as I prepared them to protect another one and get there sooner if possible.

As I was leaving, I had to drive by the adjoining ranch fence some 1/2 mile from where this deer died and -- lo and behold -- there in their water lot was the carcass of a dead cow -- dead about a week ago. Nothing on that, just absentee owners who lost a cow and they don't care or don't know or both.

Wylie Skelton, DVM

Leakey, TX

<docwylie@hctc.net>

[Photo of axis deer(_Cervus axis_):

<<http://www.rosshammockranch.com/images/axisdeer.jpg>>

Introduced to Texas from India. Locator map:

<http://pix.epodunk.com/locatorMaps/tx/TX_26687.gif>

More detailed map: <<http://pics2.city-data.com/city/maps5/frt5038.gif>>

- Mod.JW]

[I spoke with Wylie and he is overnighting the test fluid and his bloodied syringe to TVMDL College Station for confirmation. While the US Navy test kits are reliable, one should get confirmation just in case. As both animals -- the axis buck and the neighbour's

cow -- were found dead in the respective water tanks one can assume that they died fevered. If our fly hypothesis is correct, the short shower (2 Jul) will not have resulted in a meaningful tabanid fly hatch and so any deaths will be limited in number and space. As the carcasses were in water tanks that might affect the nearby browse contamination by blowflies -- if anything these tanks have small trees by them more than scrub -- but time will show if any browsing white-tailed deer are affected. - Mod.MHJ]

ANTHRAX, HUMAN - KAZAKHSTAN (WESTERN REGION)

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 21 Jul 2006

From: ProMED-mail RUS Associate Moderator Natalia Pshenichnaya
<crane@aanet.ru>

Source: Newspaper "Trud," 18 Jul 2006 [trans. from Russian Mod.NP; edited]
<<http://info.trud.ru/shortnews.php?id=35511>>

Bacteriological analyses have confirmed the diagnosis of anthrax in a woman from the Western Region [oblast] of Kazakhstan. Laboratory results on a 2nd ill person are awaited, according to a report from the regional department of sanitary epidemiological supervision (RSES).

On 14 Jul 2006, 2 inhabitants of the Syrymskiy district of Western Kazakhstan were hospitalized in the regional infectious [diseases] hospital under suspicion of anthrax. According to RSES, doctors describe the condition of one patient as [serious] and that of the 2nd as satisfactory.

Experts assume that meat from an infected cow slaughtered without veterinary controls could have been the source of infection.

Meanwhile a specially created investigative commission has visited Symryskiy; 7 people in contact with the 2 sick persons have been identified and are receiving preventive treatment. [Why? Anthrax is a zoonosis, and does not pass from person to person. Maybe they shared meat with these patients? - Mod.NP]. Also vaccinations of cattle are being carried out, [according to the] RSES.

A total of 154 settlements are considered to have unsuccessful anthrax [control] in Western Kazakhstan.

ProMED-mail <promed@promedmail.org>

[Western Kazakhstan oblast borders 5 Russian regions (Astrakhan, Volgograd, Saratov, Samara, and Orenburg) and 2 regions in the Republic of Kazakhstan (Aktyubinsk & Atyrausk). The total area of the region is 151 300 sq km. Uralsk is the capital of Western

Kazakhstan. The major part of the oblast is located in the Pre-Caspian Lowland - Mod.NP]

[Further details have been sought from RSES in Almaty. While livestock anthrax is now reported at a fraction of past levels, it is still a regular performer in the country, and where you get (silent) bovine cases you get attending (public) human cases. - Mod.MHJ]

ANTHRAX, BOVINE - USA (MINNESOTA) (05): HORSES

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, 21 Jul 2006 14:48:42 +0200 (MEST)

From: Pablo Nart <PABLO.NART@terra.es>

Source: Reuters, 20 Jul 2006 [edited]

<http://today.reuters.com/news/newsArticle.aspx?type=domesticNews&storyID=2006-07-20T211634Z_01_N20281187_RTRUKOC_0_US-FOOD-CATTLE-ANTHRAX.xml&archived=False>

Minnesota is grappling with its worst outbreak of livestock anthrax in 87 years, state officials said on Thursday. The [disease] has killed 68 head of livestock on 23 farms in northwest Minnesota since mid-June 2006, the state's board of animal health said. Minnesota has had anthrax cases in livestock in recent years, but this year's outbreak is the worst since 1919. Most of the Minnesota livestock deaths were cattle, but 5 bison and about 6 horses also died, the board of animal health said.

Canada also reported anthrax outbreaks, with at least 234 cattle deaths this summer in the prairie provinces. [Checking on this number. - Mod.MHJ]

To protect against the disease, state animal health officials are advising livestock producers to vaccinate cattle, bison, and horses.

The increase in cases has surprised animal health officials. Outbreaks often occur when extremely wet or flood conditions are followed by a dry spell. Those conditions were not present this year, said Malissa Fritz, spokeswoman for the board of animal health. "In the areas where we are seeing the cases, they did not have the flooding this year," said Fritz. "We are seeing very dry conditions right now, but we did not have those dry conditions around 15 Jun 2006. There have been a number of questions as to why we are seeing this increase this year," she said.

The most recent outbreaks have been confined to Kittson, Roseau, Red Lake and Lake of the Woods counties in extreme northwest Minnesota. "Those 4 counties are where all 68 animals were found," said Fritz.

[2]

Date: Friday, 21 July, 2006

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

Source: Minnesota Board of Animal Health, 20 Jul 2006 [edited]

<<http://www.bah.state.mn.us/diseases/anthrax/Record%20Anthrax%20Outbreak%207%2020%202006.pdf>>

Anthrax [has been] confirmed in cattle, bison, and horses in Kittson, Roseau, Red Lake, & Lake of the Woods counties

Anthrax cases in northwestern Minnesota have continued to rise steadily throughout the summer. Since the middle of June [2006], 23 farms in Kittson, Roseau, Red Lake, & Lake of the Woods Counties have had animals test positive for the disease, making this the 2nd largest anthrax outbreak in the state's history. The worst anthrax outbreak on record was in 1919 when 42 sites were infected.

There have been few reported cases of anthrax in North and South Dakota, but the Canadian province of Saskatchewan has seen record levels of the disease. Minnesota's 1st case this year [2006] was identified in mid-June, when 6 head of cattle from a farm in Kittson County tested positive. Since that time, 68 animals have died as a result of anthrax including cattle, bison, and horses.

Minnesota Board of Animal Health Senior Veterinarian Dr. Linda Glaser advises livestock producers to consult their veterinarian about anthrax vaccination. "We see anthrax cases throughout the summer so producers still have time to vaccinate their livestock," said Glaser. "Farmers can obtain anthrax vaccine from their veterinarian and vaccinate their own livestock." As an added precaution, farmers in Northwest Minnesota should assume that any unexpected deaths among their livestock are due to anthrax until the disease can be ruled out. If carcasses are found, a veterinarian should be contacted immediately. Suspect carcasses should not be cut open, as that can allow anthrax to spread. If anthrax is confirmed, the carcass should be burned, and the ashes should be buried on site.

Anthrax is a naturally occurring disease caused by the bacterium *Bacillus anthracis*. All warm-blooded animals are susceptible to the disease, but cattle, horses, sheep, and goats are most commonly affected. The bacteria can lie dormant for years in the soil. In some cases, heavy rains and flooding bring the spores to the surface where they may be eaten by grazing animals. However, many of the cases this year occurred on land that did not flood in the spring. Livestock infected with anthrax can die quickly, often exhibiting no symptoms until just before death.

For more information on anthrax, the current outbreak in Minnesota, and steps farmers can take to protect their livestock, log onto the Board's website at <<http://www.bah.state.mn.us>>.

Malissa Fritz

BAH Communications Director

651-201-6827

ProMED-mail <promed@promedmail.org>

[For a map of affected MN counties go
to:<http://www.bah.state.mn.us/diseases/anthrax/anthrax_prgm.htm>

[I think we can assume that the outbreaks in Lake of the Woods and Red Lake counties are probably from separate primary outbreaks because of their distance from the major activity in Kitson County.

Thanks to Joe Dudley for a similar report. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE, PORCINE - KAZAKHSTAN

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: 21 Jul 2006

From: Joe Dudley <DUDLEYJP@SAIC.COM>

Source: Cattlenetwork.com [edited]

<<http://www.cattlenetwork.com/content.asp?contentid=53955>>

Kazakhstan's emergencies ministry confirmed Friday that 2 people hospitalized in the western region of Kazakhstan had been infected with anthrax. The 2 people became ill after eating meat from a calf they bought at a local market. The emergencies ministry said the calf had died of anthrax and had been sold at the market by the owner. A criminal investigation by the police is under way and veterinary authorities are taking measures to prevent the spread of the disease.

The authorities fear further outbreaks, mostly due to uncontrolled sales and consumption of diseased animals' meat.

A woman died of anthrax on 20 Jun 2006 after eating the meat of a diseased sheep in the Southern Kazygurt region of Kazakhstan.

Also a 94-ton consignment of pork infected with anthrax was seized by the police in the city of Semipalatinsk in the east of Kazakhstan on 22 Apr 2006.

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Bioinformatics EAI Corporation

4301 North Fairfax Drive

Arlington, VA 22203

<JDUDLEY@EAI.COM>

[Our thanks to Joe. Interesting how one report begets others. - Mod.MHJ]

ANTHRAX, LIVESTOCK - CANADA (MANITOBA)

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 21 Jul 2006 1:58 PM

From: "Lees, Wayne (MAFRI)" WLees@gov.mb.ca Source: News Release, Office of the Chief Veterinary Officer, Manitoba, 20 Jul 2006

Anthrax Found In 4 Manitoba Herds

Dr. Wayne Lees, Manitoba's chief veterinary officer, today confirmed anthrax has been detected in 4 herds in southeastern Manitoba. The outbreak has resulted in the death of 24 cattle and one horse. "Diagnostic samples provided to the Veterinary Diagnostic Laboratory between 13 & 17 Jul 2006 from 4 locations in the regional municipalities of Stuartburn and Franklin were positive for anthrax," said Lees. "This is not a surprising issue considering anthrax outbreaks do occur from time to time and recently there have been several cases confirmed in Saskatchewan and Minnesota."

Anthrax has been previously detected in Manitoba. Confirmed cases of bovine anthrax in Manitoba over the past 5 years included 24 animals in 2000, 4 animals in 2001, and 3 animals in 2003. In 2005, 36 animals including 26 cattle and 10 horses died of anthrax on 12 premises in south-central Manitoba between July and the end of September [see ProMED archives below. - Mod.JW]

While there have only been 2 reported cases of anthrax causing illness in humans in Canada since 1990, mortality rates can be very high in herbivores. For additional information about anthrax and risk to humans visit <http://www.phac-aspc.gc.ca/ep-mu/anthrax_e.html>

Under the federal Health of Animals Act, anthrax is a reportable disease to the Canadian Food Inspection Agency (CFIA) that ensures strict enforcement of quarantine and proper burning or deep burial of carcasses suspected to have died from anthrax to prevent further soil contamination with the bacterial spore.

Livestock vaccination is the standard method of controlling anthrax when identified in a herd. Veterinarians of the Canadian Food Inspection Agency vaccinate cattle on farms around the infected premises to create a buffer zone in an effort to break the cycle of infection. Because animals are found dead with no illness detected, producers should consult with their veterinarians and vaccinate their livestock if deemed appropriate.

"We will continue to work with CFIA to monitor the situation," said Lees. "The safety of beef and beef products remains protected in all cattle slaughtered for human consumption."

[Many thanks to Wayne for forwarding this report, and to Dan Dragon, Biosafety Officer, Office of Environmental Health & Safety, University of Alberta, Edmonton, Canada, for forwarding the resulting article in the Winnipeg Sun. – Mods.MHJ&JW]

[2]

From: Sandra Stephens sstephens@inspection.gc.ca

Date: Fri 21 July 2006

Subject: CFIA Report for 21 July, Anthrax Update - Manitoba 2006

According to this CFIA report, 4 (3 cattle, one horse) premises have been quarantined and samples are presently being processed from a suspect cow on a 5th premise, as yet not quarantined; 3 premises have tested negative.

37 cattle have died and one horse. All carcasses have been buried.

Rural Minicipalities involved: Franklin: 3 premises positive, 1 negative, involving 29 cattle and one horse. Stuartburn: One premise positive, 1 negative, involving 8 cattle.

Sandra Stephens <sstephens@inspection.gc.ca>

[see map at: <<http://www.geographicguide.com/north-america-map.htm>> - Mod.JW]

[Thanks to Sandra for forwarding this up to date report, correct as of 8am this morning, 21 Jul 2006. From a map kindly provided by Wayne Lees, one Franklin outbreak is 17 miles from the US/Canada border next to Highway 59; the other 2 are near where Highway 59 crosses the border. The suspect farm is just across the highway on the western side, and these 3 are proximate to the north central part of the Kitson County USA border with Canada. The Stuartburn outbreak is 2-3 miles east of Highway 59 and the same distance from the US/Canada border. Thus they are near to Kitson & Roseau Counties and also in the Roseau River drainage, thus putatively an extension of the MN epidemic and non-vaccinating habits of these individual farmers. The Roseau River drainage is a traditional area for anthrax in this US/Canadian region. – Mod.MHJ]

ANTHRAX, BOVINE - INDIA (KERALA)

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: 23 Jul 2006

From: Mary Marshall <tropical.forestry@btinternet.com>

Source: Khaleej Times online 23 Jul 2006 [edited]

<http://www.khaleejtimes.com/DisplayArticleNew.asp?xfile=data/subcontinent/2006/July/subcontinent_July828.xml§ion=subcontinent>

Anthrax detected in cows in Kerala

Anthrax has been detected among cows in the Ernakulam district of Kerala. The bacterial disease detected among 3 cows belonging to one owner at Koothattukulam, 50 km away from Cochin, was confirmed by the Disease Diagnostic Center, Tiruvalla yesterday [22 Jul 2006].

Two teams of surgeons and livestock officials have been rushed to the village. State Animal Husbandry director Vijayakumar said there was no cause for any panic, as the department had already taken steps to prevent the spread of the disease. He told reporters here that the department had already started administering anthrax spore vaccine to cattle. He said the state had adequate stocks of vaccine to immunize the entire cattle population in the state. "We have directed the district officials to observe the situation in their areas and take suitable action. They have already been given guidelines on how to deal with the situation," Vijayakumar said.

Meanwhile, Tiruvalla Disease Diagnostic Center officials said anthrax in the cows was confirmed after a blood test. They said that the blood samples they received from Koothattukulam had tested positive.

Ernakulam district veterinary officials decided to conduct the test after 2 cows died in quick succession. The blood sample was taken from a 3rd cow, which also died subsequently.

Kerala was free from anthrax even when it was widely reported from several places in the neighboring state of Tamil Nadu. The state had banned movement of cattle from Tamil Nadu whenever anthrax was detected there.
ProMED-mail <promed@promedmail.org>

[2]

Date: 22 Jul 2006

From: Joe Dudley joseph.p.dudley@saic.com Source: Indo Asian News Service, 22 Jul 2006 [edited] <<http://www.eians.com>>

Anthrax detected in Kerala cattle

Anthrax, a bacterial disease found primarily in herbivorous domestic animals, has been detected in the Ernakulam district in Kerala.

[Despite the previous statement of freedom from anthrax in Kerala], since 1998, isolated incidents of anthrax have been regularly reported from certain pockets in the state, like Kodungallur and Mullakkara in Thrissur district and some areas of Palakkad district.

In July 2005, after anthrax was detected in Theni district in Madurai, of neighboring Tamil Nadu [see ProMED ref. below], the Kerala government banned the movement of cattle from Tamil Nadu into Kerala for a brief while. Close to 90 percent of the cattle that come from Tamil Nadu into Kerala are headed towards slaughter houses in the state.

Joseph P. Dudley, Ph.D. <joseph.p.dudley@saic.com>

[OIE reported anthrax in cattle in the following Indian states: Andra Pradesh, Gujarat, Jammu and Kashmir, Karnataka, Maharashtra, Tamil Nadu, West Bengal and Union Territory of Pondicherry. In 1998, India for some reason did not submit an anthrax report to Paris, nor has Kerala turned up in the OIE yearly reports after 1999. We did have one report in 2004. Further details were requested, but nothing further emerged. If we should have members in Kerala, any background information on this and other similar outbreaks in the state would be appreciated. - Mod.MHJ]

ANTHRAX, BISON, BOVINE - USA (SOUTH DAKOTA)

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 24 Jul 2006

From: Sam Holland <Sam.Holland@state.sd.us>

Anthrax has again appeared in South Dakota livestock. Dr. Sam Holland, State Veterinarian, reports the disease has struck a group of unvaccinated cattle in Hyde County. The State Veterinarian was called on Sun 23 Jul 2006, and the state veterinary diagnostic lab confirmed the diagnosis on Mon 24 Jul 2006.

Dr. Holland reports the case involves a pasture containing a group of approximately 100 unvaccinated cow-calf pairs with initial death loss of 5 cows. "In spite of repeated recommendations, some producers fail to preventively vaccinate their herds," says Dr. Holland. The infected herd was scheduled to be immediately treated with antibiotics, vaccinated and carcasses properly disposed of under the supervision of the local veterinary practitioner and the Animal Industry Board.

Anthrax is a very serious quarantinable disease because it can cause the rapid loss of a large number of animals in a very short time. Animals are often found dead with no illness detected. Anthrax is communicable to humans and other animals through carcasses, so strict enforcement of quarantine and proper burning and burying of carcasses suspected to have died from anthrax is important. Anthrax is not usually spread from animal to animal, and quarantines are imposed to prevent further soil contamination by movement of affected livestock.

Dr. Holland states producers and veterinarians have been urged to make anthrax vaccination part of routine health programs. Not doing so presents the risk of further environmental contamination, animal and public health risks, fire risks, and associated costs.

Dr. Holland reports that anthrax spores survive in contaminated soil indefinitely and that much of South Dakota has the potential of experiencing an outbreak.

Significant climate changes such as drought, floods, and winds can expose anthrax spores to grazing livestock. Alkaline soils, high humidity and high temperatures present conditions for the anthrax spores to vegetate and become infectious to grazing livestock.

Dr. Holland says he advised practicing veterinarians to be alert for anthrax in his April and July 2006 newsletters. Rendering companies have also been alerted so that carcasses are not rendered but properly burned and buried on the farm.

Sam D. Holland, DVM
State Veterinarian, Exe. Secy.
South Dakota Animal Industry Board
411 South Fort St.
Pierre, SD 57501
<Sam.Holland@state.sd.us>

[Sam added in his covering note: "What do you know!! Anthrax appeared in an unvaccinated cattle herd -- 3 days later than our 1st case last year [2005] -- very hot and dry here. Flies are almost nonexistent. I checked some of my cows in a pasture 20 miles east of here yesterday when the temperature was 101 F, and I commented to the caretaker that there were very few flies. He said it has been that way this year, no need to gather and spray or pour the cows for flies!! The herd with anthrax may have had access to a stubble field, and it may have been slightly cultivated, so had minor earth moving, but basically very hot as last year when anthrax started to show up."

Hot weather significantly reduces the innate resistance of grazing livestock. This will theoretically reduce the effective ID50 needed to infect an animal, and thereby more modest numbers of spores in the soil can infect grazing animals, which otherwise would not be affected. This, I have always presumed, is one of the key reasons why anthrax occurs mainly in the hot summer months in livestock and wildlife, quite apart from all the other factors. The 2 outbreaks in drought-struck North Dakota have been singular without secondary outbreaks. One can expect that the same will apply in South Dakota. In my experience, any secondarily-affected animals in this Hyde County herd are probably from licking any extravasated blood near the primary case, because of the salt in that blood, plus bovine curiosity to sample everything with their mouths. Many thanks to Sam for sharing this information. - Mod.MHJ]

ANTHRAX, DEER - USA (TEXAS) (03): BULL AFFECTED

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: Mon 24 Jul 2006

From: Wylie Skelton <docwylie@hctc.net>

TVMDL has rendered their ruling: "Negative for anthrax."

Wylie Skelton <docwylie@hctc.net>

[So, regarding the Axis buck Wylie saw on 18 Jul 2006 on a ranch some 30 miles north of Leakey, Real County, which was field tested positive, the diagnosis has not been confirmed. The ranch owner has been instructed to look out for any other deaths and to promptly call Wylie should he see any. - Mod.MHJ]

[2]

Date: Mon 24 Jul 2006

From: Carla Everett <ceverett@tahc.state.tx.us>

It's the same song, yet another verse, for naturally-occurring anthrax cases in livestock and wildlife in Val Verde and Crockett Counties in Southwest Texas. A little rain, a lot of hot weather, and the invisible, spore-forming bacteria *Bacillus anthracis* has resurfaced, putting unvaccinated livestock and grazing wildlife at risk in the area.

"Anthrax has been confirmed in a pen of deer in Val Verde County and in a Charolais bull in Crockett County. We know that anthrax often goes under-reported, as we hear of anecdotal reports of livestock or deer losses without laboratory confirmation. Many ranchers forego the veterinary inspection and laboratory tests and instead just begin vaccinating," reported Dr. Bob Hillman, Texas state veterinarian and head of the Texas Animal Health Commission. "Anthrax cases are not unusual, but a laboratory confirmation should alert ranchers and livestock owners that it is time to vaccinate their animals in Val Verde, Crockett and surrounding counties."

Carla Everett <ceverett@tahc.state.tx.us>

[Earlier today, I spoke with the State Region 6 veterinarian, Dr. Thurman Francher, who told me that the affected ranch was quarantined on 21 Jun 2006 and that there had been no more animal deaths other than this initial Charolais bull. We agreed it had probably died about a week earlier, say 12-14 Jun 2006. Thurman said they had had showers early in June 2006 but that the drought has continued hot and dry. The affected ranch is some 18 miles south of Ozona on Highway 163. When I spoke later with the local veterinarian in Del Rio who had diagnosed anthrax in the 2 penned deer, he said that he had had no other cases on that ranch or on other ranches in the area. This was confirmed by a deer rancher north of Del Rio. But Thurman and the Del Rio vet suspect that they are occurring quietly in the background on the western edge of the Edwards Plateau and have been for decades.

- Mod.MHJ]

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA)

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: Mon 24 Jul 2006

From: Joe Dudley <jdudley@eai.com>

Source: Discover Moose Jaw, 20 Jul 2006 [edited]

<http://www.discovermoosejaw.com/news_view_story_2147498199.php?story_id=2147503371&cat_id=2147483697>

A case of anthrax has now been discovered in the Chaplin area

The C-F-I-A [Canadian Food Inspection Agency] has confirmed a positive cattle death from anthrax. Swift Current Veterinarian Doctor Doug Mann says if producers should have a suspicious animal death on their farm, they should notify their veterinarian immediately.

Dr. Mann says the farm where the animal was found has been quarantined as a precaution. Producers within a 6-km radius from the originating farm will be notified and encouraged to vaccinate their herds as a precaution.

[Byline: Golden West Radio Ag Network]

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Bioinformatics EAI Corporation

4301 North Fairfax Drive, Suite 200

Arlington, VA 22203

<jdudley@eai.com>

[Chaplin is some 80 miles west of Regina, far from the Melfort outbreaks of Kinistino and Willow Creek RMs. - Mod.MHJ]

[2]

Date: Mon 24 Jul 2006

From: Joe Dudley <jdudley@eai.com>

Source: Regina Leader-Post, 22 Jul 2006 [edited]

<http://www.canada.com/reginaleaderpost/news/business_agriculture/story.html?id=6c9b45ec-e66c-414d-9fca-84eb3157867e>

3 cattle dead on one farm

A farm in the Chaplin area has lost 3 cattle to anthrax, the Canadian Food Inspection Agency said Friday [21 Jul 2006]. CFIA personnel went to the location earlier in the week, after a lab test in Saskatoon showed positive for anthrax, said Dr. Sandra Stephens of the CFIA Saskatoon office. "A private practitioner sent us a sample to test after the owner found a suspicious death." There are now 3 anthrax deaths at that location, she said. "That premises was quarantined, and the cattle were vaccinated at the 1st part of this week. The quarantine lasts 21 days from either the time that they're vaccinated or 21 days from the last anthrax-related death," Stephens said. "We usually do not see mortalities after 7 or 8 days post-vaccination."

Previously, anthrax had been showing up in Saskatchewan this summer 2006 in the northeast region. As of the latest count Friday [21 Jul 2006], 216 animals had died on 50 farms.

Stephens said farmers should talk to their veterinarians about whether they should vaccinate against the disease in their herds. Dead animals are either burned or buried deeply to avoid further contamination, Stephens said. The agency can't predict whether the anthrax will pop up again in the district, she said. The disease is spread by spores in the soil. "We understand that there are spores buried potentially almost anywhere across the Prairies, so it's not unexpected to see cases occur in various places across the Prairies," Stephens said.

There have been higher than usual numbers of cases in the northeast, a region affected by heavy rains and flooding this spring. Stephens said anthrax can surface where there is excessive moisture. "You bring these spores that have been buried, perhaps for decades, in the soil to the surface."

Cattle may also be exposed to anthrax when standing water dries up, exposing areas they normally wouldn't graze on.

Excavation work can also inadvertently bring spores to the surface, she said.

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Bioinformatics EAI Corporation

4301 North Fairfax Drive, Suite 200

Arlington, VA 22203

<jdudley@eai.com>

[3]

Date: Wed 16 Jul 2006

From: Sandra Stephens <sstephens@inspection.gc.ca>

To date, there are 66 quarantined premises and 64 confirmed positive (cattle 48, horse 1, swine 1, bison 7, penned white tailed deer 1, cattle & horses 1, cattle & sheep 2, sheep 2, goats 1); results are awaited on a further 11 premises. Mortality to date is cattle 204, horses 5, swine 1, sheep 14, bison 59, WTD 10, goats 2. Carcass disposal: burnt 50 percent, buried 17 percent, inaccessible/pending 34 percent.

By Rural Municipality:

Kinistino: 22 premises; mortality: cattle 86, horses 4, swine 1, bison 3, sheep 4 Willow Creek: 18 premises; mortality: cattle 43, horses 1, WTD 10, sheep 1 Spalding: 1 premise; mortality: cattle 11 St. Peter: 1 premise; mortality: bison 10 Ponass Lake: 3 premises; mortality: cattle 1, bison 12 Humboldt: 1 premise; mortality: cattle 1 Pleasantdale: 2 premises; mortality: cattle 6, bison 6 Nipawin: 2 premises, mortality: cattle 8 Torch River: 6 premises; mortality: cattle 32, bison 28, sheep 2 Flett's Spring: 2 premises; mortality: cattle 2, sheep 1 Chaplin: 1 premise; mortality: cattle 3 St. Brieux: 2 premises; mortality: cattle 5 Prince Albert: 1 premise; mortality: cattle 1 Moose Range: 1 premise; mortality: cattle 1, sheep 6 Barrier Valley: 1 premise; mortality: goats 2

Insinger: 1 premise; mortality, cattle 4

Sandra Stephens

<sstephens@inspection.gc.ca>

[As ever, many thanks to Sandra, and any mistakes are mine, not hers. I would not be surprised to see a secondary cluster develop or one that has developed around Torch River RM and its many affected large animals. With outbreaks as far west as Prince Albert and as far south as Humboldt, the original epidemic has certainly expanded. With the outbreak in Chaplin, it is clear that with increased awareness, random sporadic anthrax deaths, which might otherwise be missed, are being caught. - Mod.MHJ]

[4]

Date: 25 Jul 2006

From: Sylvia MacBean <s.macbean@sasktel.net>

Source: News Media Services [edited]

<nmservices@leg.gov.mb.ca>

MANITOBA GOVERNMENT NEWS RELEASE

<<http://www.gov.mb.ca/chc/press/top/2006/07/2006-07-25-01.html>>

News Media Services, Rm 29, Legislative Bldg.

Winnipeg, Manitoba, Canada R3C 0V8

<nmservices@leg.gov.mb.ca>

To date, anthrax has affected 6 herds of cattle in the southeast part of the province, resulting in the deaths of 52 cattle. One horse has also died of anthrax.

Quarantine and livestock vaccination is the standard method of controlling anthrax when identified in a herd. Local veterinarians can vaccinate cattle on farms around the infected herd to safeguard the health of cattle living close to the quarantined area.

If a producer suspects anthrax, he or she should contact their veterinarian:

- to rule out other causes of sudden death,
- to collect and submit the proper samples, and
- to avoid handling the carcass.

Restricted movement only applies to cattle from quarantined farms.

Sylvia MacBean

<s.macbean@sasktel.net>

[5]

Date: 26 Jul 2006

From: Sandra Stephens <sstephens@inspection.gc.ca>

Source: CFIA Anthrax MB Update 26 Jul 2006 [edited]

To date, there are 8 quarantined confirmed premises (cattle 6, horse 1, and bison 1) with 2 cattle ranches awaiting laboratory results; 4 ranches have tested negative. Mortality to date is 60 cattle, 1 horse, and 4 bison, including test negatives and inconclusives. Carcass disposal: 3 percent burnt, 97 percent buried.

By Rural Municipality:

Franklin: 5 positive, 3 negative premises; mortality: cattle 46, horse 1, bison 4
Stuartburn: 2 positive, 1 negative premises; mortality: cattle 11
Piney (to the east of Stuartburn): 1

positive premise; mortality: cattle 3 De Salaberry: no details, presumably awaiting laboratory results.

Sandra Stephens

<sstephens@inspection.gc.ca>

[As before, many thanks to Sandra, and any mistakes are mine, not hers. - Mod.MHJ]

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA) (02)

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: 28 Jul 2006

From: Joe Dudley <jdudley@eai.com>

Source: The StarPhoenix (Saskatoon) & Prince Albert Daily Herald, 8 Jul 2006 [edited]

<<http://www.canada.com/saskatoonstarphoenix/news/local/story.html?id=cc10f575-0742-4fdb-9914-1e100484267c>>

The number of animals and locations affected by anthrax in the northeast part of Saskatchewan's farmland continues to grow. As of Thursday [27 Jul 2006] morning, 324 animals have died from anthrax, and 71 premises have tested positive for anthrax, said Dr. Sandra Stephens, disease control specialist with the Canadian Food Inspection Agency.

20 rural municipalities in Saskatchewan have a site with anthrax, she said. Animals involved include cattle, horses, swine, bison, whitetail deer, sheep and goats.

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Biosurveillance

EAI Corporation

4301 North Fairfax Drive, Suite 200

Arlington, VA 22203

<jdudley@eai.com>

[2]

Date: Sat 29 Jul 2006

From: Sandra Stephens <sstephens@inspection.gc.ca>

As of 10:00 MST 29 Jul 2006, 76 premises have been confirmed in Sasatchewan with anthrax, and 5 premises are awaiting laboratory confirmation. On these confirmed premises, 376 animals have died: cattle 253, horses 5, swine 1, sheep 14, bison 91, white tailed deer (WTD) 10, goats 2. Disposal has been by burning (73 percent), burying (13 percent), and 14 percent are pending or inaccessible.

By Rural Municipality:

Kinistino: 22 premises; cattle 87, horses 4, swine 1, bison 3, sheep 4.

Willow Creek: 18 premises; cattle 43, horses 1, WTD 10, sheep 1.

Spalding: 2* premises; cattle 12*.
St. Peter: 1 premise; bison 10.
Ponnas Lake: 3 premises; cattle 1, bison 25*.
Humboldt: 1 premise; cattle 1.
Pleasantdale: 3* premises; cattle 15*, bison 7*.
Nipawin: 3* premises; cattle 10*.
Torch River: 7* premises; cattle 48*, bison 39*, sheep 2.
Flett's Springs: 3* premises; cattle 3*, sheep 1.
Chaplin: 1 premise; cattle 3.
St. Brieux: 2 premises; cattle 7*.
Prine Albert: 1 premise; cattle 2*.
Moose Range: 1 premise; cattle 2*, sheep 6.
Barrier Valley: 1 premise; goats 2.
Insinger: 1 premise; cattle 5*.
Hoodoo*: 1* premise; bison 7*.
Hazel Dell*: 1* premise; cattle 1*.
Foam Lake*: 1* premise; cattle 8*.
Garden River*: 1* premise; cattle 1*.
Wolverine*: 1* premise; cattle 3*.
Usborne*: 1* premise; cattle 1*.
[* indicates either a new RM affected and/or increases in the numbers of premises and/or livestock affected since the last posting.]

Sandra Stephens
<sstephens@inspection.gc.ca>

[The presence of isolated outbreaks in Chaplin, Foam Lake and Insinger raises the probability that increased awareness in the province of this disease has also increased the number of random deaths that are being examined, thus finding anthrax outbreaks that would not have otherwise been observed and recorded. This brings me back to a personal conviction that this disease is maintained not by the big epidemics, during which proper control procedures are usually carried out, but by the pitter-patter of unseen cases in the intervening years, which thereby maintain soil contamination. Also, in general, if farmers cannot afford veterinary support, they can be unaware of what has been killing their stock, therefore not asking for nor applying appropriate vaccines in the spring round-up.

As ever, many thanks to Sandra Stephenson for her excellent work in keeping us and others informed as to what is happening. - Mod.MHJ]

[3]

Date: Fri 28 Jul 2006

From: Terry Whiting <TWhiting@gov.mb.ca>

Anthrax has now been confirmed on 10 premises (9 & 10 are new):

Current Status of Manitoba Premises on which Anthrax is Confirmed:

Premise Number: Species, Municipality, 1st Death, Number of head, Deaths.

- 1: Equine, Franklin, 12 Jul 2006, 3, 1
- 2: Bovine, Stuartburn, 13 Jul 2006, 25, 11
- 3: Bovine, Franklin, 14 Jul 2006, 125, 32
- 4: Bovine, Franklin, 14 Jul 2006, 100, 13
- 5: Bovine, Franklin, 20 Jul 2006, 75, 2
- 6: Bovine, Stuartburn, 21 Jul 2006, 80, 2
- 7: Bovine, Piney, 24 Jul 2006, 24, 3
- 8: Bison, Franklin, 24 Jul 2006, 175, 10
- 9: Bovine, Stuartburn, 25 Jul 2006, 300, 4
- 10: Bovine, Stuartburn, 25 Jul 2006, not reported, 1

Total deaths: 79

Terry Whiting <TWhiting@gov.mb.ca>

[And many thanks to Terry Whiting and Shelagh Copeland for these data and for keeping us informed. The Canadians are again setting an example of transparency that we should all strive for. - Mod.MHJ]

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA) (03)

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: 1 Aug 2006

From: Sandra Stephens <ssstephens@inspection.gc.ca>

Positive premises, 86; pending, 18

Mortality on positive premises, 429: cattle, 296; horses, 5; swine, 2; sheep, 16; bison, 97; white tailed deer (WTD), 10; elk, 1; goats, 2.

Carcass disposal: burnt 77 per cent; buried 13 per cent; pending or inaccessible 10 per cent.

By Rural Municipality, with 3 new RMs affected (Ituna Bon Accord, St Louis, and Buckland):

Kinistino: 22 premises: cattle 87, horses 4, swine 2, bison 3, sheep 6.

Willow Creek: 18 premises: cattle 43, horses 1, WTD 10, sheep 1 Spalding: 2 premises: cattle 13*.

St Peter: 1 premise: bison 10.

Ponass Lake: 3 premises: cattle 1, bison 19 (correction)

Humboldt: 1 premise: cattle 1.

Pleasantdale: 3 premises: cattle 17*, bison 15*.

Nipawin: 3 premises: cattle 10.

Torch River: 10* premises: cattle 69*, bison 42*, sheep 2.

Flett's Spring: 3 premises: cattle 3, sheep 1.

Chaplin: 1 premise: cattle 3.

St Brieux: 3* premises: cattle 7, elk 1*.

Prince Albert: 1 premise: cattle 4*.
Moose Range: 1 premise: cattle 2, sheep 6.
Barrier Valley: 1 premise: goats 2.
Insinger: 1 premise: cattle 5.
Hoodoo: 1 premise: bison 7.
Hazell Dell: 1 premise: cattle 1.
Foam Lake: 4* premises: cattle 21*.
Garden River: 1 premise: cattle 1.
Wolverine: 1 premise: cattle 3.
Usborne: 1 premise: cattle 3.
Ituna Bon Accord*: 1 premise: species not stated.
St Louis*: 1 premise: bison 1.
Buckland: 1 premise: cattle 1.
Sandra Stephens <sstephens@inspection.gc.ca>

[* indicates changes in RMs, premises, and/or individual species affected. A new cluster of affected farms is appearing in southern Foam Lake and in adjoining RMs. Again our thanks to Sandra. - Mod.MHJ]

[2]

Date: Tue 1 Aug 2006

From: Terry Whiting <twhiting@gov.mb.ca>

Current status of MB Premises on which anthrax has been confirmed, with 3 new outbreaks:

Number: Species: Rural Municipality: 1st death: Numbers in herd: Deaths

1: Equine: Franklin: 12 Jul 06: 3: 1

2: Bovine: Stuartburn: 13 Jul 06: 25: 11

3: Bovine: Franklin: 14 Jul 06: 125: 33*

4: Bovine: Franklin: 14 Jul 06: 100: 13

5: Bovine: Franklin: 20 Jul 06: 75: 2

6: Bovine: Stuartburn: 21 Jul 06: 80: 3*

7: Bovine: Piney: 24 Jul 06: 24: 4*

8: Bison: Franklin: 24 Jul 06: 175: 16*

9: Bovine: Stuartburn: 25 Jul 06: 300: 6*

10: Bovine: Stuartburn: 25 Jul 06: 21*: 1

11: Bison: Franklin*: 27 Jul 06: 160: 4

12: Bovine: Franklin*: 31 Jul 06: 20: 4

13: Bovine: Franklin*: 31 Jul 06: 150: 1

14: Bovine: Hanover*: 31 Jul 06: not reported: 1 Total deaths: 100

Terry Whiting <twhiting@gov.mb.ca>

[Our thanks to Terry. - Mod.MHJ]

ANTHRAX, BOVINE - USA (MINNESOTA)(06)

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 8 Aug 2006 9:28 AM
From: Randall Lindemann <Randall.Lindemann@bah.state.mn.us>

To the best of my knowledge, no new cases of anthrax have been confirmed by the lab since 28 Jul 2006. I have a stack of 8 submissions to ND VDL [Veterinary Diagnostic Laboratory, North Dakota State University, Fargo, ND] all of which are negative. This deal appears to have stopped short. We were having extreme heat with temps in the triple digit range at about that time. I don't know if that plays a role or not. I also don't know what to expect from here on.
Randy Lindemann, DVM
District Veterinarian,
Frazee, MN <Randall.Lindemann@bah.state.mn.us>

[Randy has been on a well-deserved leave. The last MN Board of Animal Health report was posted 20 Jul 2006:
<<http://www.bah.state.mn.us/diseases/anthrax/Record%20Anthrax%20Outbreak%207%2020%202006.pdf>>

For the moment MN seems to be enjoying a well-deserved breathing space. Only time will tell if the present series of outbreaks is in fact over. It had grouped into 4 clusters, (1) Kitson and western Roseau counties, (2) eastern Roseau & western Lake of the Woods counties, (3) NW Red Lake and (4) SE Red Lake county. - Mod.MHJ]

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA) (05)

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: 8 Aug 2006
From: Sandra Stephens <sstephens@inspection.gc.ca>
CFIA anthrax update SK 8 Aug 2006

Positive premises, 123; pending, 1
Mortality on positive premises, 613: cattle 398; horses 6; swine,3; sheep 25; bison 167;
white tailed deer (WTD) 10; elk 1 (2 recorded); goats 2.

Carcass disposal: burnt 73 per cent; buried 15 per cent; pending or inaccessible 12 per cent.

By Rural Municipality, with 5 new RMs affected (Star City, Kellross, Lakeside, Sliding Hills, Good Lake, Morse):

Prince Albert District:

Kinistino: 22 premises: cattle 87, horses 4, swine 3*, bison 3, sheep 6.
Willow Creek: 18 premises: cattle 43, horses 1, WTD 10, sheep 1.
Nipawin: 3 premises: cattle 10.
Torch River: 11* premises: cattle 79*, bison 45*, sheep 2.
Flett's Spring: 5* premises: cattle 5*, sheep 1.
Prince Albert: 2* premises: cattle 9*.
Moose Range: 1 premise: cattle 2, sheep 6.
Garden River: 4* premises: cattle 4*, bison 10 St Louis: 2 premises: bison 3*.
Buckland: 1 premise: cattle 1.
Paddockwood: 1 premises: bison 3.
Invergordon: 2* premises: cattle 2*.
Shellbrook: 1 premise: cattle 3.
Star City*: 1 premise: cattle 1.

Wynyard District:

Spalding: 2 premises: cattle 16*.
St Peter: 1 premise: bison 10.
Ponass Lake: 3 premises: cattle 1, bison 24*.
Humboldt: 2* premises: cattle 1, elk 1*.
Pleasantdale: 5* premises: cattle 21*, bison 19*, sheep 9*.
St Brieux: 2 premises: cattle 6, elk 1.
Barrier Valley: 1 premise: goats 2.
Hoodoo: 1 premise: bison 12.
Foam Lake: 5* premises: cattle 37*.
Wolverine: 1 premise: cattle 4*.
Usborne: 2* premise: cattle 5*.
Lakeview: 1 premise: bison 37*.
Elfros: 1 premise: cattle 7*.
Kellross*: 1 premise: cattle 6.
Lakeside*: 1 premise: bison 1

Yorkton District:

Insinger: 4* premise: cattle 21*.
Hazell Dell: 2 premises: cattle 3.
Ituna Bon Accord: 8* premises: cattle 9*, horses 1.
Sliding Hills*: 1 premise: cattle 4.
Good Lake*: 1 premise: cattle 7.

Moose Jaw District:

Chaplin: 1 premise: cattle 3.

Swift Current District:

Morse*: 1 premise: cattle 1.
Sandra Stephens <sstephens@inspection.gc.ca>

[* indicates changes in Rural Municipalities and stock affected. Again, our thanks to Sandra. - Mod.MHJ]

[2]

Date: 8 Aug 2006

From: Sandra Stephens <sstephens@inspection.gc.ca>

CFIA anthrax update MB 8 Aug 2006

Positive premises 17, pending 3.

Total mortality on confirmed premises 116: cattle 82, horses/donkey 3, bison 31.

Carcass disposal: burn 17 per cent, bury 84 per cent, pending/inaccessible 0 per cent.

By Rural Municipality:

Franklin: 8 positive premises, 3 negative: cattle 40, horses 1, donkey 1*, bison 31*.

Stuartburn: 5 positive premises, 5 negative: cattle 34.

Piney: 1 positive: cattle 4.

De Salaberry: 1 negative premise.

Hanover: 1 positive premise, 1 negative: cattle 2.

La Broquerie: 1 positive premise: cattle 2.

Brokenhead: 1 positive premise: Horse 1.

South Cypress: 1 negative premise

Sandra Stephens <sstephens@inspection.gc.ca>

[Other than a few more dead animals it seems to be calming down, as in neighbouring Minnesota. The affected single horse in Brokenhead, a good 100 km north of the nearest outbreak in Hanover, seems to be a puzzler at this time. One hopes it does not reflect a background wildlife outbreak. As ever, thanks to Sandra and our Canadian colleagues. - Mod.MHJ]

ANTHRAX, BOVINE - USA (MINNESOTA) (07)

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 Aug 2006 1:24 PM

From: Linda Glaser <Linda.glaser@bah.state.mn.us>

Since the last BAH update which included a news release, 2 additional premises were confirmed as having anthrax mortality. One of these premises was just over the Kittson county line in Marshall County, the other premises in northeastern Polk County. These locations are the 1st confirmed cases of anthrax to occur in their respective counties in 2006.

The last report of mortality attributed to anthrax was in a beef cow on 25 Jul 2006. My understanding from Dr. Lindemann is that no additional mortality has been attributed to anthrax since that time. A total of 83 animals have died on [25] premises with confirmed anthrax.

Linda C. Glaser, DVM
Minnesota Board of Animal Health
625 North Robert Street
St. Paul, MN 55155
<Linda.Glaser@bah.state.mn.us>
website: <<http://www.bah.state.mn.us>>

[Many thanks to Linda, who, I know, has been extremely busy. Much appreciated. -
Mod.MHJ]

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA) (06)

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 Aug 2006

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

Source: Univ. of Minnesota Center for Infectious Disease Research and Policy
(CIDRAP); Canadian Press, 10 Aug 2006 [edited]

<<http://www.cidrap.umn.edu/cidrap/content/bt/anthrax/news/aug1006anthrax.html>>

An outbreak of anthrax that began in early July 2006, the largest ever recorded in Saskatchewan, has now killed at least 746 farm animals in that province and neighboring Manitoba, according to Aug 9 statistics from the Canadian Food Inspection Agency (CFIA).

The outbreak, which has led to at least 146 farms being quarantined, is the largest on the prairies since record-keeping began in the 1950s, said CFIA veterinarian Dr. Sandra Stephens, according to a Canadian Press (CP) story yesterday. The vast majority of dead animals have been in Saskatchewan, with 628 anthrax-infected animals dying on 129 farms, according to the CFIA. In Manitoba, 118 animals have died on 17 farms.

Canadian public health officials emphasize that the risk of anthrax infection to people is extremely low, according to yesterday's CP story. "It's more of an animal health issue than a human health issue," said Dr. Huiming Yang, Saskatchewan's deputy chief medical health officer, in the CP article. "This is field anthrax," added Stephens in the CP story. "It's an environmental disease. This is something that civilization has been dealing with for centuries and we will continue to live with for years to come."

More than 250 000 animals have been privately vaccinated and 18 000 vaccinated by the Canadian government. Among affected animals are cattle, horses, bison, sheep, and goats.

Anthrax cannot pass between people. However, in mid-July 2006, cutaneous, or skin, anthrax, developed in a Canadian farmer, presumably via contact with an infected animal. Cutaneous anthrax is much less serious than inhalational anthrax (see Jul 17 CIDRAP News story). The farmer has since fully recovered, according to yesterday's CP story.

Meanwhile, across Manitoba's southern border, northwestern Minnesota has seen the state's worst anthrax outbreak since 1919, according to the Minnesota Board of Animal Health (BAH).

Since mid-June 2006, 23 farms in 4 counties have experienced anthrax infection, resulting in 68 cattle, bison, and horse fatalities. In 1919, 42 farms were affected.

Minnesota officials are also recommending vaccination. "We see anthrax cases throughout the summer, so producers still have time to vaccinate their livestock," said BAH senior veterinarian Dr. Linda Glaser in a 20 Jul 2006 BAH press release.

See also:

CFIA update on Canadian outbreak

<<http://www.inspection.gc.ca/english/anima/heasan/disemala/anthchar/situatione.shtml>>

CIDRAP overview of anthrax

<<http://www.cidrap.umn.edu/cidrap/content/bt/anthrax/biofacts/anthraxfactsheet.html>>

[2]

Date: 8 Aug 2006

From: Sandra Stephens <ssstephens@inspection.gc.ca>

CFIA anthrax update SK 11 Aug 2006

Positive premises, 136; pending, 8 mortality on positive premises, 642: cattle 421; horses 6; swine,3; sheep 25; bison 173; white-tailed deer (WTD) 10; elk 2; goats 2.

Carcass disposal: burnt 76 per cent; buried 14 per cent; pending or inaccessible 10 per cent.

Again, our thanks to Sandra. - Mod.MHJ]

[4]

[In response to my query about the horse in Brokenhead, Sandra Stephensen replied: "The case has occurred on a "new" pasture. It has been very dry in the area and a stream off the Brokenhead River that had dried up was used as a new pasture area and -- voila -- horse dies of anthrax!" She also put me onto the District VM Kevin Millar, who added: "No bones or excavation. The horses did have access to the exposed mud which was

usually under water. We got a culture positive yesterday." He then added more details. - Mod.MHJ]

Date: Fri 11 Aug 2006 11:26 AM
From: Kevin Millar <kmillar@inspection.gc.ca>

This one is a puzzle to me also. I originally wondered if we had a false positive on PCR, but the culture came back positive.

The clinical veterinarian who saw the horses originally diagnosed a Clostridial problem, as the horse had a malignant edema-like swelling on one of the legs. He completed a post mortem, not thinking anthrax, and observed that the spleen was enlarged. He talked to me and we decided to ask for anthrax PCR because of the sudden death, the enlarged spleen, and having the amount of anthrax in Manitoba, however about 100-150 km away.

The rest of the horses (5) were removed from the pasture immediately and the clinical vet treated all with penicillin based on the tentative Clostridial diagnosis. They were vaccinated on the 8th, 10 days post treatment; all were healthy.

There are 18 bovines on the farm that were pastured away from the river. They were vaccinated at the time of diagnosis, and all are healthy.

This area has a large number of white-tailed deer. I have not heard of any die-off, but will talk to Manitoba Conservation.

Kevin Millar
District Veterinarian / Veterinaire de district
Canadian Food Inspection Agency / Agence canadienne d'inspection des aliments
1-2539 Main Street, Winnipeg, Manitoba R2V 4G4
Government of Canada | Gouvernement du Canada
<kmillar@inspection.gc.ca>
<<http://www.inspection.gc.ca>>

[From what Kevin describes, this is a typical swelling seen with horsefly bite-related anthrax, the equine version of cutaneous anthrax. If I am right, the fly had to have contaminated its mouthparts somewhere and probably within a kilometer. Females can easily fly 8 km between snacks -- but 100 km? I would put my money on it being in the background there somewhere. I would not be surprised if there were a dead animal there in the scrub.

The veterinary response was spot on, and clearly very successful. Horses remember when they get a painful injection and respond accordingly when you next come near them. Many thanks to Kevin for the details. - Mod.MHJ]

ANTHRAX, HUMAN - RUSSIA (WEST SIBERIA)

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 15 Aug 2006
From: A-Lan Banks <A-Lan.Banks@thomson.com>
Source: RIA Novosti, Moscow, Russia [edited]
<<http://en.rian.ru/russia/20060815/52651302.html>>

A man in West Siberia has been diagnosed with anthrax, a spokesman for the local emergency situations West Siberia department said Tuesday [15 Aug 2006]. He said the man had been hospitalized on 10 Aug 2006 in the Altai Territory. "The situation with the 40-year-old suffering from anthrax ... is under the control of the Emergency Situations Ministry," the spokesman said. The ministry representative added that the patient felt well and that his condition was not life threatening. He said the man may have been infected while slaughtering a cow.

Local authorities have imposed quarantine restrictions in the village where the man lived, and no other anthrax cases have been reported, the spokesman said.
ProMED-mail <promed@promedmail.org>

[Thanks also to Joe Dudley for submitting this report. - Mod.MHJ]

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA) (07)

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: 16 Aug 2006
From: Robert Allen <ballen@inspection.gc.ca>

CFIA anthrax update SK 16 Aug 2006

Positive premises, 138; pending, 4
Mortality on positive premises, 647: cattle 423; horses 6; swine 3; sheep 25; bison 175;
white tailed deer (WTD) 10; elk 2; goats 2.

Carcass disposal: burnt 79 percent; buried 14 percent; pending or inaccessible 7 percent.

By Rural Municipality, with 4 new RMs affected (Preeceville, Birch Hills, Emerald, Big Quill, Sasman):

Robert W. Allen, DVM
<ballen@inspection.gc.ca>

Again, our thanks to Robert, not as bad an incidence as it was, fingers crossed. -
Mod.MHJ]

[2]

Date: 16 Aug 2006

From: Robert Allen <ballen@inspection.gc.ca>

CFIA anthrax update MB 16 Aug 2006

Positive premises 20, pending 1.

Total mortality on confirmed premises 133: cattle 92, horses/donkey 3, bison 38. Number vaccinated: 1940 Carcass disposal: burn 19 percent, bury 82 percent, pending/inaccessible 0 percent.

Robert W Allen, DVM

<ballen@inspection.gc.ca>

[Thank you, Robert. It seems to be tapering off, thankfully. - Mod.MHJ]

ANTHRAX, HUMAN, FATAL - UK (SCOTLAND)

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: Wed 16 Aug 2006

From: A-Lan Banks <A-Lan.Banks@thomson.com>

Source: BBC News Online [edited]

<http://news.bbc.co.uk/1/hi/scotland/south_of_scotland/4797513.stm?ls>

A 50-year-old man is believed to have died from the 1st case of anthrax in Scotland for almost 20 years. The man died in July 2006, and later tests showed the acute infectious disease was the most likely cause. NHS Borders said his home at Black Lodge in Stobs, near Hawick in the Scottish Borders, had been cordoned off and an incident control team set up. The victim worked with materials such as untreated animal hides. He died on 8 Jul 2006 in Edinburgh Royal Infirmary.

After a series of tests at laboratories in England, experts identified anthrax as the most likely cause for septicemia. Health Protection Scotland said: "All appropriate precautions are being taken to deal with the house and its contents," said a HPS spokesperson. "NHS Borders is tracing the man's relatives and other individuals known to have had access to the building. They are being assessed for risk of infection, with appropriate action being taken for each individual as required." The agency added: "Anthrax is a difficult disease to contract and is not passed from person to person. There is no reason to think that the members of the general public are at any risk."

The last laboratory-confirmed case of anthrax in Scotland was in 1987 and affected a young girl who later recovered.

ProMED-mail <promed@promedmail.org>

[2]

Date: Wed 16 Aug 2006

From: Gareth Walsh <Gareth.Walsh@sunday-times.co.uk>

Source: Latest Press Association wire report [edited]

Artist's death linked to anthrax

An artist who made drums out of animal skins is believed to have died of anthrax, health officials said today [16 Aug 2006]. The 50-year-old man died last month [July 2006]. His home in the Scottish Borders, where he lived alone, has been sealed off and an incident control team set up. It is the 1st case of a human contracting anthrax in Scotland for almost 20 years.

The man, who lived at Black Lodge, in Stobs, Hawick, worked with materials such as untreated imported hides, and health officials believe he may have caught the disease by breathing in spores. He was a self-employed artist who made artifacts, including sculptures, woodwork and decorative items. Health officials said he became ill in early July 2006 and died on 8 Jul 2006 in Edinburgh Royal Infirmary after developing septicemia. After a series of tests at laboratories in England, experts identified anthrax as the most likely cause.

Health Protection Scotland (HPS) said the disease is not passed from person to person but officials are trying to trace the man's relatives and other individuals known to have had access to the building. They have also asked anyone who visited his home before 17 Jul 2006 to contact NHS Borders for further information. Anyone who experiences flu-like symptoms, a dry cough, or unusual skin lesions for up to 2 months after their visit is being advised to seek further medical advice as a matter of precaution.

An HPS spokesman said: "All appropriate precautions are being taken to deal with the house and its contents. NHS Borders is tracing the man's relatives and other individuals known to have had access to the building. They are being assessed for risk of infection, with appropriate action being taken for each individual as required." The agency added: "Anthrax is a difficult disease to contract and is not passed from person to person. There is no reason to think that members of the general public are at any risk."

The last laboratory-confirmed case of anthrax in a human in Scotland was in 1987 and involved a young girl who later recovered. Bacteriologist Professor Hugh Pennington said he was very surprised to hear someone could have died from anthrax in the UK. But he added it would have been possible to have become infected from imported animal hides. Prof. Pennington said: "It's very rare for people to get infected from it, never mind to die from the disease. People working in the wool industry used to be prone 50 years ago. The disease occurs in the wild in Africa and Asia and used to get imported. But it is

now very uncommon in the UK due to better cleansing procedures. If this man was working with imported animal hides that had been infected, then that makes sense. The spores are resistant and could have been on the skin." Prof. Pennington, who is based at the University of Aberdeen, said the victim was likely to have been infected either by breathing in spores or by getting the organism into the blood via a wound. The disease is treatable with antibiotics, he added.

In April this year [2006] a farm in Wales was sealed off after 2 cows died of anthrax. Ynys Gau farm, at Gwaelod-y-Garth, near Cardiff, was closed off to the public from 19 Apr 2006, when the animals suddenly died. No humans were infected, and the farm was eventually reopened 20 days later after being given the all-clear from government vets. Previous to that, the last case of the disease in Britain was in 2002, when a cow died at a farm in Wrexham, north Wales.

[Byline: Matt Dickinson, Scottish Press Association]

Gareth Walsh

Home News Reporter,

The Sunday Times

London

<Gareth.Walsh@sunday-times.co.uk>

Thanks to Ed Lake, Gerald Walsh, Pablo Nart, Andrea Jones, Keith Marshall and others for sending us this report. This seems to be a repeat of the recent case involving a drum maker in New York city; he survived. One hopes that the Health Protection Scotland authority tries to get this isolate genomically identified and thus narrow down where it came from. While the last known human death from anthrax in the UK was in 1974, the most recent scare in Scotland was at a farm in Lennoxton, East Dunbartonshire, where a cow was suspected to have died from the disease in 2002, but hadn't. Anthrax in the UK has become truly very sporadic to essentially absent. Lately, when livestock cases have occurred, it has been in relation to earth moving on farms with long past cases or disturbance of river sediments downstream of tanneries, now usually closed for some years. - Mod.MHJ]

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

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: Wed 16 Aug 2006 5:47 PM

From: Joe Dudley <JDUDLEY@EAI.COM>

From: Keloland Television [edited]

<<http://www.keloland.com/News/NewsDetail5440.cfm?Id=0,50257>>

A 2nd anthrax case in 2006 has been confirmed in a South Dakota cattle herd. State Veterinarian Sam Holland says the disease was recently detected in Lincoln County, where 3 cows were lost in a herd of 51 unvaccinated cattle.

Doctor Holland says it's important to quickly quarantine herds when anthrax is confirmed.

An earlier anthrax outbreak was found in a Hyde County cattle herd that had not been vaccinated.

Anthrax spores can survive indefinitely in contaminated soil, and Holland urges farmers and ranchers to vaccinate their cattle. More than 500 cattle, bison and deer died from anthrax in 18 South Dakota counties during 2005.

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Biosurveillance EAI Corporation

4301 North Fairfax Drive

Suite 200

Arlington, VA 22203

<JDUDLEY@EAI.COM>

[Anthrax spores can survive for long periods, but they are not immortal. In acid soils it is merely for 14-18 months. In very limited studies we have done they may die off in friendly soils at about 30 percent per year. On the other hand Peter Turnbull found a positive cattle grave site in south Dorset, UK, which had sufficient spores at the surface to kill some steers 60 years after the anthrax cow had been buried. This is probably an exception, as otherwise we would have to vaccinate every cow everywhere each year because of past outbreaks. - Mod.MHJ]

[2]

Date: Thu 17 Aug 2006 10:15 AM

From: Dr. Sam Holland <Sam.Holland@state.sd.us>

This farm is in an adjacent county but very close and actually "downstream" in terms of watershed to farms experiencing anthrax in 1993. - Sam

NEWS RELEASE - ANTHRAX UPDATE, 15 Aug 2006

Anthrax has been confirmed for the 2nd time in 2006 in South Dakota, with the most recent case occurring in Lincoln County. Three beef cows were lost in the herd of 51 unvaccinated animals.

Anthrax is a very serious quarantinable disease because it can cause the rapid loss of a large number of animals in a very short time. Often animals are found dead with no illness detected. Strict enforcement of quarantine and proper burning and burying of carcasses suspected to have died from Anthrax is important to prevent further soil contamination with the bacterial spore.

Producers should consult their veterinarian and vaccinate their livestock if deemed appropriate. "It would make good sense to continue to vaccinate cattle and other livestock in the area for the next several years," states Dr. Sam Holland, State Veterinarian.

Dr. Holland reports that Anthrax spores survive in contaminated soil indefinitely, and that much of South Dakota has the potential of experiencing an outbreak.

Significant climate changes such as drought, floods, and winds can expose Anthrax spores to grazing livestock. Alkaline soils, high humidity and high temperatures present conditions for the Anthrax spores to vegetate and become infectious to grazing livestock.

Contact: Sam D. Holland, DVM, State Veterinarian (605)773-3321
ProMED-mail <promed@promedmail.org>

[Whether *B. anthracis* can meaningfully multiply in soil is a matter of some controversy, whatever has been achieved in sterile laboratory experiments. Minette & Dhanda in 1944 showed that while it could multiply in sterile soil, given enough nutrients, it could not compete with other soil bacteria. A proof of field multiplication would be to find an old positive grave and check the genetic characteristics of recoveries over 1 meter apart. If no multiplication had occurred, the separate isolates should be genetically identical; if mildly different, multiplication might be assumed. If they were very different it would be evidence of the original source being feed contamination. Over time spores will "lose" their plasmids -- this can happen in 5-7 years -- and therefore plasmid loss is just an indicator of time. Many thanks to Sam for the prompt forwarding of his news release. - Mod.MHJ]

ANTHRAX, HUMAN, LIVESTOCK - MONGOLIA

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 23 Aug 2006

From: Dan Silver <dgsilver@yahoo.com>

Below is my translation of an article on anthrax in Mongolia. This article appeared in Chinese in People's Daily on 23 Aug 2006. Note that the last line of the article would commonly be interpreted as "martial law" rather than "quarantine," but likely means the latter in this instance.

Ulaanbaatar, 22 Aug 2006:

<<http://news.sohu.com/20060823/n244940773.shtml>>

According to reports in the Mongolian press, human and livestock anthrax have occurred in the 3 provinces of Arhangay, Bayanhongor, and Selenge over recent days.

On 16 Aug 2006, a 61-year-old was hospitalized with anthrax in Ikh-Tamir in Arhangay. Health authorities then declared travel restrictions in the affected area, conducted tests on

24 people in 3 neighboring families, and vaccinated more than 2000 head of livestock. In addition, one cow died of anthrax in Yoroo in Selenge. In Jargalant in Bayanhongor, adjacent to China's Xinjiang, 4 head of cattle died of anthrax over the past 2 days.

Relevant authorities have already declared quarantine in the above-described region(s).

[Byline: Huo Wen]

Dan Silver <dgsilver@yahoo.com>

[Many thanks to Dan. The disease is enzootic in Mongolia and is routinely reported. In 2004, it was reported from 12 provinces (14 counties): Khenti, Hovsgol, Bulgan, Selenge, Uws, Gobi-Altai, Ulaanbaatar, Darkhan-Uul, Ovorkhangai, Arkhangai, Drakhan-Uul (?), and Zavkhan, and involved cattle, sheep, goats and horses, plus 22 human cases. Further information on this season's outbreaks is being requested from Ulaanbaatar. - Mod.MHJ]

ANTHRAX, WILDLIFE - BOTSWANA (North-West, CHOBE NATL. PARK)

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 25 Aug 2006

From: Joe Dudley <JDUDLEY@EAI.COM>

Source: Botswana Press Agency [edited]

<http://www.gov.bw/cgi-bin/news.cgi?d=20060825&i=Anthrax_kills_wild_animals>

Since an anthrax outbreak was reported in the Chobe area last week, 9 wild animals have died. Department of Wildlife and National Parks officials told a heads of department meeting in Kasane that samples taken from the carcasses of 2 elephants for analysis proved positive. Principal Wildlife Officer Lucas Rutina said elephants, zebras and buffaloes were found dead last week. Rutina said the mortality rate was likely to rise as the disease was expected to spread before the rainy season.

District Wildlife Coordinator Goitseone Lebonetse said his office was taking steps such as proper disposal of carcasses found at Ihaha in the Chobe National Park and Muchenje in the west of the Chobe enclave, to control its spread. Lebonetse said the department had asked for a helicopter to help them carry out further investigations in affected areas and were embarking on public education campaigns. "We intend to intensify our public awareness programme and warn people to desist from criminal activities as some might be tempted to dig up elephant carcasses for their tusks. It [is] an offence to be found in possession of ivory without authority", he warned. Also as a means of containing the disease, vehicles and people living in the affected areas would be disinfected.

He urged the community to assist by reporting all dead animals in the Chobe region to the nearest wildlife office and advised them not to eat, touch or collect any product from an animal found dead in the region.

The first outbreak was in September 2004 and by December, a total of 848 mortalities were recorded, with buffaloes at 85 per cent and 9 per cent for elephants. A lion, warthog and a honey badger were also recorded in that year's outbreak. Anthrax is a bacterial disease caused by the spore-forming Bacillus anthracis. It is primarily a disease of herbivores but humans can be infected by anthrax if they come into contact with the infected animal, carcass or material.

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Biosurveillance EAI Corporation 4301 North Fairfax Drive, Suite 200 Arlington, VA 22203 <JDUDLEY@EAI.COM>
<DUDLEYJP@SAIC.COM>

[With so many affected in 2004 it is not unlikely that there was some residual soil contamination to hit the park animals once any immunity from that epidemic had worn off. Cases in elephants, zebras and buffalo reflect a variety of ecosystems. Background information has been requested from Botswana. - Mod.MHJ.] [Chobe National Park is in the far northern corner of Botswana, near the city of Kasane. For an interactive map see <<http://www.botswana.co.za/botswana-interactive-map.html>>. - Mod DK].

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA) (08)

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: 24 Aug 2006

From: Robert Allen <ballen@inspection.gc.ca>

CFIA anthrax update SK 24 Aug 2006

Positive premises, 147; pending, 1

Mortality on positive premises, 685: cattle 453; horses 6; swine 3; sheep 27; bison 182; white tailed deer (WTD) 10; elk 2; goats 2.

Carcass disposal: burnt 78 percent; buried 15 percent; pending or inaccessible 8 percent.

By Rural Municipality, with 4 new RMs affected (Preeceville, Birch Hills, Emerald, Big Quill, Sasman):

Robert W. Allen, DVM <ballen@inspection.gc.ca>

[* Indicates changes in Rural Municipalities and stock affected. Still moving, unfortunately. - Mod.MHJ]

[2]

Date: 24 Aug 2006

From: Robert Allen <ballen@inspection.gc.ca>

CFIA anthrax update MB 24 Aug 2006

Positive premises 20, pending 0.

Total mortality on confirmed premises 137: cattle 95, horses/donkey 3, bison 39.

Number vaccinated: 2009

Carcass disposal: burn 21 percent, bury 78 percent, pending/inaccessible 0 percent.

Robert W Allen, DVM

<ballen@inspection.gc.ca>

[Just won't stop. - MHJ.Mod]

[3]

Date: Fri, 25 Aug 2006 10:02:05 -0400

From: Joe Dudley <jdudley@eaicorp.com>

Source: CBC News, 24 Aug 2006 [edited]

<<http://www.cbc.ca/canada/saskatchewan/story/2006/08/24/anthrax.html>>

A 2nd human case of anthrax infection has emerged in Saskatchewan.

More than 663 animals have died in what health officials have called the worst anthrax outbreak in decades. However, human infections are much more rare.

A Yorkton-area veterinarian contracted the cutaneous type of the disease last week and is being treated with antibiotic ointment. He said he scratched some welts on his ankle after he had been testing dead cattle for anthrax. He said he must have had anthrax spores on his fingers at the time and that's how he got an infection.

"A week later, the thing becomes an inch and a half in diameter and gets this black spot, which is typical for cutaneous anthrax," he said Wednesday. "Just a mild irritation is all it is. I guess it is a bit itchy."

He said he was surprised he got the infection because he used safety measures. "Even though I did take precautions, wearing gloves and so forth. But I guess it can still happen," he said. Thanks to the antibiotics, the infection has almost healed, he said.

The 1st case of human anthrax infection in 2006 occurred in July, when a Melfort-area farmer was affected. He had the same kind of infection as Wood and has since recovered.

Officials with the Canadian Food Inspection Agency say the outbreak is slowing. There had been no new cases of animal deaths in Saskatchewan in CFIA's last report on Tuesday.

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Biosurveillance EAI Corporation

4301 North Fairfax Drive, Suite 200

Arlington, VA 22203
<jdudley@eai.com>
<dudleyjp@saic.com>

[This is not an atypical story or series of events. Fortunately the veterinarian's infection was mild and responded well to antibiotics, as it should. What surprises folks is that with all the fuss about anthrax, the lesion merely itches, which is pathognomonic. Normally skin lesions are on the hands and forearms. If you scratch your face or rub your eye it can be much more interesting, and oropharyngeal lesions are frequently fatal. If you see someone with a US quarter-sized circular scar on their hand or forearm it is usually safe to imitate Sherlock Holmes and say, "I see you had anthrax." It impresses the uninformed no end.

Bob Allen tells me that the Saskatchewan and Manitoba reports will be weekly from now on. His work is much appreciated. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - RUSSIA (TAMBOVSKAYA)

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: Sat, 26 Aug 2006 20:27:06 +0400

From: ProMED-mail Russian Correspondent Natalia Pshenichnaya <crane@aanet.ru>

Source: News Agency "Media-Aktivist," 25 Aug 2006 [edited]

<<http://www.mediactivist.ru/news/4026/>><http://www.mediactivist.ru/news/4026/>

According to the Ministry of Extreme Situations of Russia anthrax in cattle has been recorded in the Tambov region.

Symptoms of this disease were detected on Thursday [24 Aug 2006] in a cow in the village of Andreevka of the Sosnovskiy district in the Tambov region. The man, the owner of the sick animal, was placed in hospital for observation for symptoms of anthrax.

Now necessary sanitary and epidemiologic measures are being carried out at the focus of infection.

ProMED-mail <promed@promedmail.org>

[There are several cattle burial grounds and more than 10 biothermal holes in the Tambov region. However, it was not possible to find information in the mass media about anthrax in there in recent years. The latest mention of anthrax in cattle in this region was in 1979: <<http://www.regions.ru/news/1159474/>>

The Tambov region is located in the central part of European Russia. To the north, the Region borders the Ryazan Region, to the east the Penza Region and the Saratov Region, to the south the Voronezh Region, and to the west the Lipetsk Region. Administrative

centre: Tambov; Distance from Tambov to Moscow 480 km; Population (2002) - 1 240 700, - Mod.NP].

[This is, yet again, the age-old story of anthrax in Russia and will continue until a better structured control programme can be installed.

For a map of Tambov, Tambovskaya Oblast, see:

<<http://www.fallingrain.com/world/RS/72/Tambov.html>> - Mod.MHJ]

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

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: Sat 30 Sep 2006

From: Natalia Pshenichnaya <crane@aanet.ru>

Source: Medportal.ru, 29 Aug 2006 [edited]

<<http://medportal.ru/mednovosti/news/2006/08/29/tambov/>>

Two hospital admissions for anthrax in the Tambov Region

Two inhabitants of the Sosnovskaya district of the Tambov Region have been admitted to the Tambov Infectious Diseases hospital with a diagnosis of anthrax. The information came from Vladimir Pominov, the director in charge of the Regional Veterinary Agency, according to an ITAR TASS report.

Mr Pominov said that a man and a woman came from the villages Andreevka and Zelenoe, where a couple of days ago, cattle had been slaughtered. One of the patients, Mr Pominov said, is in a serious condition.

The response of the Veterinary Service of the Sosnovskaya district was very prompt, and the infected meat has been collected. The carcasses of the animals have been burned. Now measures are being taken to localize the source of the infection, quarantine has been established, and the places of slaughter of cattle are being covered by concrete.

ProMED-mail <promed@promedmail.org>

[In some countries, they slaughter animals sick with anthrax. Why, I don't know, as cattle do respond well to treatment, and it just increases the mess and contamination and just disinclines owners from reporting disease. Also, if you are burning carcasses, one can shovel up any bloody soil and throw it into the fire. For disinfecting soil, refer to WHO's Anthrax Guide:

<http://www.who.int/csr/resources/publications/anthrax/WHO_EMCC_ZDI_98_6/en/>.

- Mod.MHJ]

ANTHRAX, HUMAN, OVINE - BULGARIA (DOBRICH)

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, 7 Sep 2006 10:47:29 +0100

From: A-Lan Banks<A-Lan.Banks@thomson.com>

Source: Sofia News Agency - Bulgaria, 7 Sep 2006 [edited]

<http://www.novinite.com/view_news.php?id=69231>

and Mediafax - Bucuresti,Romania, 7 Sep 2006 [edited]

<[http://www.mediafax.ro/english/articole-free/Bulgarian-Woman-Dies-Of-Anthrax--](http://www.mediafax.ro/english/articole-free/Bulgarian-Woman-Dies-Of-Anthrax--Infected-By-Sheep-542162-9.html)

[Infected-By-Sheep-542162-9.html](http://www.mediafax.ro/english/articole-free/Bulgarian-Woman-Dies-Of-Anthrax--Infected-By-Sheep-542162-9.html)>

A Bulgarian woman 69 or 70 [the 2 accounts differ] years old has died of anthrax after contact with an infected sheep but there is no danger of a wider outbreak among people, a state health official said on Thursday. The woman was first hospitalised because of heart attack symptoms. After she ran temperature, the doctors realized it was an infection.

The diagnosis of anthrax has been confirmed by microbiologists from Sofia. Experts say there is no risk of a wider outbreak of the disease.

The woman from the village of Kamen in northeast Bulgaria contracted the disease after processing meat from a sheep her family later cooked and ate, said Angel Kunchev, head of the health ministry's epidemics control unit. She died on 31 Aug 2007.

A-Lan Banks <A-Lan.Banks@thomson.com>

[Anthrax is sporadic in Bulgaria and each year will see a few human cases, latterly in the ones & twos. The fact that the woman's doctors took a while to diagnose this disease would suggest it was the gastroenteric form, not the cutaneous which is pathognomonic. This is the first ProMED report on anthrax in Bulgaria. - Mod.MHJ]

ANTHRAX, HUMAN - KYRGYZSTAN (OSH)

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: Sat 9 Sep 2006

From: Dan Silver <dgsilver@yahoo.com>

Source: RIA Novosti [edited]

<<http://en.rian.ru/world/20060905/53525029.html>>

(Attached is an article dated 5 Sep 2006 from RIA Novosti stating that 4 people have been hospitalized with anthrax in Osh, Kyrgyzstan.

As noted at the bottom of this article, these 4 are in addition to the case in Jalal-Abad, which was posted on ProMED on 4 Sep 2006. - Dan Silver)

Four hospitalized in Kyrgyzstan anthrax outbreak

Four people have been hospitalized in southwestern Kyrgyzstan after being diagnosed with anthrax, the Central Asian republic's emergencies services reported Tuesday [5 Sep 2006].

Quarantine regulations have been imposed in the affected village in the Osh region, whose local center is about 800 miles from the country's capital, Bishkek. Measures to contain the outbreak have been launched.

A resident in the neighboring Jalal-Abad region was hospitalized with the same diagnosis last week.

Dan Silver Interested Layperson <dgsilver@yahoo.com>

[Thank you, Dan. - Mod.MHJ]

[2]

Date: Tue 5 Sep 2006

From: Tynchtykbek Djaparaliev <altyntamyr@rambler.ru>

[Concerning the reported outbreak in Jalal-Abad, I had contacted my good colleague Dr. Tynchtykbek Djaparaliev, DVM, CEO, Altyn-Tamyr JSC (Biofactory of Bishkek) who commented as follows]:

Thank you for your message. We have a terrible situation in this region of our country, because it is like a gate for all outbreaks into our country. Additionally, as you know, we have an open border with Tajikistan, and wild animals can cross the border without any problems, also the population in this part of our country is very poor. Of course in our institute, we produce a vaccine against anthrax ... But unfortunately, we have problems with our informational program.

Tynchtykbek Djaparaliev <altyntamyr@rambler.ru>

[If you check our postings for Kyrgyzstan, you can see that the oblasts of Jalal-Abad and Osh are a constant source of reports of disease, supporting Tynchtykbek's comments. And they are not the 1st in having difficulty getting farmers to listen and respond to advice.

- Mod.MHJ]

ANTHRAX - CANADA (SASKATCHEWAN, MANITOBA)(10)

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: Mon, 11 Sep 2006 17:46:34 -0400

From: Joe Dudley <jdudley@eaicorp.com>

Source: Saskatoonhomepage.ca [edited]

<http://www.saskatoonhomepage.ca/index.php?option=com_d4j_ezine&task=read&page=9&category=22&article=1063&Itemid=87>

The anthrax death toll in Saskatchewan has risen to 779 . . . following the deaths of 53 animals last week.

The Canadian Food Inspection Agency says 5 new farms reported the disease last week. The year-to-date total stands at 153.

One new rural municipality reported anthrax in the past 7 days. The R.M. of Leask is located about 100 kilometers north of Saskatoon. A total of 45 rural municipalities have had at least one anthrax case this year.

[Byline: Neil Billinger]

Joseph P. Dudley, Ph.D. jdudley@eai.com <dudleyjp@saic.com>

[2]

Date: Tue 12 Sep 2006 12:14 PM

From: Dr. Bob Allen <ballen@inspection.gc.ca>

CFIA anthrax update SK 7 Sep 2006

Positive premises, 153; pending, 2

Mortality on positive premises, 777: cattle 475; horses 6; swine 3; sheep 28; bison 250; white tailed deer (WTD) 11; elk 2; goats 2.

Carcass disposal: burnt 69 per cent; buried 24 per cent; pending or inaccessible 7 per cent.

Robert W. Allen, DVM

District Veterinarian

Canadian Food Inspection Agency

320 - 1288 Central Avenue

Prince Albert, SK S6V 4V8

<ballen@inspection.gc.ca>

CFIA Website

ANTHRAX, HUMAN - KYRGYZSTAN (JALAL-ABAD) (02): SUSPECTED

Date: 14 Sep 2006

From: ProMED-RUS Correspondent NP

Source: IA "Akipress" [Russian, trans. ProMED-RUS Correspondent Artak S, edited]
<http://www.akipress.org/_print.php?db=3Dru_fergana&id=3D20631=20>

According to the information from the South Inter-regional Administration of the Ministry of Emergency Situations, 2 patients with suspected anthrax were admitted to the infectious diseases unit of Suzak district hospital on 12 Sep 2006. They are inhabitants of the village of Sokutash within the Kiziltu village administration of the Suzakskiy district. The patients contracted anthrax by eating the meat of a neighbor's cow that was not certified by a veterinarian.

ProMED-mail <promed@promedmail.org>

[There was a report about a patient from the same village (Sokutash) at the end of August [2006]. The results of laboratory tests have not been reported. The previous 2 Jun 2006, 2 more patients from the Jalal-Abad Region were admitted to the hospital with suspected anthrax, also without laboratory confirmation. The cases of anthrax from this region are becoming frequent, which may be because of spore contamination of pastures from old burial grounds of cattle. - Corr.NP]

[Anthrax is enzootic in the Jalal-Abad & Osh oblasts, which together constitute one of the major areas for this disease in livestock and humans in Kyrgyzstan. When there are repeated cases in the same village it reflects a major disease control problem, especially of failures in routine annual livestock vaccination as well as of veterinary public health/meat inspection. The country is poor and unfortunately the veterinary infrastructure reflects this. - Mod.MHJ]

ANTHRAX, BOVINE - RUSSIA (VORONEZH)

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

From: "Joe Dudley" jdudley@eaicorp.com

Date: Mon, 18 Sep 2006

Source: [Cattlenetwork.com](http://www.cattlenetwork.com)

<<http://www.cattlenetwork.com/content.asp?contentid=68948>>

Anthrax-Infected Cow Found In Russia's Voronezh Region

The Voronezh regional office of the Russian federal food quality watchdog Rospotrebnadzor reported Monday a case of anthrax in the central-Russia region of Voronezh.

An anthrax-infected cow was found on a private holding in the village of Turovo in the Nizhnedevitsky district of Voronezh.

Rospotrebnadzor said the cow had been removed and killed, the area was being disinfected and the people who had come into contact with the infected animal were being treated by local doctors.

Joseph P. Dudley, Ph.D.
EAI Corporation
4301 North Fairfax Drive
Suite 200
Arlington, VA 22203
<jdudley@eai.com>
<dudleyjp@saic.com>

[As this disease is characteristically initiated by finding an animal dead which had been in apparent good health the day before, I am a little leary of this account. Animals clinically ill from anthrax are usually noted once the disease has broken out when owners are then aware of what is going on. And secondly cows respond well to antibiotic treatment even when seemingly moribund. Also there would be no need to treat "exposed" humans unless they had butchered the animal. So it is probably the same old story of diagnosing anthrax after the event. MHJ Mod]

ANTHRAX, BOVINE - USA (TEXAS)

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

Date: 21 Sept, 2006

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

On Mon, 18 Sep, The Texas Department of Health Services alerted its veterinary public health officers that the Texas Veterinary Medical Diagnostic Laboratory (TVMDL) had confirmed a diagnosis of anthrax in a 4-year-old Charolais cow in Kinney County.

I checked with the veterinarian in Bracketville, Dr. Zach Davis, who confirmed that he had been called out to a farm 6-7 miles SW of the town with this dead cow about 10 days earlier. A Charolais bull had died of anthrax on the same farm and in the same pasture in early June 2006. After the bull died the owner's herd of 35 head had been vaccinated, including this cow, which later died. Other than the possibility of a misvaccination in the confusion of running animals through the chute, neither of us could come up with an explanation other than a duff batch of vaccine. The owner had bought the vaccine at a local feed store. The herd was revaccinated after the 2nd death.

The 1st death had occurred during the hot dry weather. It had rained since. The cause for the 2nd cow was posited that the salt block for the herd was down to pieces and that salt from it had run into the soil, which the cattle had been noted to be licking and abrading. The graze was minimal. So logically this field had had an anthrax case buried in it some time in the past. The last case of anthrax that Zach had seen in the area was 15 years ago, a horse, some 3 miles from this affected farm.

Because of the epidemic in 2001 in this area, the ranchers have got into the habit of feeding chlortetracycline in their feed at levels anywhere from 300 to 3000 gms per ton; anything over 50 gms needs a veterinary prescription. Thus any diagnosis of anthrax in this area should take this into account, and as a matter of routine, check for antibiotic resistance in the confirmatory culture. This Kinney County farm was not feeding antibiotics to its cattle.

ProMED-mail promed@promedmail.org

ANTHRAX, BOVINE - USA (TEXAS)(02)

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

Date: Fri, 22 Sep 2006 14:20:19 -0600

From: "Dr. Berrier" <drberrier@colorado-serum.com>

Subject: Comments on anthrax disease and vaccination

This post is in response to the bulletin regarding a case of anthrax in one cow in Kinney County, Texas on 8 Sept 2006.

Colorado Serum Company is the manufacturer of the Anthrax Spore Vaccine - Sterne Strain - and we would like to take this opportunity to offer some technical information regarding the use and efficacy of the vaccine.

The vaccine has been used extensively in the United States in the face of Anthrax outbreaks for decades and has performed very well. Each serial of vaccine has to pass USDA-APHIS-CVB required testing for potency, safety and purity before it can be released for use. There are many variables involved with a protective immune response in animals and individual animals will vary in their response to a vaccination. It should also be noted that the package circular recommends a booster vaccination 2 - 3 weeks after the initial vaccination in endemic and contaminated areas.

In this herd the 2nd vaccination was not given until 3 months later - after one cow died from anthrax. When the booster vaccination is given 2 - 3 weeks after the 1st vaccination it stimulates a very strong memory-humoral response that may have provided enough protective immunity to prevent the one cow from succumbing to disease 2.5 months later. It is impossible to know but chances are the mortality rate would have been much higher if these cattle were never vaccinated with the Anthrax Spore Vaccine.

Randall J. Berrier, DVM
Director of Veterinary Services
Colorado Serum Company

[The Colorado Serum Company produces an excellent Sterne vaccine with a long history of very sound reliability. Normally one shot is adequate for cattle though some people prefer 2, as does Dr. Berrier. Horses respond poorly sometimes, so a double shot is frequently used with them. Frankly I am puzzled by this cow dying. And as Dr Berrier states, if it had been vaccinated twice it would have been spared. This has been copied to

Zach Davis so that the next time he visits this ranch he can make enquires. As he & I discovered when we compared notes, when you get talking with one's farmers it is not infrequent to hear, "Oh, didn't I tell you ..." and the solution, usually simple, to the puzzle is revealed. - Mod. MHJ]

ANTHRAX, BOVINE - AZERBAIJAN: OIE

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

Date: 29 Sep 2006

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

Source: OIE Disease Information, 28 Sep 2006, Vol 19 - No. 36 [edited]
<http://www.oie.int/eng/info/hebdo/A_CURRENT.HTM#Sec1>

Anthrax in Azerbaijan: (Date of previous outbreak of anthrax in Azerbaijan reported to the OIE: 1996).

Immediate notification report

Information received on 22 Sep 2006 from Dr Ismayil Murshud Gasanov, Head, State Veterinary Service, Ministry of Agriculture, Baku:

Report date: 22 Sep 2006.

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

Date of start of the event: 15 Sep 2006.

Clinical disease: yes.

Nature of diagnosis: clinical and laboratory.

Details of outbreak: Cattle on a farm in Deveci district at Tezekend were found to be affected on 15 Sep 2006. There were 5 susceptible animals resulting in one case which died.

Laboratory where diagnostic tests were performed: State Veterinary Laboratory, Baku

Results: bacteriological tests on 19 Sep 2006 were positive

Source of outbreak: soil-borne infection (previously infected site).

Control measures undertaken: quarantine; vaccination; disinfection of infected premises/establishment(s).

ProMED-mail <promed@promedmail.org>

[This is a very interesting report, as the last positive report of anthrax in cattle to OIE was in 1996. However, they maintain greater than 100 percent vaccination of all species other than swine, all the while having human cases. To take only recent years, in 2003 there were 5 cases; 2001 (3); and 2000 (3). I suspect there is more going on than Baku knows or is willing to report. - Mod.MHJ]

ANTHRAX, HUMAN, CAPRINE - CHINA (SHAANXI)

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

Date: Sun 1 Oct 2006 09:04:30 -0700 (PDT)

From: Dan Silver <dgsilver@yahoo.com>
Source: The Mirror [translated by Dan Silver; edited]
<http://news.anhuinews.com/system/2006/10/01/001573526.shtml>

Three family members in Shaanxi's Bin County contract anthrax from sick goat

As reported by Xian Evening Post, 3 members of a family in Xinmin Township of Bin County in Shaanxi Province contracted anthrax after eating a sick dead goat. The 3 patients are still in isolation and treatment at a local hospital. Their illness is basically under control. Health departments from provincial, municipal, and county levels carried out burning and burial of remaining diseased dead goat(s) the same night.

Those infected with anthrax are members of one family in Baozi Village in Xinmin Township. Vice director Geng Xinyi of Bin County Hospital told reporters that the 3 patients were admitted at 3:00 pm on 28 Sep 2006. After definitive diagnosis of the illness, the situation was felt to be serious and a report was immediately made to appropriate departments at the county level. Afterwards, Bin County and Xianyang City health departments sent the report up to the provincial health department and Ministry of Health, attracting high-level attention.

By 10:00 pm that night, leaders from Shaanxi Province and Xianyang City's health departments had rushed to Bin County. Under the auspices of the Bin County Committee and government, a special meeting was held on how to prevent and control infectious illness by mobilizing the masses. That night, Bin County Committee and county government organized over 100 personnel from health, agriculture, public security, and other departments, dispatching them to Baozi Village of Xinmin Township where they carried out effective disposal of more than 10 sickened, dead goats through professional burning and burial.

At present, the 3 anthrax patients are stable, but they will remain in hospital for treatment and observation. They can be released only after complete recovery.

Anthrax is an acute, febrile, septicemic, zoonotic infectious disease caused by anthrax bacteria. The most susceptible animals are sheep, cow, horse, and other grass-eating livestock. Uncoagulated blood from the corpses of animals killed by anthrax often flows from natural orifices, releasing large numbers of bacteria. Anthrax bacteria can survive in soil for tens of years and remains highly virulent. The mortality rate from this disease is extremely high.

(byline: Wu Yue)

Dan Silver <dgsilver@yahoo.com>

[Our thanks to Dan for finding and translating this report. While the Office International des Epizooties (OIE) receives sparse livestock reports of anthrax in China, it maintains a steady human drumbeat; 2000 (594), 2001 (824), 2002 (783), 2003 (602), and 2004 (610).

To find Xinmin, go to: <<http://www.fallingrain.com/world/CH/26/Xinmin.html>>
- Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - ROMANIA (SOUTH EAST)

A ProMED-mail post <<http://www.promedmail.org>>
Date: Mon, 2 Oct 2006 12:51:55 +0000
From: Brent Barrett <salbrent@sbcglobal.net>
Source: Reuters <alertnet@reuters.com>
<<http://www.alertnet.org/thenews/newsdesk/L02925623.htm>>

Two Romanians admitted to hospital with anthrax

BUCHAREST, Oct 2 (Reuters): Two people in south eastern Romania are being treated in hospital for anthrax, an animal disease which can be transmitted to humans, health officials said on Monday. "Samples taken from a 38 year old woman and a 67 year old pensioner from the county of Tulcea tested positive for a mild form of anthrax," Adriana Argetoianu, head of the health watchdog in the Danube delta county of Tulcea, told Reuters. "The two peasants are now out of danger, recovering after being treated intensively with antibiotics."

Preliminary investigations indicated the two had slaughtered a calf after it got sick in mid-September in the village of Topolog, some 220 km (140 miles) east of Bucharest. Another 18 villagers who ate the veal have been investigated, but tests showed no problems, she said.

According to local vets, cattle from the region had been given anthrax vaccine shots. Anthrax cases in cattle and humans are sporadic in Romania, which is to join the European Union in 2007.

The disease, whose symptoms include high fever, an enlarged spleen and swellings of the throat in some animals, can be fatal to humans who come into contact with the animals' skin, meat, or blood, epidemiologists say.

Brent Barrett <salbrent@sbcglobal.net>

[Calves are usually not vaccinated so this animal might well have been susceptible. Romania regularly reports a few cases in cattle and sheep each year, and occasionally in horses and swine. Human cases reflect this: 2000 (51 with 2 deaths); 2001 (7); 2002 (1); 2004 (2); and 2005 (1). Thanks to Brent.

To find Topolog, go to:
<<http://www.fallingrain.com/world/RO/0/Topolog.html>> but this is not a "village". -
Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - KAZAKHSTAN (SOUTH)

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

Date: 4 Oct 2006

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

Source: News agency "Gazeta.ru", 4 Oct 2006 [translated by Associate Moderator NP; edited] <http://www.gazeta.ru/lenta/2006/10/04/news_889769.shtml>

Source: News agency "Gazeta.kz", 3 Oct 2006
<<http://www.gazeta.kz/art.asp?aid=81452>>

Anthrax has been confirmed in 2 patients in Southern Kazakhstan who have been hospitalized previously on suspicion of this disease. The press-service of the Ministry of Extreme Situations of the republic reports that other patients are under supervision.

Nine persons have been hospitalized with suspicion of anthrax in the Infectious Department of the Saryagashskoj District hospital in Southern Kazakhstan, 2 with typical symptoms of cutaneous anthrax.

Zhmaguk Madetov, the deputy director of Department of Sanitary-Epidemic Control in Southern Kazakhstan, reported that patients with suspected anthrax have been admitted to hospital in the last few days from 3 different settlements in Saryagashskiy district. Anthrax has been confirmed in 2 of 9 persons hospitalized.

Medetov stated that all the patients had taken part in the slaughter and butchering of sick animals. The 1st instance was in the settlement of Inkes, where 5 people killed 2 sick cows. The 2nd was in Beshkuduk, near Saryagash, where 3 people killed 2 sick cows. The 3rd was in Saryshagan, where the owner killed a 6-month-old calf. In all instances the meat was distributed among relatives. The recovered pieces of meat were burned by the investigating epidemiologists.

"Now, households have been checked; everyone who was in contact with the meat is under medical supervision, and all of them have received a preventive 5-day course of antibiotics," said Medetov.

More than 300 natural foci of anthrax exist in Southern Kazakhstan. Some 3-4 years ago about 20 cases of anthrax were registered annually in the region.

The public is being widely informed; the health officers reported in which districts the disease had been reported and which animals had been killed; also spot-checks on the city markets were carried out; and the population was warned to take care when purchasing meat.

After a change of regional management and of sanitary epidemiological supervision 3 years ago, cases of anthrax in the region have [had?] disappeared. Occasionally there have been suspicions of anthrax, but the Sanitary - Epidemic Service and Public Health Services refuted them and suspect cases have not been confirmed.

ProMED-mail <promed@promedmail.org>

[Anthrax in this region of Kazakhstan is registered frequently. In the last year alone a preliminary diagnosis of anthrax was reported in 4 inhabitants of Southern Kazakhstan. However, results of the final investigation have not been disclosed - Mod.NP]

[This report has been referred back to Almaty for comments on the absence of confirmatory reports. Checking our recent postings does reveal that confirmations seem to be missing. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - KYRGYZSTAN (JALAL-ABAD, OSH)

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

Date: Mon 9 Oct 2006

From: Asankadyr Junushov <junushov@mail.ru>

Here is the information you've requested: By 2 Oct 2006, there were 14 sick persons with the skin form of anthrax (9 cases in Suzak rayon, Jalal-Abad oblast and 5 cases in Karakuldja rayon, Osh oblast). In Jalal-Abad, the source of infection was a slaughtered cow (all the sick people were infected from the one source). All the infected people were involved in the slaughter of sick animals.

Asankadyr Junushov

D/Biotechnology Institute of National Academy of Sciences of Kyrgyzstan Bishkek
Kyrgyzstan <junushov@mail.ru>

[Normally, now that it is October, we would not expect to see any more anthrax cases. In the Central Asian republics, however, it is not uncommon to see October cases in livestock, and thus in associated humans. The reasons for this are not clear, but we recently had a visiting team from Tajikistan, and their explanation was that these late cases occurred when cattle were moved from their summer grazing to the winter grazing. Grass growth is slight in October, and the grazing is short, and therefore the animals take in more than the usual amounts of soil while on the traditional cattle trails -- cows graze by pulling up grass plants -- and are thus exposed to spores from past outbreaks. It makes sense. Our thanks to Asankadyr for this update. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - INDONESIA (SULAWESI)

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

Date: Tue 10 Oct 2006 02:57:37 -0700 (PDT)

From: Brent Barrett <salbrent@sbcglobal.net>

Source: The Jakarta Post [edited]

<<http://www.thejakartapost.com/detailnational.asp?fileid=20061010.G05&iirc=4>>

An anthrax epidemic has been declared in Gowa, South Sulawesi, with cows in 3 villages infected with the deadly illness and fears that infected meat has been sold to the public, an official says. No people in the region have been reported sick with the disease.

Bategulung village secretary Abdul Hamid said 3 cows in the village had been confirmed infected with anthrax during the past week. Two possibly infected cows had been slaughtered before the disease was detected and their meat sold to the public, he said. Abdul Hamid said the administration had issued a circular informing people not to sell or slaughter cattle until the beasts had been inspected and cleared by the local health office.

Villagers in 3 areas had alerted the authorities after their cattle died of suspicious symptoms, he said. Farmer Lawonri Daeng Tulung, who owned one of the infected beasts, said he was not initially aware his cow was sick. "I took the cow to pasture. An hour later, however, I was informed by my neighbors that my cow had died," he said. Lawonri informed his village head, who later contacted the Gowa Livestock Husbandry Office and Maros Veterinary Agency. An organ sample was later taken from the cow for laboratory tests. Samples were also taken from 96 other cows in the location.

Maros Veterinary Agency head Roni Mudidgo confirmed anthrax bacteria had been found in an organ sample taken from one of the cattle. Roni said an anthrax epidemic had been declared in the Gowa regency after 2 infections were confirmed there earlier. "Local people have to beware," he said. He urged the Gowa regency to carry out mass vaccinations of all livestock in the area to prevent the disease from spreading.

[byline: Andi Hajramurni, The Jakarta Post, Makassar]

Brent Barrett

Indianapolis, IN

<salbrent@sbcglobal.net>

["Villagers in 3 areas had alerted the authorities after their cattle died .." and "Samples were also taken from 96 other cows" are obvious indications that the circumstances are worse than just the 3 cows dying in Gowa. Also taking an "organ" sample indicates that Lawonri's cow was necropsied and thus there would have been the opportunity for soil contamination. With repeated outbreaks in Sulawesi, the island is clearly overdue to have compulsory annual vaccination. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - INDONESIA (SULAWESI) (02)

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

Date: 11 Oct 2006

From: Joe Dudley <jdudley@eai.com>

Source: The Jakarta Post [edited]

<<http://www.thejakartapost.com/detailnational.asp?fileid=20061011.G01&iirc=0>>

Gowa begins anthrax vaccinations

The Gowa regency administration has begun vaccinating cattle for anthrax in 2 infected areas in the region and is requiring all farmers to have animals tested and certified free of the disease before they are killed in designated slaughterhouses.

Gowa animal husbandry office deputy head Muhammad Arfah Sulong told The Jakarta Post on Tuesday [10 Oct 2006] that the regency had issued a circular prohibiting farmers from moving cattle from known anthrax areas and killing them outside official slaughterhouses. "This measure is to prevent the spread of anthrax in Gowa," Arfah said.

Currently, 3 villages in 2 Gowa districts have been declared infected zones. They are Maccinibaji and Pabbentengan in Bajeng district and Bategulung village in Bontonompo. Arfah said the office had begun vaccinating cattle in Maccinibaji and Pabbentengan but was not immunizing animals across the entire region -- the standard procedure -- because it did not have enough staff to do the job. "In the meantime, we have prioritized the vaccination to cattle in areas where there have been positive cases of anthrax, since we have limited manpower. We only have 6 officials ... so in a day, they can only vaccinate around 200 cattle," Arfah said.

Vaccinations in Bategulung and 2 other villages, Manjapai and Sengka in Bontonompo district, will not begin until after the results are received from tests conducted on blood samples of 96 cattle taken Sunday [8 Oct 2006], he said. The Gowa health office has yet to test blood samples taken from residents in the affected areas. No people have been reported sick with the disease. The office will work to completely vaccinate cattle in the regency in stages, Arfah said. There are between 60 000 and 80 000 cattle across the regency.

Maccinibaji villagers said the outbreak had destroyed their business during Ramadan, normally a boom time for farmers. "The anthrax cases are really costing us. Usually, we have plenty of buyers starting from mid-Ramadan until Idul Fitri, but now, there are none," Daeng said. But he said farmers understood people's concerns and promised they would comply with the government's restrictions.

[byline: Andi Hajramurni]

Joseph P Dudley, PhD

Chief Scientist, Biosecurity and Biosurveillance EAI Corporation

4301 North Fairfax Drive

Suite 200

Arlington, VA 22203

<jdudley@eai.com>

[They have severe problems if they plan to vaccinate 60 000 to 80 000 head and can only manage 200 in a day. That needs a radical re-think. If the disease is localized, and only good record keeping can provide that information, one sets up a program to vaccinate those villages and watch the rest. - Mod.MHJ]

ANTHRAX, HUMAN - UK (SCOTLAND) (03)

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

Date: Thu 12 Oct 2006 09:15:10 -0400

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

Source: Health Protection Agency Press Release [edited]

<http://www.hpa.org.uk/hpa/news/articles/press_releases/2006/061012_anthrax.htm>

As part of an ongoing investigation into an anthrax case in the Scottish Borders, NHS Borders, Health Protection Scotland and the Health Protection Agency have continued to work together. Some interim investigation results have been received which confirmed that minute quantities of anthrax spores had been detected in materials examined by the Health Protection Agency. The items concerned were 3 drums and 2 imported animal skins used in the making of African drums. All were recovered from a site in Northumberland. The implications of these findings will be actively considered in an investigation that is ongoing concerning a property in Scotland where the anthrax case lived (Black Lodge, Stobs).

Discussions with leading UK experts regarding these findings have concluded that the risk of being exposed to anthrax spores through drumming alone or merely handling these drums is extremely low. For that reason we are not advising antibiotics for those people who attended any drumming classes or workshops where these drums were used. Also expert advice is clear that there is no increased risk of anthrax to the general public as a result of these findings. Current owners of drums or hides do not need to take any action.

All persons who have been in contact with these drums and skins have been contacted and provided with appropriate personal information. Helplines are also available should members of the public wish to talk through any health issues relating to anthrax and drumming. If calling from England the helpline number is 0845 46 47. If calling from Scotland the helpline number is 08000 28 28 16. General advice concerning anthrax, drums, and animal skins can be obtained from:

Health Protection Scotland

<<http://www.documents.hps.scot.nhs.uk/giz/faqs/anthrax-humans.pdf>>

Health Protection Agency (England & Wales)

<http://www.hpa.org.uk/infections/topics_az/anthrax/anthrax_hides_drums.htm>

Centers for Disease Control and Prevention (CDC)

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

Department for Environment Food and Rural Affairs (DEFRA) Advice on importing

hides <<http://www.defra.gov.uk/animalh/int-trde/imports/iins/hide/index.htm>>

Further results including those samples removed from Black Lodge are awaited. The completed set of results will assist the investigation team to draw conclusions about the source of the anthrax in this case and assess requirements for decontamination.

ProMED-mail <promed@promedmail.org>

[If "minute quantities of anthrax spores had been detected" is correct and in some way reflects the true level of exposure of the 50 year old man who died, one must therefore ask what host characteristics made this a lethal dose in this instance. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - ZIMBABWE (MASHONALAND WEST)

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

Date: Tue, 17 Oct 2006

From: Joseph Dudley <jdudley@eaicorp.com>

Source: Xinhua via People's Daily Online [edited]

<http://english.people.com.cn/200610/16/eng20061016_312078.html>

One person has died of suspected anthrax while 82 others have so far received treatment following an outbreak of the disease in Zimbabwe's province of Mashonaland West, The Sunday Mail reported [map at <<http://www.un.org/Depts/Cartographic/map/profile/zimbabwe.pdf>>].

The provincial medical director Wincelas Nyamayaro confirmed the disease outbreak but said the cause of the one recorded death had not yet been ascertained.

Last week 82 cases involving people and 2 cases involving cattle were detected on Ngwarati and Mahewu farms in Trelawney. Anthrax is an acute, contagious disease characterized by septicaemia and sudden death.

The disease is caused by the bacterium *Bacillus anthracis* whose unique feature is its ability to form dormant stages (spores) which can survive in the soil for many years.

Animals become infected by ingestion of contaminated feed or water. In the body, the spores multiply and produce a lethal toxin which kills the animal. Crispin Devere, who is the acting provincial environmental health officer, said his office had managed to contain the situation.

"It is the first time we have had an outbreak on those 2 farms but I wish to inform all concerned parties that we have managed to successfully treat all cases at Ngwarati and Mahewu farms," Devere said.

Joseph P. Dudley, Ph.D. <jdudley@eaicorp.com>

ANTHRAX, LIVESTOCK, WILDLIFE - NAMIBIA (CAPRIVI)

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

Date: 23 Oct 2006

From: Brent Barrett <salbrent@sbcglobal.net>

Source: New Era, AllAfrica.com [edited]

<<http://allafrica.com/stories/200610230774.html>>

Namibia: Anthrax Confirmed in Caprivi

The Directorate of Veterinary Services in the Caprivi Region today [23 Oct 2006] starts mass vaccination of cattle in the area, following an outbreak of anthrax that has killed livestock and wild animals. The disease is said to have originated from the Chobe National Park in Botswana, where it is believed to have killed dozens of wild animals. It spread to Namibia through animals that freely wander between the 2 countries.

Last Friday, officials from neighboring Botswana and their Namibian counterparts convened an urgent meeting in the Caprivi to discuss control measures that could be implemented to prevent increased deaths in the wildlife population, after an outbreak was declared in September 2006 in Botswana. Dr Frank Chitate of the Veterinary Directorate confirmed to New Era that officials from the Department of Animal Health and Production, the police, the Ministry of Environment and Tourism, the Ministry of Health and Social Services and others from the Department of Wildlife and Parks, had met to discuss how the outbreak could be contained, taking into consideration that it affects both countries.

So far, 4 elephants and 8 zebras are known to have died from the disease on the Namibian side of the border. However, Chitate says the figures are likely to be higher than this. One person suspected to have contracted the disease, Chitate said, has been admitted to the Katima Mulilo state hospital, but efforts to get comment from health officials proved fruitless.

In Botswana, a mass vaccination has started already, while in Namibia the exercise commences today [23 Oct 2006]. At least 180 000 doses of vaccines were procured from South Africa last week. Chitate revealed that 5000 doses of vaccines for rabies were also purchased for dogs and cats. About 16 veterinary officers and supervisors will be involved in the exercise that will take between 7 and 8 weeks. "Time and again, we receive cases of rabies in the region, and when we do campaign for anthrax, we also do the same for rabies," Chitate said.

The anthrax outbreak was 1st reported in the Chobe wildlife area in September 2006. Though there was one suspected case in Namibia at the time, laboratory results could not confirm whether the animal died from the said disease due to its decomposed body. The vet explained it was difficult to detect for certain whether the animal died from anthrax or possibly another disease.

Early this month [October 2006], Chitate said, animals started dying in Caprivi, and on 7 Oct 2006, it was confirmed that animals died from anthrax. He strongly urged all farmers in Caprivi to take their cattle for vaccination against the deadly virulent bacteria. Vaccination will be done for free.

Considering that the disease can affect humans too, Chitate urged people in the region not to eat meat of an animal that dies on its own (from natural causes). Though uncommon

among people, the disease can also infect human beings who feast on infected carcasses, he warned. "We urge farmers not to eat any carcass just in case the animal died from anthrax," he cautioned. Separate vaccination campaigns already took place in July 2006, as the Caprivi region is known to have sporadic cases of this disease.

Cases were also reported in January 2005, when about 3 cattle were affected. In 2004, the area was hard hit by the spread of the same disease, with scores of livestock dying after displaying anthrax symptoms. Dozens of elephants and buffalo in Botswana, especially in Chobe National Park, also died from the disease.

[Byline: Petronella Sibeene, Windhoek]

Brent Barrett <salbrent@sbcglobal.net>

[For Katima Mulilo, see

<http://www.fallingrain.com/world/WA/28/Katima_Mulilo.html>.

Our thanks to Brent. - Mod.MHJ]

ANTHRAX, BOVINE - INDIA (TAMIL NADU)

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

Date: Mon 23 Oct 2006

From: T. Jacob John <vlr_tjjohn@sancharnet.in> & Joe Dudley <dudleyjp@saic.com>

Sources: The New Indian Express [edited] & Chennai.online

<<http://www.chennaionline.com/colnews/newsitem.asp?NewsID={998F97D0-E2D3-40A8-9ACF-34316ED8F38F}&CategoryName=Chennai>>

Anthrax in animals in Tamil Nadu

According to a report in The New Indian Express (Chennai edition, 23 Oct 2006), 17 cows have died of anthrax during the past week in Uthankarai in Krishnagiri district in the northern part of Tamil Nadu. The information was given by the District Collector, Santhosh Babu, and according to him, autopsies [sic. necropsies] proved the cause of death. [The team also administered vaccines to around 1200 cows in the taluk, he said. - Mod.JW]

T. Jacob John 439 Civil Supplies Godown Lane, Kamalakshipuram, Vellore, Tamil Nadu, 632 002 India <vlr_tjjohn@sancharnet.in>

[To quote Jacob John: "In the absence of systematic and comprehensive disease surveillance in the various states of India, we learn about outbreaks only from newspapers. Obviously only newsworthy outbreaks are reported." India does provide reports to OIE in Paris, but in general he is correct. This part of Tamil Nadu has regular outbreaks of anthrax, due to the under-regulated and uncontrolled tanning industry. Necropsy is not a good method for diagnosing anthrax, as it provides a large amount of environmental contamination, is not accurate, and puts many people and animals at risk. Plus, the mess is a real pain to clean up if you want to do it correctly. Laboratory confirmation is reliable.

To find Krishnagiri, go to <<http://www.fallingrain.com/world/IN/25/Krishnagiri.html>>.

- Mod.MHJ/JW]

ANTHRAX, BEEF - RUSSIA EX UKRAINE: SUSPECTED

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

[1]

Date: 1 Nov 2006

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

Source: Finmarkt [trans. by Mod. NR; edited]

<<http://www.finmarket.ru/z/nws/hotnews.asp?id=540868&rid=1>><http://www.finmarket.ru/z/nws/hotnews.asp?id=540868&rid=1>

Two samples of beef that were tested in Arkhangelsk were found positive for anthrax. The box markings indicated Lvov (Ukraine) as the source. In total 18 tons of beef were transported from Lvov. Presently the meat storage facilities involved are closed down. For final confirmation, meat samples have been sent for laboratory tests.

As a reminder, on 17 Feb 2006, 12 pieces of beef were confirmed infected with *Bacillus anthracis* in one of the markets in Penza. Export of meat from Penza to Moscow was then prohibited. It was also prohibited to sell meat in any public markets.

ProMED-mail <promed@promedmail.org>

[Penza is 650 km southeast of Moscow. According to Google it has a population of some 500 000 people and is bigger than Dublin or Pittsburgh. "Street" or public markets have long been a place where contaminated meat -- usually from a domestic slaughter and frequently not inspected by the veterinary authorities -- has been sold throughout Russia.

- Mod.MHJ]

ANTHRAX, LIVESTOCK - AUSTRALIA (NEW SOUTH WALES)

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

Date: 3 Nov 2006

From: Joseph Dudley <jdudley@eaicorp.com>

Source: ABC Rural [edited]

<<http://www.abc.net.au/rural/news/content/2006/s1780738.htm>>

Anthrax season starts early

New South Wales has had an early start to the anthrax season, with 2 properties already suffering stock losses. The state normally sees about 4 cases of stock losses from anthrax each year.

Catherine Taragel says the large number of animals being turned onto cereal crops is expected to create far more problems this year [2006]. "We have had an early start to the summer period, and we have started to see anthrax cases," she said.

"The vaccination is very good at preventing losses in stock, but you really need to do that if you are in a high risk area, which [you] would be if you have had deaths on your property previously or in the region, say your neighbor's property, or there is historical knowledge of anthrax being in that area."

Joseph P. Dudley, Ph.D. <joseph.p.dudley@saic.com>

[And that is all the news report said. Further information is being requested from my Aussi colleagues. In the meanwhile, this same source had 2 interesting stories:

(1) Patchy rainfall welcomed across NSW [3 Nov 2006]
<<http://www.abc.net.au/rural/news/content/2006/s1780732.htm>>,

(2) Dry forces cattle sell-off
<<http://www.abc.net.au/rural/news/content/2006/s1780739.htm>>, both of which indicate a lot of climatic stress in the NSW cattle rearing region. A quick check of the present weather in NSW has at best scattered showers near the coast but high humidity inland. It is Spring in NSW:
<<http://www.wunderground.com/global/Region/AU/Temperature.html>>. - Mod.MHJ]

ANTHRAX, BOVINE - INDIA (TAMIL NADU) (02)

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

Date: 6 Nov 2006

From: Brent Barrett <salbrent@sbcglobal.net>

Source: NewIndPress.com [edited]

<<http://www.newindpress.com/NewsItems.asp?ID=IET20061105121747&Page=T&Title=Southern+News+++Tamil+Nadu&Topic=0>>

5320 livestock vaccinated for anthrax

As many as 5320 livestock were vaccinated at Harur taluk in the district administration's attempt to avert anthrax.

Cattle had reportedly died due to anthrax in Kokkarappatti and Uthangari on 26 Oct 2006. Based on the animal husbandry center's Doctor Kanagasabai's report, the district administration had ordered vaccine administered to livestock in Harur taluk from 27 Oct 2006. A team of veterinarians led by Dr. Kanagasabai were present at the special vaccination camps at Kokkarappatti, Puluthiyur, Kallampatti, Gopinathampatti, Settippatti, Erumiyampatti, Pariyappatti, Sinnankuppam, Malahappadi, Pethathampatti, Keeraipatti, Kelapparai, Dhatharaivalasai, Valaithottam & Vallimadurai.

Collector Pankaj Kumar Bansal advised the public not to consume the flesh of those animals suspected to have been infected with the disease.

Brent Barrett Indianapolis, IN <salbrent@sbcglobal.net>

[This is in the same general area as our last report on cases in Krishnagiri, see below, 23 Oct 2006. If they are vaccinating 5320 cattle in 15 villages, that is some 350 animals per village, which may begin to explain why they depend on a reactive vaccination program instead of on a more efficient proactive regional program for areas of known high risk. - Mod.MHJ]

ANTHRAX, LIVESTOCK - AUSTRALIA (NEW SOUTH WALES) (02)

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

Date: 6 Nov 2006

From: Eva-Maria Bernoth <eva-maria.bernoth@affa.gov.au>

New South Wales (NSW) has had 2 recent cases of anthrax, which have involved very few stock losses. The 1st involved the loss of only one steer, and the 2nd involved the loss of 2 lambs. Both cases occurred in the known anthrax belt area of NSW, where there are routinely approximately 4 cases per annum. Both cases were treated in accordance with policy. This means that the dead stock were burnt, and all in-contact animals were vaccinated. No further losses occurred on these properties.

Dr. Eva-Maria Bernoth

Australian Deputy Chief Veterinary Officer (A/g) Office of the Chief Veterinary Officer Product Integrity, Animal and Plant Health Division Australian Government Department of Agriculture, Fisheries and Forestry GPO Box 858, Canberra ACT 2601 Australia
<<http://www.daff.gov.au>> <eva-maria.bernoth@daff.gov.au>

[First, our thanks to Eva-Maria for the very prompt response to our request for further information. It is this member active participation that differentiates ProMED from all other disease reporting systems. Thank you. Secondly, the diagnosis in lambs is very impressive. One of the problems with anthrax reports is that the disease in sheep is very frequently ignored until deaths are in significant numbers, say more than 20. Observing the disease in lambs reflects an outstanding alertness on the part of the station manager and shows that his veterinarian is on the ball, and we offer our heartfelt congratulations. So far, these are sporadic cases and, hopefully, just the background pitter-patter that one sees in enzootic areas, but whose recognition and proper handling are vital in the control of this disease. - Mod.MHJ]

ANTHRAX, HUMAN - RUSSIA (NORTH OSSETIA-ALANIA)

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

[1]

Date: Thu, 9 Nov 2006

From: Brent Barrett <salbrent@sbcglobal.net>

Source: Itar-Tass [edited]

<http://www.tass.ru/eng/level2.html?NewsID=10965254&PageNum=0>

2 people died of anthrax in Russia's Republic of North Ossetia-Alania, the Emergency Situations Ministry's department in the Southern Federal District told Itar-Tass on Wed, 8 Nov 2006.

Both cases were reported in Mozdok. The deaths, supposedly caused by anthrax, were reported on 25 Oct 2006 and 7 Nov 2006. The samples and test results sent to the Stavropol research institute confirmed the diagnosis. At present, medical experts are trying to find out the sources of the deadly disease.

Brent Barrett <salbrent@sbcglobal.net>

[2]

Date: Thu, 9 Nov 2006

From: A-lan Banks <A-lan.Banks@thomson.com>

Source: CattleNetwork.com [edited]

<<http://cattleNetwork.com/content.asp?contentid=82709>>

The Mozdok regional government in Russia's North Ossetia region confirmed Thu, 9 Nov 2006 that 2 women had died of anthrax after coming into contact with the carcass of a cow, probably brought into Mozdok from the neighboring Stavropol region.

One of the women who died was engaged in purchasing meat in the Stavropol region and selling it at the market in the town of Mozdok, and the regional government said she had brought the infected meat from Stavropol, but it was impossible to establish at this time where exactly the woman bought the meat there.

The government also said it was impossible to establish whether the woman had managed to sell any of the infected meat in Mozdok before she died. The market in Mozdok has been disinfected and cattle in the region are being monitored for signs of the disease.
A-lan Banks <A-lan.Banks@thomson.com>

[No information about the clinical course of these 2 fatal cases or whether any therapeutic intervention was given is in these posts. It is possible that the form of anthrax was gastrointestinal, which can be fatal -- often thought to be uniformly fatal -- related to ingestion of anthrax spores.

Information about GI anthrax can be found at Sirisanthana T, Brown AE: Anthrax of the Gastrointestinal Tract. Emerg Infect Dis 2002;8:649-51
<<http://www.cdc.gov/ncidod/eid/vol8no7/02-0062.htm>>.

The authors stress that the disease is probably greatly under-reported in rural disease-endemic areas of the world and that the spectrum of disease, ranging from no symptoms to death, has not been fully appreciated.

The location of and information about the Russian Republic of North Ossetia-Alania can be found at: <http://en.wikipedia.org/wiki/North_Ossetia-Alania>. At its eastern border is the Stavropol region.

ProMED thanks both Brent Barrett and A-lan Banks, who each submitted both of these posts. - Mod.LL]

ANTHRAX, LIVESTOCK, WILDLIFE - NAMIBIA (CAPRIVI) (02)

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

Date: Mon 13 Nov 2006

From: Brent Barrett <salbrent@sbcglobal.net>

Source: The Namibian (Windhoek) [edited]

<<http://allafrica.com/stories/200611130213.html>>

Namibia: Anthrax Campaign Going Well

About 40 000 cattle have been vaccinated against anthrax since the disease broke out in the Caprivi Region in September 2006. Approached for comment, State veterinarian Dr. Frank Chitate told The Namibian that the vaccination drive was going smoothly. "We had some showers, but that has not disrupted our vaccination campaign," said Chitate, adding the campaign will run until the 1st week of December 2006.

The government has imported 180 000 doses of anthrax vaccine from South Africa at a cost of NAD 108 000 [USD 15 000] for the vaccination campaign, which started towards the end of last month [October 2006].

20 zebras, 10 elephants and 2 buffaloes have died of suspected anthrax in areas bordering Botswana's Chobe National Park. Only 2 of the elephants were confirmed to have died of anthrax.

Some 170 wild animals have reportedly died of anthrax in the Chobe Park since September 2006.

[Byline: Absalom Shigwedha, Windhoek]

Brent Barrett

Indianapolis, IN, USA

<salbrent@sbcglobal.net>

[This is the result of the Namibia-Botswana meeting described in the 23 Oct 2006 posting. I am glad to see that it is going smoothly. Thanks to Brent for forwarding this report. - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - ARMENIA (GEGHARKUNIK)

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

Date: Fri 14 Nov 2006

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

Source: Nork Infectious Diseases Hospital [trans. by Corr.AS, edited]

A 70 year old man was admitted to the Nork Infectious Diseases Hospital for an ulcer on his right arm on 8 Nov 2006. According to the history on this patient, who was from the village of Tsovazard, in the Gegharkunik region of Armenia, he slaughtered a sick cow 3 days before, when the blood of the animal contaminated a wound on his arm. Later, edema developed up to the shoulder. After the assessment of the patient in the hospital, the skin form of anthrax was diagnosed. He is receiving appropriate treatment, and his condition today has been reported as satisfactory.

ProMED-mail <promed@promedmail.org>

Yet again, a classic case of cutaneous anthrax, with the infected blood of a sick cow gaining entry via a cut. Armenia is listed as enzootic for this disease, as it has a steady number of human cases reported. Latterly, the government has not been reporting any livestock vaccination numbers to the Office International des Epizooties.

To find Nork, go to: <<http://www.fallingrain.com/world/AM/11/Nork.html>>. - Mod.MHJ]

ANTHRAX, HUMAN - UK (SCOTLAND) (04)

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

Date: 18 Nov 2006

From: Joe Dudley <jdudley@eaicorp.com>

Source: The Scotsman [edited]

<<http://news.scotsman.com/scotland.cfm?id=1709742006>>

Anthrax discovery closes village hall in Borders

Health chiefs investigating the death of a Scot from anthrax ordered the closure of a village hall yesterday [17 Nov 2006] after the discovery of spores of the killer disease.

A concert planned for Smailholm village hall, Roxburgh-shire, was last night [17 Nov 2006] switched to a nearby parish church hall. NHS Borders said the 100-capacity, stone-built hall would be closed while its decontamination is arranged. The hall was among a number of properties tested in the Borders for anthrax after the death in July 2006 of Pascal Norris, who lived 30 miles away at the hamlet of Stobs, near Hawick. He made bongo drums using animal skins as a pastime, and the hall was used by a Smailholm woman to run classes in African drumming.

Kathleen Daniels, the hall's secretary, said: "Everyone is quite relaxed about the whole thing." Health officials said the risk to the public was extremely low.

A spokesman for NHS Borders said: "As part of the ongoing investigation, samples were taken from a number of properties in the Borders. From the testing of these samples, minute traces of anthrax spores have been detected in Smailholm village hall. As a precautionary measure, the hall will be closed to further use pending a decision on the appropriate decontamination strategy for the property."

Joseph P Dudley, PhD
Chief Scientist, EAI Corporation
4301 North Fairfax Drive, Suite 200
Arlington, VA 22203
<jdudley@eaicorp.com>

[The authorities are clearly investigating Norris's July 2006 death with all deliberate speed, in this instance checking on sites where African drums may have been beaten. As this village hall will have been used countless times in the interim, the risk must be minimal, but decontamination is certainly wise. It would be interesting to know whether this isolate was of the same genetic strain as the earlier one associated with the July 2006 death. If the drummers were using drums purchased independently or were drums made earlier in the year by Norris, one might suspect it to be of a different strain. - Mod.MHJ]

ANTHRAX, BOVINE - ZIMBABWE (MASHONALAND EAST)

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

Date: Wed, 6 Dec 2006 20:12:40 -0800 (PST)

From: Brent Barrett <salbrent@sbcglobal.net> and Joe Dudley <jdudley@eaicorp.com>

Source: The Herald (Harare) [edited]

<<http://allafrica.com/stories/200612060374.html>><http://allafrica.com/stories/200612060374.html>>

The Department of Veterinary Services in Mashonaland East has managed to control a recent anthrax outbreak in Mudzi district. The outbreak had killed several cattle and was mainly confined to Masarakufa area although the whole district had to be put under quarantine.

Mashonaland East provincial veterinary surgeon Dr Farayi Chigwada yesterday confirmed the control of the outbreak. "We held 2 successful rounds of vaccination in September while another one is currently underway and the whole district is no longer under quarantine," said Dr Chigwada. He confirmed that the Masarakufa area has been having recurrent anthrax outbreaks over the years, especially towards the rainy season because of spore's exposure from the ground.

Butchers and cattle owners in Mudzi had been barred from slaughtering livestock for meat while those who wanted beef had to import it from other districts after certification by DVS. Even hotels and restaurants in Mudzi were serving chicken and fish only as there was no longer any beef from the butcheries. Villagers were warned not to touch the carcasses of dead animals until the DVS confirmed the cause of death. They were advised to burn and bury the carcasses of the animals [that] died of anthrax.

Brent Barrett Indianapolis, IN, USA <salbrent@sbcglobal.net>

[Clearly Dr. Chigwada is working very hard on this. This report refers to "a recent anthrax outbreak in Mudzi district" and yet there were 2 rounds of vaccination in September and a 3rd is in hand (December). Something doesn't add up. Sterne vaccine,

which is what they have been using in Zimbabwe, should give adequate bovine cover for about a year with one shot; as horses respond poorly many give them 2.

We have discovered a parallel situation in the eastern half of Buenos Aires Province where they have been getting anthrax in herds in the face of multiple vaccinations, to the point that it is now customary to vaccinate 2 or 3 times a year. I would appreciate hearing from members in Zimbabwe with information on this and the situation on the ground in Mashonaland East. - Mod.MHJ]

ANTHRAX, BOVINE - INDIA (TAMIL NADU) (03)

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

Date: Fri 8 Dec 2006

From: Joe Dudley <jdudley@eaicorp.com>

Source: Newindpres.com [edited]

<<http://www.newindpress.com/NewsItems.asp?ID=IET20061208125306&Page=T&Title=Southern+News+-+Tamil+Nadu&Topic=0>>

No anthrax in Krishnagiri, assures Collector

Krishnagiri Collector Dr. Santhosh Babu said that some confusion has been created following a news report misquoting him in connection with a report on anthrax. In a press note issued on Friday [8 Dec 2006], the Collector said that it was falsely reported that as many as 17 cows died of anthrax in Uthangarai in October 2006. But per the information from the Animal Husbandry Department, only 4 cows and one calf died in Chinna Anandur village in Uthangarai taluk in October 2006.

The Animal Husbandry Department could not collect any specimen samples of the dead animals since the villagers had already buried them. However, according to the villagers' explanations, it was understood that the symptoms almost confirmed the occurrence of anthrax. The Animal Husbandry Department immediately conducted a ring-vaccination program in the surrounding villages, and the disease was completely brought under control.

Joseph P. Dudley, Ph.D.

Chief Scientist, Biosecurity and Biosurveillance EAI Corporation

4301 North Fairfax Drive, Suite 200

Arlington, VA 22203

<jdudley@eaicorp.com>

[In the original 24 Oct 2006 posting on this outbreak, Dr. Babu had reported that the diagnosis was based on necropsies. Some 1200 cattle were vaccinated, or so it was claimed. But were carcasses buried without instructions from the Animal Husbandry Department? Either way, it is pleasing to note that the original outbreak was less severe than 1st reported and that the vaccine response has been successful. Let us hope that Dr. Babu will now institute annual vaccination in these villages. This will reduce the

probability of new cases and encourage the prompt and early reporting of any new cases.
- Mod.MHJ]

ANTHRAX, HUMAN - KYRGYZSTAN (JALAL-ABAD) (03): SUSPECTED

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

Date: Sat 16 Dec 2006 10:35 AM

From: Assoc. Mod. Natalia Pshenichnaya<promed@promedmail.org>

Source: News agency "Akipress-Fergana", 14 Dec 2006 [translated by Assoc. Mod.NP; edited]

<<http://fergana.akipress.org/?id=21747>><http://fergana.akipress.org/?id=21747>

The press-service of the Southern inter-regional management of the Ministry of extreme situations of Kyrgyzstan has reported that an inhabitant of the village of Talaabulak in the rural area of Kysylkuu in the Suzakskiy district of the Jalalabad region was hospitalized on 11 Dec 2006 in the Suzakskiy district hospital on suspicion of anthrax.

According to Iljas Ashurov, press-secretary of the Ministry of Emergency Measures of Kyrgyzstan, the diagnosis has not yet been confirmed.

ProMED-mail <promed@promedmail.org>

[In the mass media of Kyrgyzstan some reports of suspected anthrax in humans also appeared in August -- September 2006. In total, there was information on 5 cases of suspected anthrax in 2 administrative territories of the republic. However, confirmation or denials of this diagnosis as a result of laboratory investigations have not appeared in the Internet mass media - Mod.NP

Jalal-Abad is enzootic for cattle anthrax in Kyrgyzstan and the oblast wraps itself around eastern Uzbekistan, which is similarly afflicted. So this report is not surprising except that by December one expects the incidence to have dropped off to near zero, at least in livestock. Without other details one might assume that this is a normal result of a villager butchering an animal moribund or dead from anthrax, which unfortunately is the commonest cause of this disease in humans in Central Asia. Further details have been requested from colleagues in Bishtek. To get an idea of the location of this village is, go to: <<http://www.fallingrain.com/world/UZ/0/Suzak2.html>> - Mod.MHJ]

ANTHRAX, HUMAN, BOVINE - ZIMBABWE (MASHONALAND EAST)

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

Date: 20 Dec 2006 11:06:00 -0800 (PST)

From: Brent Barrett <salbrent@sbcglobal.net>

Source: AllAfrica.com/The Herald (Harare)

<<http://allafrica.com/stories/200612200055.html>>

Zimbabwe: Anthrax Claims Three in Goromonzi

Anthrax has killed three people at Juru Growth Point in Goromonzi, Mashonaland East Province. The Department of Veterinary Services has, meanwhile, moved in swiftly to contain the outbreak.

In an interview in Harare yesterday, the Department of Veterinary Services' technical director, Dr Unesu Ushewokunze-Obatolu, said the situation only came to light last Friday after the three people had already succumbed to the disease. "The people might have been infected through either eating or handling affected meat and the Department of Veterinary Services has already started vaccinating all the animals in the area," she said. Dr Ushewokunze-Obatolu said a total restriction had been placed on the movement of livestock and meat in the area and all butcheries had been closed as an emergency measure to prevent the spread of the disease. "We have placed the area under quarantine until further notice. We also urge people to report cases of animals that die of natural causes to our staff in their respective areas and not to eat the meat," she said.

Dr Ushewokunze-Obatolu, however, expressed concern that they only had enough vaccines to contain the current outbreak but was hopeful that the department would be able to replenish its stocks so as to swiftly and effectively deal with any future emergencies. She attributed the inadequate stocks to the unavailability of foreign currency to buy vaccines.

Dr Ushewokunze-Obatolu strongly advised people whose cattle would have died of suspected anthrax not to skin them but burn the carcasses and bury them deep underground.

Brent Barrett <salbrent@sbcglobal.net>

[It seems that while the veterinary service was fighting this problem in Mudzi district (see 20061207.3454) it was gently boiling away in Goromonzi. It is interesting that with all the activity in Mudzi no one bothered to report livestock deaths until they had three human cases. Presumably it was at this point that the Public Health folk picked up their telephones to call the cases in. One can hope that their remaining stocks of vaccine are of better quality than was quoted in the last report. - Mod.MHJ]