



CONTINENTAL **S** STUDBOOK™

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journal

Welcome Message from the Studbook

The Continental Studbook would like to welcome all North American breeders, owners and sport enthusiasts to the bi-monthly *journal*. The Continental Studbook *journal* is a free electronic publication catering to the needs and interests of everyone in the breeding and sport community.

The Studbook's hope is for the *journal* to become a tool to bring together the varied groups of North American sport warmblood and thoroughbred breeding through common interests. A number of authors have been lined up for articles on breeding technology, equine health issues and other areas of importance. Future plans also include a free classified section, coverage of major sporting events, profiles of domestic breeding farms and interviews with North American professionals.

Suggestions and comments are welcome, and the Studbook encourages authors with ideas for future issues to contact us. Please enjoy the publication.

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New Facilities Shine at the Kentucky National Horse Show

As everyone knows, in just 12 months the World Equestrian Games will be held in North America for the first time ever. A near \$100 million investment at the Kentucky Horse Park in Lexington, Kentucky, is underway to prepare for the prestigious event.

Earlier in the summer a test event was held at the Horse Park, but the first large scale hunter-jumper use of the venue occurred September 16-20 with the Kentucky National Horse

Show. The facilities include a new 7,500 seat \$25 million outdoor stadium which hosted the \$25,000 Prix de Lexington and the 7-8 year old Young Jumper Championship. The new outdoor arena will host all of the jumping and dressage events of the WEG with up to 30,000 seats added with temporary structures.

An official from the Continental Studbook was on

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Contagious Equine Metritis and Sport Horse Breeding

By Jos Mottershead & Kathy St.Martin

In December, 2008, a large breeding operation located in Kentucky, while doing routine testing of a stallion undergoing semen freezing for export, discovered one of the stallions standing at their facility was positive for Contagious Equine Metritis Organism (CEMO) *Taylorella equigenitalis*. Up until the recent outbreak, the US was believed to be CEM free. Unfortunately, the testings over the last several months have

resulted in a total of 12 stallions testing positive including 4 stallions in Wisconsin that were not standing at the index farm. As part of the "traceback" to try and determine where the disease originated, the four stallions were discovered. The most recent positive stallion brings the total number of animals affected to 14, including two mares that were bred AI by stallions standing at the index farm.

The causative agent of CEM is a microaerophilic gram-negative coccobacillus *Taylorella equigenitalis* in the family Alcaligenaceae. There appear to be two important strains of the organism (often referred to in abbreviation as the CEMO), one of which is sensitive to Streptomycin, and one of which is resistant. Both strains have the potential to cause epidemic venereal disease in susceptible mares.

Equine death has not been associated with CEM, and the CEMO has not been seen to cause infection in humans.

Stallions are asymptomatic (no symptoms), but may carry the bacterium on their external genitalia for years, and therefore be persistent carriers

There are three categories of infection in the mare⁷:

- The acutely infected mare: This mare will present with an actively inflamed uterus, with an obvious milky-mucoid (pus) discharge from the external genitalia when she returns to estrus (and the cervix relaxes) - and quite often that return to estrus is earlier than anticipated.
- The chronically infected mare: This mare shows a lesser level of uterine inflammation, and an associated lower level of vulval discharge. It is likely that mares in this category will be more difficult to treat in order to clear the organism.
- The carrier mare: This mare shows no symptoms of the disease, but is harboring the CEMO in the reproductive tract. This mare is more difficult yet to clear, and as a result of no obvious external signs represents a greater risk to the non-identified at-risk population.

and transmitters of the disease. In fact, to be technical, the stallion does not become "infected" with the CEMO, but rather harbors it in the manner

of a commensal organism.

One of the first symptoms in a mare is likely to be that she is not pregnant after one or more breeding cycles. As was seen in



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the initial outbreaks of 1977/78, a commonality in many affected mares was "not pregnant", with a premature return to estrus. It should be noted that although failure to establish pregnancy is a common sequela of infection, abortion is rare.

The incubation period in the mare from the time of exposure to the onset of active symptoms (or diagnostic ability) is 2-12 days.

As this is classified as an equine venereal disease, obviously the most likely method of transmission is through breeding live cover. This certainly seems to be an efficient method of transmission, as was evidenced during the outbreaks of the 1970's. It is important to note however, that as the causative agent is a bacterium, other modes of transmission are also possible even in non live-cover situations. Poor biosecurity methodology is likely to be a major factor in these situations. Mares that are bred with infective semen or become infected during the live-cover breeding process that do become pregnant may give birth to a chronically infected foal that harbors the pathogen until maturity, at which time - if breeding animals - they too may transmit the bacterium. Additionally, exposure by third parties may transmit the bacterium from those animals even if they are not breeding animals (e.g. the gelding owner that washes the gelding's sheath, and then handles or breeds a

The following includes practices that may result in, or increase, the likelihood of transmission in the face of T. equigenitalis presence:

- Not using a disposable AV liner;
- Sharing AV's between stallions;
- Not cleaning AV's adequately between use;
- Not using a disposable protective barrier on the rear of the breeding mount (where the penis contacts) during collection and changing it between stallions;
- Not washing the breeding mount with a suitable agent (e.g. Chlorhexidine) between stallions;
- Not using an antibiotic extender (or an antibiotic to which the organism is not sensitive) - it should be noted that even with the use of a suitable antibiotic, transmission may still occur;
- Sharing of penis washing equipment without sterilization in between stallions or good aseptic technique (this includes hands - e.g. use of disposable latex gloves when washing and/or guiding the penis that are then discarded, or thorough scrubbing of the hands in between collections/breedings with a suitable bactericide);
- Other poor sterility or aseptic technique associated with the collection/breeding process.

mare or stallion may transmit the bacteria).

Review of the symptoms above will produce a list of "first signs" that may be seen by the average owner/breeder. Diagnosis however cannot be made on clinical signs alone, as there are other bacteria - notably Streptococcus equi sub. zooepidemicus, Klebsiella pneumoniae and Pseudomonas aeruginosa - that are common and that may produce similar symptoms. Once the veterinarian is involved, diagnosis will be made by performing swabs and cultures of potentially affected parts. In the stallion the urethra, urethral

fossa and diverticulum, and the sheath should be swabbed with the penis fully extended and erect, as well as if possible a sample taken of pre-ejaculate. In the mare culture sites will include the uterus (mucosal surface of the endometrium), clitoral fossa, and clitoral sinuses and also possibly the cervix. Pregnant mares can only have the clitoral sinuses and fossa swabbed, as internal swabbing would potentially compromise the pregnancy. Because all of these sites - especially those external - are commonly populated with significant contaminant growth of other bacteria, there is a risk

of over-growth of the comparatively slow-growing *T. equigenitalis*. To attempt to reduce the risk of this overgrowth, transport of the samples in Amies charcoal medium is recommended, maintained at 4° C or lower. If culturing is not to be performed within a few hours, freezing of the sample in the media may be considered, as it appears that it is not damaged by such action. Consultation with the laboratory that will run the cultures is recommended prior to freezing.

Due to the recent outbreak of CEM in the US, Canada has

implemented restrictions that will require both stallion owner/manager and mare owner/manager to follow some specific steps. The recent requirements are essentially the same as the regulations that were in place prior to the border opening for semen between Canada and the USA about 10 years ago. The biggest hurdle to overcome will be the endorsement of the Zoosanitary Export Certificate for Semen by a Federal Vet at a USDA-Aphis Office. In order to be able to ship cooled semen in a timely manner, it may prove

impossible for some stallion owners to ship to Canada if there is not a USDA-Aphis office within a reasonable distance of where the stallion is being collected.

The current restrictions will certainly have an impact on some breeding facilities that don't have a USDA-Aphis office within a reasonable distance. However, if all parties involved are cognizant of the requirements, apply for the import permit in advance of the need for semen, the process should go smoothly.

The current restrictions, while somewhat problematic, are not insurmountable. They will require mare owners and stallion owners to work together in order to insure that all required documentation is in order prior to the shipment arriving at the Canada Border Services Agency for review by Canadian Food Inspection Agency (CFIA). Below is an outline of the steps that must be followed:

- The mare owner applies to the Canadian Food Inspection Agency (CFIA) for an import permit. We have the current application available for downloading on our web site at <http://www.equine-reproduction.com> (note that it is quite a large file at 552 Kb, so you will want a reasonably fast connection), and addenda with explanations and costs for semen and embryo importation at those locations. It would be best to confirm with CFIA that these forms are still current if someone is reading this in the more distant future!
- Upon receipt of the import permit, it must be sent to the stallion owner/manager to accompany the semen at time of shipment. If it is a multiple-entry permit (which we recommend with fresh semen in case of the need for a rebreed, even though it is more expensive), then a copy can accompany the semen shipment, but the original must be available for review by CFIA/CBSA (Canada Border Services Agency - formerly "Canada Customs") if requested;
- The semen is collected in the presence of a veterinarian certified by USDA-Aphis for the purpose (this is typically your normal vet), and they must issue a "Zoosanitary Export Certificate for Semen" that certifies as outlined at the foot of this list;
- That "Zoosanitary Export Certificate for Semen" is taken to a USDA-Aphis office for endorsement by the Federal Vet;
- A Customs Invoice must be completed and accompany the shipment - they are currently available on-line <http://www.cbsa-asfc.gc.ca/publications/forms-formulaires/ci1.pdf>;
- Semen presented for importation into Canada must be in individual receptacles or straws, each marked with the collection date, identity of the donor and the semen collection premises.



The new \$25 million outdoor stadium at the Kentucky Horse Park will permanently seat close to 7,500 people for future events. Temporary stadium seating will be added for the WEG along the pond frontage and the western side opposite the announcer's booth.



hand to meet with breeders' competing in the show and to observe a stallion in the YJC class. The venue is shaping up to be a crown jewel for American sport.

The crowning event of the week was the \$50,000 CSI-W

World Cup Qualifier hosted in the new \$45 million indoor facility. This impressive new arena, which has been coupled with 300 new horse stalls, will host reigning and vaulting events during the WEG, but it proved very capable during the

CSI-W World Cup Qualifier as a rare indoor facility designed specifically for equine events. Both facilities are surfaced with permanent state-of-the-art footing designed by the German company OTTO Sport-und Reitplatz GmbH.

The only issue of the evening that might need improvement was some significant echo in the acoustics, but this was easy to overlook as the competitors made their way around the spacious 300 x 135 feet arena surrounded with nothing but good viewpoints.

The Kentucky Horse Park indoor facility boasts a competition floor two times larger than the Thomas & Mack Center which has hosted several World Cup Finals in Las Vegas. The better footing, added freedom in course design and a more spacious spectator friendly layout was noticeable from the start of the World Cup Qualifier.

Even though dressage, eventing and show jumper



Karina Busch of Halcyon Hill, Nancy Whitehead owner of ROC USA and breeder of the 6 year old YJC Champion in Kentucky, and Robert Hickman of the Continental Studbook await the start of the \$50,000 CSI-W World Cup Qualifier.

enthusiasts will not get any events in the new facility during WEG, park officials have said that nearly 30 events have

already been booked in coming years. Certainly we will get the opportunity to enjoy several high level competitions there in coming years.

A total of 52 horse and rider pairs faced the Guilherme Jorge designed course of 16 efforts. 2008 Canadian team silver medalist Mac Cone guided his Olympic mount Ole to the win in the 9 horse jump off as Kent Farrington collected a rail under a blazing time. The Burggraaf gelding was followed closely by Margie Engle on the mare Campella by Cardento. Other known sires from the placed horses include Libero H (Melisimo), Dobel's Araconit (Antares F), Celano (Uceko), Furore (Toronto), Cor de la Bryere (Goldika), Flamenco de Semilly (Vicomte D), Lancer II (Lagran) and Numero Uno (Romantovich Take One).

RESULTS CSI-W WORLD CUP QUALIFIER LEXINGTON

PLACING	FAULTS	HORSE	RIDER
1	0-0	Ole	Mac Cone
2	0-0	Hidden Creek's Campella	Margie Engle
3	0-0	Aslan	Ljubov Kochetova
4	0-0	Melisimo	Michelle Spadone
5	0-0	Antares F	Seth Vallhonrat
6	0-4	Uceko	Kent Farrington
7	0-4	Little Emir	Shane Sweetnam
8	0-4	Toronto	Candace King
9	0-8	Goldika	McClain Ward
10	4	Vicomte D	Mario Deslauriers
11	4	Lagran	Pablo Barrios
12	4	Romantovich Take One	Christine McCrea