

The importance of equine reproduction symposiums

BY ADRIANA VAN TILBURG

Breeding horses is more than researching pedigrees and dreaming about the product you want to create. There are many health and hygiene issues to also consider, such as whether the mare is fertile and has a clean uterus. Similarly, how fertile is the stallion? It's understood that breeding is not easy, and Desiree Gebbink recently organized an Equine Reproduction symposium in the Netherlands.

There were four speakers: Leontine ter Harmsel, who demonstrated how to flush an embryo. She is a sport horse veterinarian who specializes in getting problem mares in foal as well as embryo transfer. Bart Kools has been responsible for the stallion station at Paul Schockemöhle's Gestüt Lewitz for 20 years, accountable for all the coverings and the processing of semen at all his stations. Tullis Matson is the owner of Stallion AI Services in Great Britain, an expert in equine reproduction, but also a specialist in different fields of wildlife reproduction. Finally, Karin Hendriks specializes in problem mares, embryo transfer, and ICSI.

◆ Why did you organized this symposium?

Desiree Gebbink: Last year I followed a class by Arno Lindner at Tierklinik Lüsche. Many experts from our field were there, including Tullis Matson. I've known Tullis for 10 years, and like to work with him as well as Bart Kools – two real practitioners in our field for equine semen processing, and that's something you can't learn out of books. Especially working with equine semen, you need to develop a feeling for understanding the process.

So we discussed that it might be a very good idea to organize an information evening on equine reproduction in Holland. There are many classes for veterinarians, but not for practitioners in the field and everyone who is interested in equine reproduction. To make the evening

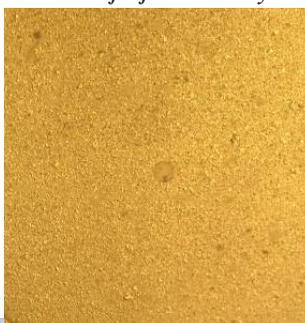
complete, Karin Hendriks was invited to talk about ICSI/OPU. Karin is well known in Holland, she is a real expert, a specialist in equine reproduction who worked for many years at Utrecht University.

Last year was the first time I organized this, and received feedback that people would like to see the work in practice, so this it was made possible thanks to Gerrit and Leontine ter Harmsel from Enterbrook. They offered the use of their facility so we could organize the practical part, which resulted in flushing an embryo, and a very special foal will be born in December.

The purpose is to try and organize this symposium every year, especially at this time of the year. There is a lot of ignorance, mainly because techniques are changing through the years. My intention is to share knowledge from practitioners in the field and share experiences so that breeders can benefit and, more importantly, to learn from it.

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A beautiful flushed embryo



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The practicum

The day was divided into two parts, the first being the practicum at the Enterbrook veterinary clinic where there is also a studfarm. Leontine ter Harmsel demonstrated how an embryo is flushed, while Tullis Matson and Bart Kools explained the do's and don'ts of processing semen. The room at Enterbrook had a microscope linked to a large screen so it was possible to view the motility of the sperm. Kools and Matson also explained about the differences between semen motility and viability, as well as the different types of extender that can be used.

Desiree Gebbink: "It is important that you test different extenders when you start collecting a stallion, because it's the stallion who determines which extender is correct. We also demonstrated several types of equipment for checking semen concentration, as well as for separating the bad from



l-r Danielle Mensink, Leontine ter Harmsel, Bart Kools, Karin Hendriks, Tullis Matson with Desiree Gebbink in front

the good semen. Leontine [ter Harmsel] showed, for example, very well what equipment she uses for flushing an embryo, and some interesting discussion followed, with some of the vets/practitioners saying they were going to try her method at home. It was also great that she flushed an embryo so we could all see that under the microscope.

No practice without theory

In equestrian sport the FEI uses the slogan: 'The happy athlete'. For breeding it is exactly the same. Bart Kools and Tullis Matson made it very clear that the stallion needs to be happy: 'A happy stallion means happy semen'. So the management of the stallion is vitally important as stress will find its way into the quality of the semen. This also means a stallion should not be in pain during collection.

Kools explained certain techniques for collecting, how to teach a young stallion to collect, ground collection, and collection using the phantom in a harness. Matson, meanwhile, explained about subfertile stallions, and what can be done to improve the situation. There are many factors that can influence the quality of the semen, such as temperature and antibiotics, but also bad processing. Matson's Stallion AI started last year with sexed semen, and he confirmed that the results appear to be very promising.

Modern techniques

Karin Hendriks shared information about the process of OPU/ICSI (ovum pick up, and intracytoplasmic sperm injection). These modern reproductive techniques are becoming more and more popular in the breeding world. Accordingly we are now also seeing many auctions selling embryos, both implanted and frozen. But there are risks that not many people acknowledge, but which Hendricks shared with the audience, explaining that although something might not happen very often, there is always a risk and, in the worst case

scenario, the loss of a mare.

She also provided clarity about the costs with the aid of a spreadsheet. An ICSI foal is twice as costly as an ET foal, but with one frozen straw ICSI can be performed six to 10 times.

At the end of the evening there were, of course, questions for the specialists, such as:

◆ Is the modern AI technique harmful for the mare?

Karin Hendriks explained: "With the treatment of OPU, if you take all precautions, even during the procedure to prevent complications and observe the welfare of the horse, then the treatment does not have to be harmful. ET is not harmful to the mare."

◆ How many times can you flush the sporting mare?

According to Leontine ter Harmsel: "If the procedure of flushing goes well and does not cause a reaction, then three cycles in a row."

◆ In what season will the stallion give the best semen?

Bart Kools and Tullis Matson both agree: "In the spring."

I truly hope that breeders will start to attend more symposiums like this, to get better understanding how the medical part works with regards to breeding horses. ■

Desiree Gebbink bio: Having worked for 17 years at renowned stallion stations, and as a supplier to the stallion breeding industry for the past eight years, Gebbink decided it was time for a new challenge – which prompted the foundation of a new company with the name Pasedes. The purpose of this company is to provide general processing support for studfarms for both fresh and frozen quine semen. She organized the equine reproduction symposium and workshop together with Hendriks EQ Repro Consultancy, and VPpaard. She admits that her passion has always been with the stallions side of reproduction as, "there is so much to investigate to ensure the best quality."

