

SEMEN COLLECTION USING A PHANTOM MARE

By Jos Mottershead, Atlantic A.I. Services, Wolfville NS, B0P 1X0 Canada

Web site: <http://www.equine-reproduction.com> e-mail: jos@equine-reproduction.com

The stallion shown here is actually in the process of being "phantom trained". This was the first time that he had been collected using an artificial vagina ("AV"). The model of AV seen here is the "Lane", which is one of the types we favour. There is a description and discussion of the types of AV's we use available our web site and more discussion about "phantom training" is also available there.

The "phantom mare", or "breeding mount" seen here is one of a simple design, and cheap to produce. Although it is not fancy, we have built a number of them and found them to be very serviceable. It consists of three sections of power pole, two of which have been set into the ground for about three feet, one protruding about a foot further than the other. The third section of pole is secured over the top of the other two, with an overhang of about three feet at the lower end. This top section is then padded using something such as an old foam mattress, ensuring the end is well covered. The whole padded section is then covered with a durable non man-made material, such as canvas. (Man-made materials will tend to burn the horse's legs due to friction, and may be slippier). Some people also like to cover the phantom with an old section of carpet, and some stallions really seem to like the longer pile rugs or carpets. The final height of the phantom should be considered during its construction. Generally the "rear" end (the lower end) should be slightly lower than the average height of the rump of any mare the stallion would normally breed "live cover".



Here the stallion is being introduced to the phantom mare. The approach is the same as for immediately prior to mounting in a "live cover" situation - slightly to the left of the rear of the mount. The collection bottle can be seen clearly attached to the disposable liner at the end of the AV nearest the camera. In colder weather we would use a warmed insulated cover over the bottle to protect the collected semen from cold shock.



Ahead of the phantom, and facing the stallion and the phantom is a mare in estrus. Many stallions will eventually reach the point where there is no need to have such a mare present, as the concept of ejaculation becomes associated with the phantom rather than an estrus mare. The mare is kept facing the situation initially, as the stallion may not wish to mount the phantom if he is presented with the posterior of an estrus mare. Occasionally during the training process it is

necessary to reverse the mare so she presents her rear, but this is usually done after the stallion has mounted the phantom in order to stimulate him to the point of ejaculation.



As the stallion mounts the phantom, his erect penis should be deflected manually to one side of the phantom (if one is not using a phantom with a built-in AV). Most usually it is deflected to the left, as this is the side where the handlers are usually located. Here the look of panic and determination on the AV handler's face is as a result of the stallion's penis having deflected itself to the right of the phantom. It must be retrieved rapidly before the stallion moves up on the phantom and makes such a

retrieval impossible.



The stallion's penis is diverted into the AV, and he is allowed to breed the AV. The penis should not be forced into the AV if the stallion is not willing, and the amount of "working" of the AV by the handler permitted will vary from stallion to stallion. Some stallions will thrust into the AV just as they would a mare, whereas other stallions will need the handler to move the AV to create the stimulation - that action on the other hand will be strongly resented by other stallions. It required

experience on the part of the AV handler to establish the correct protocol for an individual stallion. It is important that the penis be thrust well into the AV at the time of ejaculation, and depending upon the type of AV being used, out through the other end (with the Colorado style AV's), as if the sperm come into contact with the heated liner, heat shock will probably occur, which is most commonly typified by many "curly tails" on the sperm when microscopically examined.



The stallion will hopefully ejaculate, and this is indicated by "flagging" of the tail (as with live cover situations, and which has already occurred just prior to this photo being taken); by the presence of semen in the collection bottle; and also by the AV handler placing his hand on the lower side of the penis, above the AV, where he will be able to feel the ejaculatory pulses. Once ejaculation is determined, the angle of the AV should be altered, as seen here, to allow the ejaculate to drain into the collection bottle, and to keep it away from the heated inner liner of the AV, to avoid heat shocking.



The stallion should not be rushed to dismount once he has ejaculated, but should be allowed to dismount of his own accord. The AV is removed in the upright position shown, and the water is drained, allowing any semen trapped within the liner to drain into the collection bottle. Note: Supervisory assistance from the local Terrier population is not recommended!