

EQUINE EMBRYO TRANSFER IN NORTH QUEENSLAND

Townsville Veterinary Clinic and North Queensland Equine Specialist Center have commenced the first commercial Equine Embryo Transfer program in North Queensland with the collection of an embryo in early February. The program is the culmination of three years work beginning with Dr Ben Ledez, a partner at TVC, completing an externship with Dr Al Simson in the Hunter valley during the 2003-2004 breeding season. Trials of embryo flushing and transfer techniques carried out during the ensuing breeding seasons have fine tuned the process. This season the acquisition of a group of selected recipient mares allows us to provide this service to clients in North Queensland.

Essentially embryo transfer requires synchronization of the donor and recipient mares cycle so that the recipient ovulates from one day before to 3 days after the donor. This can be achieved in a number of ways but most commonly the donors cycle is manipulated using hormonal therapy to synchronise with a group of recipients.

The donor is then mated or inseminated with chilled/transported semen close to ovulation and the date and time of ovulation recorded. Embryo flushing is carried out at 7- 8 days after ovulation, depending on the age of the donor. The flushing medium, a sterile solution designed to protect and maintain the embryo, is flushed into the donors uterus and drained out through a sterile filter. The embryo, which is quite large and sometimes visible to the naked eye, is collected, washed and transferred into the recipient as quickly as possible. The recipient is then examined for pregnancy in 5-7 days.

While embryo transfer is an expensive process requiring rigorous attention to detail it has potential benefits for well bred, competitive, mares. By transferring an embryo to a suitable recipient, a young mare can continue to compete while her foal is born and raised by the recipient. This process can be repeated, so potentially, by the time a competitive mare is retired she can already have a number of progeny on the ground and working. The advantage lies in no loss of time competing and avoiding beginning breeding at an age when the mares fertility is beginning to decline (10-12 years).