A Matter of Breeding

by Ann Egan, North Point Farm LLC, Litchfield, USA

Many years ago, sharing of equine genetics could only be accomplished if one horse was shipped from one country to another. This endeavor represented a huge expense financially and sometimes there was an unexpected cost of injury or death to the horse. Today, sharing of genetics is much simpler to accomplish using frozen semen chosen from genetically-sound and superior animals.

As a USDA-approved semen export center, we are frequently asked questions regarding our thoughts on the use of frozen semen. Many breeders express an interest, largely we believe due to the cost advantages of sharing genetics in this way, however, there seems to be some fear about the effectiveness of the process.

Here on our farm, we have found that equine semen that has been frozen by good technicians is extremely viable, and a very good and cost-effective option. You needn’t just take my word for it however. According to an article, ‘A retrospective study of artificial insemination of 251 mares using chilled and fixed time frozen-thawed semen’ by Crowe et al., published in The Equine Veterinary Journal, the first cycle pregnancy rate using cooled versus frozen semen was 60% for frozen semen and 50% using chilled semen. This would seem to indicate that frozen semen, in some cases, is more effective at achieving mare pregnancies than chilled semen.

Science aside for a moment, the ability to freeze a stallion’s semen successfully really comes down to the stallion himself. According to Dr Jim Kubiak, 35% of stallions are ‘good freezers’, 45% of stallions are ‘moderate freezers’ and 20% of stallions are ‘unsatisfactory freezers’. In addition, Dr Kubiak says, “Fertility of frozen-thawed semen is poorly correlated with post-thaw motility, but it remains the only practical tool for assessing the freezability of semen and predicting fertility”. Thus, the only way to know what kind of freezer a stallion is, is to achieve mare pregnancies. In my opinion, you take a risk to rely on ‘post-thaw motility’ as a fertility indicator, so any stallion you consider using should, again, in my opinion, have a track record of proven fertility via successful pregnancies.

Here at North Point Farm, when a stallion is presented for collection as a possible donor for frozen semen, he undergoes a complete physical examination. If his semen is bound for countries outside of the United States, such as Australia, a rigorous set of testing protocol for his health is followed, and he is in quarantine for the duration of the time we are collecting and freezing his semen.

We use a testing criteria on the stallion’s semen, which allows us to see which group of extenders a stallion will freeze best in. Once we have established that particular combination of extenders, which can be different with every stallion, we recommend the semen be used and tested on a mare to achieve a pregnancy.

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Frozen semen is a viable and cost-effective way to introduce new genetics to your breeding program and, given today’s technology, an option that every serious breeder should consider.

We have one stallion we work with that has less than perfect post-thaw motility, and we frequently tell client’s not to even look at it. That stallion, however, has a 100% success rate settling mares with his frozen semen. All of the stallions we currently work with, be they our own or a client’s, all have post-thaw fertility with their frozen semen, that is to say, that all of them have achieved pregnancies with their frozen semen.

A benefit of frozen semen as opposed to chilled semen is that only the best semen is frozen. If one has to rely on chilled semen and the stallion is having an ‘off’ day, as sometimes happens, and the quality of his semen is not as one would like, you have no choice but to ship to an owner who is waiting with a mare ready to ovulate at their farm. If you cannot provide the semen, the mare owner misses a breeding opportunity and loses valuable time.

With frozen semen, the semen is a consistent and quality product each time. Theoretically, this will improve the chances of a successful pregnancy and, thus, be more cost-effective for the mare owner.
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We are often asked what makes a mare suitable for artificial insemination by frozen semen. Our answer quite simply is any mare that has passed a breeding soundness exam and who can be bred using chilled semen can be bred using frozen semen. A good veterinarian or technician is essential, since timing is everything when inseminating mares. Here at our farm, we like to inseminate a mare within six hours of ovulation, either pre- or post-ovulation. We have had tremendous success using frozen semen on our mares and, given our druthers, would only use frozen semen.

And as far as costs go, we charge the same stud fee for our stallions be it for chilled semen, fresh extended semen or frozen semen. Because frozen semen is shipped in a vapor shipper, there is the deposit for the shipper, which is returned to the client once the vapor shipper arrives back at our farm. The cost to import semen to Australia at this time is approximately five hundred dollars via airline shipping from the United States to Australia. This is a significant saving over the cost of shipping a live horse. Import duties and permit fees are separate and can be arranged via your government agencies and brokers.

As to how you can obtain semen from the stallion of your choice here in the United States, we recommend contacting the stallion’s owner and asking if they have frozen semen available for use and international shipping. Semen that is bound for Australia must meet strict guidelines and not all facilities are authorized to send semen to Australia. If the stallion’s owner is amenable to sending you semen but does not have any semen frozen, you can then ask if they are willing to work with a USDA semen export facility. You can also contact us and we will facilitate working with your chosen stallion owner to collect the semen and ship it to you in Australia. For us, this seems the most expedient way for a stallion owner and mare owner who live continents away to work together and it is work we enjoy doing.

At North Point Farm we work with stallions of all breeds and have a library of stallions available for shipment to Australia. For example we stand every Percheron Stallion, Wincredible, sweepstakes-nominated, SCID-clear, black straight Egyptian stallion, to every breed of horse in between.

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