

## Check The Charts – A Success Story

John Underhill and Jim Young of JSY Racing in Fort Lupton, Colo., had every reason to be joyful as the new owners of a stallion they hoped would put their racing program on the map. Check The Charts, a son of the great Beduino, had won more than \$240,000 in racing during the early 1980s. This achievement earned him a Register of Merit and the designation of Superior Race Horse by the American Quarter Horse Association (AQHA). He also had sired offspring that had won a combined total of nearly \$1.8 million.

Their joy, however, was short-lived. Just a few weeks after arriving in Colorado from Texas, the 20-year old stallion contracted colitis – a severe inflammatory condition of the digestive system. Check The Charts was taken immediately to the James L. Voss Veterinary Teaching Hospital at Colorado State University where he underwent life-saving treatment. During his stay, Check The Charts suffered a secondary complication – priapism, a persistent erection of the penis which required additional surgery. As a consequence of the priapism and the surgery, his penis subsequently lacked the sensation that would allow him to get an erection and breed mares normally.

The staff at the Veterinary Teaching Hospital had saved Check The Charts' life, but if he could not breed mares his owners were looking at a very expensive stal-



A technician places stallion semen in a centrifuge.

lion that would add nothing to their breeding program. Check The Charts was transported to the Equine Reproduction Laboratory for additional testing and treatment, with the hope that he would one day be able to breed.

“Check The Charts was a great horse to work with,” said Paula Moffett, a Research Associate with the ERL. “He had been ‘around the block’ by this stage of his life and was a real gentleman. We tried to collect semen from him, and although he was very interested and would mount mares, he could not ejaculate.”

While this may have been the final hope to the owners of the breeding stallion, the ERL was not ready to give up. One of the many services the ERL provides is a procedure known as “chemical ejaculation.” This involves giving the stallion a combination of medications that can cause ejaculation without an erection or mounting a mare. The difficulty is that horses do not always respond to the treatment in a consistent manner.

Dr. Jason Bruemmer, Associate Professor in the Department of Animal Sciences and coordinator of the ERL stallion service, and Moffett put Check The Charts on a program for chemical collection. The first time they tried the procedure, the stallion ejaculated, and his semen was frozen. This ensured that the genetics of this great stallion were preserved and could potentially be used

to impregnate mares. However, up to this point, there was no record of any foals being produced from frozen semen that was collected via chemical ejaculation. Other veterinarians who had collected semen by this method had always bred mares immediately with fresh semen. The researchers didn't know with certainty if mares would get pregnant with chemically ejaculated semen that had been frozen.

During the next several months, the ERL staff continued the chemical ejaculation protocol, adjusting the dosage as they went along. Out of 15 attempts, they collected semen five times and froze the semen each time. Seven mares were bred with the frozen semen and four of the mares became pregnant. This was the first recorded instance of mares becoming pregnant with semen frozen from chemical ejaculation.

Before coming to the Equine Reproduction Laboratory, Check The Charts' future as a breeding stallion seemed to be finished. Thanks to the dedication of the staff and the advanced reproductive techniques offered by the ERL, Check The Charts' genetics were preserved for future generations. More importantly, this stallion was again able to sire foals and became the first stallion to produce foals with frozen semen obtained by chemical collection. +