



# BATTLE OF THE CLONES

By Megan Arszman

**IT'S NOT** *another episode of Star Wars, but the American Quarter Horse Association might feel like they're in their own Attack of the Clones.*

*On July 30, a jury of five women and seven men ruled against AQHA in federal court concerning Rule 227(a) (now REG106.1) of the AQHA Handbook, which states:*

*"Horses produced by any cloning process are not eligible for registration. Cloning is defined as any method by which the genetic material of an unfertilized egg or any embryo is removed and replaced by genetic material taken from another organism, added to/with genetic material from another organism or otherwise modified by any means in order to produce a live foal."*

*The federal court jury ruled in favor of the plaintiffs, Jason Abraham and Dr. Gregg Veneklasen, filing on behalf of Abraham, Abraham and Veneklasen Joint Venture, and Abraham Equine, Inc. The ruling determined that the Stud Book and Registration Committee and officials of AQHA violated the Sherman Antitrust Act and the Texas Free Enterprise and Antitrust Act by not allowing registration of cloned horses and their offspring in the association.*

*The court case and subsequent ruling, has stirred a lot of debate amongst horse owners both in and out of the AQHA, but the cloning dilemma isn't new for the association.*

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**Section 1 of the Sherman Antitrust Act**

*Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$10,000,000 if a corporation, or, if any other person, \$350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.*

**Section 15.05(a) of the Texas Free Enterprise and Antitrust Act**

*“Every contract, combination, or conspiracy in restraint of trade or commerce is unlawful.”*

**CLONES V. AQHA TIMELINE**

Abraham and Veneklasen’s lawsuit stems from the 2012 AQHA Convention in Las Vegas, Nevada. The change to rule 227(a) to allow clones and their offspring to be registered was proposed to the Stud Book and Registration Committee. But it wasn’t the first time that cloning was mentioned at the AQHA Convention. In fact, in 2008 the Committee was first presented with a proposal to allow a live foal produced by somatic cell nuclear transfer (SCNT) to be registered with AQHA. The stipulation with this rule change was that the clone’s DNA had to match that of an already-registered American Quarter Horse.

At the time, the Committee recommended that the rule change be put on hold until more information was garnered from a study on cloning. The membership and, subsequently, AQHA’s board of directors adopted the recommendation.

The next year a cloning forum was held during the 2009 Convention to help members and directors learn more about the subject. Again, the Stud Book and Registration Committee suggested another year of study and the change was tabled once more.

Kissimmee, Florida, saw the rule change put before the Committee again for the 2010 Convention. A task force had been put together to gather information about SCNT, as well as to conduct a survey of the AQHA membership regarding its opinion about allowing clones to be registered. The survey, which went to 3,000 randomly selected members (from the 280,000+ members the association currently has), had a response rate of 30 percent, and of those that responded, the survey showed that 86.02 percent were against cloning. With this information in mind, the Com-

mittee recommended that the rule change proposal from 2008 be denied, and AQHA’s board of directors adopted the recommendation.

But cloning proponents didn’t give up. In 2011 the Committee was presented with a rule change proposal to allow for registration of a cloned horse for breeding purposes only. Again, the Committee recommended that the proposal be denied, and this was adopted by members attending the meeting as well as the board of directors.

At the Houston Convention in 2012, another rule change was submitted to amend REG106.1 to allow the registration of the offspring of a cloned horse. According to AQHA, after hearing from members who attended the Stud Book and Registration Committee meeting, the Committee chose to deny the rule change. Again, the board of directors adopted the suggestion by the Committee, and the rule change was denied.

A month after the 2012 Convention, Abraham, a rancher in Canadian, Texas, and Veneklasen, a veterinarian in Amarillo, Texas, filed a lawsuit against the association. Their lawsuit claimed that the AQHA was in violation of the Sherman Antitrust Act, as well as Section 15.05(a) of the Texas Free Enterprise and Antitrust Act. Their suit sought money damages and requested that the court force the association to rescind Rule REG106.1 and allow for the registration of clones and their offspring.

This brings us to the present day, where it looks like clones just might take place within the world’s largest breed registry.

**WHAT IS SOMATIC CELL NUCLEAR TRANSFER?**

Somatic cell nuclear transfer (SCNT) is the most common form of cloning. In this process, an unfertilized egg is removed from a female mammal. That egg’s DNA is removed from the nucleus to make room for the DNA-filled nucleus from a cell of the animal to be cloned. Once this is complete, the egg is stimulated via electric shock to begin dividing in a culture dish in the laboratory until the embryo is mature enough to survive the uterus. The embryo is then transferred into the recipient using embryo transfer.

The first mammal successfully cloned was the famous sheep, Dolly, in 1996. She was cloned using SCNT in Scotland. Dolly lived for almost seven years until she was euthanized due to a progressive lung disease and arthritis, but she jumpstarted possibilities that seem endless when it comes to cloning. And that’s what owners like Abraham want to tap into—endless possibilities—in the horse world.

Numerous horses have been cloned throughout the years. The first horse was cloned in Italy in 2003. Five years later, the first offspring from a clone (out of a cloned mare; another by a cloned stallion) was born. Since then, cloned mules have competed on the racetrack, cloned polo ponies have comprised entire teams, and cloned famous Quarter Horses have served commercial purposes.

One of the most successful barrel racing horses in the

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world, Gills Bay Boy (aka "Scamper") was cloned in 2006 by his owner, Charmayne James. Because he was a gelding, Scamper wasn't able to prove himself in the breeding shed, so with the help of, notably, Dr. Veneklasen and his company, Viagen, Scamper's clone, Clayton, was born. He became the first clone to be offered for stud in the United States.

"I wanted to get in and save his genetics, because if they ever were able to clone a horse, Scamper would be the horse to clone," said James seven years ago when asked why she wanted to clone her late gelding (that clone currently stands at Buffalo Ranch in Weatherford, Texas).

### **CLONE = ORIGINAL ... RIGHT?**

So are clones the exact, mirror images of their original version? In a word, no. For example, Clayton does not have the same markings as Scamper. Clayton has a star and snip on his face and two hind socks, whereas Scamper had no white markings. Scientists have explained that these physical variations result from environmental differences (such as the mare's nutrition) while the fetus was developing.

Other differences between the clone and the original can be explained by environmental factors—clones can be taller, or shorter, or have different markings. Owners and researchers have yet to determine if physical abilities are the same, and that's the challenging part.

When asked if she would ever consider a clone of her famous Quarter Horse stallion, Rugged Lark, Carol Harris was quick to answer: "No. Why would I? Because there's no way it's going to be like him. You have environment outside of genetics. Environment is, I think, more important than genetics.

"Nobody's going to do another Rugged Lark because nobody's going to probably be dumb enough to do what we did," she laughs. "We spent hours, and we don't even know what we did. How do you remember what you did (while training)? You did it on a certain day, at a certain time, and it worked."

Kerry Bradac, breeder and owner of Hot Diggity Joe, agrees with Harris. "Anyone that has been in the breeding business for years knows that just because a horse is a 'full sibling' does not guarantee the same results in the show pen or in the breeding shed," said Bradac. "I would assume this would be true with a clone. There are many variables involved with the success of any show horse such as nutrition, training, farrier, etc. There are absolutely no guarantees that a clone would be able to replicate the success of the horse he/she is cloned from."

Yet James has reported a lot of behavior and conformation similarities between Scamper and his clone. One example is a particularly sensitive area on Clayton's neck behind his ears where the stallion does not like to be touched—the same place as Scamper.

### **WOULD CLONES IMPROVE THE GENE POOL?**

Valid arguments can be found for both sides. Abraham

and Veneklasen believe cloning horses that couldn't reproduce themselves, such as Scamper, would make their genetics more available to mare owners. Who wouldn't want to breed to one of the world's best barrel horses?

And what about the other great geldings that we've seen? Wouldn't a cloned Harley D Zip be a popular stallion for those interested in flawless lead changes and transitions? Ohio amateur Moira Murty thinks mare owners would be enticed by the prospect. "It would be fun to see what some of the truly great geldings could produce—for example, A Certain Vino or RPL My Te Cheerful," she said.

Those against cloning cite that it would shrink the gene pool. "Our gene pool is shrinking, and I do contribute shipped semen and multiple embryo transfers for the cause of that," said Bradac. "With being able to breed to any stallion in the country, we lost many of the smaller breeders whose breeding programs were contributing different bloodlines."

Then there's the worry of how many clones of the same horse would be allowed? Would you be able to have the same stallion standing on the West coast and the East coast?

"You're just going to have more of the same—everybody can breed to the same horse. It's a replica of the same horse," explained Harris. "They can keep making them—have a replica of the same horse in California, same here (Florida)...but your gene pool isn't worth anything unless you have outcrosses."

### **WHAT'S NEXT?**

The court case has opened the debate for members of AQHA. While Nancy Stone, lawyer for Abraham & Veneklasen Joint Venture, said the win has opened the door for the "smaller" horse owners, it's still a procedure that can cost hundreds of thousands of dollars.

"We are delighted with the jury verdict and hopeful that AQHA will now register horses produced through somatic cell nuclear transfer," stated a press release from the attorneys for the plaintiffs.

Tom Persechino, director of marketing for AQHA, says the association still believes that the rule regarding not registering clones or their offspring is lawful and reasonable. "I also think the reason members voluntarily join AQHA is they want the ability to make rules for their association," Persechino continued. "This time that wasn't upheld by the verdict. We think that an important part of any association is the ability to make reasonable and lawful rules, and that's why we'll pursue and look into those appeal options."

For now, breeders will stick to the tried and true breeding methods, which means taking the time to make the perfect match, raising the foal, and spending hours in the training ring.

"How do you get good ones? You get good ones through planning and hard work and mistakes and corrections—that's how you achieve success," said Harris. "That's how our forefathers all had done it to get us where we are, and now we're just letting it all go to pot."