

## “Selecting the Jack of Hearts”

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The mule industry is quickly evolving into a very viable and large segment of the equine industry. In the past 5 years, I believe there has been a historical record of fine mules being produced. It's very exciting to travel all across the country to different mule shows/events and witness the change in the animal. The change I'm referring to is the physical appearance of today's saddle mule teamed with professional training. Not only are these mules built to perform anatomically but also the environment they are raised in today creates good-minded animals that are conditioned to perform. No longer do most people bred just any old mare to any old jack, and this is what I would like to focus on in this article.

When raising mules, I believe it is essential to make the right cross the first time due to the fact the mule is sterile (or so we suspect) and genetic improvement can not be enhanced. So, one should be very, I emphasize very critical and cautious when selecting the jack. You should also choose the right jack for your mare.

Just like in horses certain bloodlines are known for different qualities or genetics. It's my opinion to keep that in mind when mating certain breeds and bloodlines of horses to donkeys. You want to ultimately produce a mule that is trainable meaning it has a mind and attitude that shows its' willing to learn. Some may disagree and say that any animal can be trained to perform and this is true to an extent, I just know from experience, that it is a lot easier to train a more willing mule than one that is very independent or spooky to some extent. Breeding a mare you may think is “hot” or “crazy”; well what do you think her offspring will be like? There's a good chance it will be very similar to her considering the foal will spend the first few months of its' life with the dam. My mule I am showing right now is very flighty. I've never been around a mule that responds the way he does to certain things but at the same time the extra bit of so called “spunk” has made him in a lot of ways very horse like and very trainable. He is out of an Appendix Quarter horse mare (1/2 quarter horse and 1/2 thoroughbred). Most of our mules we raise are out of walking horse mares and our jack, who both are very calm and docile.

I also believe one should begin handling their donkey or mule foal from day one. It makes a huge difference if they are imprinted to some extent! The physical make up of animal, the phenotype, is the result of its' genetic material (genotype) and its' environment. The mule or donkey can have all the potential in the world to be the best let's say “cow working mule” or “racing mule” but with out the right environment the genetic potential will not be reached.

This brings up another issue of what or how will the cloned mules from Idaho develop. All of these mules have the same genetic material but are being raised in different environments. The researchers and scientist separated these foals to measure the correlation of the environment and the phenotype of each foal. This is also true when comparing full brother and sister foals. For example, I have a walking mule that is 17.1 hands and she has a full brother (or maybe sister) that is only 14.3 hands. This sibling was out of the same jack and mare and raised by the same person in the same environment. So, the genetic potential was the same and so was the environment but the sibling mule never develop to its' genetic potential in terms of height or maybe my mule just surpassed her genetic potential.

Another huge factor in phenotypic development is of course training, and nutrition. Nutrition is very important to the jack, who should be properly fed at least 45 days before the breeding season begins because this is when he will be making or producing a majority of his sperm cells for the breeding season. That means that a majority of the semen is produced in the winter months with the peak of the reproduction season being in April and tapering off close to the summer months (June or July). Also, when feeding mares it's very important to increase feed and protein the last three months of pregnancy (third trimester) because at this time the mare needs the most nutrients (especially protein and energy) due to the rapid growth of the fetus and demands of lactation and mammary gland development. Keeping all of this in mind and considering the time you will have wrapped up in producing a mule or donkey, selection of the parents is very important.

Now with so many jacks to choose from which is evident throughout this issue (Annual Jack Issue), it's my opinion one must select for good conformation. It's amazing how much a mule can overcome but still focus on producing quality animals because more fine mules will just improve our industry as a whole. Also, when speaking of conformation keep in mind your intentions of the offspring such as what you would like to do with the foal when its grown in terms of what type of work or riding will it primarily be doing. If you are breeding for a gaited mule I would highly recommend breeding to a jack that is gaited and built like a gaited animal in terms of his hocks, croup, etc. I would also recommend crossing a gaited jack with a gaited mare. Same is true if you are wanting to produce a nice performance show type mule, breed to a line of horses that are known for producing athletic type offspring with a jack that has proven get that are versatile and perform. Just like the gaited animal look for conformation (well balanced good moving, straight legs, etc) in the jack and mare that will produce a sound performance mule. Again, I would recommend choosing stock that was proven or at least built to suit your needs. The term I keep referring to "proven" means they (the dam or sire) has produced offspring that were able to perform what ever it is you are looking for such as a gait or flat movers for pleasure. Some more examples of selection include, if you enjoy competitive trail riding and are wishing to produce a mule suitable for endurance trail riding, I would suggest using a type of horse that excels in that area, and crossing her with an athletic, deep hearted jack and if you can find one, maybe a jack that has sired race mules to add speed.

It's also important to take into consideration the height of the jack you are going to breed too as well as the height of your mare. Typically our farm's jack, whose 14.3 hands, has produced mules a hand larger than the mare he is bred too. So, don't think you need a 16-hand jack to produce a hunter/jumper mule. That brings up another issue, not everyone rides. Many people enjoy driving. Well, most of the draft mules I've seen for years, I believe the breeders knew what worked and what didn't- Today with the importation of many of the PMU mares from Canada, draft mares can be purchased at a very reasonable price. If you were looking to produce draft mules I would recommend breeding a draft mare, and select which breed ex. Belgium or Percheron based on the color and type of mules you are looking at producing, to a bigger, heavier, boned jack. This brings up another issue breeding for donkeys. Well, I'm not going to write a lot about breeding donkeys because I will leave that to experts like Dr. Tex Taylor and Crystal Ward, but I think it's vital to make very responsible and selective choices when breeding donkeys.

There are only a limited number of donkeys especially mammoth donkeys. I think it's very important that we continue to select donkeys not just based on size or color but on conformation and disposition. Size and color are great but it's just like cars, a school bus is big and has a lot of color but does that make it a great vehicle to drive? It has been my experience that the bigger the donkey (in reference to donkeys 15 plus hands), the more soundness and leg problems you have. I think the miniature donkey associations and breeders have done a wonderful job in selecting animals that are genetically superior and have chosen to not bred jacks that are not of superior quality. The National Miniature Donkey Association even offers some financial support to people who castrate their jacks. I'm a huge fan of cut jacks or gelding donkeys. They make excellent pets, great mounts for kids, as well as wonderful show animals. Some of my favorite animals at the shows are gelding donkeys. I really wish people would be more selective and geld more of our jacks. Although if you are considering gelding your jack make sure your vet is aware of the extra artery in the scrotum because he could bleed to death.

In closing I encourage each of you to be responsible breeders and be selective in your mating, keep in mind your future intentions/goals of the foal, keep records, and register your animals. I hope in the future more donkeys and mules will be registered so we can map or keep tract of superior crosses. Unfortunately, most mules and donkeys are not registered but there is a serious effort to try and register most mules and donkeys by several of the mule associations. Keeping records is very important especially for donkeys. The jack who will have the most influence because he will have the opportunity to produce more offspring than the mare or jenny, it's important to record what type of mules/donkeys he is producing when crossed with certain breeds, bloodlines, colors, conformations, etc. It's also very important to keep records and encourage people to register their mules and donkeys in terms of the health and well being of our industry in order to document any type of genetic disease or disorder, such as in quarter horses the genetic disorder HYPP (linked to the Impressive line) or mares with the Rh factor type blood, which will kill mule or horse foals if they nurse the cholostrum from a mare with Rh factor blood type. I wish each of you the best of luck selecting your jack for your jenny or mare!

The information in this article is based on my opinion, plus 20+ years of experience in the industry, paired with my educational background in reproduction physiology and animal science.