REINED COW HORSE TRAINING ONLINE

CONFORMATION

WHAT TO LOOK FOR

WITH

DR JIM HEIRD

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ABOUT
DR JIM HEIRD

BIOGRAPHY

Internationally-renowned equine scholar, Dr. Jim Heird is an Executive Professor, the Glenn Blodgett Equine Chair and Coordinator of the Equine Sciences Initiative at Texas A&M University.

Prior to this position he was Director of Teaching and Outreach for the Equine Sciences Program at Colorado State University. He graduated with a BS in Animal Husbandry and an MS in Animal Genetics from the University of Tennessee.

His Doctorate is in Animal Behavior from Texas Tech University.

Dr. Heird has received numerous honors, including the USDA's Honor Award and The Outstanding Leadership Award from the National Horse Judging Team Coaches Association. In 2009 he was named Horseman of The Year by the Colorado Horse Council.

He has trained World Champion youth riders and shown World Champion horses.

He has been an American Quarter Horse Judge since 1976. In that capacity, he has judged 11 World Championship Shows for the AQHA, 15 national shows in many countries and has lectured in numerous national and international judges' seminars.

He is a Past Chairman of AQHA's Judges Committee and is presently and is the current AQHA President.

CONFORMATION

CASE STUDY #1

We're going to look at an eight year old mare that's won in excess of $314,000. Her name is Hissy Cat.

THE IMPORTANCE OF BALANCE USING RATIOS

We're going to start by talking about the easy reference points. Everything starts at the shoulder and the shoulder is the angle that allows us to have the ratios that we're looking for.

1. The Neck: People often talk about a long neck or short neck. I don't like to do that because it varies with size. So I like to talk about ratios. I like to talk about the top line of the neck to the bottom line of the neck - that ratio. I want a top line that's longer than the bottom line. The reason for that is because of the slope of the shoulder.

If I change the slope of the shoulder then I give this mare the look of a short neck because the top line will become equal to the bottom line.

2. The Back: And then of course the shoulder affects the length of the back. The more this shoulder angle lays back, the shorter the back. We have to be careful in our performance horses that we don't get them so boxed up that they can't make the turn, so we want a little bit of length.

This isn't a big mare but as you look at her back, her top line versus her underline ratio, you see it's short here (pointing to her back) and long under here (pointing to her stomach.

It's long here (pointing to the top of her neck) and short here (pointing to the bottom of her neck). It's all related to where these muscles tie into the shoulder.

3. The Hindquarter: The third place that we look is the quarter. We want a long hip and croup and if you look at the really nice horses, they're going to have almost a square shape. They're going to be as wide through the middle part of the stifle as they are almost to the top. So it actually gives you a square look and it fills in down here when we get those horses that are a little peaked (v-shaped) coming down into the stifle, that's when we begin to run into stifle problems.

So as we look at what cow horses are asked to do, how they're asked to use their stifles, use their hocks, use their loin and coupling, then we find balance because that's the form to function part.

Muscling

Then we begin to look if they have enough muscle to carry us through the event that we're asking them to do. Everybody wants to stand behind a horse or stand in front and look at muscle. I like to look at everything from the side.

We want a horse that's strong in it's coupling right down this loin because you can see the groove right here (along the middle of their back) and all this muscle on each side and they're full. As you look at this mare, this muscle looks like it's one muscle as it comes from here down into the hock.

So we get this look of strength. And that's going to allow this horse to get in the ground, turn come up out of the ground and move around for us. So the first two things that we look for are balance and muscling.

Structural Correctness

Then of course, we have to add structural correctness to our overall conformation formula. People often talk about wanting a short cannon bone, a short hock. Well, you can't say that because if you've got a horse that's taller, the smaller one is going to have a shorter cannon bone. If we're not careful, we'll pick ponies.

What I look for, from the side, is what are the angles? Does this horse's pasterns allow it to have a low knee? Does the angle of the hock allow it to have a low hock because the angle of the pastern? We don't want to get the low hock by getting a horse that has a sickle hock because what happens is every time that horse gets in the ground with its leg is up under it, all of this strength that we've developed up here (in the hindquarter) is going to affect in the hock.

In the front, we're going to find that horse that's straight and structurally correct because any deviation is going to cause them to hurt themselves or to get sore. What we know is that horses that toe out tend to move in with their feet and about 80% of our splints and blows come from the opposite foot coming across and hitting that leg. So the straighter we can get them, the more we can protect them from that.

If I were to add, we're not talking about halter horses here, but breed character becomes a factor and we really don't worry about that so much in our Performance Horses. We're looking for balance, structural correctness and adequate muscling.

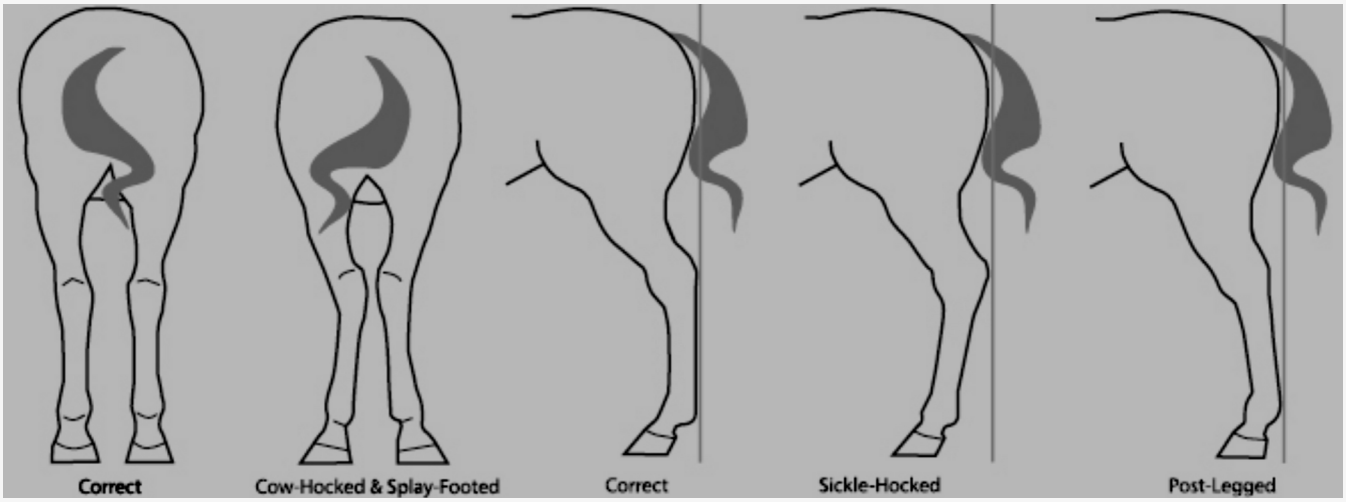
HOW TO DETERMINE THE ANGLE OF THE SHOULDER

One reason why as an instructor I quit trying to tell people the angle is because so many people have trouble with it and look at the ratios instead. But really the slope of the shoulder goes from the point of the shoulder along the spine of the scapula and it comes out about midway of the withers.

The one thing I didn't talk about in conformation earlier is the importance of this prominent wither because if we have to cinch this horse down so tight to keep the saddle on, they can't be athletic. The other thing about a mature horse is that their heart girth in the balanced horse will be about the same depth as their length of fore leg.

But if we were to straighten that angle then that shortens this neck and makes the back longer. It doesn't affect under here (pointing to the stomach, it doesn't affect under here (pointing to the bottom of the neck) and we lose the balance that we're looking for.

The withers basically are those scapulas coming up as it forms around the spine and I think we all like that shoulder to be set in there smooth just simply because more of our saddles fit, it doesn't pinch them. They're not as constrained as they move and that would be one thing we could say, just to be a little critical of this mare, I would like to see her just a little more refined right up at the top of her shoulder.



IS A LONG NECK BETTER?

This is all assumption. The thing that we know for sure is that if we get horses too thick in the throat latch, they won't bridal, they can't breathe. So for me, the throat latch is a critical piece of this neck. What I've found is that if they've got the right sloping shoulder, then the neck will be proportional.

Everybody wants to focus on if the horse's neck is too short. Well most of the time, the neck fits the horse, the size of the horse. You're not going to have a neck on a 14.2 hand horse that looks like a 16.2 hand horse's neck. That's why I'm so insistent that we look at the ratios: top line to bottom line and we get that shoulder where that horse can drop down and then move in front.

We know that if we can keep the shoulder from going out on us when they turn, you know, if they'll turn that head and come, then they can bring the whole thing with them.

IF THE WITHERS ARE LOWER THAN THE LOIN, WILL THE HORSE STOP ON ITS FRONT END MORE?

I think it always does and you know, that's the unique thing about this mare, if you look at her, as successful as she's been, she's a little bit low in front. So I suspect that there's been times when she doesn't perform as well as she does other times if they really get to moving on her.

The midpoint of this horse, if we were to try to balance it, is right under the wither. So if we've got them lower behind and those hocks are sitting down, that's so much easier for them to come around if they're working off their hocks and it's just going to be a little bit harder for her to make the full sweep that this event looks for, everything begins to compensate. Here's a mare that maybe is a little lower in the front end than we want but she's got all this power to be able to bring it back around and I suspect she catches up.

She's so powerful there in the loin and coupling, stifle and gaskin, that she's probably got enough power to bring herself back around.

THE STIFLE

There's two places that we look at muscling in the stifle. As I said. I want this hindquarter to look square from the side. When we stand straight behind a horse, this should be the widest part, just a little bit below halfway through the middle. If this is more narrow than the top, either they're too fat or they're too light muscled.

When we look at this horse, they're standing there with this muscle wider than the top and they're standing correctly. One of the things I love about this mare is every time she sets up, she sets up the same width behind and the thing that keeps those legs apart is muscle.

APPLE-BUTTED HORSES

Is that a concern? It wouldn't be for me. I love the fact that this mare is so strong from here down into her hock and for me what I love to see is this muscle that comes right down this backbone and when you look at it, it looks like one muscle as it comes down into the hock and that gives them that feeling of power.

She's a short mare so she's not going to have this big long croup, she's going to have a little shorter croup that fits her body. But as we said, she's pretty well balanced when you look at the thirds of her.

The strength that's required through the hip through the loin through this stifle to get this mare back up out of the ground and come back around with this steer is amazing. The muscle contraction that it takes every time this horse turns, again head coming first, and this mare has got her legs out in front of her where she can move all of those things are essential when working cows and why form to function becomes so critical.

The horse's entire cannon bone is on the ground here, hocks are on the ground. She's going to come up out of this and the strength that she has right here is what's going to carry her around. The reason we have so many problems with working cows in hocks and stifles, it's not necessarily always the horse, it's what we're asking them to do. This is a tremendously physical event and they just have to have the strength to be able to do that, as well as the maturity of the bones, tendons and ligaments.

CASE STUDY #2 - A GELDING

This is another horse that's related to the mare. This horse has won about $60,000 - it's just getting started.

We see the same balance, the same strength, the same ability to get in the ground, come out and the things that are essential.

We look at this horse's top to bottom line ratio of his neck on top compared to on bottom. Don't worry about the slope of the shoulder. It's going to take care of itself if you learn to read these ratios. It's much easier then trying to learn where the slop of the shoulder is, it's what 99% of the people struggle with.

Just look at the three ratios across the three areas and then look at the heart girth, particularly on our mature horses, is it equal that for leg length?

One of the things that we talked about a lot in our cow horses is that they cinch up bigger than they look. What happens is this horse here has a lot of angle to his pasterns. So it sets him a little closer to the ground. He's got that great shoulder. What he is, is a horse that's compacted some and so he still has this tremendous heart girth. So he cinches up bigger than a horse that would be much bigger in some other events. So he's got a great heart girth, but the angles allow him to get out and use himself.

DIFFERENCES IN THE SEXES

Testosterone is going to allow muscles to develop but it also stops long bone growth. Testosterone prevents adipose tissue, muscle mass without fat. This gilding probably doesn't have less muscle than he would have been as a stallion but he puts on fat a little easier than a stallion will because testosterone will keep the fat down.

In general, muscling is genetic. You can't get more than the genetics will allow just by leaving them as a stallion and you won't get less if you work them the same.

DO CONFORMATION NEEDS CHANGE ACCORDING TO THE EVENT?

Balance doesn't change, balances is form to function. So the sloping shoulder if you're riding out across a ranch, you want a horse that's easy and soft to ride. So that becomes the shock absorber system.

What is different is these horses that are powerful across 25 yards across an arena are what we call slow twitch fibers. They are just a little quicker twitch where a horse that you're going to ride all day will have a longer muscle fiber not necessarily longer muscle because it doesn't matter the horse's muscles are going to attach at the same place on the bone, but the fibers inside that muscle will be what we call slow twitch fibers and they don't get fatigued as easily.

We can train the intermediate fibers to either act as slow twitch or fast twitch muscles. And so we exercise those horses about the same, you know, if you look at trainer's operations, there isn't a lot of difference in how they exercise horses and get them fit. And so then they train those intermediate muscles to do what we're asking them to do.

We know that heavier muscles, just like a weightlifter, will be more fast twitch fibers. The lighter muscles like a thoroughbred horse has slow twitch muscles, and it is oxygen use which is what I'm talking about.

CASE STUDY #3 - A YOUNG MARE

This is a young horse that again is related to these older horses that we've been looking at.

We certainly understand that conformation is not the only thing that determines a great cow horse. But what we do know is that if a horse is not built athletically or if that horse is hurting, they're not going to work very well for us.

This is a young horse that we just pulled out of the pasture that for me has the things I would be looking for in a young horse. It certainly doesn't have the depth of heart that mature horses have and won't have until she's about 4 or 5, but she's starting to get that depth of heart.

But when we look at this great top to bottom line of her neck, we see all of this ratio that we're looking for: nice short back, nice long underline and know her muscles are not going to be as well developed as an aged towards through her stifle because the exercise will tone those up. But again, look at what a neat long croup this mare has already and she's starting to get some coupling muscling here and she's only three!

As she goes into the fall of the year and you start riding her, all of this is going to build up and she's got all the structure that we can build muscle on It's like walking into a building and you say "Wow, that's a neat building" but you never think about what's the structure underneath the drywall and the paint and all of that that gives it that shape. When I'm looking at a young horse, I look for this structure that I can build on and that's what I see in this young horse. Here is a structure that you can build on and have an athletic kind of a horse.

CASE STUDY #4 - HORSE WITH SOUNDNESS ISSUES

THIS IS A YOUNG MARE THAT HAS WON $191,000 BUT HAS HAD SOME SOUNDNESS ISSUES. SO WE'RE GOING TO TALK ABOUT WHAT'S GOOD ABOUT HER AS WELL AS SOME THINGS THAT MIGHT HAVE BEEN AN INDICATION EARLY ON AS WE LOOK AT HER.

One of the things that we were just talking about as we brought this matter up is human nature is to find everything wrong. I hope that as you've listened to me talk about horses. I've spent very little time talking about what's wrong with a horse because for me unless it's a major fault, I like to find what's good about one. But human nature will always find what's wrong particularly.

This is a very interesting mare as you look at her, she is fairly well balanced. So you see that that same ratios that we talked about, maybe a little straighter in her shoulder than the others.

She is not nearly as strong through the stifle as the other two older horses that we had and certainly when we stand behind or in front of this mare we see that she's not as heavy muscled.

She's had some suspensory problems in that right front leg and if we look at her as she moves you can see that she wants to toe in just a little bit and in general the horses that toe in will tend to have just a little bit of a suspensory issue.

She does two things: she toes in but then she paddle or wings out and so if you watch her travel, there's some real indications that there might have been a problem coming up here and you could have selected for that.

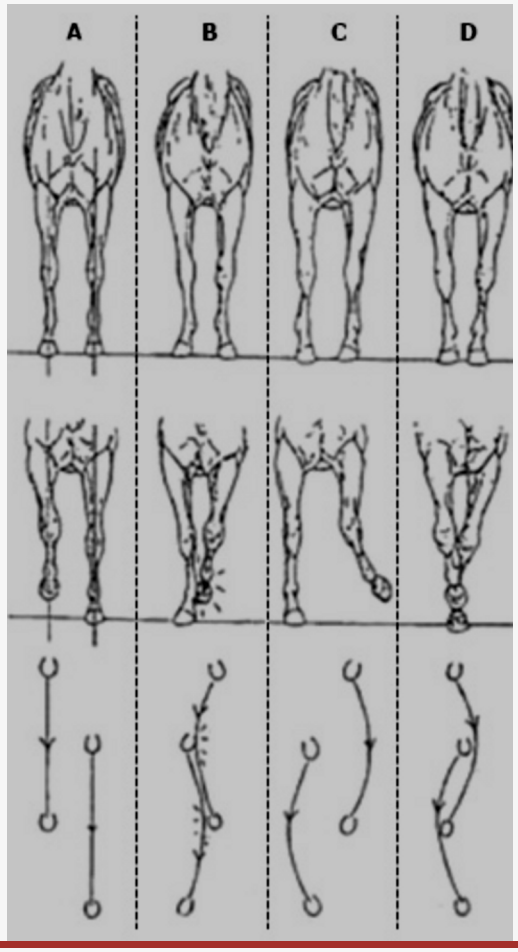
How much emphasis do you put on that? You've got genetics and it's just a matter of what your pocketbook will allow you to manage.

How big a problem do you think? She's got quite a bit of set to her pasterns, maybe more than would be desirable for me. All of those things just add that extra strain every time she goes in the ground.

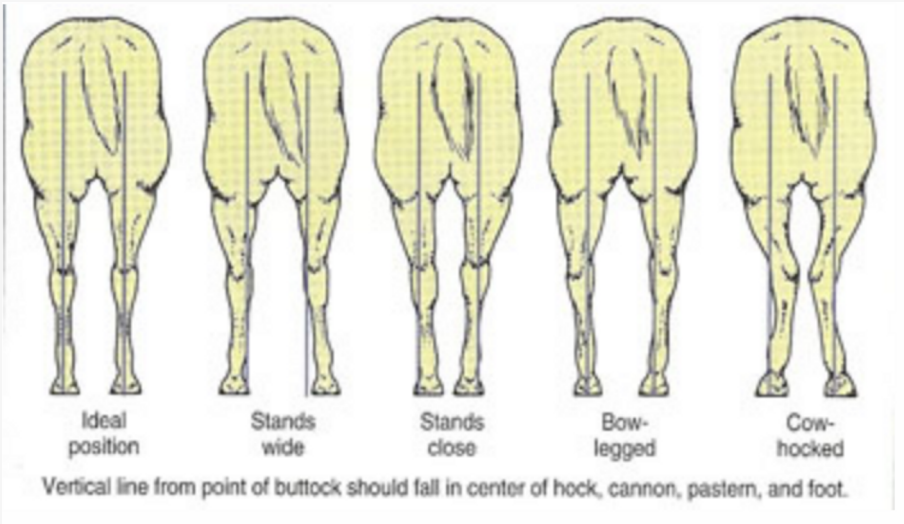
She's got just a little more angle than I think is desirable and so every time she goes down then it's more likely that that fetlock is going to go down on the ground instead of being able to absorb it.

So there's a lot of indications here that for me, you might say, "Well, if I can get her for this price, I'll take a chance" and those are the things you have to decide.

HOW STRUCTURAL CORRECTNESS INFLUENCES MOVEMENT



- *The horse in illustration A has ideal conformation and tracks straight.*
- *The horse in illustration B is splay footed (toes out) and wings in when tracking.*
- *The horse in illustration C is pigeon toed (toes in) and wings out when tracking.*
- *The horse in illustration D is base narrow and rope walks when tracking.*



THE STATS DON'T LIE

You can you can talk all day long about the horse that had a structural issue that stayed sound for life. But all of the ones that have a soreness or lameness problem, you can go back and find a structural deviation that relates to that and so, you know, I don't tend to listen to that guy that says well I had one that was toed in and I rode him 10,000 miles.

I tend to look at all the ones that break down that were toed in are all the ones that had too much cushion to their pastern and that bang their pasterns and say okay that may true for that one horse, but all of these others there's a problem with those.

Base Narrow

This is a mare that is what we call base narrow. In other words, she's got a nice width to her chest floor, but she comes in more narrow at the ground when she's walking. And so again that's going to be another indication that she's more likely to hit herself.

She's more likely to put some pressure on the suspensors as she's moving particularly if she's one of these horses that wants to really get down and then come back around hard.

What's happened with her as she compensates for the width in the chest by coming in with her steps so she can make those turns.

The neat thing about veterinary care today is there so many things we can do and to relieve pain and be smart about when we have a problem and handle it correctly and we can get a long, long time with these horses.

Certainly nutrition, we know, can help with growth and development but so that we don't accelerate natural genetic growth is important.