Good morning and welcome to Chico State University. My name is Heidi Goss. I'm a graduate and senior here at Chico, Major in Animal Science and Minor in Agriculture Business. I currently serve as the president of the Young Cattlemen's Association. We are very pleased that the County Farm Bureau, the College of Agriculture and the Young Cattlemen's Association are able to bring to the campus community our very special guest. It's my honor to introduce a lady who has played a major role in all aspects of animal welfare and significantly changed the way we handle livestock. Dr. Temple Grandin is an internationally known speaker and author subjects of animal welfare and autism. In 2010, she was named to Time Magazine's list of 100 of most influential people in the world. She is an inspiring human being with her remarkable personal story. She never let anything stand in her way of being successful. Ladies and gentlemen, please join me in welcoming Dr. Temple Grandin to educate us on what the future holds for animal agriculture and animal rights.

**Dr. Grandin:** Well, it's really good to be here today and first of all, I'm going to just start out talking about some cattle handling. That's the thing I really like to talk about. Then I'm going to talk about some of the animal issues in the public.
That stuff is not so much fun to talk about. So let's start out talking about the stuff I really like to talk about and that's just handling animals. And one of the things I'm seeing today is I'm seeing my class, I've been teaching my class at CSU for 20 years just about 22 years now. In the last few years, I've been getting more and more students, well, they've never touched a cattle. They've never had any contact with cattle. Like in my labs now, big part of my labs, for about 20 percent of my students is they get to touch beef cattle, Angus beef cattle for the very, very first time. And this public just getting more and more distance from livestock, I think this is going to be a really big problem. And it's going to be a problem not just for livestock things but for lots and lots of practical things. I found, I just read something the other day that half of all students, 18 to 25 years of age, have never used tools like electric drills. You know this whole thing of getting away from doing practical things. I don't think that makes for, you know, they make for sound government policy on anything because if you get away from doing stuff, and I was raised in the 50s and we did stuff. Man, this country built the interstate highway system. We went to the moon. We did stuff. We built giant compressors, 10 giant compressors that were so expensive that only the government could pay for them, and 8 of those still exists today every single airplane. Airline that made has magnesium parts stamped on this gigantic 50s air compressors, still exists. You can't fly on airplane without these things. You know, that's the kind of practical world people have just gotten totally away from.
We’re going to talk more about that later. And basic principle in handling animals, any animal, any calm animals easier to handle. If they get all scared then it's going to be harder to handle. So you bring the cattle into the corrals and they're little stirred up, give them 20 minutes, give them half an hour to come down. Same things too with the horse, we bring a horse into a vet clinic and he throws a gigantic feet. Let it calm down for half an hour. And I tell the vet students, they'll go, "Oh, we don't have time for that." And I said "Yes, you have time to kick and break your 10,000 dollar ultrasound machine. You've got time from smash, from very expensive piece of equipment in your lab. So, you don't have time for him to calm down, you know, you have time to fix the broken fences?"
Now, how can we tell if a grazing animal like a horse or cow is really calm? If you've got nice, soft brown eyes, you've got a calm animal. As soon as you start to see the whites of the eyes, you're animals getting scared. There are actually now 4 scientific papers on this. This isn't just something that I've liked observed up myself, you know, just looking at things. And one of the papers are really showed that it is related to fear is if you give the animal Valium, which is an antianxiety drug, it stops the white eye from showing. Now, you can't give cattle Valium. That's totally illegal. You can't give that to food animals. But what it does is prove that actually is fear. So if you work a cattle, a really good low stress cattle handling, you can't really calm and they keep brown eyes, you're doing something right. Now, I'm not expecting them to keep brown eyes and you're branding them or doing something really painful. But you should be able to do all the handling, like get them into the squeeze chute without a mooing and without them blowing snot and just you know, going really crazy. Okay, what are signs of fear in cattle and horses?
What are some of the warning signs? This animal might be getting ready to kick you, bite you, do something to hurt you, or wreck some of your equipment, tail swishing in horses and cattle. In dogs, wagging tail is happy. In horses and cows, it's not happy. There's no flies on them and they're just sort of keep going faster and faster and faster and faster and then it blow a big feet. Eye white showing, head up, ears pinned back. These are all the signs that your animal is not a happy camper.
Now some of the very first work I did is I got down in the chutes to look at the things that animals are afraid of and all often get to ask, "Do the cows know they're going to get slaughtered?" I had answered that question first in my career. When I first started, I want to answer that question back in the, like 1972 I wanted to answer that question, so no, 73. We go to a local swift plant and watch the cattle go up the ramp and then I go with the same day after feed yard and watched the cattle go up to the chute or the feed yard then they behaved the same way in both places. They knew they were going to be slaughtered. They will be a lot wilder at the plant. Actually, they tended to be calmer at the plant because the plant had better handling. What I started discovering is cattle noticed little things that we tend to not know. It's like a chain hanging down in their chute. You know, why after 35 years, do I have to keep talking about chains hanging down the chutes? Because people don't remove them. People are still making the same mistakes now, than they were making 35 years ago. You know, the cattle noticed little things that we don't notice. I remember one time in a slaughter plant, a white plastic bottle fell into the entrance of the chute. That shut the plant down for 15 minutes. Those cattle refused to walk over that bottle. Now, they are really sensitive to contrast of light dark, shiny reflections. They don't like to go into things that are too dark and you fix all these little distractions and I've got a whole list of them on my website. And in my Humane Livestock Handling book, I've got checklists you can use for this. Find these things, they can improve the handling.
Look at when the floor changes, they tend to block where you changed flooring. Well, give your leader a chance to put its head down and take a look, then once the leader goes, the others will follow. Or let's say you trying to get cattle to across the road, well, take some dirt and put it across the road. You know, 'cause they always like to block at the white line so you make it sort of more the same. But wherever something looks different, they tend to stop.
Here we're headed right into the sun with bad reflections. You get reflections on a wet floor, reflections on shiny metal, that's going to tend to make animals block. Now, I realized you can't always get rid of these things but I want to make you aware of it. And then in an indoor situation like a meat plant, it gets easy to fix these things. I can move a light. I move a light, it's up on the ceiling, I can make the reflection go away. It's really, really simple stuff like that. Get down the chute and see what they're seeing.
On a sunny day, we got lots and lots of shadows. Cloudy day, you're not going to have those shadows. Maybe there's a truck parked next to the chute. You got people standing up too close. If people are standing up too close, the cattle may be wearing up, back up, get out of the flight zones. So you need to get out of their flight zone and put up a solid site. You got to do one or the other. But they're not going to stay calm and if they are somewhat wild beef cattle, if you're standing up there on top of them. I want to get you thinking about what's the animal seeing? What's the animal hearing? You see an animal's world is a sensory based world. You can get situations where there was one horse stallion, he did not like gray mares. Gray mares were evil, horrible things that kick you and he refused to breed gray mares. You know, how they got him to breed gray mares, they put a coat on them, you know, a big blanket on the mare then one of those hoody things that covered up her whole head and only a little bit a gray butt was sticking out and he breed that because she looked different. You see the thing is the fear was a visual memory. Animals often are afraid of something they either were looking at or hearing, right, when the bad thing happened. So you get a brand new set of corrals or brass, they you got a new head gate or new squeeze chute. Let's make the first experiences with that new thing as something good. Let's just walk them through it and feed it 'cause at the first experience of something new like a new person or new place or the new horse trailer is bad. You might have problems with loading after that.
Here are just some other examples of shadows. Look at how those animals are avoiding walking on the sunbeam. That’s the kind of stuff I want to get you to be a better observer of your animals. Be a really good observer. Now, they’re on a pig facility, you got shadows there, now when the sun goes behind the cloud and the shadow is no longer there.
This is what I called the black hole. We got a beef handling facility inside a building, really sunny outside and they don’t want to go in. Now at night, I can get the cattle in this building but it’s lighting up a light. But that won't work in a daytime because sun is like super bright compared to any light I can buy. So to get them in here in a daytime, I got to open up the wall. I got to get some day light into this building to get them in there or maybe work them at night. I could do that.
Skylights installed in the walls will improve cattle movement into an existing dark building.

Now, this place just took out some of the 10 and replaced it with light translucent handles. So that as a cattle came in, they see light and it makes no shadows. Now you'll notice right here, see where is the arrow? You got a solid gate, the most important thing in this whole system makes solid your crowd gate. That helps prevent having the gate smashed back into your face. You want solid gate for your crowd gate.
Okay now here is a slide of cattle going up into the meat packing plant and I showed this slide to my students. And I just say, "Well, I want you to just tell me about, you know, some of the things here that might be a problem, you know, things this plant could fix." And most of my students will notice a little chain right there, that's good. They'll notice they got the translucent panels right there. But there's another great big thing here that's so obvious but they don't notice it. They don't notice. Look at these people right. Look at aviator sunglasses that this guy's got on. You've got 3 people standing right where they should not be standing and I find about half my students fail to mention the 3 people. You know, sometimes the most obvious is the least obvious. You know, I'm a visual thinker and I kept saying "Why do some people have trouble seeing this stuff?" Well, they're not as much of a visual thinker. Let's talk about why the Japanese nuclear power plant blew up. When I found out the reason for that, I'm going "You have got to be joking. How could you do this?" Well, you see when a look at their nuclear power plant loses its power supply then they can no longer run the main cooling pumps. They could scram the reactor but the problem is when they scram is not all they off. So you have to have the small cooling pump, you know, small compared to the main ones to keep running and if it doesn't keep running, you're in trouble. So you have diesel generators to run this pump. I mean, it's like something you'd have on a ranch, it's just bigger. Something that you guys would understand. Well guess where they put the diesel generators? They put them underneath in the basement. So when the water came in there, guess what, diesels on the water, diesels don't run under water. That's why 4 nuclear power plants have lost containment and you had a gigantic mess because the generators weren't put in a waterproof place. After the earthquake came, they came on, everything was running fine until the basement
filled up with water. Well, they sort of didn't see it. It's like the 3 guys standing right there. They just don't see it.
Now, one advantage of a curve chute is as the cattle enter a single file, they don't see the people standing around the squeeze chute. But you got to lay these things out right. An animal that's standing right here waiting to come in, and he should be able to see up there two body lengths. If you bend it too sharp here, that won't work. You know, a lot of people lay out the tub systems, little tight off and little things, they don't work. And they'll say to me "Why your systems are spread out?" Well, they don't work if I crowd them up tight. You don't want to do that.
So here's one where they crowd pen is laid out in the full half circle and that's important, because you want to take advantage of the natural tendency of cattle to go back to where they come from. And as they come around the circle, an animal is standing right there, needs to be able to see up there two body lengths, and then they'll go on in. You got to lay these things out right. I've got it in my Humane Handling book. I've got it on my website Grandin.com. But the mistake a lot of people make is they make these stupid little tubs where you just kind of just go in the tub to sort of, you just kind of just go in almost straight. Well, that's not even worth having a tub. You're going to have a tub, make it full half circle. So you take advantage of the natural tendency of cattle to go back to where they come from and there's a part where solid sides are the most important are outer perimeters. So they don't see the cars going by, they don't see people walking by. Boy, meat packing plants, I got to cover everything else up. If you're out in the middle of nowhere, maybe you can lead the sides open but then you got to keep all the people away from it 'cause if you don't keep the people away from it, then the cattle are going to not be happy campers.
People need to understand the principles like the flight zone. Now, if you have a tamed horse that you lead or tamed 4-H calf, he's got no flight zone at all. That kind of animal, you lead. But in most beef cattle, you got some flight zone. And you need to learn how to work the flight zone principles.
One really simple like to get animals to come up a chute, this is one of the ways that would really reduce the hotshot use, and when it comes to electric prods, I'll tell you one thing I'm adding about, get it out of your hand. I'm not going to ban them. Sometimes you need one at the entrance to the squeeze chute. On a ranch or a feed yard, that should be the only place you might need one but it should not be in your hand. It should only be picked up when needed and put it away, maybe on 1 or 2 percent of the cattle. But what often works better, and this is the tail gate of the squeeze chute that lined up here, is if I just step forward and quickly walk back by the shoulder of the next animal that go forward. Seems kind of counter intuitive, I walk inside the flight zone in the opposite direction of desired movement and when I do that, they go forward. Now if you walk too slow like this, they just back up, kind of just step forward, make kind of a little decisive movement like that past the shoulder and the animal is going to go forward. And when you’re right up close in the chutes, the plant balance is going to be at the shoulder. If they’re out on the pasture so now the point of balance is just past the eye and you get just past the eye then it goes forward.
Now right there, I'm using a little flag there to turn the animal. People get way too aggressive for driving tools. I want all those screaming stop. I want all the shouting and whistling stopped completely. Yelling at cattle's really stressful. It's like 3 scientific papers now on the bad effects of yelling at cattle. It gets the heart rate up, gets the cortisol levels up. They don't want to go down in the chutes where they're screamed at. There's been nice research on this. You know, just use the driving aid very gently to turn. Don't they get in, they're all shaking and scrambling and all that stuff like that, just don't do that.
Another principle is, fill your crowd pen half full. Good cattle handling is going to require more walking ‘cause you're going to have to go back and get smaller bunches and bring them up. The other thing you want to do is wait until you got space in your single file. So when you bring it all up into the crowd pen, they just come on around and pass through and go into the chutes. Now, regardless of what kind of crowd pen design you have, this principle applies. You want to use crowd pens as a passing through pen. Wait until there's space in the single file then just bring them on around and go up there. Now, one of the worst design mistakes is a single file chute is too short. Let's say all the space you got in your single file is two cattle's worth. There's going to be no way you can use that following behavior. You know, if you got a portable set up, buy a couple more panels and make your single file chute longer. So maybe you can get like 5 cows in there then I can bring 5 cows up into the crowd pen and walk on right on in, use the following behavior. You know, some people put in double file chutes, you know, then I can put more cattle in there, but I want to--I want to use that following. Nothing is worse than trying to just force 1 or 2 cattle at a time into a chute. Now notice, your guy in a purple shirt is backed up. He's outside the flight zone. Notice the crowd gates not shoved up tight. People get pushing, shove too much with crowd gates. You know, I like when you look at the crowd gate as kind of the emergency break. I'm only going to use the crowd gate when I got maybe one animal left is going crazy. Be careful with the lone animal. That's the animal, hurts itself, wrecks equipment and hurts you, got separated from its herd mates.
I want you to look at what their ears are doing? What are cattle and horses pointing their ears at? Look, I call it "ear radar." Now if you look at this picture, the horse and the zebra have an ear on each other but the other ear is looking at me. I want you to see that kind of stuff.
Now here are some behavioral principles of restraining animals in squeeze chutes, restraining them in system at slaughter plants, other places even restraining, you know, cats and dogs, every animal. I cannot emphasize enough the importance of nonstop flooring on scales, squeeze chutes, loading ramps, I don't care where it is. You know, sometimes, you have an animals standing on a scale or standing on a squeeze chute and he's doing his little rapid slips like this and he's just getting all agitation and cries to you. I have gone in and put a single piece of steel rod just in a strategic location, stop that foot from doing his little slips like that and they calm right down. 'Cause when they start to slip, they just panic. Sudden jerking motions scares. We do a lot of this kind of motion around livestock that scares them. Steady motion like this, they don't respond to that. There's also an optimal pressure. The big mistake that people make is well when they fight on squeeze chute, let's just turn the hydraulics up and just squash them with it. You need to set the hydraulics so that when you pull the handle down and it bypasses, the cow should not moo. If the cow moos and bellers when you pull the handle down, hold it, you've got the pressure setting way too tight. And there's another reason for setting that right so that if the veterinarian's palpating and someone closes the gate on them, it doesn't bust the veterinarian to half. You know, I mean seriously. You need to have the things set, so it stops at reasonable pressure. You don't need all that pressure because once you let go of the handle or unless your cylinders are broken, the fluids are locked in and the chutes are not going to move. And then also try blocking up the back half of the squeeze chute. Try putting the piece of cardboard on the back half of the squeeze chute. So as the cattle come in, they don't see us stand in there or you can put rubber louvers on it. But if you don't believe in a solid side of work, then just experiment with a piece of cardboard. But you need to make
sure that you don't use any flapping materials.
Now animals that are calm gained more weight. I did one of the first studies on this with my student, Bridget Voisinet. This was back about 15 years ago. People thought I was crazy. So when you do the pioneering research, people always think you're crazy. You might be interested to know that Margulis, Margulis is a scientist that figured out that mitochondria in the cell, which are the cells powerhouses, were once free living organisms. And when she came up with that idea years and years ago, that was rejected from 29 scientific journals. That is now considered you know, proper biology today. Sometimes, something is totally new. People just don't want to accept it. So I tell my students when journal articles get rejected, there's 3 reasons. Theoretic garbage, they are so new and revolutionary, nobody wants to believe it or it's pure politics. Those are the 3 reasons. And we did this early study and we fortunately got it and draw animal science and calm cattle had that didn't shake up at squeeze chute had got a weight gain. There since been other studies that showed that cattle race out of the squeeze chute really fast have more dark cutters and lower weight gain. So there had been a lot of people now selecting for temperaments, selecting for calmer animals, and that's good. But you know what, you can overdo it. One student right now, we decided to look at mothering behavior. And we're finding different cows have different strategies on mothering behavior. Some are really quick to call their calf out, get their calf back towards them, some will let you get closer to them than others, there's kind of different ways that the cows behave.
And if we go too much on selecting for calm temperament, we might lose forging ability or mothering ability. Well with all the wolves that we've got. You know, the mistake that people often make is to overslept for single a trait. So my approach to temperament selection is I want to get rid of the crazies. I want to get rid of the nut cases that have busted a couple of gates, tread you in the pickup and then butting the pickup. Yeah, I'm going to get rid of her. I'm not going to keep any cows and put me in the hospital. It may be that rancher say, "Yeah, but she gave me a good calf every year." You know, and see this is the thing but, you know, the nut cases I want to get rid off. So the principle is let's select against the nut cases but not just go for the calm doers. We don't want to bunch of whole steamed beef cows. Don't think that's going to be a good thing.
Okay, now the purpose of this diagram is to kind of show how different levels of handling stress can really make the cortisol and stress hormones go up. Up there at the top, you got beef cattle screaming and yelling electric prod, this is a paper out of 70s. I'm going to have a really awful handling then you got deer that we're netted by a big net. There are a lot of fear stress there, and I got wildlife biology say, "When we held that deer down for 30 seconds, it can't be very stressed?" And I go, "Yeah, it might take 15 seconds to knock you over and steal your purse." You might get real stressed over that. Then you got beef cattle with quiet handling. Now, why are the dairy cows so much lower because they voluntarily cooperate. When an animal voluntarily cooperates with handling then you don't get the fear stress. I was just talking to guys the other day at manufacture squeeze chutes and cattle handling facilities. He just put a new double curved alley system at some feed yards in Nebraska and the feed yard said that cattle are going back on feed faster. You know, they're not just jamming on them, you know, forced them through that thing. You force animals to do stuff, the fear stress goes way, way, way up and animals that are afraid of people are less productive animals.
Animal's first experience with a new person and new place or a new piece of equipment needs to be good and we need the acclimating animals to handling. Let's take young heifers and practice walking them through the handling facilities so that they get used to it and make those first experiences good. Yeah, then we're going to do something that's bad but it should never be the first experience. Then I get asked what about the baby calves that I had them molest an ear tag. I think at that very young age a few days old, I don't think they can remember. Now that 3-month-old, 6-month-old certainly remembers.
Now, the thing about something new in your environment is new things are both scary and attractive. They're attractive if the animals allowed to voluntarily approach. I call it the paradox of novelty. And actually, scientists have discovered a thing in the brain called a nucleus acumens. You know, it switch the brain to seek and approach things or run away and when the paper moved on that flip board, they run away. So if you want to get your animal trained, the things like flags, spikes and balloons, let's do that before you go over the show. Last night, I just heard about a steer that was racing down the midway. Well, you got a lot of scary new stuff there. Let's decorate this pasture with flags and let him approach those things and learn about them.
Something sudden like an umbrella opening, frighten a lot of animals, unless they have very, very low fear of genetics. Now the thing is if I train the horses to tolerate pink and blue umbrella. That does not transfer to an orange tarp. And actually there was a study done, they used a blue and white umbrella and they used an orange tarp and blue and white umbrella knowledge doesn't transfer to orange tarps. You see 'cause you got to think about it, it's a visual picture. Now, photographer's umbrella would probably transfer other round scary things the photographers use would probably transfer but not an orange tarp.
Men on the horse, men on the ground, cattle view that as two totally different things. So you're going to have a situation where is the cattle used to being worked on a horse. They're lengths and tamed 3-foot flight zone. Then they get their first man on foot and they scatter. Men on the ground, men on horse, two different things. You need to get the cattle trained to both, so when they go down the supply chain, you know, somebody doesn't get run over. There's been some very nasty act that's done with some of these cattle. They're very dangerous for people with feed yards. You know, now you're in a 30-foot pen and the animals have a 50-foot flight zone and you're in there and they're running back and forth, it's not fun. Now, let's get them trained to four wheels, let's get them trained to all of different kinds of things.
Now, how do we keep handling procedures good? One of my big frustrations that I go out and I build really, really nice handling facilities, half the class throw up everything and wrecked it. And I get it. I show them how to do good handling and I had about 10 or 20 percent I call them the "believers." They would stay good and that portion is getting bigger. More people are getting better at handling. There's a bottom 10 percent that are still atrocious and then there's a big bunch in the middle, where you got to keep measuring. Because I'd go back to a place a year later and they thought their handling was really good but the yelling and screaming had gradually come back, the hotshot use had increased, and it slowly increased and they didn't realize it increased. They honestly and truly did not realize their handling had gotten worse. So we need to be measuring things like handling to keep bad from becoming normal. And then let's look at animal breeding. You want something as bad becoming normal. Look at the bulldog, the foreign freakazoid can't walk, it can't breathe and it can't have his babies naturally. You want to see a bulldog the way it should be, you go on Google pictures and you type in bulldog's dilemma. Bulldog's dilemma and you will find a 1938 version of a bulldog actually he's got a muscle, he's actually got legs and is a functional dog. So how did you get in that kind of mess, 'cause it slowly happened. You know, when you go back and you look at those old pictures and you'll go "Whoa."
Now in writing up guidelines and I’ve got a lot of work on writing up guidelines for animal welfare for lots of different people, you can’t use vague words like proper handling. What does proper handling mean? What does sufficient space mean? You want to write up something where you audited a place or you audited, you get the same results. Here’s something that’s clear.
All the pigs have to have enough space to lie down without being on top of each other.
Okay, let's score animal handling. How many animals run? I want animals walking and trotting coming out of the squeeze chute, not running. So I can just count what percentage of my cattle are speeders? How many animals fell down? I hope none. How many were mooing? Get them into the squeeze chute 'cause you're poking them with prods or smashing them or hurting them with the squeeze chute. Animals should not vocalize in direct responses the head gate catching. And if they're vocalizing right when you catch them, you're hurting them. How many animals did you put the prodder on? You can count that and then I can see, am I getting better or I am getting worse?
This is a system that's been used for the last 12 years by McDonald's, and Wendy's, Burger King, Whole Foods, Safeway, and many other companies that measure animal handling at the slaughter plant. How many animals did I shoot with captive both on the first shot? It's got to be 95 percent to pass. When we first started this and this is back in 1999, only 30 percent could pass. You know why they couldn't pass? Broken equipment, they just didn't take care of their stuff. How many animals are poked with a prodder? You want excellent scores? It could be 5 percent. How many have vocalized to pass the McDonald's audit? If more 3 cattle, mooing in the crowd pen in the stunning box, you failed it on. So I can get one over there to Harris' Ranch and they do a great job, they'll have the three cattle mooing that stun box that's it. And how many animals fall? It can't be any more than 1 percent. You're only allowed one percent falling. Now you can look at this whole scoring system on Grandin.com in my guideline section or on animal handling.org.
Now the thing is I audited the plant somebody else does coming up with the same scores.
And there’s data over the years, you know, when you had a big buyer actually measuring the stuff, this brought about a lot of improvements. There has been a whole lot of improvements and one of the things that frustrates the heck out of me is public doesn’t about this. Let’s look at the last two animal rights videos, one with Seaboard and it showed sow stalls. I think we got to get rid of sow gestation stalls, public hates them. There’s no way you can sell that to the public. But, you know what they didn’t show any bad handling on that video because there wasn’t any. There wasn’t any bad handling. They showed one half healed pressure sore. You should have seen those pressure sores 10 years ago. Maybe 30 percent of the sales had a nice, juicy, nasty, disgusting looking pressure sore. You know, there had been some big improvements and the thing that the industry has been really, really bad at is communicating with the public. Where at the point now that we need to open up the door. Now I know like Harris Ranch did a horrible thing where their trucks were burned up. You know once they opened the door and the FBI says "Well, maybe something case to join?" I can give you some security precautions so you can do tour safely without having the joint cased. I can’t talk about that publicly. I love to talk to Harris about that privately but I’m a visual thinker and I know how to do that. Let’s put it this way. So that they could do these tours without compromising the feed yard security. You know because the thing that tends to happen in ag is when they get bashed, they tend to be shutting the door. When you get bashed, you need to be opening the door.
I've taken a lot of people to big slaughter plants like really plant--Fort Morgan Plant near where I live and one of the things I do is we go out to the truck on loading dock and I happened to just watched cattle getting off the truck. They're amazed that they'd come off the trucks quiet. They expect them to come off the trucks crazy 'cause they know it's a slaughter house. Then we go up and we just watch and go up the chutes for like 15 minutes. This part of the tour you don't rush. Rush to the plant, you can rush through, but not this part. I want them to say those cattle walking there quietly and they go, "Wow, cattle just walk up the chute." Then we peek in the stunning and then we don't do blood around or down at the blood pit unless they really want to. If they want to go down the blood pit, I'll take them down there. It's just kind of messy. Most of the people don't want to go down there. What they want to see is the cattle are calm going on and bang and they shoot them with a gun in his back and it's done. And now the problem is some animal rights person gets in there and they'll find the one animal out of a hundred they goofed on and then say, "Well, that's how everybody does it" Like on this video on the pigs, they show one pig with a prolapse and kind of imply, well, every pig has a prolapse. Well, that's just simply is not true. You know, I've put videos up 3 years ago showing stunning of cows, stunning of pigs. Now I've had some pretty bad F bombs put on those sites that we have to take down. We have to really monitor the sites and most of the people that are writing like really filthy stuff on their or demographic I call "nasty boys. Teenage boys that all they write stuff that is just so dirty.
One time, Sheryl and I were laughing about which was the filthiest post we had and we were reading them all with the phone laughing about them because otherwise, it'll be just too upsetting. And I've had some animal right stuff. I've been called a Nazi. I've been called a killer, you know, when you get into the hardcore animal rights, they don't care about reforming and industry. They don't like me 'cause I'm trying to fixing industry. Not get rid of an industry but fixing industry and the thing that was frustrating with the Seaboard video is they didn't find any rough handling on that video. 10 years ago, we would have found rough handling but Seaboard has done a lot to work on that. Seaboards should have come out with both fist swaying and say, "Hey, you know what you didn't find any rough handling on our video because we didn't do any. That's why you didn't show it." They didn't even show handling because the only handling they would had to show are the nice handling. You know, but now they put out this wimpy stupid little corporate speak press releases, just stupid. And they did quote me of saying that there wasn't anything wrong. No, I would have come out and say, "You know what? You didn't show any handling on there because you didn't have, we didn't have any bad handling for you to show." That's kind of that--you know, you got to be you know, showing stuff. The other thing is if someone is a hardcore animal writer, they want to just get rid of the industry. Okay, let's just up the class for Harris Ranch and burned up their trucks. And then people get scared and they tend to decide oh let's just put up, bigger fences. Well, we're going to have to put up some security equipment and I'm going to talk to Harris Ranch, I know just how to put some security equipment up the catch these bastards.
Boy, they're sophisticated bastards too what they were doing. And, you know, this is something that the public doesn't you know, like that kind of stuff. But the thing I found it's the vegans that are really radical with their plastic shoes, no animal products. I know a lot of people who are vegetarians. They'll eat some dairy and things like that. And you know what I'm sick and tired of big ag attacking little ag, you know all the niche markets and the organic and stuff like that. We're all animal ag. The organic people, they're on the side of ag. Because how can you have organic agriculture without livestock because you need manure to fertilize the ground with. So I don't know how you can be organic and be against animal ag. That's kind of an inconvenient fact right there, you know, on these sorts of things. You know what, it was very interesting going at the Hollywood and the Hollywood press, you know, they all want to know, they're just curious. All the people in Hollywood wanted to know was how do slaughter houses work? What are feed yards? What is a cattle? That's the kind of questions I got in Hollywood. You see that's much more like the general public would ask because the convention that I went through there was a cable TV convention, where every cable channel were showing off their stuff. So my movie was just one session. I had like a 7500 reporters go in there and the moderator had to cut off the cattle questions to get movie questions. The press wasn't interested in movie questions. We have to remember the general public is just curious about things. We've got to be communicating with the general public. Ag's done a really lousy job. There were some, you know, good things like Fair Oaks Farm in Illinois.
I made a point right now where I want to just stream everything up to the internet. There's something called realpigfarms.com. You got to just show stuff. There are some practices we got to get rid off like sow gestation stalls. I did a survey about 11 years, 10 years ago or something where I wanted to find out what the public thought of sow stalls. And so I did my United Airlines unofficial focus groups. So United Airlines picked a seat next to me. They got shown pictures of sow stalls and they got shown pictures of finishers on slacks. And I used my prettiest sow stall pictures I had. I used my old stockmanship slide in fact. The guy [inaudible]. Two thirds of the public as soon as I found out I can't turn around, most of the slides, they don't like that. I talked to a construction guy from Texas and he goes, "I wouldn't put my hunting dogs in that." Yeah sow stalls got to go. But the pigs on the slacks, most people were fine with that. They commented on how pretty and clean they looked and since then, 2 scientific surveys, came up with exactly the same results, propped two pass by two thirds with exactly the same result. Yes, sow stalls got to go. We can't sell it to the public. Well, I'll run slaughter house, I can sell to the public. I think most people they're just fine with Harris Ranch. In fact, when I first started out in cattle, I started out at Arizona. So on my cattle formative years, I was exposed to horrible cattle handling, but there were few people that actually handle cattle right so I could see some light at the end of the tunnel, but you know what, I wasn't exposed to knee deep feed yard by the holes. The cattle in Arizona were in dry pounds and they have shade. So I've been exposed to quagmires of mud. You know, in my cattle formative years in '70s, maybe I would have become a, you know, animal rights rebel, I don't know.
American Meat Institute
Objective Scoring System

It measures a small number of **critical control points** that will objectively locate many different problems affecting welfare. Scoring is based on performance.

When **CCPs** are being chosen, a good **CCP** will be a point that monitors a variety of problems.

Now let's get back to how can we measure processes to make them better? The principle is you got to figure out what's the really important thing to measure? How could we measure 5 simple things in that meat plant audit, to measure a multitude of problems? There are lots of things that you can make a cattle moo, slamming doors on them, electric prods, squash them with a restraining device, falling down, see it's an outcome measure.
The other thing is we're looking at things we can directly observe. There's a tendency now for a lot of people to turn it all into paperwork. Well, I worked on supervising the construction of my stuff for 20 years and I saw more fake trucker's log books and things like that and you shake a thicket, fake cost estimates, I know all about that kind of stuff. I want to put the emphasis on things I can directly observe. Are the cattle knee-deep in mud or the pen's dry? I can observe that. Are they showing signs of heat stress? Those little mouths are open then you got heat stress. That's simple. Cattle should breathe with their mouth closed period. If their mouths are open, you've got a problem. You've given too many beta-agonists, you might have a problem. I'm willing to go on the outcome. Mouths better stay closed in beef cattle and dairy cattle. Okay.
Well, yeah, you can do some measurements, you need to see how you improve things. Like I stopped air blowing out in the face and I went from my 4.5 percent vocalization score down to zero 'cause I didn't have to prod them.
Or I put a light on the entrance of a dark chute and now I went from 38 percent mooing down 38 percent that had to be poked in electric prod down to 4 percent, from 38 percent to 4 percent. It's only about putting a light on the entrance of a chute. They don't like going into the dark.
Now here's my center track restrainer system for big plant. And in the movie, you probably saw how they put a piece of metal on my entrance ramp. This has the same design as the movies got. I got people today still taking the ramps off and taking the crates off. They're making the same mistake. It was made in the movie 35 years ago. That's very, very frustrating to me. People have a hard time getting their head around. Well, they actually will walk in there easily if you set it up right.
The animals don't want to walk over the visual cliff. This is an old research from the '50s. Babies won't go over it and animals won't either, they see death.
So I had to design this so that underneath here, I had a false floor. So when they look down, they don't see that they're 7 feet above the ground.
They had put a light on the entrance. I'll reduce the vocalization to 8 percent down to 0. I put in a false floor; I went from 9 percent down to 0 vocalizing 'cause it ends up prodding them to get them in. Second, measure the improvement.
There's an example of the light, nice and simple.
Another problem I've been running into, it's difficult to handle animals. You have pigs where nobody has walked through their pens. They're impossible to handle at the plant. You walk in the pen, they just screech and they pile up and scream, where pigs with bad leg confirmation or some other problems. Now, you got to give me an animal that I can actually handle 'cause it's hard to drive pigs, they had to be poked a lot more with the prodders than they're not easy to drive pigs.
Okay, there are kind of 3 kinds of variables when you’re setting up an animal welfare auditing system. Outcome based variables like you might measure how many lame dirty cows have I got? How many skinny dairy cows? How many with pendulous udders? Those are things that I can measure. Then you have some practices which we just get rid off, sow gestation stalls is one of them and then the only way of doing things was getting to all kinds of minutiae on exactly how to design things. The tendency now is to get away from them. There are just some really atrocious practices we don’t allow, but otherwise, people need to be free to innovate.
Okay, here are some animal based measures for maybe a dairy. How many skinny ones? How many lame ones? How many have got swollen legs with beef cattle cancer eyes? Cold condition, that's for organic and they got lice all over them? No, that's not all right. Bald spots in the spring is not all right. Ringworm all over the calves, it's not all right. You know, that's the sort of thing I can measure. Ammonia levels in indoor facilities. I went into an indoor dairy last week, I was really surprised to have like a five parts per million ammonia level. It was kind of amazing because sometimes an indoor dairy like that could be really lot of ammonia. 25 parts per million is what's legal for people.
Now lame, this is a good outcome measure 'cause look at all the different bad things that can make a cow lame. It's up to the veterinarians and the animal scientists and the managers to fix the problems. But our score for lameness This screens for a whole lot of problems. And one interesting thing is kind of upsetting is that surveys that dairy showed that if you ask a dairyman, "What percentage of my cows are lame?" They'll underestimate it by half. Get to use to saying, "Okay."
And then we got some things you may just get rid off, sow gestation stalls, you know, really stressful methods of restraining animals at packing plants and some things you just get rid off.

Examples: Prohibited Practices

- Sow Gestation Stalls
- Docking Dairy Cow Tails
- Beating Animals
- Small Chicken Cages
Example: Input Based Measures

- Measures
- Space Requirements for Housing
- Space Requirements for Transport
- Stunning Equipment Specifications

And then you still need some input measures for things like space on trucks, space requirements for feeders and waters. They're still some minimum things.
Now, what I want to do now is we have plenty of time so I want to open it up for lots of good discussions and nobody has a question, I'm going to pick somebody. Because I find lots of times, I got to get the ice broken. Okay. I'm going to pick somebody. Okay. Right there.

**Dr. Grandin:** The question concerning organic, you know, the problem of not treating sick animals. Well, the whole thing in organic is you got to work on prevention. And that may mean you're going to have to go to hardier types of animals. They're a bit more disease resistant. See when we bred animals to be really productive, there's always a price and one of the price is lowering some immune function. Because nothing is free in nature. So you may have to go to little hardier strains that are less likely to get sick. Another thing you got to do is practice good biosecurity. If you bring in new animals, you better quarantine them for a couple of months. So they don't make your other animals sick 'cause you going to have to prevent disease by doing really good biosecurity on incoming animals. And according to organic standards, if you fail to treat them, you're going to be kicked out of the program. And that needs to be enforced a whole lot more.

**Question:** Hi, okay. Hi, I'm Annie. I wanted to know if you think cattle can be intimidated by a certain sex or gender?

**Dr. Grandin:** Intimidated, we mean like the sex of the person?

**Question:** Yes like afraid of men compared to women?
Dr. Grandin: Oh yeah. You can get lot of animals, unfortunately, make an unfortunate generalization that guys are bad and ladies are good. Though I have seen it happened the other way, where ladies with long hair were bad. Animals tend to get afraid of someone, something bad happens. They tend to be afraid of something they were seeing or hearing, right? The moment that the bad thing happened like a dog will get afraid of the place where he got hit on the road rather than the car. Now, they might be another generalization like beards are bad or maybe certain type of ski jacket that makes a funny sound is bad.

Question: Thanks for coming. I heard recently on National Public Radio that McDonald's Corporation has changed its policy towards.

Dr. Grandin: Yeah, McDonald's wants to phase out of sow gestation stalls.

Audience: Yeah, can you elaborate? I only caught a fragment of that.

Dr. Grandin: Basically, what McDonald's is doing and then their suppliers gradually phase out sow gestation stalls probably, over about a 10 year period, 5 to 10-year period. That's just the degree of confinement, two thirds of the public just will not accept. I know the sales produced just fine. Now in order to make this work, you're going to have to change cell genetics. Because we've gone for 25 years we've been living in a box. So you've lost the old informal calling where you got rid of all mean cells. Also as the industry in the late '80s and early '90s, bred for the lean, rapidly growing pigs. They accidentally bred for a mean aggressive pig. Now nobody did that on purpose but the traits were linked and since they were living in a sow stall, they didn't fight so you didn't see the fighting.
But I noticed when the lean loin pigs came in back in the late '80s, early '90s that the amount of bitten tails that I saw at slaughter plants skyrocketed. Like you know, 4 times more, 5 times more. So the companies like Smithfield has already done some genetic changes and, you know, they get some gentler cells. They also found that when the got some gentler cells and put a little more fat back into the pork, that you actually got better pork because we got lean, tough, dried out pork now. See quality and quantity are kind of two opposing goals. It doesn't matter whether it's genetically done or it's done with additives and drugs and things. Okay, way in the back.

**Question:** Hi. So I was wondering if there is any other solutions besides changing the genetics for the sow gestation stalls like different alternatives?

**Dr. Grandin:** Well yeah there's various things you can do to reduce fighting. And it's basically 3 type systems. There's one, this is called lock-up stalls, where you lock the sows in when you feed them. There's another type where they take the existing sow gestation stalls and the people that have newer equipment will probably use this so they can still use the same feeding units. You cut back at the stalls off and then you convert the drop feeder to a trickle feeder that slowly meters the feed in. And so, one sow's not going to be that likely to try to kick somebody else out of the stall because it's going to take 20 minutes for all the feed to drop down. And she's going to lose her own allotment of feed if she does that. And then there's also electronic sow feeder. Now in this country, people are going more towards the lock them in the stalls. East Coast tends to be going more with that because a lot of their facilities are very old and rusted and they need to just tear them out and start over.
Where you get out on the northwest, you've got newer facilities and the most expensive part of the facility in the sow gestation stalls is the feeding devices. And where the system where they cut off the back of the stalls, they can still use the existing feeders. And then you house those sows and 5 or 6 pigs in a static group, where that group all stays together. The other one's that they mix the groups and the secret to mixing pigs together is gigantic groups. 80 pigs don't fight the same way 5 or 6 pigs in a small pen will fight. 5 or 6 pigs mixed together in a small pen, that's scorpions in a bottle. That is absolutely gotten worst. What you have in the packing plants, I go in the packing plants and I go, "Oh, you have 200 pigs in a pen and they're not fighting." But the researchers said, "Well, you know, you can't mix them." I said "Well, have you ever been to big packing plant and seen how many pigs you got in a great big holding pen? They've taken an entire load or two loads and dump them in the same pen and you got a couple of skirmishes then everybody just lays down and goes sleep." But if you've seen a big group, the space to get away from another pig, also I think they just go and they can't find all this space but I'm going to try. But you get the little groups where you mixed small groups in small pens, that is nasty. So the system where they're doing the trickle down feeder, well, there'll be static group. Those girls will live together for the rest of their life.

Question: Hello, my name is Lianne, I'm student here at Chico State. I was wondering what you're views on the current issue of horse slaughter is and maybe a good way to deal with the public.
Dr. Grandin: Well, the problem with horse slaughter is they got the horses going out of Mexico and it's absolutely horrendous. Now, I've been communicating a lot of people in the horse industry and a lot of people realized that there really isn't any other alternative but to re open the slaughter houses. You know, can it be done humanely? Yes. One thing they need to be putting is in video auditing, where auditors all over the internet watch what's going on and that prevents the problem of a plant acting good. Because one thing I'm sick and tired off is going to plant, I don't care if it's a horse slaughter plant or regular plant and everything is perfect while I'm standing there. It's working perfectly. Now when the back is turned, then they're hitting the horse in the face with a whip. Now what I have found in the horse community is that most of them have no problem with euthanizing animal. It's eating it they don't like. They object to eating it and so that will that be eating your dog. But the problem is and when you put horses down with barbiturates, you've got a gigantic place in this carcass to get rid off. That the rendering plants don't want anything that eats it is going to get sick. You can't use it for soup food, wild life eats it. It's a bad deal. You know, it gets in the, what do you do that's practical? You get in some of the extreme animal rightists, they don't think we should even ride horses. You get an extreme animal rights view point, the most extreme is don't even think you should have a pet dog because that's exploitation. You know, I've read some of that stuff. I think it would be very sad world where we don't do things with animals and I've read a very interesting genetics paper that showed, they took, epilepsy patients.
They had electrodes already implanted to monitor their epilepsy. It's a live living people and they had electrodes down in the amygdala, which is on the motion center in the brain and they show them pictures of famous places probably like the White House, you know, and Washington monument that kind of stuff, Grand Canyon, pictures of people and pictures of animals. And the pictures of animals turned on the emotional center more than the other two things. In other words, the human brain genetically is kind of tuned in to animals. We've been with animals for the whole--for as long as people have been around. You know I think it's very extreme view and this is only the most extreme people. This is extreme vegans, plastic shoes, not the vegetarians. Vegetarians will be on our side of the equation. They're the ones that will use fish and dairy and a few things like that. And to think we should have, do nothing with animals at all. They should just live their life out there. But if we do that, the wild lives are all going to get poached. I think that would be really sad, horrible thing about the wildlife which is poached. You see it's a very extreme view, that's very separated from practical things. Another thing I have found is that the people that have the most extreme views. This is on anything, anything, not just animal issues. It tends to be all ideological and theoretical. They live in offices. They got no practical experience with thing that they're advocating about and I don't care if it's against something or for something. But the bad thing we've got on the internet today is the internet magnifies the voice of extremist on both sides of issues, any issue. It doesn't matter what it is and I just talked to student the other day, it was a CSU, a freshman, she thought everything that was on animal activist websites was the truth.
Well, where are the ag websites? This is where ag is just done an awful job. When you're trashed, you need to be opening a door. I put my stunning videos up there 3 years ago on internet. P5ig stunning is now 1-1/2 million views. It's my little viral video. It's beat out the movie stuff on the amount of views it's gotten. Emmy's gets less views than pig stunning. You do put this thing up, you have to monitor as you measure's board. They're ready for F-bombs, it's block and delete. You not respond to F-bombs because if you respond then you can't delete them. That's the rule of YouTube but they call me an F something or the Nazi that comes down. But on the other hand, I don't take down descent. There's somebody says via vegan, I don't take that down as long as it's civil. I don't know if there're a few F-words that are on there like to say what the F? I tend to leave that up. But when it's just, you know filthy venom, you know and very disgusting sexual stuff, that comes down. That's not fit for family viewing, it comes down. 'Cause I don't want to take down, you know, they want to discuss why you should be vegan, I don't take that down. And somebody needs to discuss back maybe why you shouldn't be a vegan but discuss it in a civil manner. Yeah. Dr. Grandin: I think Harris Ranch will be doing a lot more tours and I know the FBI doesn't want him to do that but I can talk to Harris Ranch about ways they can do their security that I cannot discuss with, you know, in public. I know, I can figure out ways to set up their security so where you do the tour safely and I'll discuss it privately with Harris Ranch but yes. I think one thing is nice about Harris Ranch, they don't have the mud that you're getting some of the other parts of the country.
You see I started out in Arizona. I lived there for 11 years. I think we have one really freaky bunch of rain 1 year where we had mud in the feed yards. Otherwise, they will bone dry. Harris has put shades in now, which we had when I was in Arizona. And the thing that kept in the cattle business is even though the cattle handling was beyond atrocious, the feed yard or the cattle live well in the feed yard. You know, their coats were nice, glossy, and it look just great and I took a lot of people on tours. I used to take people on tours on the feed yards all the time and most people were fined about it. You know the thing we have to be doing is you got to be opening a door but a muddy feed yard, that's not going to go well with the public. You know, they just have mud balls over them and that's going to be a difficult thing for the industry to address. In the Midwest, there had been 20 cattle die offs in the middle of the country from heat stress. Come on, folks, there's this thing that called shade, got to build them. It’s real simple. The mouths open, they're too hot, period. Terry Mader's Journal of Animal Science paper. You know we've got to have simple things to measure. Well I think we have to prove them, there is not Cowschwitz.

Dr. Grandin: Okay. You know, I've done a lot of stuff with chicken too. Well it's one of the first stuff I did with McDonald's and chickens, it was right around the same time they started the cattle stuff. We went to a big chick hatchery. My very first chick hatchery then they had all these little half dead baby chicks and I asked them what they did with them. And they said "The guy that handled those was on vacation." I go, "Yeah, sure." This may be my first hatchery but it didn't fall up to turn up the track. I know what you're doing with them, you're throwing them in the garbage can and that's going to stop. And so I had them put them in the CO2 blocks.
That's one of the first thing that I'd ever did for McDonald's and I introduced broken wing scoring for the chicken industry. They used to think it was normal and broilers that have 5 or 6 percent broken wings during handling. It was just rough handling. Now they're measuring that. They have it down to 1/2 percent. You know it's the same sort of things. You've got to measure stuff ammonia levels and buildings, dirty birds, overcrowding, these are all the things that you can measure. I go into the building full of market ready broilers, if I can't walk through them without piling up, there's too many birds in the building. I don't want to look at the stupid books, they'd probably fake them. You know, you remember like 20 years in the construction industry, I know all about fake records. So if I go into a market ready birds, if they can't move 3 feet away from me without piling when I walk through barn is to make birds in the barn. That's simple. I can train a nincompoop to do that.

**Dr. Grandin:** Yeah and McDonald's, see the thing is McDonald's and a lot of companies done a lot of good things. And the thing that's really frustrating is nobody knows about it. What's happened? Well I took people from McDonald's, Wendy's, Burger King and many other companies on their first trips to farms and slaughter houses. Now I remember 10 years ago when McDonald's saw the first half dead dairy cow going to their product, they were horrified and I can tell you 1/3 of the dairy industries got their head at somewhere it shouldn't be. Well, one of the students in CSU just did a survey and we found out that on the bottom of the list of priorities for dairies is beef quality assurance.
They could just care less about it and they could care less about drug residues and mating, where they do their shots and all that kind of stuff. They're just really, really bad on that and then beef takes the wrath for it. Beef takes the hit, the stuff, bad stuff that dairy does. Like beef took the hit for Westland/Hallmark and those were dairy cattle. The public does not differentiate. After that happened, I'd be in the supermarket and people say, "Did you see them torturing those beef cattle? I'm never going to eat beef again." You know, we have to get some of the stuff fixed but you know, ag has fixed a lot of stuff. Seaboard, they couldn't find rough handling on that Seaboard video. Well, Seaboard done a lousy job, they put out a stupid corporate press release. I think I know that it's not confidential. It's a press release, I can bash that. They should have come out with both arms swinging and talking about the fact that there's no handling on that video 'cause I couldn't find any bad handling and then put up tons of video of handling on their website. That's what they should have done. But no, you get the stupid PR types that just want to like sugarcoat everything, a bunch of PR nonsense. No, they should have put up ton of video of loading pigs, handling pigs. Here is the video that they didn't show and put it and got it up on their website.

**Question:** Alright, Dr. Grandin. I work in the dairy industry and it's not about what you previously said. But we've had a springer and it's about her fourth week of lactation and she still is kicking even with the kickers on and so I'm just wondering like what you think about tailing them and then also how long should you put up.
Dr. Grandin: I think I would get rid of that calf. Yeah, I mean when I used to milk cows all the time, she would wait until your hand was just in the right location in the equipment to crash it. And I think, you know, there are certain cows that something may have happened in our life. There was one cow and she had a horrible udder. So the machine didn't stay on well. The machine probably hurt and she kick a lot of people and really hurt them. Well, at this point we need to just get rid of the cow. You know, now you don't get rid of every calf that's a little bit antsy but, this girl, man I had somebody helping me milk and she came in the parlor and I forgot to tell them to sort of approach proper knowing who she is and then she would have kick and the kid go and she slammed his hand then hurt it really badly. You know, and she done this to like 5 did, and done this to like 5 milkers. I mean she calculated how to smash her hand up against the milking equipment. No, I would sell her. Now there's a point where the animal just gets to be dangerous, I'm going to get rid of it. But on the other hand, you don't get rid of every calf that just to and a little bit of this.

Question: Hi, my name is Jacob and I'm with Placer FFA and I was just wondering if cows were used to the color orange maybe and people just at one plant and nothing but the color orange would be the process of sending the cow through that go by more smoothly.

Dr. Grandin: Well, the thing is they go a calf that is used to orange and cattle don't actually see it red. So the yellow tort, the orange top probably appears to sort of grayish yellow. You know what they can see gradations light and dark really well. Well, they got them used to things that a color like safety vest for example that you see really well.
You have them used to safety vest so they're not going to pay attention to them and then the other things of that color, they would say it's okay. Safety vessel might be something of a good thing to get them used to. Because that's the sort of thing is going to make cattle block if they don't, you know haven't seen it before. You know, it's actually good if we could get them used to a bunch of different things. So when they go somewhere new, they don't throw big feet. Some of the most dangerous animals to handle it on auction are some beef cattle where one farmer was one old truck feeds those cattle. They've been fed by single person out of a single vehicle so that really restricted getting exposed of new things and they're the ones they can just tear off an auction. Otherwise, they would total tamed pet at home and they explode at the auction especially if they're from excitable genetics. Then you see the genetics. Now if it's a whole sting calf you did that with, they're such calm genetics that she's not going to tear off an auction. You see that's where genetic interaction with the environment but you get an animal that's high strong genetics like maybe a slayer, tamed pet at home, take her to town and she's tearing up the midway and everything else, you see, 'cause that's the animal that you need to get expose to different people, different vehicles, four-wheelers, horses, flags, bikes, balloons. You know, there are some dairies where kids play in an [inaudible] parlor and the cows are fine with that. You see what's noble for one animal is totally scary to another animal. It's all what they grow up with.

Question: Dr. Grandin, I was curious, you talked about online how you deal with people throwing the F bomb.
Dr. Grandin: You just block and delete them, block and delete them.

Audience: What about in person if someone extreme came up to you and said something of the sort to your face, how do you deal with that?

Dr. Grandin: Oh I had to have a book signing in Barnes & Noble in New York and they had two goons guarding me there. So I was called a Nazi right to my face and I just said, "We are going to have to agree to disagree on many, many issues next question please." And then he called me Nazi again. And I said, "We don't agree on most things, next question please," that's how I dealt with it.

Question: In your movie there was a man in charge at the feedlot that was particularly mean to you; did the movie portray him like he was?

Dr. Grandin: Well, yes. That was portrayed accurately and he really did put bull testicles on my car. And there were people at this Scotts, it wasn't the name--the real of the feed yard, Scottsdale, feed yard just like I showed the movie, they were bad. And I found out 6 months ago more stuff about Scottsdale, feed yard that I didn't know back then. I talked to a lady from Scottsdale at a convention and she said, those cowboys at that feed yard back in the early '70s were part of this thing called the Scottsdale Charros which is an all male group and they take businessmen out on all male retreats. So these guys were like the super chauvinist pigs of the feed yard world. But you see I didn't know that at the time and they were one of the reasons why I went over to Scottsdale feed yard, it was closed. It was only a 40 minute drive where the other ones were an hour and a half away.
Question: A lot of the problems you mentioned seem to stem from the people running it either lack of knowledge or lack of experience. What do you, what are your thoughts on the industry, educating those in the industry first before turning to educate the public?

Dr. Grandin: Well I think it goes back to management. The thing I have found is, in all my whole career, people want the technology before they want the management, build the fancy parlor, build a fancy handling system but then half my clients tore it up and wrecked it and telling McDonald's is in there and inspecting everything. The other problem that you get into is over--understaffing and overworking. If you understaff and overwork, you're going to have bad work. Two years ago I had a cattleman asked me to California Cattleman's meeting, how do I get my employees to care about the cattle? And I said, are you working 6, 10 hour shifts a day working cattle? I said, they're not going to care about the cattle. I've been there, I've done that. You know, 10 hours a day of doing this with an old Franklin pistol grip syringe, I remember like my hand hurts now just doing that. You know, you--overwork and understaff like that, you're going to get people not treating animals right. First of all you can't work people some of these crazy hours. My student went after dairy in Colorado 2 years ago where they were working ten hour milking shifts, 6 to 7 days a week with no breaks. The guys were eating their burritos as they were milking. Well and if--and half the cows in this dairy had busted tails.
Yeah, you see if that's the kind of management, you know, that you have, all the training in the world isn't going to work. Alright, when I first started out, I used to train employees and then the manager's untrain them. Then I got to where there's only one person I want to train and that's the manager. Now the only people I want to train are the buyers. I can make people do it, I hate to say it but I found that that's the most effective use of my time is training the McDonald's auditors. You know, but now we're getting things kind of cleaned up, the activist groups are having a harder time finding bad stuff like to find one prolapsed sow and kind of implied that every sow in the farm is prolapsed, well is simply not true. And they don't show handling on these farms, they can't find bad handling. So they find something that looks nasty in farrowing barn and so every pigs has a hernia, well, that's just not true. And there's some other new video I just learned about this morning. See the problem is that we got a certain portion of young people today that are totally away from all practical things. They don't do things with tools; they've taken all the hands on classes out of the school. See, the thing you learn from practical things like sewing, cooking, wood shop, all those kind of things then sometimes your projects don't always work. You know, I can remember wrecking, wrecking selling projects when I was a kid 'cause I got to rushing, I didn't do things right. But that's the world of practical things. And if you don't do practical things, you get really unrealistic about how the world can really be. Yeah you are going to have a piglet with a prolapsed every once in a while. But you see watching the videos that one piglet out of 300 has a prolapsed was a 1 out of 5. Just 1 out of 5, that farm's got a gigantic problem.
Probably genetic, you know, and it's going to needs to be fixed. But you see the reason for showing it, you see when you look at the animal activist groups back in the 80s, the early 90s, it was more of a reformist. Did you know that in the 80s I got money from the Humane Society of the United States to design slaughter equipment. Then center track restrainer was funded, the development of the center track restrainer says in all the plans now was funded with money for the Humane Society of the United States was one of the donors. You know, now the animal activist groups, they're more on the, you know, let's get rid of animal ag. Well when I first started out it was reforming animal ag not get rid of it. But the animal activist groups in the 70s and the 80s paid for the development of slaughtering equipment. There's a thing called The Council for Livestock Protection, unfortunately it's all pre internet. All in a few papers aren't written about it and probably won't find it on the internet.

**Question:** What are some reasons that you received from the nonbelievers for going back to the old practices as far as your clients?

**Dr. Grandin:** Now there's two kinds of people that go back to old practice. There's one that think they're still doing the better practice and gradually go back to old practices and don't realize it. Now they slowly start yelling more, carrying a hot shot around more and then you just got to bottom people who just think plot handling is just stupid. There's still people thinking roughing them up is the way to do it. Some people think it's fun to rough up animals. We found that there are about 10 percent of people that just shouldn't be handling animals. Cargill and JBS Swift that put video monitoring in. What's been learned in that video monitoring, 10 percent of the people driving cattle had to go, they just wouldn't put the hot shot away. That's about 10 percent of people that they like to hurt them.
And that's not very nice but those certain people should not be working with animals. And then the other thing is you get the good people that want to work with animals. First of all you can't work them to death. Second of all you got to pay them. I had a student named Virginia Littlefield. Ginny is now animal welfare officer for Safeway. She was one of my students. Before she became a student at CSU, she was a farrowing manager for large swine farm. And she loved being farrowing manager. And I said, Ginny why did you give up being farrowing manager? And she says, I just don't want to live in a trailer. And I said, how much more would they have to pay you to keep you? Maybe 2 or 3 dollars more an hour and she would've stayed. And she saved more piglets. And these are the things, you got a really good farrowing house manager, do beautiful production, they would have paid for that. No, but they tended just sort of blindly count the number of people to pig ratio. But Ginny Littlefield's kind of people you know, we need to be raising status of the stockmanship jobs. By not having just these flunky jobs, that'd be a good way to deal with some unemployment. But I have worked on the slaughter line, 10 hour shifts, 110 degrees, been there, stunned cattle, a 10 degrees of hotter than heck, vaccinating cattle, run squeeze shoots and thing like that. 10 hour shifts, 110 degrees, been there, one thing about being a visual thinker, I don't forget. It's a vivid as it was yesterday, I absolutely do not forget. I haven't done that for a lot of years but I can still feel that gun in my hand and I look down, I'm like, oh another bunch of cattle ugh, it's 4 o'clock in the afternoon and we've got another bunch of cattle, I don't forget that. But I think some people get into, you know, like people go on ag management and things like that, they forget what it's like for those people that have to do those front line jobs. Now in the pork industry you--needs a lot more people like Jenny. But you want to--she's a really farrowing managers that might
live at a house maybe not a trailer, she didn't say she had to live in a palace just not in a trailer, okay?
**Question:** Hi there, I'm Anthony from FFA and the public is becoming like increasingly less aware of agriculture and so I'm curious if you have any ideas or any plans to actually reeducate the public.

**Dr. Grandin:** Well the people want to know where the food's coming from. You're getting cities now, you're getting this local things, buy from your local farmer, all those local kind of food group stuff, people are wanting to get back in touch. And you know what, I'm seeing young people in animal ag, it's in the organic and the local niches. The local is something that for those city consumers more important than organic is. You look at survey data but that's where I'm seeing young people, I called it grazing conference, you know doing breast-fed beef, I see young people there. And I think that's a good thing. Big ag better stop trashing little ag. That needs to stop. It's all animal ag and animal ag needs to do things to gather and there is a place for both types of ag. But that's one positive place where we're seeing young people of coming in.