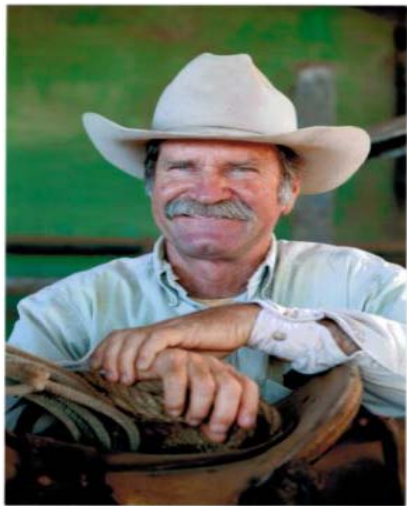

Harry M. "Pono" von Holt

Ponoholo Ranch, Hawai'i

Born in 1948 the youngest of three children of Ronald and Dorothy von Holt, Pono was raised at Kahua Ranch in Kohala, Hawai`i, continuing his family's tradition as a fourth generation kama'āina rancher.

Pono is an owner and manager of Ponoholo Ranch, Ltd. married to Angie von Holt with 4 adult children. Remaining true to his heritage, Pono has spent his life in Hawai`i after schooling at Kohala Elementary, Punahou, the Thatcher School, the University of Vermont, and the University of Hawai`i, where he obtained a Master of Science Degree in Agriculture Economics in 1972.

After brief duty as a lieutenant in the U. S. Army Reserve, he began working at Kahua Ranch as a cowboy. Working there he progressed to the position of assistant manager in 1978 working with fellow Hall of Famer Monty Richards.

After a corporate spin-off in 1980, Ponoholo Ranch was formed with a base in Kohala, and leases and pasture contracts near Hilo and Pahala. With his half of the Kahua Ranch, Pono turned a 2500 cow operation into a peak 6,000 cow operation using intensive grazing and low stress handling techniques, while maintaining the highest level of man/cow efficiency in Hawai`i. There he has continued the AI breeding program learned from the Kahua herd and has some of the best performing cattle in the country, in both pasture and feed yard as well as in carcass merit. Now, while the ranch continues concentrating on a cow herd of 4500 head, the ranch has grown to encompass ownership of income property and a feed yard on the Mainland. Pono continues to be in the forefront of integrated marketing as a member of the Ranchers Renaissance and Country Natural Beef.

Pono has served as President of the Hawai`i Cattlemen's Association, the State Hawai`i Cattlemen's Council, and chairman of the cow/calf council for the National Cattlemen's Beef Association.

Here on the Big Island, ever true to the von Holt family ranching tradition of stewardship and service to the community, Pono has served as a Board member and Vice-President of the North Hawai`i Community Hospital, and is currently a board member for the Hawai`i Preparatory Academy. Pono combines all of the best features of Hawai`i's proud Paniolo tradition and is a truly deserving addition to our Paniolo Hall of Fame.

Pono von Holt

LW: We know your name is Pono.

PVH: Yes.

LW: You were born….

PVH: Something else.

LW: So what's the origin of that name?

PVH: My real name, legal name is Harry Martens von Holt, the second. So I was named after my grandfather on my dad's side of the family. And… he was an executive with O'ahu Land and Rail Company for a part of his life and ran cattle and agricultural operations for that company on O'ahu. Mainly out in the Ewa plain and that area going up towards Palehua. And so any way, our tradition in our family was not to have juniors… was to have seconds and thirds and fourths, right. And to be named after your paternal grandfather. So that was my name and he and most of his crew in the 1800's or '80's and '90's were all Hawaiians. They spoke a lot of Hawaiians. They called him Hale Pono Holo, which is Harry von Holt. When I was born my parents didn't want to call me Hale or Harry, and they decided to use Pono… as part of the von Holt name as my nickname. And that followed with my sister, who was Marion Kapiolani. She was named after my mother's mother, and given a Hawaiian middle name and they called her Pi'o… for short. And then my brother, who was named after my mother's grandfather, John Pinney Erdman, he was named John Pini von Holt and they took the English P – I – N – N – E - Y and shortened to P – I – N - I… which means a companion. And he was adopted to be a companion for my sister. And she was also adopted. And then about three or four years later I was actually conceived and born on March 12, 1948. So that's how our names… so they liked the short names and our family story was there was Pi'o, Pini and Pono, and then my dad said *pau*. So that's the story there. That was how we get that name.

LW: And so the ranch name being Ponoholo, now did I hear you use that with what your father's company…?

PVH: Yes. Pono Holo is a Hawaiianization of von Holt. So when we formed the ranch, it had been part of the Kahua Ranch. We named it Ponoholo. Ponoholo is also a navigational term that I'd learned later which means when you're out there on a canoe, then your stars lined up and you're going the right way, it was pono holo. So that was kind of a nice sidelight to that but the name was basically derived as our last name. We probably should talk a little about Kahua Ranch because that's a ranch that my dad and Atherton Richards… Monty Richard's uncle started back in 1928. And my father was looking for an opportunity. My father was working

for my grandfather in O‘ahu, was running Hygienic Dairy down there at that point in the mid-20’s, and helping with some of the cattle and horse operations. We’ve always been involved up through World War II, with raising mounts for the Pacific cavalry. A lot of ranches did that. Parker Ranch was a famous one for that. And a lot of the breeding stock that came in on the thoroughbred lines were brought in specifically for the Pacific cavalry for cavalry horses and that’s why a lot of the thoroughbreds ended up being used as cow ponies because the breeding programs, the army basically wanted thoroughbred type horses for their mounts. And they also wanted mules and we raised those, too.

LW: So how does that end up in our cattle industry then?

PVH: Our breeding programs focused in on thoroughbred horses. And as a result, they just got assimilated. The progeny that was not for the military would get assimilated into the ranch work strings.

LW: And that happened at Parker Ranch, too?

PVH: It happened at Parker, too, yes. Anyway, that’s a deviation… but the point is that my father had an opportunity to come up here. He was very good friends with Atherton Richards, and my Uncle Herman is my father’s brother. They were all Yale people together back from 1912 to 1916.

LW: So Atherton and your uncle and your father were all at Yale together?

PVH: Right. So anyway, Atherton… his family, his mother was financially better off than we were. And so she helped fund the purchase of the ranch. And it evolved into being a partnership type of operation, but it was a corporate thing. It had some minor stockholders, but basically it was owned primarily by Atherton Richards and Ronald von Holt. So the ranch evolved from there over many years and all the way up to the ‘70’s… my dad had passed away in 1953… Atherton and Monty had kind of mentored me along knowing my interest in the industry.

LW: So you were living here or in O‘ahu?

PVH: We were living in O‘ahu at that point. When I was first born we lived here. And I was born in Honolulu but we were living here. My mother went to Honolulu to give birth and be with her mother and her family there. Anyway we were raised here… I was born in ’48… and in 1953 my dad passed away. And in 1954, ‘55 Monty Richards moved up to run the ranch. And we moved out. And my mother wanted us to go to school in Honolulu. We ended up going to Punahou. So I went to kindergarten here in Kohala, intermediate and then ended up at first through eighth grade at Punahou. And then family tradition sent me off to Ojai, California, the Thacher School. And then from there I went east to college at the University of Vermont and came back and got a master‘s down at the university. But getting back to the Richards and von Holt era, Monty and AR had mentored

me and helped me out and offered me a job when I was ready so I came back after grad school and started working for them.

LW: So mentoring, does that mean you'd come out here in summers or…?

PVH: Yes. We were very attached to the ranch as a family. So every vacation, after we moved out of the main ranch house, my mother purchased a house right up here from friends of hers. And so we'd come back to this house and it was right on the edge of the ranch here, for all of our vacations. And then we'd go up there and Monty was good enough to allow us to ride the horses and raise hell on the ranch as kids and all that and probably encouraged the two, you know. That means I came back and worked here and in the process of having gone through my dad's death, and then AR… Atherton died in 1976. We had estate issues that were getting more complicated and the families were growing. Monty had four kids. Atherton had died and left his stuff in trust to Monty's family. And we decided that it made sense to split the assets since it was large enough. So we were very successful in having a cordial division of the assets. And we formed Ponoholo Ranch. And in 1980 was the official formation. We then operated the two companies as a joint venture for another eight years together. And then in 1989, we completely separated our operations and… we still do a lot of things together. Common resources… water, for instance. We help each other out. We sit on and conduct each other's businesses from the board level.

LW: May I ask what two businesses?

PVH: Kahua Ranch and Ponoholo Ranch.

LW: But you said there were two businesses in common for about nine years. Those?

PVH: Oh, as a joint venture, yes. Basically it was two companies operating together versus various stockholders and one company. It became two corporations operating the same operation.

LW: But then you changed that in '89?

PVH: In '89, we basically dissolved the joint venture and we pulled the company apart.

LW: Okay, I get it. That's business.

PVH: That's the evolution of business. It's been a good evolution for us.

LW: But you still have joint water.

PVH: Yes, the water resources… there's only one Kohala mountain. And Kahua Ranch, Ponoholo Ranch, Parker Ranch… the old sugar company of Kohala all depended on that water. That mountain grows water. And so we pretty much

jointly managed that resource that we'd take for the ranching side. A whole 'nother resource is the Kohala ditch that goes into the lower section of Kohala for any agriculture that can use it. Today it's primarily for tourists where they do fluming the ditch. But if something happens, tourist companies go back and fix the ditch now. But our system is a higher system. High elevation system and we operate it jointly, together with Kahua and Parker Ranch. To provide water for the three outfits.

LW: So it sounds like you steward it.

PVH: We steward it, yes. And we've been successful. One of the thing that's been successful is we put together these watershed partnerships and in the Kohala mountain we combine the major landowners, which is the State of Hawai'i, Hawaiian Homes, ourselves, Parker Ranch, Surety Corp., which is the old sugar company lands, and a various… a couple others. And we have a two page MOU… that governs the thing, so it's real simple. Everybody's got the same goal, which is to conserve the water and conserve the resource to have water, and manage that resource accordingly and it's been very successful. We've got a water partnership coordinator. The State's been very supportive in funding part of that. We get grant funding. We get private donations and contributions but we've been very successful in starting to take care of the invasives, not only the ungulates… wild pigs… and feral cattle.

LW: Because all these things affect the water?

PVH: They all affect the forest. The forest is a watershed so we're trying to preserve that forested area. There are other areas of Kohala that make fantastic range country. As you're sitting right here, it's probably some of the best range ground in the world. And that goes from six inches of rainfall to a hundred, a hundred and ten.

LW: Six inches being down…

PVH: By the beach and the leeward side. So that part of the mountain, it fits into agricultural operation. The upper part of the mountain is a very good watershed and it doesn't fit agriculture very well because it's highly acidic soils, very wet. And we want to preserve the water. But without that forest we won't have water.

LW: So you're invested in preserving that forest to preserve the water resource.

PVH: Right. Right. And so that's something that's been very valuable for the community and all of us to keep that resource so we can continue to have water for agriculture. As well as the community, too. Most of the community now is relying on ground sources of water because of regulatory requirements of quality and all that. It's too hard to manage runoff systems for the public consumption. We have very good success at managing it for ourselves. But we wouldn't

qualify for EPA standard on turbidity, which is discoloration from the fern spore. And tannic acid from the fern spore.

LW: But that works for the animals?

PVH: Yeah, it works for the animals.

LW: And the lower population density up here?

PVH: And the lower population density is fine, yeah.

LW: But something like Kohala Ranch has to do something different.

PVH: Any development has to go to ground water. And that's basically a requirement set down by EPA for any domestic type consumption. Has to be ground water. Well, I take that back… it has to be qualified water. To qualify… surface water is very expensive. So the State decided… they grandfathered the Waimea water system. And a couple of water systems… other runoff systems are grandfathered in. Very expensive coordination processes and all that. Infiltration processes. So any new development after about 1975 or 6, that's gone to ground water.

LW: So that's an important part of the history of Kahua anyway.

PVH: It's very important because the stewardship side of this thing, not only do we produce a product for consumption by the community, but it's a steward of the land. And the utilization of the resource. Trying to do the best job we can between balancing the environmental conservation issues that are important for the long run sustainability as well as balancing agricultural and food production issues that are very important for us. Sustainability. So it's a balance sense of management deal.

LW: So there in the late '70's, to the late '80's you're kind of developing Ponoholo as a separate business and a separate ranch operation.

PVH: That's correct. And so since 1989 we've been operating independently and very successfully so far.

LW: Do you share pasturage or anything?

PVH: No. When we split the assets up, we split up not only the assets that were owned, but also the assets that were leased. So we don't share any common operational issues other than helping out at brandings or those types of things.

LW: Because there's also several other people up here ranching and so I imagine you all do that kind of community branding sort of thing.

PVH: We do to a certain extent. What's happened is what's been fun for us the last fifteen or twenty years, is that as a ranching industry has shrunk, not only from a production standpoint, but also from… a people standpoint, there's a lot of people that are related and have families that are involved in agriculture. And you know the statistic in the '20's and '30's, 40% of our population farmed. Today it's 2%. So you have a lot of movement out of the industry as far as people go, and people are doing other productive things and that's why our society has progressed. We're not simply worried about eating. We worry about what we want to eat now, right? We don't worry about whether we eat. Now most of the people in the world, a lot of them… they are really worried about what they're going to eat today. We just worry about whether we eat so we have organics. We have natural food products. We have typical mainstream products. Everybody's got an opinion about them. That's great.

LW: I do want to hear about the business of Ponoholo but before we get there, let's talk about stuff from earlier on. Probably in your youth, there were some characters living up here and around about that you remember from small kid time and older cowboys and Atherton, too, I guess.

PVH: Atherton Richards in his own right has got a lot business success history behind him. And he's a member of the Paniolo Hall of Fame so he's already been written about. And my dad is, too. But I think what's fun is to talk about some of the other guys. Some of them might be in the Paniolo Hall of Fame, too, but we had some great Hawaiian families that worked here. And when I was a kid, the foreman… well, there were several foremen but I'd say the three main guys that stood out were… a gentleman name Kaulu Pohaku. The Pohaku family which is named… had a place right down here. And some of the past relatives of that family, the Case family in Waimea. And there was John Iokepa, whose family was raised at Waipahoehoe, which is right up near the summit area of the Kohala mountain on the highway there. And there was a settlement there and he ended up working in O'ahu for my father and when my dad moved back here, he moved up with him. And then there was Peter Kainoa. Kainoa family has settled in this area. And they came to work for the ranch. And I think they were all hard driven guys. And they basically, with their cowboy crews, and their fencing crews, built the ranch. Because there was nothing here. Other than a few rock walls. They basically put the main infrastructure in here from water and boundary fencing and all that kind of stuff. And I think one of the great stories… I've always related to as I've gone on is that there was competition between them. About who could do a better job. We have some fence lines that are classic. They had to put in a fence line and they'd have two fence crews, one under John Iokepa and one under Kaulu Pohaku and they'd start at the same point and they'd make their own corner post. They'd have these two gigantic *kiawe* posts buried right side to side, because one didn't want to use the other's corner. And the fence would go out. And so in the course of time as we've redone things on the ranch, and redeveloped into intensive grazing and those kinds of things, we salvaged some of these posts and when we place them, it's a very special placement because that

was Kaulu Pohaku's post or that was John Iokepa's post. And they're big. So when you see them now… and we've actually gone up… we have a main gate on the ranch… an access gate into some of the country there, we put John Iokepa on one side and Kaulu Pohaku one side. These huge *kiawe* posts and they both hang gates. So any way…

LW: You took them out of the ground somewhere and they were still whole and…

PVH: *Kiawe* is a very dense wood, and as you move out of the termite belt, which is below two thousand feet, they last forever. Most of the *kiawe* posts we reuse and we reuse and we reuse. A lot of the line posts, we turn them into corner posts for electric fencing 'cause it doesn't require as much strength so if you drive out here you'll see *kiawe* posts stacked up. Those are old posts that are probably I'd say eighty to ninety years old, and they're just waiting to get reused again. So it's kind of interesting what these guys… 'cause they were all hand cut, saws, and then placed it.

LW: And they have real pride in what they were doing.

PVH: They had real pride, yeah.

LW: The point that they competed with each other… that's nice.

PVH: But that's what made the ranch work and it was a very labor intensive thing. A lot of people at work at that point.

LW: Do you remember brandings with those guys?

PVH: Yeah… we had brandings with *kiawe* fire and brands in the *kiawe* fire and the cattle work was in a lot bigger areas and a lot more active than we are today. Today we tend to work in smaller areas… smaller bunches of cattle. More confinement, more control, more… concerns about safety. You know the old days, there wasn't… we had no fear. And we didn't get hurt 'cause if we got hurt, we didn't feel the pain. We were obligated not to feel the pain. So unless it was something really severe, safety… just for handling the cattle, we never really thought about safety. We basically would force our animals to do things. Today, we ask them to do things. We don't force them so much.

LW: Even the calves… when you brand they're pretty young. What are they… a year old?

PVH: No, no. We try to brand them at around sixty days of age. And that's another safety concern 'cause it's a lot easier to handle smaller cattle than bigger cattle. And in the old days, it was very extensive. You would drive a herd and something would run away. And so next time you drove the herd they'd be a lot bigger and so you end up having cattle that were… didn't fit on the age basis… so

it was just a lot… I wouldn't say harder, it was just a more active time. The work was harder in the sense that you use your labor more. Today we have all kinds of conveniences. We have tractors and bucket loaders and posthole diggers and ATVs and computers and we got all these things that make life a lot easier for us.

LW: So what were these guys like, the two that you just mentioned?

PVH: Well they and Peter Kainoa… I think they were very loyal. Very dedicated to work. Took a lot of pride. They gave direction well. You never questioned them. And they didn't say too many words, but you listened carefully. Because if you didn't hear, you could get cuffed on the head. But they were very loyal, very supportive of our family and our business operation. And one of the gentlemen I didn't mention in that group was Alec Akau… who lived at Kawaihae. The others lived up here on the property. Kaulu was here… right here. Peter Kainoa and John Iokepa lived up at the ranch headquarters.

LW: You're pointing so let's give directions so…

PVH: Okay. When I'm point in this direction I'm pointing kind of northwest. Which is our northwest boundary of the ranch. Mountain runs from the east to the west, right?

LW: Right.

PVH: And when I point to Kawaihae I'm pointing in back down towards the south.

LW: So who was in what direction now?

PVH: Well Kaulu lived right here about a quarter mile from where I am.

LW: Kaulu?

PVH: Kaulu… Pohaku. And he lived right there just about a quarter mile from where we're sitting today. And then Alec Akau… his family was from the Kawaihae area. And so he lived down there. Our lands at that time… ranch lands went right around Kawaihae, and all the way down to where the old Kawaihae schoolhouse was, was our boundary with Parker Ranch. So Alec was kind of the guy that… if something happened he was in charge of Kawaihae. He came up every day to work, though. And the old road… he had an old weapon carrier. He'd drive that thing up every day. No top, no nothing. Just put on a bigger raincoat when it was wet and miserable. Coming up the Kohala mountain road. And one of our favorite things that he used to do was on weekends or sometimes when they had a good movie in Kohala, he'd get his kids, put them in the weapon carrier, he'd drive here and pick up all the ranch kids that wanted to go to the movies and take them to Kohala. They'd go to a movie. Usually a matinee in the daytime. And then drive them back around, drop them off and take them back.

But he was… the Akau family was a very good family. And they again, were very supportive of the ranch and the family here. Then there were some younger guys that probably you asked about who you looked up to and of course, you looked up to the guys that were young and more daring and… you know… they were the guys that the old guys like Kaulu, John or Peter would say go ride that horse. And that's what they did. And they'd have to train them and that kind of thing. They were also excellent hands. There's Kimo Hoʻopai. Little older gentleman… Johnny Kainoa. He was Peter's son, and now his son Godfrey… he had a career at Parker Ranch… He's currently working Kahua. And there was a gentleman named Albert Delacruz. And they were great cowboys. Great ropers, great riders, fast. You know we liked that kind of stuff. The faster we could go the more fun it was. Coming down off these *puʻu* at a full gallop, it was fun. So you know I kind of looked up to them and they were kind of the guys that brought me along as a ten, twelve year old kid. And then eventually thirteen to fourteen… as I got into my later teen years, Morgan Brown… he was special in giving me some horsemanship skills. And he helped me train my first horse. And he was… he was involved in Kahua when my dad was around. And then he left and did his own thing in Waimea for years. And he's still living. He's in California now. But anyway, that was kind of those guys, and Kimo's still alive and I think the other three are not here anymore. And Kimo still lives here on the ranch.

LW: So your family and your father lived in the Kahua headquarters ranch site? The older home.

PVH: Yeah… yeah.

LW: And then when Atherton died, Monty moved back in there.

PVH: That's correct. Then Monty raised his family there.

LW: So you spent your first five years in that older house.

PVH: Right, first six years in the older house.

LW: And at that time it was the bigger ranch?

PVH: At that time Kahua was about thirty thousand acres.

LW: And it went all the way down to Kawaihae?

PVH: Yeah… yeah.

LW: Do you have early memories of that old house?

PVH: Oh, yeah. I mean they're good memories and mostly the people that were involved in taking care of the ranch… in the house there we had the Jim Lincoln

family. Ida Lincoln. They have a place right here. Jim was the… foreman for what they call the garage. He's responsible for the generators going on and off at the right times of day for electricity and then servicing the cars, and vehicles, and fixing things and operating equipment and that kind of stuff. And his wife Ida was instrumental… mainly… was the main cook for the ranch and so they were…

LW: I bet you interacted with the cook every day.

PVH: Every day. Yeah, yeah.

LW: What was she like?

PVH: She was a wonderful person. She was a short Japanese lady, married Jim Lincoln who was a big, tall, gruff Hawaiian *haole*. And she had twelve or thirteen kids and her youngest son I grew up with. Butch Lincoln. He still comes and helps us now and he's a couple of years older than I am so I keep watching… waiting for him to retire but he keeps working. So I figure I better keep it going, too. But anyway… so I grew up with him. A lot of memories running around there with my brother and Butch, and of course, my sister and everybody else. And you know there's a question here about chores. I did have a lot of chores 'cause I was too young at one point but before we left I did my one chore I was first given was to feed the pigs. And I didn't mind that because we then tried to ride the pig, you know. Anything that had four legs we thought we could ride so... it was kind of fun.

LW: Did you end up in the dirt a lot?

PVH: Very much, yeah. I've been falling down all my life. And usually not by my choice.

LW: 'Cause pigs are pretty smart, yuh?

PVH: It's hard to ride a pig. Especially if you don't have anything to hold on to… the pig. I think a lot of the memories we have as a kid was… us coming back on vacations and being able to… through the good heart of Monty and Atherton… being able to participate in the ranch. Brandings and cattle work and all that kind of stuff. Kind of develop our confidence and skill at those tasks and just having fun you know. We weren't paid but we just went out and had fun. So that was very instrumental and of course, decisions… you go what do you want to do right? We always enjoyed the land and the business and the animals. So that's what we end up doing.

LW: I guess your siblings weren't very much involved.

PVH: Well my brother was very interested but he was killed in a plane crash at eighteen on the mainland. That was unfortunate. And then my sister… she's here on the island in Kona, but the ranching side of it was left to me.

LW: And then you wanted to do it.

PVH: And I wanted to do it, yeah. It's been a passion. And it's been a challenge which makes it fun.

LW: But you also chose to do that… you did more schooling than a lot of people. You've got an MA.

PVH: When Monty was growing up and he started mentoring me about education, he said don't be so concerned about the animal science end of this deal, but look at the business side and so I majored in agricultural economics and then I also got commissioned in the Army Reserve in college and Vietnam was right in its heyday in 1970 and I had the option to take a graduate deferment. So probably fear to go to the war and the other part was to further my education. I went to grad school for two years. And then when I got out I went into active duty but only for about four months in they discharged me out of the active into the…Army Reserve because Vietnam was by then winding down. So they discharged me into the reserves. And unfortunately there was no Army Reserve on this island and so I was pretty much inactive for six years and then got completely discharged after I was six years into it.

LW: Well, you served anyway.

PVH: Yeah… and it was a good experience and I'm glad I didn't go to war.

LW: So the degree you got was in business?

PVH: Agricultural economics. It's a business side. It's a financial economics side of the business… of the industry. And that's been very, very helpful for me. 'Cause ranching was very successful up through World War II. Actually probably in World War II were some of the better years because of the military contracts to supply beef, as well as still mount the cavalry. They still had a horse cavalry in World War II, believe it or not, in the Philippines. They were still being mounted from Hawai'i.

LW: A United States cavalry?

PVH: United States Cavalry, yeah. The First Division of the Pacific or something like that anyway.

LW: And they sent horses there for people to ride?

PVH: Yeah. Ride and fight.

LW: Oh… I thought that was World War I thing.

PVH: And then of course, we had a local thing called Hawai'i Rifles, which was local community guys like a National Guard that patrolled this coastline and it was all by horseback. We had to patrol it because we were under threat of invasion. And my father ran the battalion in Kohala. He was a Lieutenant Colonel in the Hawai'i Rifles Battalion… or whatever it was. So it was basically cowboys. Parker Ranch, Kahua Ranch cowboys. Doing duty.

LW: And they would really patrol regularly?

PVH: Yeah. For the first year. Once the Japanese were defeated at Midway and we realized that they weren't going to be a threat to Hawai'i any more, they would go down occasionally and review for training exercises. Especially when the Marines got real active in Waimea. And the Army… they would do bivouacs and those kinds of things on the shoreline. Mainly training type deals. Once the threat of invasion left, then the patrols just got a lot more lax.

LW: I didn't realize that. I know that they were worried about invasion in the Pacific coast of the continental United States.

PVH: Initially, yeah.

LW: So we're certainly out there… yeah… well after Pearl Harbor. So I didn't realize but when you think about it's much easier to travel by horseback along this coast.

PVH: It was the only way. We didn't have the jeep. The jeep was developed in World War II. So we didn't have any way other than… there were some old Model T type trucks and stuff for them to use, but basically they didn't go very far. Mainly to the upper ranch area where there was better ground and a little old paved highway up here. After World War II, of course, the jeep became a big part of the ranching industry. For accessing. And bulldozers to make roads for jeeps and a lot of that dozing along coastlines and access issues into the ranch land for jeeps and then they had the weapons carriers… four wheel drive type vehicles from the military. That was kind of done from after World War II.

LW: The ranch industry went yahoo… we could use these things.

PVH: So anyway, getting back to the industry, the business climate in the industry was very successful through World War II. And up into the early '50's. And then… the industry started moving to a grain finished product rather than a grass finished product. That would be starting after World War II, and it started to really take hold in the mid-50's. In order for Hawai'i to compete in the market place any

more, we had to start to feed cattle. 'Cause that's what the consumer demanded. Was a fed beef.

LW: What does the grain finish do? Add fat?

PVH: It adds fat, tenderness, taste, all the qualities people like about beef. And… the taste side is debatable because grass finished animals have a little different flavor which is a taste some people will prefer. But I think the consumers spoke loud and clear and they were paying more money for a grain finished product. And they started discounting the grass. Part of the problem with the grass industry was that people grew up on it and they ate a lot of old cattle, and so they had to chew a lot. And the grain finished industry was strictly around a lot younger animal. And so a lot more consistent product. So the inconsistency of our grass production in Hawai'i really hurt us. When it had to compete with the grain products.

LW: Wait now. I think I've learned that a lot of the beef used to be old mother cows, yeah? Older mother cows.

PVH: Well… the grass industry, we produced three to four year old finished cattle off of grass. So they would be steers and heifers. We also produced what we call our cull cows. The older cows either that were getting old in age so they were getting inefficient in production… or they… for some reasons reproductively weren't efficient. So they'd be… they might be six or seven years old and they'd go to market at that point. So you had two types. You had kind of the higher end market which was your younger three to four year old cattle. Then you had your other markets that were the older cows where they were from that age… five years old up to ten or eleven.

LW: This is a post-World War II way to do things?

PVH: Yeah. Well it was pre…. Pre-World War II. And then right after we were still doing that. 'Cause Hawai'i… don't forget… Hawai'i has a tremendous grass resource here. We produce grass year round. We also have lands that don't work well in farming. It's too rocky, too steep, too wet, too dry. You know there are a lot of lands in Hawai'i that are good for farming but it's very expensive, i.e., the sugar plantations, the pineapple plantations require large equipment and most…

LW: A lot of labor…

PVH: And most have not been competitive after… you know a hundred and fifty years later, the only… HC and S on Maui is the only one still going.

LW: Prior to the consumer shift in what they liked for beef, prior to that… when was the beef earlier divided up into different herds, one just for beef, one just for producing more cows?

PVH: Yes… yes. So you had a cow herd that was producing cows. Then you had your calves that were weaned off. They'd go into a growing program and they'd grow them and they'd finish them. And it usually took at least three to four years.

LW: But the finishing… pre-World War II, the finishing was grass finishing?

PVH: Right. And all through World War II it was grass.

LW: So what's the difference between growing them and finishing them?

PVH: Well when you grow them, you probably grew them slower. You didn't give them quite the same feed. When you finish them, you try to give them the best grass for the last three or four months so they would fatten up real good.

LW: But it's still fattening. You would graze them for fattening.

PVH: Right. Fattening them on grass.

LW: And that depended on what kind of area.

PVH: Right. Some places had used the guinea grass, low elevation, high rainfall areas. Other areas like this would use kikuyu… temperate grasses like rye, and then of course your clovers… your legumes. And so you would… I mean actually there's a lot of pasture work done to developing grasses that were conducive to not only growing cattle, but to finishing cattle.

LW: And you would be thinking about this group I got to finish so what's that pasture… walk me through how you think about that.

PVH: Well, basically you would use a rotational grazing program. Very simple. Might be only two or three paddocks or pastures. We use the English terminology paddock so… and… you would rest them and have a mixture of grasses in there. In these higher elevations there'd be kikuyu grass and some tempered grasses and clovers. And then you'd reserve them to get into a good phase of growth and then you'd put the cattle in there for a month or two and then you'd move them to another one. Might be a couple of weeks, but usually it was a longer term type of rotation. Maybe two or three times, and then you'd come back again. But basically your better pasture lands would be reserved for finishing. Growing you do seasonally like when we had our winter season. Haven't had one for eight years. When it rained in our lower country you'd take your younger cattle and they could go down there and do pretty well. When it got in the dry season, they wouldn't do well at all. But the cows could go year round in that country. So mainly your more arid, desert like country would be used for seasonal grazing… some with the calves… or as stocker cattle, and then the cow herd.

LW: The stocker cattle is which…?

PVH: What I call, I guess the growing cattle I should call them. They're called growing cattle. A calf let's say is a weaned calf at four hundred pounds… you'd grow it up to eight or nine hundred pounds and then you'd go into a finishing phase and then get them to market. Those days they were marketing nine hundred to a thousand pound cattle. That's what they put on the boat to go to Honolulu.

LW: And then they were slaughtered. Or do we say processed?

PVH: Harvested. But the challenge in the industry was going into feeding and being competitive. And feeding in the tropics is not as good as feeding in your temperate climate. Your cattle don't marble. Marble is putting deposits of fat in the meat which gives you the juiciness and the flavor. We had marbling issues because of the heat and humidity here. They just would not perform as well… on a year round basis. So it was expensive to feed plus we weren't successful in being competitive in growing grains here in Hawai'i. We can grow grains in Hawai'i, but we're not very competitive at it. It's too expensive to do.

LW: The grains you grow here are nutritionally different than the ones… because our soils are different, huh?

PVH: No, no. They're very similar. You look at energy and protein contents, they're very similar. We grow corn here and we grow it on the mainland. It's the same deal.

LW: So what you're saying is we have grass year round, but finishing works better in cooler, temperate…

PVH: With grain…

LW: When you finish? I mean when you grain finish.

PVH: Yeah, yeah. And anyway so it was expensive and then when we got into the '60's, the industry went through a huge consolidation in the mainland where we developed these large processing plants. Very efficient. And so their production costs were down. Our industry in Hawai'i is relatively small. So our plants were small plants. They might do fifty or a hundred head in a day. And they were very inefficient. Plus we ended up eventually having three plants competing for what only one plant should do. So we spread our… we had diseconomies of scale. In other words, we were too small to not only support the processing industry, but we were too small to be competitive in it. Even amongst ourselves.

LW: What were the three processing plants?

PVH: There was Hawai‘i Meat Company, which was mostly owned by Parker Ranch.

LW: And that was Middle Street?

PVH: Yeah. They had the feed yard. And they had a packing plant… a processing plant on Middle Street in downtown Honolulu. And there was Kahua Meat Company, which had a subsidiary called Kahua Beef Sales, which was a cooperative of Kahua Ranch and several small… other ranchers... Ulupalakua… across the state. And they marketed their cattle as one group.

LW: Where did they process?

PVH: They processed at a plant out in Honouliuli on O‘ahu. And then in the mid-80’s… Big Island Meat started up a plant here. It was always small plants on this island. They started up a feed yard and a plant here so that just split the industry even more.

LW: And where was that feed yard?

PVH: In Pa‘auilo right by Honoka‘a. So anyway, as a result, not only were we less efficient, we had diseconomies of scale. Industry consolidation was extremely efficient in providing a pasture to plate deal… or a feed yard to plate… whatever it was.

LW: So paint the picture of the feed lot on the mainland. The feed lot on the mainland, describe what big is.

PVH: We go through feed yard that are anywhere from twenty to sixty thousand head in the yard. Now the Hawai‘i industry at its peak was producing about fifty thousand head a year.

LW: The whole industry.

PVH: The whole industry. So we’ll feed in a yard that just that big.

LW: So those yards are all in the mid-West?

PVH: They’re actually kind of all over. They’re all consolidated into the high planes. The mid-West is the Corn Belt. They used to be there. But because the feeding is actually more efficient in what they call the high plains because it’s dryer, and so it’s consolidated. So in that area. If you took a belt from the Dakotas, and you went straight south through Nebraska, Colorado, Kansas, Oklahoma, Texas, that’s where your feed yards are. And that’s where all your big processing plants are. And there is water, too, in California. Every state’s got something. But they’re small. The big ones that drive the economics of the business today are there. So that industry consolidated to that. We didn’t in Hawai‘i. We kept fighting it

because we had a paradigm issue. We had twenty-three hundred miles of water. You couldn't take cattle across the water. In the late '70's, early '80's, several mainland producers or buyers came out here and realized that the Hawai'i market was inefficient and so the calf value was real low, and they could afford to buy the calves here, put the freight on them, and sell them in the mainland and make a profit.

LW: So they were the ones buying up your calves.

PVH: So they started buying calves so that started really impacting the feeding business and the slaughtering business because we had even less cattle. And eventually after about eight or nine years we finally said well if they can do it, we should be able to do it, too. And that's when the industry converted… out from the mid-'50's through the late '80's, fed cattle. And then converted into what we call a cow/calf operation, where we produced the calves, utilized our comparative advantage, which is year round grazing. And you know up in the mainland they put a lot of money into wintering cattle. Winter is our strong season in Hawai'i. So we have the opportunity to be real low cost. Not to say that every ranch is but the opportunity here to be a low cost operation. Put the freight on. Put the calf up there and be profitable. So that switch of going into a cow/calf operation along with some other things… grazing technology and intensive grazing technology of using Japanese quarter horses… ATV's… making a big ranch small 'cause you can get across it pretty quick in an ATV. All that came together in the '90's and I think created an opportunity for the industry to be profitable again.

LW: That seems to me, I think, to be one of your big contributions, that you worked hard on that system.

PVH: It's something that's worked and something I'm proud of. Everybody operates things differently. But as an industry, we didn't have the knowledge. I didn't know. Nobody knew. And we all were trying to figure it out and eventually the combination of things came together at the right time. That opportunity came again. That we could do it again. We were very unprofitable in this industry from the mid-50's to the late '80's. Ranches mainly existed by liquidating assets.

LW: You mean selling off their land.

PVH: Selling land, yeah. And that came into it because of the development, and the tourism industry and all that came in which was a higher and better use for the land. So it made some sense to do that and the opportunity… in some cases you sold off your unproductive land for those things. And that worked. But you were still liquidating assets. You still didn't have the answer to conserving liquidity. Being able to operate at a profit. So long term we were consistently losing value. Once those opportunities came up in the late '80's and '90's where we switched. Shut down our feed yard, shut down our packing plants.

LW: So when did that happen?

PVH: The late ‘80’s. I’d say probably ’89, 1990… somewhere around there.

LW: But a lot of places couldn’t… there’s still that sort of a bottleneck, right? You guys who are bigger can ship off your calves. The smaller guys…

PVH: The shipping process started with mainland buyers buying cattle. And a lot of the smaller guys started selling their calves. Because they got more money for them by selling the calves rather than trying to feed it here, or sell it to us, who would feed the animal. I remember one of the last purchases I bought; I bought a bunch of calves from Norman Greenwell. I paid him twenty-three cents a pound for them. Mainland calves at that point were worth sixty. And I fed them here and I…

LW: You paid twenty-three, and the mainland was…

PVH: Forty cents higher. And he was nice enough to sell them. He could have sold in the mainland but he wanted to stay here. So he sold to me and I still lost money feeding them here. That was the last time I bought calves under that program. That was a hard lesson.

LW: You still owned them so you were responsible then… even though they were on O‘ahu in the feedlot…

PVH: We were trying to support our slaughter house because we needed the volume. Mainland buyers were picking cattle off and so we tried to get competitive with them and we paid a penny or two less than the mainland guys would have paid. They probably doubled their money when they went to the mainland with those cattle in those days. And so…

LW: So the cost of the feed here was shipping it in.

PVH: That was a cost… and that was a high cost. In other words it was seventy to eight dollars a ton. Today it’s probably twice that or three times that. So you had the shipping cost on top of that, you had lower efficiency gains on your cattle ‘cause if you were feeding in the tropics. And then on top of that we had a processing industry that was very expensive. Probably it was… our costs probably to operate our plants here in the late ‘80’s was probably two to two and a half times more expensive to process an animal than it was in the mainland.

LW: And that was why…

PVH: Because we were too small. We couldn’t afford the equipment. We didn’t have the volume to pay for that. We had a lot of food safety issues coming down the line that require better management and better stuff… more and better equipment.

So it was just a combination of lots of things which are all good. We're proud that our beef is the most wholesome, safest product in the world for a meat product. But it requires a certain amount of regulatory oversight, which creates expense. And if you only have a few animals it's very expensive. You can spread it over thousands of them, it's a lot cheaper.

LW: So it was infrastructure and regulation that were kind of driving up the feedlot cost or the processing… both of them.

PVH: I think both of them. The regulatory side, of course, you've heard of the famous Jones Act issue before.

LW: Somebody's trying to get an exemption for us right now. I don't know who that is but… do you know who that is?

PVH: It's the four House members that have a resolution.

LW: Oh, our new folks?

PVH: Yeah. You know at some point something has to happen, because it's an antiquated regulation. And it basically supports a tendency towards monopolistic type of competition. Which is not really in our best interests. And don't get me wrong, the shipping companies have done a great job in servicing Hawai'i, but it's not cheap and it's not real competitive on the world market.

LW: And the point that they made on the radio this morning was that during World War II with the war in the Pacific, the shipping industry had to contract everybody they could get a hold of and that was kind of when they were afraid that the industry would get too dilute or something. I don't know what…

PVH: The history is an old history. My reference goes back to… I think it was the third or fourth act of Congress in the late 1770's was to instigate a Jones Act type law that restricted commerce on the East coast to U. S. ships and to keep the English, and the French, and the Spanish from competing… taking tobacco and products from the southern east coast to the northern east coast. Okay. So historically it's some regulatory control over on the shore trades who were there. The difference today is we have Alaska, Hawai'i, Puerto Rice and Guam. These are off shore trades. They're not coastal trades. Anyway these laws progressed up till 1930 and Alaska became a point of commerce for timber. And in order to get timber from Alaska to the U.S. they had to come through Canada and the Canadian railroad industry wanted their business. So they constructed the Jones Act to outlaw… you couldn't bring any products into… you know… from Alaska, Hawai'i… 'cause at the same time we weren't a state either… through Canada. You could use a U. S. trade through Canada if they could get permission. So it was a railroad issue. But the regulatory side of transportation revolves around, boats, trains, airplanes, primarily, and it controls all that. If you go on the airline

industry, you'll see these alliances between Lufthanza and United for instance. When a plane flies from Europe to New York and they want to fly to LA, they get on United and they have an alliance with Lufthanza. Then if you want to fly from there back over the pole you get back on Lufthanza. But in other words, they can't fly on a foreign plane between New York and LA. So it controls airplanes, trains and boats… ships… I'm getting way astray here but… anyway… so it's progressed to this point, but we're still governed by it. World War II came along and Henry J. Kaiser developed what they called the Liberty ship. And the U. S. as a whole country got into World War II. I mean everybody. If you didn't fight in it, you were building for it. And developed a ship building capacity, and we had the largest maritime fleet by the end of World War II. But we didn't stay competitive. So in the last fifty years… or sooner than that… it probably took about twenty years, we never built any more ships because they could build them cheaper in Denmark, or in Europe somewhere. Then eventually it moved to Japan, then it moved to Korea, to China. So the world wide ship building industry is European based or Asian based. And there are a lot… they've stayed competitive. The U. S. industry ended up building Navy ships. They build the finest Navy ships in the world. Billions of dollars on a ship. It's great for national defense. But to build… we're not real competitive in building commercial ships. And as a result we've lost the ability to have the infrastructure to be competitive. So that's where we end up today, so what we're trying to say is okay… we realize that maybe you want to have the regulatory side, the U. S. Coast Guard keep ships being owned by U. S. companies and staffed by U. S. people. That's fine. But maybe we ought to go build them somewhere because at least if we can drive down costs of building a ship, that's the biggest cost for shipping companies owning the equipment. If you get the cost down it will help bring some of our commercial customer type costs down in Hawai‘i, which everything comes in on a ship. But… it has not been politically possible for a long time. The shipping industry along with unions along with the military… they've pretty much been able to dominate the political side discussion on this. And maintain the regulatory side. That may change. If it does, hopefully there will be some relief. Hawai‘i is a state that can use it. I mean it's just got…. With the rising cost of fuel and everything else, we need a lot of help in trying to manage our costs here in Hawai‘i. Our living costs. Any kind of production costs. Business costs… all that. Construction costs.

LW: Let's see now. I am getting the picture of the transition to a cow/calf operation. I understand the start was that the guys came from the mainland and buying up calves because they were expensive… on the mainland.

PVH: They're more valuable on the mainland.

LW: They were more valuable. There was transition in there. Describe that to me. Before people realized that the cow/calf operation was the way to go. Given the current conditions.

PVH: Given the conditions and the fact that the calves were worth more money to you by selling them to the mainland, it happened in a long enough time that it wasn't going to change and in fact it was getting worse. In other words, our calves were losing more value here. Mainland markets were going this way and our markets were going that way. So the options came from our business perspective came… okay… do we sell our calves? Because we'd been marketing cattle in Hawai'i for so long, we'd done a lot of genetic work with them. We had a lot of data back from the consumers on them, based on quality. So from our perspective we knew how well our cattle would do. The industry on the mainland was entirely a commodity industry in those days in the '90's. And it has moved into a branded product industry today. But in the '90's it was commodity. So commodities based a value on an average. So you have good cattle and bad cattle. And then you have average cattle. So the average is somewhere in between. You don't want to own the poor ones and you sure want to own the good ones. So we realized our cattle were going to perform better than the average. So from a business strategy standpoint it made sense to own our cattle as long as we could, because they were going to perform better than the average. We'd get more value back. Now that doesn't say that hindsight shows I should have sold them last year or not, but generally as an operating strategy, the research that we've done, eighty percent of the time, we're going to do better owning our cattle. Now if you know how good your cattle are or how bad they are… if your cattle are below the average, you should sell them at the farm gate and don't take the risk. If your cattle are better than average… don't get me on this risk at the market, but it's better to take that risk as long as you can manage it.

LW: That means you send them to the…

PVH: So we'd retain ownership. So we retained ownership and we sent our calves to the mainland. We contracted pasture in the mainland. We contracted feeding in the mainland. We built alliances with the different marketing groups up there. The big, big processing companies. And once they realized that they could… to their benefit, once they knew how our cattle were going to perform, they knew they had a pipeline so they were willing to work with us. Give us what we call grid price assistance, where we could actually price the cattle in its carcass value versus a live value. To gets us one more step closer to the consumer. And so all along the line there's margins. So we're trying to take as many margins as we can as we go along the line. It basically gave us a whole 'nother business on the mainland. A whole 'nother ranching business. But it's all done by the phone, it's done by computers. And so we're basically selling that ability versus just our labor to try to produce a cow. So that, for our stand point, it helped us a lot because it basically expanded our business and we could do it and manage it right from here. Right from the house.

LW: So margins being… explain that to me a little bit.

PVH: Well margins is a difference between what you pay for, what it cost you to produce up to another point, and what you get for it. The difference is a margin. And most times it's positive. And there are other times when it's negative, because you have a margin between a calf and a feeder animal. And the feeder animal's the one that goes in the feed yard. You have a margin between that feeder animal and a finished product. And you have a margin based on the quality of that product between the finished weight of the animal and what its real value is as a meat product. So those margins are all along there. So our strategy, because we know these cattle will perform as well or better than the average, lets us go as far as we could to the consumer.

LW: So you realize those margins when you sell them.

PVH: When you sell. Yeah.

LW: But people take on your business based partly on the margin.

PVH: Yes. They'll value the product based on those margins. And the other beauty of the mainland is we can sell them any time. In Hawai‘i, there's very few times when you can get value for cattle. You can get them as a calf, and you probably can get again as a finished animal. But in between it's hard. We don't have a big enough industry to have those little markets. On the mainland I can pick up a phone and convert an animal to cash any day of the week. So it's… a lot more flexible, with a lot more opportunity. It's a big world out there. You got seasonality between the northwest, the east, the west coast, the southwest, so you can plan where your cattle are going to be at certain times of the year. Which areas are you going to want to feed in certain times of the year… which areas you want to grass in at certain times of the year. And then it's just a function of transportation. Today with high transportation costs we try to go to specific areas that offers grass and feed and processing all in the same… area so we only put transportation into them one time when they're little. So it's cheap… or cheaper. It's not very cheap but it's less expensive.

LW: Per animal it's cheaper.

PVH: Yes, right.

LW: Because you can get more animals in a space.

PVH: Right. So that business has worked well. What's exciting today is the advent of people starting to pay attention to local production again. And the opportunity to finish cattle back here on grass again. And having the technology we have today that we didn't have fifty years ago.

LW: That makes processing here…

PVH: Well not only processing but understanding how to better manage your grass and pastures and your cattle. So I think… we're taking a hard look at that right now. I don't know if we… I don't think we'd ever just do one of the other. I think we'll just use it as another opportunity to market animals. The beautiful thing about being able to export cattle out of here is to manage drought. And we've had to manage drought for eight straight years now and we're looking at number nine in a row. And without the export market, we'd really be hurting... because we wouldn't be able to feed the cattle. We wouldn't be able to get them out of here. We could feed them but we couldn't afford to do it. And that was part of the problem in the past, too. For some reason, I don't know why but… we have these long dry spells.

LW: I know we haven't talked about animal behavior. And the other thing I wanted to catch maybe next time would be you're talking about also a kind of a complex of technology that goes along with this business end that helped it, like the ATV…

PVH: I think the ATV makes a big ranch small. As low cost versus a horse or a four wheel drive vehicle. The other one is intensive grazing. Let me just say a few things about that. That technology was first introduced by an extension agent named Bert Smith. And he brought in Allan Savory, which was a holistic resource type concept, in order to introduce him here in Hawai'i to a bunch of us. And it went through a rapid buildup phase and then there was some… not so much success or not much buy in. One of the hard things is when you create changes to get buy in from employees, from people, from everything else. And some cases we weren't, as an industry, very successful in getting all that done. But over time it's happening. And so intensive grazing was very important. And then of course we had the marketing change. And then the computer technology that came in. Allowed us to be a lot more efficient with manipulating and using the data… so we could be data driven, not just… you know there's a certain amount of art form to what we do. And you learn that. But you have to learn it through experience. Well now we can manage that with data, too. And that's the computer age that brought that in, too. So it allows us to operate another business in the mainland from an office here, which we couldn't have done before. I'd be on the mainland all the time. But now I just pick up a phone…

LW: Oh a separate business… your own business…

PVH: Well it's not a separate business, but it's another part of the business. It's another diversification of our business. It's within the same business but it's a diversification ended up into the raising and finishing of cattle, that's different from what we were doing in Hawai'i. Hawai'i we were producing calves on grass. On the mainland we're growing them out and we're finishing them and we're marketing, but we're using those guys up there to diversify our business.

LW: So it's the Ponoholo business…

PVH: Yes. We don't own anything. It's all contractual. Again, we're selling our energy and our thought process and not our labor. And that's something that… that's an add-on, because part of that… we all love to sell our labor. I love to sell my labor. I mean I… it's great. I love the work. But it's not going to get you anywhere. There's other sides where we sell our financial capability, we sell our management, and we sell our marketing expertise. We sell all these things that are intangibles. And our tangibles are producing the calf right now. And it will diversify into producing a grass finished animal again. And we already started. And so those are the tangibles that we do. Intangibles are we're selling these other things and creating value, picking up margins. Doing that. But I think the one thing I'd like to end this thing on from the industry standpoint, I think what's really great about the Hawai'i cattle industry is it's reasonably flexible, and very adaptable. You go to the mainland and people don't change as easy. In Hawai'i we're forced to change. Economics have driven us. We've had to operate at lower cost. Markets are twenty-three hundred miles away. Our production conditions are twenty-three hundred miles away. Markets are still here. And we're bringing product back to markets here now, too. But all this adaptability and flexibility that Hawai'i has that's not only unique, I find in the industry as a whole, but goes along with our grass resources that we produce year round. So you combine those things together and I think we have a good opportunity to be successful for a long time.

LW: Well you don't hear that very often. That we're really adaptable.

PVH: We've got a lot of challenges… but the opportunities are there, too, so….

LW: We talked a little bit about grazing technology. But we didn't really do the whole thing. So I wanted to draw you out a little bit more about that. So we could get more of a complete history. I know there's actually history here. Things were a certain way; they changed some, now they've changed more. I was hoping we could get that all recorded.

PVH I guess historically the industry evolved as a wild cattle deal back in the early 1800's, where they were shooting animals and eventually decided to take the *kapu* off and they started shooting animals for hides and tallow as export products. And they sold meat, either for their own consumption or to the ships and that was where they made their *pipkaula* that was brine-cured beef for ship provisions. The grazing technology was wild. In the 1830's, Kamehameha II or III, I can't remember which one, decided that they wanted to actually try to get a business going, and that's when they bought the vaquero from California, then trained the Hawaiians to be *paniolo*. And so the technology evolved to learning how to manage animals on horseback. And stone corrals, stone structures to confine them when they wanted to work them. So it evolved into somewhat of a controlled thing where they actually could bring animals into a central holding area and work them whether it was branding or castrating. They were probably

the only two things they did in those days and marking, maybe by ear marks. But there was no health issues in those days because they didn't have a veterinarian industry. So the cattle were extensive. All over. And they'd get rounded up and where people were living they tended to come down at night time and bother people, but they wouldn't hang around so they'd go back in the hills. So it was very extensive. Each island was one large pasture. That started to evolve with more control where they had areas that were walled off by mainly stone walls so they're big areas and they confined younger animals to try to produce them for the market in Honolulu. And so that evolved into where they would harvest these animals. Take the ones that were recently tamed or they could control and they were younger, and get them fattened up and they'd be shipped to Honolulu. As we got into the late 1800's, and early 1900's, the ranching industry in the West had matured to where there were good markets and Hawai'i is going to Honolulu. Then they started using barbed wire, so you have more control so animals then were controlled in herds. They'd not be in one area, but they'd be a herd, whether it was a breeding herd or a growing herd or a finishing herd. They were still under extensive conditions so they just stayed in one area primarily. As things evolved into the… 1920's… and then when our family got involved that's when they started using wire, which was barbed wire or what we call woven wire or hog wire. And created lots of paddocks to where they started doing some simple rotations. It might be one or two paddocks rotation. So then they gave some rest to parts of the ranch depending on seasonality and rainfall. Or just try to grow more grass, and introducing kikuyu grass, the clovers, more of the perennial type grasses. Because before that it was either native forage, which could have been *pili* grass, it could have been all kinds of bushes and shrubs. And then some of the annuals were brought in like oats and rye annuals that just grew in the spring. So up through the 20's and 30's and into the 40's you started getting control where animals were actually herded, and they'd be moved into different paddocks. Not very intensively, but it was done. That progressed up into the 50's, 60's… plantations started utilizing fertilizers and herbicides in their culture. Sugar cane… and that came to the ranches where fertilizers were used. Herbicides were used to a certain large extent in trying to control the invasives and encourage more grass to grow; and that continued on till about 1980, '81. In '81 we were introduced into what we call an intensive grazing technology which because of the technology of the electric fence and the experience of the gentleman Allan Savory, out of Rhodesia at that time, which now is Zimbabwe. In managing large populations of wild animals he realized that the herding effect was a tool that could be utilized to reclaim range lands. And he used the principles of Andre Voisin, who was a Frenchman and in the 30' wrote a book about putting cattle in small packs and moving them rapidly. And then having the grass regrow. So the biology, which is basically if you don't overgraze your grass… overgrazing it means that you're eating your grass two or three times before it can grow again… You just eat it once and then let it regrow. Utilizing that technology, and moving cattle, and confining them into large herds, and using what we call herd effect, which is a tool. It's a hoof action. So the animals can impact the ground five ways. Actually it's six ways. It eats. It's got four feet and

it poops. And so by putting them in a herd, not only do they eat, but when they poop and urinate they provide fertilizer. And their feet put that into the ground. Their feet also trample stuff they don't eat, which are usually invasive weeds. And that type of thing. And then they're moved and so everything comes back, and what comes back first is usually the grass. And once the grass can cover the ground, the invasives just don't have much of a chance to invade.

LW: So I heard three ways. You said six.

PVH: Oh, I'm sorry… four feet. Well, their mouth, their rear end and four feet… that's six. Each foot is an impact.

LW Okay. I get it.

PVH: And the hoof action also what it does especially as we get into our more seasonal country, the hoof action actually creates little pockets so when you get any kind of rain it'll set in that pocket rather than run off, so that in itself will help hold the moisture. So it's very minute but when you put thousands of footprints somewhere, it impacts a large area and you can retain water, you can break up dung, you can trample weeds, and you can take grasses that aren't eaten and you can get them mulched back into the soil. So it's a lot of advantages but it's something that we never had that kind of a tool to do because labor is too expensive to herd, and where somebody's out there all the time moving the cattle around all the time. And the fencing was too high. But then the electric fencing technology came into play and was really developed by the Australians and New Zealanders. And so a combination of having a single or two strand fence that you could put up rapidly… it was very inexpensive… gave us the capability to confine these cattle and move them a lot. And basically what it did, in our operation it doubled our production. In six years. And so it took us from… it doubled our revenue. It also increased our costs and that was a mistake that we made. Human nature… I haven't said that yet. You let your cost rise to your level of income. That's just nature. We got the money, we spend it. Well, we would do that. At first we doubled the capacity of the ranch, doubled our production, and then realized that we were still weren't making any money. Why? Allan Savory… went back to his school and he said… human nature. You let your costs rise to the level of production. The beauty about intensive grazing is although you're moving cattle all the time. It's very fast and efficient. You see all your animals and you drop your labor requirement down. We have a guy that's going to just manage the cattle and is responsible for water, for the fence and the movement, putting out mineral and that kind of stuff and the basic maintenance. We try to get one man hour per year per cow. And those levels can be achieved on good land. Your drier country, less productive country, it goes to a little higher rate, but then your land costs are lower, too, because you need more acres. So it's very efficient but we had to control our costs and we didn't do that, and once we realized that you don't need three guys out there anymore, one guy can do it all and very efficiently. We got an ATV. It gets around the ranch in no time at all.

And then he has electric fence and he's got this intangible management in his brain that he's going to manage differently. It's a paradigm shift. You use the animals not only to produce a product, but you use them to manage the ground, increase your soil. The more soil you add, the higher your production goes. And it increases the biodiversity because ninety-five percent of the biodiversity in the world is in about six inches of soil. So that is beneficial. The more diversity you have in your environment, the healthier it is. So anyway that made us very efficient. Made us able to utilize our grasslands in a very efficient way. And get our production up and our costs down. So that's where we are today. We don't know of anything new on the horizon. Yet, but I'm sure in time something will come and work. We still find in our intensive grazing practices, that we learn something every year about what we should do and what we shouldn't do. Especially when we have challenges like drought and that type of thing. Another challenge we have is in ground in Kea'au where we're dealing with a hundred and twenty inches of rain on rock. And with intensive grazing we've found that that rock's pretty fertile. But it takes… we call it cow dozing. Lots of forest because in that kind of climate your land can go back to forest very quick and it's all invasive species. It's not natural… or not native. So we'd have to doze down some of the big trees. But a lot of this other stuff we call cow dozing. They can take out the *uluhe*, which is a fern. Which is a Native fern, but it's a shrub fern. We can doze out the *hau* that comes in because it's very tropical there. All those kinds of things. A combination of a cow, when she doesn't have a calf, you have the ability to work your land with her a little harder. So we call it cow dozing. This is a term that Ollie English brought up and I think it's a great term. But that's also worked out here in our dry country. That pasture down there… I'm pointing again to our *makai* area, used to be thick in lantana. Taking our cow herds, once the calves were weaned off and forcing them into the lantana 'cause there's grass in the lantana but they don't normally want to go there, the hoof action, they trample it. So once they impact the lantana, and then when it rains again, the grass recovers and buries the lantana. So in country that we could hardly ride through or walk through… no problem today.

LW: And that's by creating smaller…

PVH: Smaller pastures and higher stock densities. We have more cattle on an acre for a day. We increase our stock rating, but we only double our stocking rate, but we're taking our stock density, now in some cases we might raise a hundred animals on an acre for a day or two. That's really intensive.

LW: And your manager sees the cows, too, so…

PVH: We have two herd managers on this ranch and eleven thousand acres. When they go out, and if they're just going to move the cattle, they don't have to do any maintenance, in two hours we'll see every animal on the ranch. And that's pretty tough to do on horseback or one guy riding over and trying to look in all the bushes and look in all the gulches. Because you know where the cattle are. And

when you move them, they run right through the gate. And we're just sitting there or getting out of their way and you can see them all. They go through the gate in about ten minutes and okay, they're fine. That one's a little sore and we can help it out.

LW: What motivates them to go through the gate? Do they…?

PVH: Fresh grass. And you're remembering that conversation earlier was we don't force our animals any more, we ask them to do things. And it's not as much fun as forcing but forcing is dangerous.

LW: Is that part of the paradigm shift?

PVH: It's the paradigm shift.

LW: You mentioned that paradigm shift and do you think that from stock grazing to intensive grazing is the paradigm shift? Is the "to" to cow/calf.

PVH: Yeah. The shift in the paradigm is asking your cattle… 'cause you know what cattle want. They want to be comfortable. They want to eat; they want to drink; they want to have some space to be in. So what we can control is what they eat and what they drink. And water needs to be available all the time. But the feed resource, they'd prefer something that's fresh. So when they eat the grass that they're on, they're going to look elsewhere. But when you have a lot of cattle within a day, if it's that intensive, they've eaten most of the grass that's available. Up to fifty percent or sixty percent of it. So they're looking for something fresh. They learn real quickly that when you call, that you're calling them to come through a gate for fresh grass. It takes them about four days and then they figure it out. So you just go out to the gate, and in fact once they see you and they know if it's a certain time of the day, that usually they come, they'll be waiting for you. And all you do is open the gate. Go and check the water, check your fence. If you want to look at all your cattle you can take ten minutes at the gate, look at them all as they come through. So what it does is the paradigm shift is then you're asking, you're not forcing. The cattle respond because they're getting something good.

LW: Now the asking, not forcing, you and I know that that also refers to the whole set of ideas that were kind of made famous by what's her name… and she had… they did a movie.

PVH: Temple Grandon.

LW: They had a movie about her so the general public knows her name now more than they would have.

PVH: Yeah… Temple is one of the people that early on… I say early on… maybe twenty years ago… started pushing the concept of low stress. And she was mainly doing it from a processing industry standpoint. And that evolved with another gentleman named Bud Williams, taking the concept of low stress out into the range; and using the animals' natural behaviors. Cattle are generally food animals, and we're predators. In nature it would be a lion or a tiger, and the cattle got to herd up because of that. In our case, we try to train them or teach them that we're going to be different. We're going to feed them, right? We're taking care of them. And they learn that. And then the next thing is… but they still have that predator/prey relationship. And so when you get closer to them, they kind of want to move away; because they don't quite trust you. And that's their instinct. And so we use that motion of walking towards them or getting close to them as a pressure. And as the animals become tame, that pressure point or flight zone gets shorter and shorter. An animal that hasn't seen people for three or four weeks, you walk out in the pasture and you got a hundred yard pressure point. He's going to take off if you get within a hundred yards of him. Animals seeing you all the time, and if the herd's comfortable and he's got all his buddies around, you might get within four or five feet of it. You can look it over and that type of thing. And then they'll start to move off. Once you get them to move, you have leaders and followers. So you try to concentrate on your leaders. You get them moving the right direction and then the followers will follow along. So you don't have to actually drive them. You can kind of just guide them. I mean you have to put pressure on their rear sometimes to get them to go but if they're being handled properly, they kind of want to do something different; because they have an expectance on the end that it's going to be better. They'll have something fresh to eat or a better place to go, or it's going to warm or dryer or cooler, whatever. And so they tend to end up walking in crowds because they know that when they go through a corral that they might be sorted and then they're going to someplace that might be good. And so it's all low stress. It's about applying pressure through movement and presence versus forcing them by speed and yelling and flapping things and doing all that kind of stuff. So it's a low stress thing and that is really something that has really worked well for us. Especially the last few years we finally kind of made that shift and it takes a while for the animals to get there. So the animals are there, our present management team is just wonderful handling cattle that way. And it's great. It's easy on us, easy on them.

LW: Somewhere, somebody told me that it was supposed to have an effect on the taste of the meat.

PVH: Yeah, the effect is an adrenaline issue with animals. When they get under stress their adrenaline in their systems go up because they got to get ready to flee. That's their nature. The only way they save themselves is to get the hell out of there. And so the adrenaline runs and so… when you go into a processing plant, if the animals are skittish or somewhat wild or nervous, their adrenaline levels are up and that affects the eating quality of the meat. Not a lot, but it might be a little tougher. So if your animals have a low stress level where they're just used to

being handled quietly, they can walk through a gate, it's not a big deal, they can get in and out of a truck. When they go into a processing plant they're somewhat relaxed.

LW: But a lot of your cattle leave here as calves.

PVH: And that's another important part. In order to keep the stress down as calves, we want them to be low stressed. I mean we don't want them to be hyped up. 'Cause they're going to go into a confined environment for four or five days, and they've got to adjust. They have to eat feed, they have to drink water out of a little tiny bowl. They have to lie down, sit down in a confined area. So it's not a range condition. And they do it really well. I mean they travel well…

LW: They don't lose weight or anything?

PVH: They do shrink but it's not a lot. It's something we get back within two or three days. There is a shrink. And any time you put animals out of an environment that's built for production, they're either going to maintain their weight or they're going to shrink. We just try to maintain them. That's what we do. We want to maintain them for that four or five to six day period, whatever it's going to be to get them there. And then they can start gaining weight again.

LW: So you guys are using ATVs when you go out and do the work?

PVH: Yes. We use horses, too, in certain times. Most of our corral work, if the cattle are closer to adult cattle, we use horses. It's safer. And they handle a little bit better. Our calves… weaned calves… in the first stage we handle them all on foot. They handle real well on foot. And they're four hundred pounds. They're not six hundred or a thousand pounds. And we're able to educate them, too, when we're on foot. We can move a lot more and slower, and we can move more with purpose. When you're on a horse you're controlling another animal. And so sometimes you're controlling your horse and you're not able to control the cattle. This way without the horse, for calves, it's really important for us to get on foot, and approach them quietly when they move off, we stop. So that they get used to a little bit of pressure and they'll move. And it's a little bit of pressure. So that's really important for us to do a lot of handling when they're young, on foot. Because we can get them educated, right? But horses, obviously if you go out in a pasture, that you don't have access to an ATV or something, a horse is handy. If you have to do something to treat an animal on the range, horses are good. Because then you have to really restrain the animal out in the open somewhere if you can't get them to a corral. And we do sorting cattle in the pasture with horses because if you're in the pasture and you're just out here and you want to sort some animals off, you can do it in an ATV if it's not too rocky. But if it's too rocky you can't be quick enough to get them sorted. 'Cause they're going to want to keep coming back to the herd. So you got to hold them off and put them through the gate.

LW: So you really need the…

PVH: So we have horses. We don't use anywhere near as we used to.

LW: But you need them to be well trained.

PVH: The need to be well trained. And we want them quiet, too.

LW: Well you mentioned the Japanese quarter horse as part of the constellation of technologically good things.

PVH: That was a term that Monty Richards coined years ago. He was probably one of the first ranchers in Hawai'i that used a motorcycle. And then, of course, the motorcycle industry evolved into these off road bikes and the Japanese dominated the market. The Hondas, and the Kawasakis and the Yamahas… and so Monty said well this is a Japanese quarter horse. And it was a motorcycle. And that evolved into a four wheeler, which we ride today. The motorcycles are fun, they're fast, they're quick. They go anywhere but you'll fall down. You got to wear helmets and your legs… and they're sore. ATV goes fast but you can carry stuff and they're safe.

LW: And then there's your real horse.

PVH: And then we use a real horse every now and then. We love our horses, you know. Everybody. Part of the reason we're in the business is 'cause we like horses. But there's a place for them. If you had a lot of time you could do everything on a horse and do the same thing that we do with an ATV. But it's not as efficient in getting around because with intensive grazing, we're handling a whole bunch of cattle here, and then we've got a mile or two away where we do another bunch of cattle. We can be there in an ATV in five minutes. On a horse, it's going to be half an hour. And that compounds itself over time. So… like I say… an ATV… a four wheeler… it takes a big ranch and makes it into a small ranch. 'Cause you're there… you can be anywhere… on this ranch you can be anywhere in a half an hour. And so it's very efficient that way.

LW: Do you think intensive grazing has changed most recently, too? I mean very recently? More people doing it, less people doing it?

PVH: I think we see more of it… the concepts. I don't think it's being done enough. I think … this industry has a lot of room for improvement and getting its production up. If you want to get your production level up, more intensive grazing can be used because we know there's a great ability to increase your stocking rate and get your stock density. And those bring you all kinds of benefits built in. Soils and all kinds of stuff. That's not being done enough, but it's being done more. And it's just a slow process.

LW: Not everybody has the operation that benefits from that.

PVH: And what's happened, too, is our land ownership structure's changed to where we have a lot more landowners, small parcels. So somebody might just have ten acres or twenty acres and they're going to put three cows on it, and they're going to put up one fence or two and that's it. It doesn't make sense for them to do anything else. So that's kind of hindered… especially some of the areas where that were in sugar cane, which would lend themselves really well to intensive grazing. And those areas work as long as they're big enough chunks to make it economical from a business standpoint. You need probably a hundred and fifty to two hundred cows in a herd somewhere to justify going down there all the time and moving them. And in Hawai'i, even if you're not in intensive grazing, you still need four or five hundred cows to make a business out of it.

LW: Rather than freezer beef, right?

PVH: I mean you can do freezer beef but that's not a business. You got to be a school teacher somewhere or doing something else, or a chef down at the hotel or something.

LW: Speaking of the business, you had something you talked about that I didn't understand and I bet you other people won't. So I thought we'd come back and see if we could explain it. You talked about grid price assistance… what exactly is that?

PVH: This is a tool that's used on the mainland to value cattle. And it's in when the animal is hanging up… or we call it hanging up but when it's been processed, the carcass is on a rail. And it's usually been harvested a day or two earlier. And then they run them down the line and they have a grader…

LW: That's a person?

PVH: A person… and he looks at the rib eye and he looks at the measurement of the fat… the external fat and the marbling. And comes up with a grade that is based on what you call a quality grade, which is marblelization of the fat. And that could go from a prime animal all the way down to a standard. What we try to do in our industry is hit that choice, the prime grade.

LW: The top is prime, and then comes choice…

PVH: And then select.

LW: And then?

PVH: And then you go to standard. We hit choice or prime. And most of the industry produces probably eight to ten percent of its beef in prime….probably sixty percent of its beef in choice. And somewhere around thirty percent of its beef in select. And then a small balance in standard. And this is cattle that are being finished primarily in feed yards. And they're young.

LW: The sixty percent comes from the feed yard.

PVH: Well all of them do. There's a growing grass fat, and they grade well, too. And they get them up to those choice, select, prime grades. And those are all acceptable grades considering. But they're priced differently. The higher the grade, the more value there is in an animal. So the grid pricing comes into effect where once they grade your animals, they pay you based on the grade and they pay you based on the yield. And the yield is based on the thickness of the external fat. So the fatter the animals are on the outside, the less meat yield you have on the inside. And so you want to produce an animal that marbles well, has fat in its meat, and has a very thin external fat. It can be contradictory but that's what you try to do. And you manipulate that with genetics. It's pretty much genetically driven. It is physiologically driven by what you feed them. And trying to add better feeding performance through administering of implants or antibiotics increases your ability to produce more meat. It reduces your quality grade. Not much, but a little bit.

LW: Okay… wait now. What's an implant?

PVH: An implant is a growth promotant. That goes into a yearling animal, and it's just a slow release of hormone.

LW: And you can put those in individual cows' ears?

PVH: Yes.

LW: And when do you put those in?

PVH: When they're being finished.

LW: Oh, at the very end.

PVH: Now that's the commodity market. Over the last ten years we do natural beef. Which is non-implanted and not usually fed antibiotics. And then you have the organics. They never have anything other than a vaccination.

LW: How long does the finishing go on?

PVH: It's usually about a hundred to a hundred and twenty day process, in the feed yard. And grass, you're basically finishing cattle… you should be finishing cattle

from the time they're a weaned calf because it takes… you need to get them up to a heavy weight. You need to get there as fast as you can and it usually takes about at least a year. But they're on the range.

LW: Okay so Hawai'i cattle, you bred them to kind of end up at choice?

PVH: Right.

LW: And that's something you do over a long range.

PVH: Right. Right. Well we're able to do it quicker now with DNA testing so we can actually get DNA markers that are for marbling, for instance…and DNA markers for different growth traits, too. But that's the wonderful thing about technology today, is we can move a lot more… we can move more rapidly.

LW: Toward the objective of getting…

PVH: Toward the objective.

LW: Of getting an animal that you want. That the market wants.

PVH: Right. Right. And we can make them fatter, we can make them bigger, we can make them healthier. All these things. In genetics. And we've been doing that forever, but we've had to do it by trial and error. And then about forty years ago we developed a concept called expected progeny differences. And it's a measurement of the difference between animals in performance, statistically. It's a statistical number that you apply to your breeding program to select cattle that are better for one trait or another. Well now with DNA, we don't need to wait to measure that progeny difference. We can get it genetically. We have to correspond that with the EPDs… so that we know we're accurate. And that takes research. And that's ongoing. And we're learning more every year.

LW: Okay. So on your ranch here, do you send off DNA samples to somebody?

PVH: Yes.

LW: Somebody has a business testing cattle DNA. Interesting. And so do you take DNA from calf… your momma cows or…

PVH: We don't. No. Right now we just test. We have one herd that we do our genetic work with. And we've been doing it for forty years. We call it an ROP herd, which means "record of performance." We've been maintaining records on this cow herd since 1968. So we got fifty… forty-five years of records. And so that herd, we breed artificially with artificial insemination. And we go out and pick the top bulls that we want to get from the mainland and we just use their semen, which is very less expensive than trying to own the bull. And so we will use the

DNA testing on the bull progeny… the bull calves when the calves are born. And we decide that if they've got enough performance traits that we need time that we want to keep them as a bull. We'll take the DNA on them to look at their other traits. And then we'll use that to help hone our herd back in. So we can take on the good calves that we get, the DNA that we like, we know the mother's got it and we have the DNA data on the sire because that's available, and we can hone in on producing that a lot quicker than you can by waiting to measure them. We got to measure every one. You got to wait till they get two years old.

LW: Oh, to get a statistic? You have to measure every one to get a statistic.

PVH: So it's kind of interesting. So that whole process is really going to help our industry…for whatever consumers want. It'll help us build faster.

LW: So the grid price assistance…

PVH: The grid pricing… it's a grid pricing system.

LW: What is it?

PVH: It's a system… not assistance. So we talked about marbling and we talked about yield, which is the external fat. So you want to get a yield rate that's one or two because then the animals are extremely efficient when they process the meat off of the animal you have a lot higher red meat yield to the carcass weight. That's value. Just as marbling gives a better eating experience… that's value. So the grid pricing system, if you create more value in your animal 'cause it's got high yield and it's got marbling, they can pay you more money for it. But you have to take the risk to show them that. And so your risk is rather than selling them at the live weight, where the packer takes the risk, you're willing to take the risk 'cause we know, in our case, that our cattle are going to perform better than that sixty percent.

LW: So you own them all the way up till they get processed.

PVH: We own the all the way until they're hanging up. So they've been processed. And then we value them on the grid, and that's what I meant by the grid pricing system. It's a value system. Generally before that the cattle were always sold on a live basis. Even the finished cattle were sold alive before they're processed. Well now we have the opportunity to sell them when they're hanging up on their real value. Because prior to that, nobody knew their meat value until they were harvested.

LW: Yeah and they were already sold to the processing plant by that time.

PVH: Right. Right.

LW: So the grid price system allows you to wait till you really see what their value is in meat.

PVH: Right.

LW: Are you realizing more profit from that?

PVH: Yeah. Yeah.

LW: And that's partly because your cattle are good.

PVH: Right. And we know that. Because we've been testing on them and we've been monitoring them forever. So if you didn't know that, then you might not want to take the risk. But if you do know that, you should take the risk. It's doesn't always pay. It pays most of the time.

LW: But you know that because you've been working on your…

PVH: Genetics.

LW: …genetics since the 60's… late 60's. So that's the value of being in business for a long time.

PVH: Right.

LW: Is you have all of that information you can work off of.

PVH: Right.

LW: So do people recognize your beef in the industry?

PVH: Yes. They want our cattle. It's not hard to sell our cattle.

LW: You mean Hawai'i cattle or Ponoholo brand…

PVH: Ponoholo cattle. You can sell Hawai'i cattle. People want them but they usually pay a discount for them.

LW: Why… 'cause they…

PVH: 'Cause they can. There are some great Hawai'i cattle, and there are some lousy ones. Just like the industry. And it's hard to tell which ones are which sometimes. And so buyers tend to try to buy them as low as they can. If you know the cattle, then you can pay more money for it.

LW: Yeah, the business side of this is much more complicated.

PVH: It's very complicated. I mean it can be real simple if you don't care or you're just selling at the gate. But if you're interested in trying to get back to getting your margins out of the animals, then it gets a lot more complicated.

LW: But your experience is if you do pay attention to the sophisticated business side, you're realizing a better business. Your business becomes better.

PVH: Right. Right. Because we have the "Information Age" to do that for us. You know if I had to do this by hand like we did when I was a kid, coming out of college. Then it was hand done… it'd be tough. But we can keep jillions of megabytes of information. We have more information than we need. And that's a management process, too. Because we say what do we want to know or need to know, and what's just fun to know. And the fun to know stuff, we may never get to. Because we got to concentrate on what we need to know. But the information available is unreal.

LW: Yeah, the computer and the… when you use the telephone… where you have to wait. Colorado, I guess, is maybe four or five hours ahead of us.

PVH: Yes, you have a time difference to work with, too.

LW: All that kind of weird stuff. Now you can send an e-mail even if it's the middle of the night their time, who cares?

PVH: I still like the phone… 'cause I like the personal contact. But a lot of our business is done through the internet and basically through e-mails. Even now our younger guys are texting a lot, too so… I haven't done that yet. (Laughs.) I'm going to retire before I have to do that.

LW: Your grandkids will teach you how to text.

PVH: Exactly.

LW: Well that was fun. That was what I wanted to make sure I got a hold of in terms of stuff I didn't really understand. I think the other thing we should do before we let you go is to get you to talk generally about ranching in Hawai'i and where it's going, where it should go, what's changing now that's good, what's changing now that maybe needs another direction… you know… general stuff like that.

PVH: Wow. (Laughter.) I'm an optimist by nature or I wouldn't be in the business this long. I think there's opportunity out there and there's a lot of challenges to go with it. The thing that makes me proud is that this industry has survived a long time. I mean we're still here. We've outlived sugar; we've outlived pineapple. So we've been able to adapt enough to survive. And I still think we can do that. We're going to have more regulatory pressure. We're going to have more

population pressure, which means you're going to have competition for the resources. So those are going to be real challenges but the bottom line is we all need to eat. And we firmly believe that beef is center plate. It's nutritious. It does all kinds of good things for you if you eat some of it. You don't want to over consume food; that's a problem in our society. We tend to over consume products. But I think it's part of a sensible diet… a lean piece of beef fits very well. So I think that concept is going to be held by the majority of our consumers. Everybody can choose what they want to eat, which is great in this country. You have vegetarian diets, you have vegan diets… you've got everything in the world, right? And so you're going to have those diets, but I think the general population is going to eat a center plate meal. And hopefully we can educate people to have variety in their diets and not to over consume products, because we do have an obesity problem in this country. We all know it. So I think our long term ability to have a business involving ranching type operations is good. We have an increasing world demand. As people get better educated, their economies are doing better, they tend to consume better forms of protein and beef becomes a bigger part of that diet. So I think for a worldwide perspective, I think there's going to be demand for the product. We just have to get smart enough to know how to keep producing it in a changing climate. Not only a real climate, but marketing climate…and a cultural climate. We still need to have a culture in this country that wants to produce its food. If we don't, we're not going to be doing very well.

LW: Seems to be going more and more that way.

PVH: More people are getting interested. But unfortunately we've got so efficient at doing it, the opportunity for more than two or three percent of the population to get into it is harder. Unless we change the culture, which means we have to give up a bunch of other stuff and go back to everybody growing a little plot in their backyard or something. And take their time to do that. And there's probably a middle ground that would work well. I don't think we can continue to depend on two percent of our population to produce all our food. I think it needs to be at least a couple more percent. (Laughs.) It needs to be younger people coming in. You know we're a very old industry. I think our average age is 59 or so in our industry. And we're living longer so maybe that's not too bad. 'Cause we can produce longer but… still, I think creating those opportunities for young people to get involved is really, really important. And I think some of these new types of markets, where you have branded products, you have differentiation between animals that are raised conventionally using science based technology as much as they can versus ones that are more natural raised and still using technology but using it more at a less sophisticated level.

LW: What kind of balance is there in Hawai‘i in terms of those things?

PVH: Well I think in Hawai‘i what we're seeing is a resurgence of the grass industry. We have a population base that seems to be willing to pay a little bit more money

for grass ‘cause it’s less efficient for us to produce a grass finished animal. But we can do it if we can get paid a little bit more. And that’s current. We’ve broken that paradigm that grass was inferior to fed cattle, and now we have a market that’s saying I’ll pay more for grass ‘cause that’s what I want. And there’s enough of them now. Whole Foods is a great indication of that. That they’ll go out and pay for that product. That’ll help us make that transition in more branded products, procuring local products, which will cut some of our transportation costs down. It still won’t make it a lot more economical because our costs of getting it from the pasture to the plate are higher in Hawai‘i. ‘Cause we’re small. We don’t have the efficiencies of large processing here. But if the economics make it work to where it’s competitive with fed cattle, you’ll see grass cattle in Hawai‘i. I’m almost sure that’s happening, ‘cause the economics are going there. It won’t be something that we do entirely, I don’t think because we need the flexibility of going to a different seasonal pattern or climate. Climate is where we have problems in Hawai‘i. And otherwise, we’re going to be forced to do things like trying to feed cattle here, which is very expensive. And so by having access to the mainland, for instance, it allows us to manage our weather patterns a lot better. So we’re still going to want that alternative. But there’s no reason why we can’t produce more grass cattle. So I think that’s going to be something for the short term future. And maybe long term. I don’t know. But I think we see a short term swing. We don’t know what consumers are going to want and how fickle they’ll get. We’re still faddish in this country and everybody’s got a perception. Some are based on facts, some don’t have any facts to them, you know. And if you just go roaring off in a direction it’s great. ‘Cause eventually you find the best way… you find a better way. I shouldn’t say best. We find a better way. Consumers are just like producers. They’re going to make a lot of mistakes, too, in making choices.

LW: And what do you think may be… what do you think needs to change in ranching in Hawai‘i?

PVH: Right off the top I think using the intensive grazing technology needs to get done now. It would make the industry a lot stronger. It would increase our numbers. Increase profitability. Easily done. People should grab it and run with it ‘cause it’s proven. It’s been here for thirty years. It’s been proven out. It works. It does increase production. It does reduce costs. And makes the animals behave better because they’re less stressed. They’re used to being handled…all those things. That should be grabbed. The industry as a whole needs to really take hold of that. And they need to find the resource where you can do that. Whether it’s term, because you’re leasing land. If there are term considerations, economic considerations of capitalizing into it are tough but there’s no reason why it can’t be done. That should be done. Longer term I think we need to better educate our public about what we’re doing, how we do it, why we do it, what the benefits are, what they’re not… what are the environmental impacts? What are the environmental benefits there? …that come with managed property. ‘Cause if we don’t manage something, that’s still a management, right? You choose not to

manage it. So it's better, I think, to have a process that the public can buy in… not only into cattle ranching but in all of our culture. The conservation side of that… balancing the conservation of resources for the future, but in the mean time you got to balance it with the present use. And it's got to be sustainable. You can't just give up something now for the future. And you can't give up everything now and have no future. So we need to manage our resource, we need to manage it wisely. And that's going to involve public education. Farmers are pretty great at what they do. In this country they're great at what they do. And the problem is we have a disconnect with the public and the consumers 'cause there's so few of us. We all get bogged down in what we want to do. So I think that education's going to be real important. And get the economy as a whole to buy in, because that will affect regulations. And we can get regulated out of business like that. It's so easy to do. We see it all the time. People have a specific agenda and it may be great. But they got their blinders on. That's all they're going to want to do. One size fits all, right? This shoe works here, it's going to work on the other guy, right? Well it doesn't. As you well know. And so you get very specific on these agendas and you get blown out of the water. GMOs are a perfect one. GMOs are a wonderful thing. Don't get your blinder on that there's a specific instance somewhere where it went wrong. Let's correct it. I don't know if any of them have, but it could. But everybody's got blinders on… no GMO products or we got to label everything. You want to label everything… you know… and with no demand. We don't have a real demand for non-GMO products. But the GMO guys that don't like it think we should label a product. Well why don't you label your product as a GMO free product? And see who wants to buy that and that's fine. But don't force us to try and label everything because who knows… if we're feeding cattle corn is a GMO fed product. Our silage industry here for the dairies… our papaya industry wouldn't exist without GMO. I mean there's lots of good things. That's just one instance of don't get your blinders on and go down one single street. You better look at the impacts. It's a holistic approach. Whatever you do, is going to affect more things than what you think. So you need to use that approach.

LW: So being specific about what the effects of each technology like GMO, so testing…

PVH: It's being tested all the time. I mean the thing is we do a good job in this country. Probably we don't do as good a job as we should but we're constantly doing better. Our FDA and EPA, and all those guys do a lot of work. And it's consistent in the fact that it's from a broader perspective. Not that I like the federal government, but it has a broader perspective. The problem with the federal government is if you get your blinders on, and they do something in the East coast, it affects us in Hawai'i even though it has nothing to do with Hawai'i. But still, that regulatory process is a good one, if it doesn't get overused.

LW: And generalized to the point where it's bad in a specific case. So if something was regulated for New England, and then it's a federal regulation that also affects Hawai'i…

PVH: It doesn't make sense. In some cases, it might, but in most cases it probably won't, especially from an environmental standpoint. I mean you've got whole different environments, your temperate and your tropical. And it's a whole different deal. But anyway, I think that's always going to be an issue. And the more educated we get, the more opportunities people have to be specific about what they want, and nobody's ever right all the time.

LW: So what right now is really good about the ranching industry in Hawaii?

PVH: Well, we're still here. It's a great way of life. I think we produce a good product. I think we do a wonderful job of maintaining open space. And we manage a lot of the land resources of Hawai'i. And I think we do a pretty good job at it, considering the diversity of the environments we manage. For instance this island. I think there's thirteen ecosystems of the world, big ecosystems... this island has eleven of them. And the two that we don't have are Antarctic conditions', cause we're in the Northern hemisphere. And we don't have Sahara desert conditions. Which are two unique environments. But they're separate ecosystems. But we have all the eleven other ones. Anywhere from Mauna Kea and the snow… Arctic conditions… glaciers down at tropical deals in Hilo… I mean it's amazing. And then we got West Texas down here. *Kiawe* and mesquite and dry and windy and… I keep getting off the point. But anyway I think the management of those resources brings back the challenges but I think we as an industry do real well. I think we can help guide Hawai'i in managing a resource, dealing with climate change, whatever it's going to be.

LW: Do you think the drought is an indication of climate change? The current one?

PVH: We've been in a warming trend for ten thousand years. It's accelerated. I think man has facilitated acceleration lately. Might be a half a degree… whatever it is. We put more carbon in the atmosphere, obviously. And not just here in Hawai'i, but worldwide. And that's not an unnatural process. I think there's no doubt about it and we need to learn better how to manage that. This is one of the things about ranching. I think we can take especially seasonal type climates that are semiarid… through animal management we can create a better environment. Because we can take succession… instead of going to desserts, open ground, which create heat, we can cover them with forages, we can suppress the solar energy into the soil, instead of a reflection, again, back to the atmosphere. Not so much in Hawai'i 'cause we're such a small place. We're in the middle of the Pacific and we got the ocean that does all the climate changing we need, right? And it depends on what it wants to do. But in the bigger continents, the concept of intensive grazing, managing holistically from a broader perspective… all that can be done. Animals have a great impact on that. Used to be wild animals. Man

has populated the world so hard that we have to manage that. And we can use the domestic animals. Livestock is a great way to do that. You can get all the benefits of wild animals, through domestic cattle. You know the bigger, large herds that used to roam Africa, that's why they did so well. Because they would go and they would eat everything and they'd soil it and disturb it and then they'd leave and go somewhere else. And then it would grow again and the animals would come back. But they never stay in one place because the predators are keeping them moving. So that same concept… and this has been I think espoused by Allan Savory and the Savory Holistic Resource Institute. But it's a great tool. And I think from a climate change standpoint, we can utilize that animal a lot better in managing our ground. From a successional level not going back to dessert but take that successional level forward getting into some transition of cover ground, reforesting some areas that need to be reforested, that kind of thing. If we can get grass on the ground, we're going to change the heat dramatically. Huge. 'Cause the reflection's going to be different. If it's bare ground it's going right back in the air and creates a lot of heat. It goes into grass or ground cover, it's going to start photosynthesis, it's going to create soil, and it will do all kinds of neat things that are going to dissipate heat. 'Cause the earth's going to take the energy right there and create things and not throw it back in the atmosphere. So that's the big picture.