



Parker Ranch and Paniolo Cattle Company:

Achieving sustainability through diversification, innovating the supply chain, and introducing a specialty branded product

“You can’t just rely on a legacy business model. The most important thing to do is adapt, be resilient, and deploy the assets you have in different and inventive ways”

– Neil “Dutch” Kuyper, President and CEO, Parker Ranch Inc.

On a misty afternoon in the spring of 2011, Parker Ranch’s new CEO, Neil “Dutch” Kuyper, gazed out of the floor-to-ceiling windows of the Parker Ranch conference room, admiring the lush pastures, grazing horses, and rolling hills of Waimea, Hawaii. Kuyper had just finished attending his first board meeting as CEO. After the meeting adjourned, Kuyper sat alone in the conference room, reflecting on what the board just charged him with less than one week into his new role: *make the cattle business sustainable*.

While Kuyper was new to the world of ranching, he knew that a number of factors would challenge the path to creating a sustainable cattle business with more predictable returns. The Ranch faced a local beef processor and packer who had significant market power over the local industry, and substantial swings in margins due to the Ranch’s mainland commodity cattle business that was exposed to the extreme volatility of commodity corn, oil, and cattle prices. In recent years, the prices of corn and oil had doubled while cattle prices had only increased by about 40% to 50%. Furthermore, corn and oil volatility had nearly doubled wreaking havoc on the financial results of Parker Ranch’s cattle operations.

Kuyper was generally aware of the challenges facing the cattle operations before accepting the position of CEO, but he now needed to develop a solid understanding of the economics of the various enterprises at Parker Ranch. As a large landowner in a place like Hawaii, the Ranch’s real estate was one obvious way to unlock value from landholdings. Other ways included large-scale alternative land use such as pursuing renewable energy development, timber production, or converting pastureland to farmland by grading lands with high quality soil and gaining access to the island’s abundant water resources. The demand for such lands for organic farming had skyrocketed in recent years given consumer trends and newer retail strategies pursued by companies such as Whole Foods Market. Kuyper’s immediate challenge was, however, the need to rethink the cattle business. He understood the importance of developing a strategic outlook as well as forming an understanding of the current and potential sources of value. The cattle operations of Parker Ranch had generated an average operating margin over the previous five years of 4%. **[Exhibit 1 provides a graph of PRI Livestock Operating Margins for 2006-2010].** Moreover, the previous leadership had not established any measures for return on assets (ROA) or return on invested capital (ROIC). Kuyper needed to quickly gain insight into the causes of the

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weak operating results, develop a plan to avert any losses, and create a new vision for the cattle operations to achieve “sustainability”; an objective set by the Board of Directors yet not explicitly defined.

News of the cattle industry’s consolidation in the packing sector was also fresh on Kuyper’s mind, as he had just read about the acquisition of National Beef Packing Company by JBS S.A, the world’s largest beef processing company headquartered in Brazil.¹ Kuyper knew that the consolidation was an indication that the cattle industry was seeing impacts of globalization, expanding economies of scale, and countless other risks associated with the production of agricultural commodities. The more Kuyper pondered these complexities, the more he found himself drawing on the twenty-eight years of experience he had in investment management. He saw a strong correlation between the goals of endowment investing, which targets equity-like returns with low volatility, and the goals of the Ranch. Diversification is critical to lowering volatility, which in turn is a precursor to revenue predictability. With this mindset, Kuyper wondered how the Ranch could improve predictability of margins through diversification of business strategies. Could adjustments to the Ranch’s current assets and resources be deployed differently to maximize profits and generate consistent returns over time? How could Parker Ranch leverage its strengths to re-engineer the cattle business to improve margins and return on invested capital, while also achieving greater sustainability and supporting economic development in Hawaii?

Leaving the conference room and looking over the vibrant vistas of the 130,000 acres surrounding the historic home of Richard Smart, the last descendent of the Parker family and the modern-day office for Parker Ranch, Kuyper knew that margins and volatility had to be incorporated into his definition of sustainability if he was going to be successful in the eyes of the board. More than margins and volatility, however, was also the more traditional components of sustainability, such as being responsible stewards of the land and preserving the history of ranching in Hawaii and the Ranch’s natural resources. Kuyper’s next step was to complete a comprehensive study of the factors of production, productivity of inputs, and overall volatility and exposure to risk to understand how to shape a truly sustainable cattle enterprise. As a renown cow-calf operator, Kuyper knew that the transformation to a diverse, multi-layered organization that could manage more components of the value chain was going to be challenging for everyone from the cowboys to accountants at Parker Ranch.

The History of Ranching in Hawaii

Situated in the central Pacific Ocean, nearly 2,400 miles off the coast of California and 3,850 miles from Japan, Hawaii is the most isolated population center on the planet.² Until the arrival of Polynesian immigrants, the Hawaiian Islands were home to only two native mammals; the Hawaiian monk seal and the Hawaiian hoary bat. European settlers brought cattle and other ungulates to Hawaii with their arrival in the late 18th century.³

¹ Drovers News Source (2011), *R-Calf: JBS purchases cause further beef industry concentration*. Accessed from: <http://www.cattlenetwork.com/cattle-news/latest/r-calf-jbs-purchases-cause-further-beef-industry-concentration-113923024.html>

² Hawaii Facts. Accessed from: <http://www.50states.com/facts/hawaii.htm>

³ Hawaiian History, Accessed from www.hawaiianhistory.org

The rich culture and history of cattle ranching in Hawaii began with five longhorn cattle brought across the Pacific Ocean from California in 1793 by British Captain George Vancouver. Vancouver gifted the cattle to Hawaii's first monarch, King Kamehameha I, who instituted a *kapu* (a law carrying the death penalty for anyone who killed the cattle) to allow the small herd to safely roam free and grow. Released into the wild with no predators and endless food sources, this small gift grew enormously over the following two decades. Cattle roamed in such numbers that eventually they formed destructive herds that wreaked havoc on the Island's native and farmed vegetation and threatened the safety of the Hawaiian people.⁴

In 1815, King Kamehameha I took steps to solve the wild cattle problem. He commissioned one of his foreign advisors, John Palmer Parker, an ex-sailor from Newton, Massachusetts, and capable cattleman, to wrangle the maverick cows and help bring the cattle population under control.⁵ After showing King Kamehameha I his American Musket, Parker was granted exclusive permission to not only shoot the wild cattle, but to eventually supply meat and hides for local and foreign consumption. In less than a year, a thriving salt beef industry replaced sandalwood as the Island's chief export and Parker quickly grew into a respected man of wealth and influence.⁶ In 1816, Parker married Chiefess Kipikane, the granddaughter of King Kamehameha I. They were awarded two acres of land in Mauna Kea for the sum of \$10, which enabled Parker to expand his ranching operations and lay the foundation for what eventually grew into the Parker Ranch dynasty over the next century.⁷

After visiting California and seeing the impressive skills of the early cowboy, King Kamehameha II invited Spanish-Mexican vaqueros to come to Hawaii and train local cowboys on how to rope and handle cattle. Vaqueros were expert horsemen with exceptional stockmanship and ranching skills and had a rich culture rooted in music, family values, and hard work. The Hawaiian word for cowboy, "paniolo," comes from the word Español because these first cowboys, the vaqueros, spoke Spanish. The Paniolo adopted many of the same traditions introduced by the vaquero; traditions that have come to define the paniolo lifestyle and live on today at Parker Ranch.⁸

In addition to the significant cultural traditions, ranching remains an important source of income, identity, and lifestyle for the Ranch's hometown of Kamuela, known locally as Waimea, and the surrounding North Kohala communities. Modern day paniolo blend traditional approaches to ranching with the latest technology to best utilize the Ranch's rich grazing land. Parker Ranch paniolo work to manage over 850 miles of fence, 300 paddocks, and maintain the Ranch's corrals and water system that is supported by 8 pumps and 175 miles of pipeline.⁹ As of 2016, the Ranch remained the largest cattle ranch in Hawaii and is the second largest land owner in the state with a total of 130,000 acres of diverse pasture, timber, and commercial lands.

⁴ Ibid.

⁵ Bergin, Billy. "Loyal to the Land: The Legendary Parker Ranch."

⁶ Parker Ranch, *History of the Ranch*. Accessed from: <http://parkerranch.com/legacy/history-of/>

⁷ Bergin, Billy. "Loyal to the Land: The Legendary Parker Ranch."

⁸ American Cattlemen. *Parker Ranch—Home of the Hawaiian Cowboy*. Accessed from: <http://www.americancattlemen.com/articles/cover-story-parker-ranch-home-hawaiian-cowboy>

⁹ Parker Ranch, www.parkerranch.com

Parker Ranch and the Richard Smart Trust

Richard Palmer Kalieoku Smart, the last of the descendants of John Palmer Parker to manage the Ranch, had a vision for Parker Ranch similar to that of the Queen Emma Foundation Trust, which was formed to support the Queen’s Hospital, founded in 1859. The Hospital continues to be the largest private hospital in Hawaii today and has provided perpetual support for healthcare in the state as a key member of the community since its founding. The sentiment of taking care of the community through healthcare and education resonated with Smart and inspired, according to some, his own vision for the future of Parker Ranch and its surrounding communities.¹⁰

Before Smart died in 1992, he made a forward-thinking decision to leave the ownership of Parker Ranch in the hands of the Parker Ranch Foundation Trust (“the Trust”) to benefit and support charitable beneficiaries in perpetuity. Those beneficiaries are the North Hawaii Community Hospital (48% beneficial interest) – an affiliate of Queen’s Health Systems, the Hawaii Community Foundation (20% beneficial interest), Hawaii Preparatory Academy (16% beneficial interest), and The Parker School (16% beneficial interest).

Smart’s decision to bequeath Parker Ranch to the Trust to support the four beneficiaries was more than an act of generosity and kindness. According to many who knew him, Richard believed that the futures of Parker Ranch and Waimea were inseparable. It could be said that Richard’s vision was rooted in the principle of sustainability. He wanted to perpetuate the unique quality of life for those future generations who chose the lifestyle and way of life offered by the rural community of Waimea. As one local resident wrote on the 150th anniversary of Parker Ranch, “Waimea and Parker Ranch are like two strong ‘ohi’a trees whose roots and branches have grown together...the fate of one becomes the fate of the other... this was the understanding that informed Richard Smart’s vision of Waimea.”¹¹ **[Exhibit 2 provides an organizational structure for Parker Ranch.]**

Parker Ranch is deeply linked to the Waimea and North Kohala communities. Because the Trust was established to benefit the communities in perpetuity through its beneficiaries, Parker Ranch took a long-term view when making its decisions, knowing that the economic prospects and financial performance of its for-profit entities was directly linked to the stability and sustainability of four important and prominent non-profit community organizations. The Ranch is inspired by the Trust’s unique organizational structure and mission and makes decisions with diverse stakeholders in mind to “perpetuate and improve the quality of life and lifestyle of Waimea through the beneficiaries.”¹² Given that the Ranch’s primary asset is its 130,000 acres of land surrounding the town of Waimea, Kuyper and his team thought creatively about ranching operations and ways to create long-term social, environmental, and economic value to ensure that the Trust could support its beneficiaries into the future. Parker Ranch recognized that the general health of the local economy was a big factor in determining land values, so identifying ways in which they can support their local communities was critical to maintaining the value of their assets. Parker Ranch

¹⁰ The Queen’s Health Systems was established to provide health care to the people of Hawaii and the Pacific Basin. It is Hawaii’s oldest and preeminent family of health-care related companies, with over 6,000 employees and 11 hospitals and health care centers across the Hawaiian Islands. The mission is to fulfill the intent of Queen Emma and King Kamehameha IV to provide in perpetuity quality health care services to improve the well-being of Native Hawaiians and all of the people of Hawaii. North Hawaii Community Hospital merged with the Queen’s Health Systems in January 2014.

¹¹ Wizinowich, Jan (2012). *We are One: Parker Ranch and our changing Waimea Village*. Accessed from: <http://www.bigislandtalkstory.org/talk-stories/we-are-one-parker-ranch-and-our-changing-waimea-village>

¹² Parker Ranch Mission. Accessed from: www.parkerranch.com

also recognizes that to be a sustainable cattle operation over the long-term, they must manage their natural resources such as soil and water in a regenerative way. Giving back to both the community and land are critical. As Jason Van Tassell, the livestock manager at Parker Ranch, said “rather than viewing ourselves as cattle producers, we view ourselves as ‘grass farmers’. We manage the cattle so they can capture the value of sunlight and forage to harvest our natural resources. In many ways, the product being produced and sold is grass through the cattle.”¹³

Kuyper and other members of the Ranch leadership team felt that responsibility to the Trust’s beneficiaries every day. Whether in conversation with a paniolo in line at the grocery store, a phone call from a local resident, or the strong sense of community that comes from annual events like the Parker Ranch Round-up Club Rodeo, the effect that the Ranch’s business operations had on the community and its diverse stakeholders was ubiquitous within Waimea and North Kohala. This is a community in the truest sense of the word. Nahua Guilloz, Corporate Secretary of the Parker Ranch Trust, put it this way: “Everyone in the community waits to see what the Ranch is going to do because they trust that we will make the right decision with the community’s interests and well-being in mind.”¹⁴

Dutch Kuyper: Surfer, Investor, and CEO

Kuyper was born and raised on the island of Oahu in Hawaii’s capital of Honolulu. He attended Punahou School, a school with an alumni group that included President Barack Obama, eBay co-founder Pierre Omidyar, and co-founder and former CEO of America Online (AOL) Steve Case. Growing up in Honolulu, he spent his days surfing the famous shorelines and surf breaks on Oahu in between his classes. Kuyper left the Hawaiian Islands after graduating from high school to attend Occidental College in Southern California. His post collegiate career brought him to the east coast to work in the pharmaceutical and accounting industries, eventually inspiring him to pursue his MBA at the Tuck School of Business at Dartmouth. Completing his degree at Tuck in 1992, Kuyper’s strong analytical thinking and passion for identifying and pursuing the next trends in business led him through a successful career in investment management, specifically working with hedge funds and private equity firms.

After a short two-year stint at The Boston Consulting Group and eight years at Wellington Management Company in Boston, Kuyper moved to Morgan Creek Capital Management. Morgan Creek was seeded by hedge fund billionaire Julian Robertson of Tiger Management. Kuyper withdrew as a Partner from Morgan Creek when the firm reacquired the equity interests in the firm held by Tiger and then joined Capricorn Investment Group in Palo Alto, California. Capricorn was founded by Jeff Skoll (founder of eBay) with a commitment to finding investment opportunities at the nexus of strong impact and positive returns. Capricorn was an early investor in companies such as Tesla, SpaceX, and VitaminWater. Kuyper withdrew as a Partner at Capricorn to join Parker Ranch as its newest CEO in February of 2011, taking with him over twenty-eight years of investment experience, much of which was spent evaluating companies looking to drive sustainable positive change.

¹³ Interview with Jason Van Tassell, Parker Ranch. September 2016.

¹⁴ Interview with Nahua Guilloz, Parker Ranch. September 2016.

Kuyper's friends from the Bay Area were surprised that Kuyper was taking his extensive experience in investment management to the world of cattle ranching, and to Hawaii of all places. "The irony was we had chosen the lifestyle and the life of the Big Island and Waimea before we ever knew that the opportunity would exist for me to be CEO of the Ranch," said Kuyper. "It's kind of a lesson in taking a leap of faith." Kuyper saw this as an opportunity to provide a new vision and strategic leadership for the Ranch, one that was well aligned with his conviction that Hawaii is one of the best places to study the feasibility of sustainability strategies given the state's exorbitant energy costs, heavy reliance on imports, and need for alternative solutions. Kuyper's goal from day one was to position Parker Ranch as a leader in sustainability on an island that once grew all of its own food and now imports over 90% of it. As Kuyper puts it, "sustainability is not just a nice idea. We believe it now offers profits."

Evolution of Beef Consumption and Production in Hawaii

Beef cattle production contributed significantly to Hawaii's economy for over 175 years. Despite its long and valuable history, however, both Hawaii's cattle inventory and share of the local beef market gradually declined from the 1970s as pasture lands have developed for other uses. **[Exhibit 3 provides a comparison of land use for agriculture across the state from the University of Hawaii's baseline inventory]**. Historically, ranching strategies in Hawaii focused on the value of the animal on the mainland as opposed to the value of the animal in Hawaii. As a result, ranches ship calves to the mainland to capture those higher revenues, even though the difference in revenues are not considered within the cost structures of the two locations. Keoki Wood, Parker Ranch's Livestock Operations Manager, recalls that back in the 1970s the Hawaii cattle industry fed and processed all of the cattle that were produced in the state and met approximately thirty percent of the state's total beef demand. By 2016, however, he estimated that Hawaii produced only six to seven percent of the beef consumed and imported the rest.¹⁵ **[Exhibit 4 provides a graph to show the decline in cattle inventory in Hawaii from 1993-2012]**. Additionally, the number of ranchers, feedlots, slaughterhouses, and processing facilities also decreased during this same time period, making local beef production challenging due to capacity constraints.

When beef production began in Hawaii in the early 1800's in response to a growing local demand from consumers, it was produced and processed locally and the cattle were raised entirely on pasture. This was the case until grain-fed rations emerged in the 1960's after WWII when it was discovered that cattle gained weight faster when fed grain than when fed grass. This management shift ultimately created a demand for grain-fed beef as consumers' tastes changed and they began to prefer the sweeter and fattier beef that comes from grain-fed cattle over the leaner beef that comes from grass-fed cattle. Over time, local grass-fed beef became to be considered of lower quality because it lacked the marbling that occurs in the fattier, grain-fed beef. This perception of superior quality was then reinforced when the national meat grading standard (prime, choice and select) was created, a rating system that was developed specifically for grain-fed beef only.¹⁶

¹⁵ Interview with Keoki Wood, Parker Ranch. September 2016.

¹⁶ Schreiber, Colleen. *Livestock Weekly*. [Hawaiian Cattlemen Ship Calves Across Ocean with Few Problems](http://www.livestockweekly.com/papers/00/07/13/whlshipping.asp). Accessed from: <http://www.livestockweekly.com/papers/00/07/13/whlshipping.asp>

To meet this change in consumer demand, Hawaii ranchers began importing grain to feed their cattle as the nature of Hawaii's soil and lack of flat lands made growing row crops (like grains) in scale difficult. Importing feed was economically feasible for several years until the 1990s with the advent of meat vacuum packing technology. This process extended the shelf life of boxed beef shipped into the state from large-scale, more efficient feeding and processing operations on the mainland. Locally produced beef could no longer compete on price with imported beef due to the economies of scale achieved on the mainland and in foreign markets. These factors, combined with the closure of local slaughterhouses, forced Parker Ranch and other Hawaiian ranchers to change their business models from one that brought feed to the cattle, to one that brought cattle to the feed.¹⁷

The transporting of cattle to feeding areas for finishing is not unique to Hawaii. As of 2016, 80% of the feeding and processing of beef took place in the high plains states of Nebraska, Colorado, Kansas, Oklahoma, and Texas. Cattle producers in the surrounding mainland beef producing states also transported cattle to those feedlots for finishing on grain or grass rations. Producers were incentivized to transport their cattle to these core locations because of the lower cost of inputs. As a result, it became more cost-effective to bring cattle closer to the high plains states where the grain is grown.¹⁸ Given its geographic isolation, Hawaii's beef cattle producers had much higher expenses than mainland counterparts. For Hawaii ranchers to maximize production for scale economies, maximizing volume had been critical, requiring cow-calf operators to send their weaned calves, by either ship and "cowtainers" or 747 airplanes, to the mainland for finishing. With an increase in calves leaving the state, local beef production in Hawaii began to dwindle, dropping from 30 percent of the beef market in 1986 to less than 20 percent by the early 2000s.¹⁹ This strategy of shipping weaned calves to the mainland, commonly referred to as the centralized commoditized model, centralized production for scale and relied on inexpensive transportation. It also aimed to capture the higher, mainland cattle prices. **[Exhibit 5 provides a graph of historic cattle prices on the mainland versus Hawaii]**. This legacy business model served Parker Ranch well for many years as the transportation costs associated with this process were consistently offset by Hawaii's year-round forage production and two calving seasons. Despite these advantages however, the strategy of shipping calves to the mainland for finishing and then shipping the finished product back to Hawaii was heavily exposed to the volatile costs of inputs, particularly corn and oil. **[Exhibit 6 provides historical prices of oil and corn]**. This level of exposure to volatility caused conventional ranching returns to suffer significantly.²⁰ As Kuyper said of this volatility,

The global food system relies heavily on cheap energy and the previous managers of the Ranch built the business on this premise – that energy costs would remain low indefinitely. In the past, when cattle prices – as well as oil and corn – had a volatility of about 15%, which isn't too different from the S&P 500, the export model was justifiable. More recently, though, the volatility of key inputs such as oil and corn have doubled; which means, at a volatility of 30%, if the base price

¹⁷ Hawaii Cattlemen's Council, Inc. 2007. *Strategic Plan*. Accessed from:

<http://www.hicattle.org/CMDocs/HawaiiCattle/White%20Paper%20&%20Info/Hi%20Beef%20Strategic%20Plan%20Final%20Nov%202007.pdf>

¹⁸ Reuter, Ryan. *Supplement Conversion Ratio*. *Beef Magazine*. 2009. Accessed from: <http://www.beefmagazine.com/nutrition/1104-supplement-conversion-ratio>

¹⁹ "The Hawaii Beef Industry: Situation and Outlook Update, University of Hawaii Cooperative Extension Service, 2003

²⁰ Parker Ranch, Accessed from: <http://parkerranch.com/paniolo-cattle-company-formed-by-parker-ranch-and-ulupono-initiative/>

was \$100, it could go down to \$70 or up to \$130. That makes it difficult and costly to manage the relationship between your input and output prices.²¹

With these transportation headwinds front of mind and seeing the impact they had on profit margins, Kuyper knew that the export business model was not in the Ranch's best interest from a risk management perspective, nor was it sustainable over the long-term. While the Trust's beneficiaries required more predictable returns, the volatility in energy prices made the Ranch's profitability increasingly unpredictable.

Beef Supply Chain

The traditional beef supply chain has four major phases; each of which has a different cost structure and level of exposure to capital and balance sheet risk. Costs are accrued at different times and for different durations and as such, provide different cash conversion cycles. The operating cycle for cattle production is 40 months from exposure to processing. **[Exhibit 7 includes a graphical depiction of the traditional production cycle in the cattle industry]:**²²

1. *Cow-calf operators* are traditional ranchers and farmers who breed cows to produce calves, which are kept onsite until weaned at 6-10 months of age. Cow-calf operations are primarily a fixed cost business; costs decrease on a per cow basis by increasing output per unit of input, and thus increasing volume is viewed as a way to maximize profits.
2. *Stocker operators* put additional weight on the animals through pasture or range; *backgrounding operations* confine the cattle and give them hay, wheat, or other forage; both operations bring cattle to 600-800 pounds, or 8-14 months of age. Both the stocking and finishing phases are viewed as "spread" businesses, so variable costs and break-evens are hugely important.
3. *Feedlot or "finishing" operators* feed grain to the animals (at this stage called "feeder cattle") and bring them to slaughter weight of roughly 1,400 pounds, or 12-22 months of age
4. *Packer/processors* slaughter the cattle and package and/or process the beef to make it ready for distribution

Achieving profitability at each stage of the supply chain is critical; meaning, if operators ahead of a given operation aren't profitable, it will affect the financial performance of everyone along the chain. **[Exhibit 8 provides a snapshot of industry profitability in 2015-2016].**

The current beef cattle industry in Hawaii was predominately made up of cow-calf operators. Ranchers in Hawaii tended to focus on cow-calf operations because the tropical climate allowed for two breeding seasons and because of the high barriers to entry related to the other components of the supply chain. Despite these advantages, cow-calf producers in Hawaii and beyond continued to be challenged with low and volatile returns. One common recommendation to cow-calf producers seeking to improve returns has to retain ownership of the calves through the later stages of production. The retained ownership model had been a long-standing feature of the Hawaii cattle industry for decades given the number of calves shipped to the mainland for further

²¹ <http://www.hawaiibusiness.com/talk-story-with-neil-dutch-kuyper-of-parker-ranch/>

²² Lowe, Mary and Gary Gereffi. 2009. *A Value Chain Analysis of the US Beef and Dairy Industry*. Accessed from: http://www.cgcc.duke.edu/environment/valuechainanalysis/CGGC_BeefDairyReport_2-16-09.pdf

growth and processing. Through the retained ownership model, the producer owns the animal from birth to slaughter, thus eliminating the costs of middlemen and capturing a larger share of the final consumer price. Retained ownership also allowed producers to spread risk from one production activity to another and from one period to another. However, the longer the animal is owned, the higher the direct costs to producers, especially producers without economies of scale, and a higher level of risk associated with owning the cattle for the longer period of time.

Pricing was an important tool within marketing contracts, retained ownership, and joint venture operations. There are three types of cattle pricing methods—live weight, dressed weight (or weight after slaughter and partial processing), and grid or carcass grade pricing. Dressed weight is also referred to as “in the beef.”²³ Live cattle and dressed weight pricing are both based on formulas that include a base price that then have premiums or discounts based on quality and yield. Live cattle prices are based on expected value and anticipated gain during the final finishing stage, whereas dressed weight percentage is known and transparent. Carcass grade, or grid pricing, adds the element of quality and yield to the dressed weight percentage. Price premiums and discount structures can vary from packer to packer and finisher to finisher, so producers need to be aware and informed about these intricacies and which cattle should be sorted based on which gradient and quality category.²⁴ **[Exhibit 9 includes a table produced by Texas A&M related to cattle pricing methods and their attributes].** To counter balance the risks of retained ownership, Parker Ranch used a formula pricing scheme to hedge the risks associated with shipping calves to the mainland where they finish on pasture in the Pacific Northwest.

As of 2011, Parker Ranch focused on two key business units within its cattle operations—the calf-cow operations and maintaining a pure-bred herd in Hawaii, as well as participating in two cooperative models, one in Hawaii and one on the mainland. Cooperative models are appealing for aggregating supply from smaller producers to market commodities, such as milk and cheese, but also beef. Parker Ranch’s business strategy prior to 2011 focused on maximizing volume for these two cooperative models, realizing margins through a percentage of costs and accepting high volatility given the inputs of corn and fuel to complete the stocking and finishing phases of the production cycle.

Parker Ranch provided a relatively small percentage of the total volume for its Oregon based partner, Wilson Cattle Company and the Country Natural Beef cooperative. Calves, once they reached roughly 400 pounds in weight, were separated from the on-ranch calf-cow operation and transported to the mainland and ultimately Oregon and Washington to finish the final two stages of the production cycle, stocking, and finishing. Alternatively, Parker Ranch was a significant percentage of the total volume of the Hawaii cooperative, Hawaii Ranchers. This cooperative supported a much different, “roundtrip beef” model where cattle were raised in Hawaii and then finished in Oregon. The beef was then processed, boxed, and flown back to Hawaii. The cooperative on Hawaii Island managed the transportation and owned the “cowtainers,” as well as controlled the relationship with the end retailer. Given the existing relationships that the cooperative controlled between the processing facility and retailer, this roundtrip model was the only way for Hawaiian ranchers to get a local product into the retail stores in Hawaii.

²³ AgriLIFE Extension, Texas A&M. *Grid Price of Fed Cattle*. Accessed from: <http://agecoext.tamu.edu/files/2013/10/rm1-11oh.ppt>

²⁴ Ibid.

As of 2016, Parker Ranch was the fifth largest cow-calf operation in the United States and owned 130,000 acres of land on the Big Island. The Ranch was home to roughly 15,000 head of cattle made up of Angus and Charolaise breeds. Calves are weaned at around five to six months when they weigh about 400 pounds and then are sent to the mainland US to graze on pasture until their finished weigh of 1,100-1,300 pounds. Annual beef production of Parker Ranch's cow-calf operation was approximately 10 million pounds through mainland and Hawaii based operations.²⁵ Parker Ranch, the largest producer of grass-fed beef in the state of Hawaii, marketed under the private label Paniolo Cattle Company, a joint venture discussed in greater detail below.

A Modern Strategic Vision: Cultivating Value through Sustainability

When Kuyper took the helm at Parker Ranch in 2011, he knew that the business needed a new holistic strategy to evaluate and capitalize on the changing landscape of the cattle industry. With a passion for perpetuating a profitable and sustainable world-class ranch, and a feeling of responsibility to the Parker Ranch beneficiaries, Kuyper and his team determined that adopting a proactive approach to converting potential opportunities to actionable priorities was critical to ensuring the sustainability of the Ranch. Kuyper used a strong sense of accountability to inspire the process of establishing a strategic plan for the Ranch's cattle operations. During a conversation with Kuyper in the summer of 2016, he reflected on what drove him to implement a risky change in strategy for the Ranch's cattle operations:

Developing a strategic plan started with formulating a strategic outlook on relevant economic and consumer trends, both in our favor and working against us, the potential value embedded in the endowment of natural resources of the Ranch, and evaluating risk management strategies and ways in which we could reduce risk and uncertainty to strategically hedge against rising energy prices.²⁶

Kuyper outlined the modern vision for the Ranch by citing three major strategic themes: *Energy, Agriculture, and Community Development*. **[These strategic components are encapsulated in the figure in Exhibit 10]**. These components of the Ranch's modern strategy were strongly connected and dependent on one another. This strategic planning work took priority for Kuyper early on in his time as Parker Ranch CEO. He focused the Parker Ranch management team on the important notion of stewardship, which helped the team move to explore and execute on opportunities in three strategic areas— food, water, and energy. These strategic areas were considered to be the foundations for sustainable communities, which were critical to ensuring that the heritage of the Ranch and its cultural roots would be perpetuated for future generations. As such a large landholder, the concept of sustainability was central to the Ranch's role as an industry and community leader.²⁷ As Kuyper said,

We made sustainability a central strategic concern and began to rethink the Ranch's strategy and examine ways in which we could change our operations, strategies, and organizational processes in fundamental ways. We were at a point where 75% of our revenues were coming from our mainland operations and decided that we no

²⁵ Parker Ranch "Livestock Facts & Figures"

²⁶ Interview with Dutch Kuyper, Parker Ranch. September 2016.

²⁷ Hollier, Dennis. *Hawaiian Business*, December, 2011. *Talk Story with Neil "Dutch" Kuyper of Parker Ranch*. Accessed from: <http://www.hawaiibusiness.com/talk-story-with-neil-dutch-kuyper-of-parker-ranch/>

longer wanted to be a mainland ranch with a presence in Hawaii. We believe a more sustainable and profitable business model is to refocus on Hawaii.²⁸

Kuyper and his team had considered the five pillars of sustainable food production, alongside many large agriculture producers, when defining sustainability internally. The pillars are food safety, animal health and welfare, environment, economics and food affordability, and food and health.²⁹ Internal business economics and external inputs are also important metrics for Parker Ranch when thinking about sustainable business operations, but generally, the pillars provided Kuyper and his management team guidelines for measuring risk.

Paniolo Cattle Company

With the goal of designing a business model around low-cost energy, Kuyper began to think about how to deploy the Ranch's assets in new and innovative ways. "We own a lot of grass," said Kuyper. "It may seem counter-intuitive, because it takes longer to put weight on the animals here in Hawaii, but with prices of mainland pasture and transportation going up, grass is simply more economical because we own a lot of it."³⁰

At the same time, Parker Ranch began to see an increase in demand for local, grass-fed beef in Hawaii. Wanting to remain competitive and meet consumer demands, Parker Ranch conducted in-depth analysis and due diligence to consider the profitability of a local, pasture raised beef program. As Kuyper explained, this work was directly related to the exposure that the Ranch was experiencing through its traditional, mainland focused business model:

Under the assumption that prices of feed and fuel would continue to increase, we needed to develop options to maximize flexibility and optimize profits. This started with shifting resources to a "local" model and reevaluating our supply chain. With rising energy prices, there's been somewhat of a reverse-globalization trend—local systems have just started to make more sense. The local food movement was starting to take hold and we began to examine strategies from a much earlier generation, when we fed and finished cattle here in Hawaii.³¹

This work coincided with a growing desire to create a more self-sustainable beef industry in Hawaii by raising and processing beef entirely within the state. This was identified as an important social and economic goal for Hawaii given that roughly 90% of the state's food was imported, resulting in billions of dollars leaving the state and supporting agribusiness elsewhere.³² Based on this reality, The Ulupono Initiative, an impact investing fund based in Hawaii, established a primary goal and interest in supporting local, sustainable food systems to positively affect Hawaii's ability to produce its own food.³³ From Ulupono's perspective, Hawaii had the necessary

²⁸ Hollier, Dennis. *Hawaiian Business*, December, 2011. *Talk Story with Neil "Dutch" Kuyper of Parker Ranch*. Accessed from: <http://www.hawaiibusiness.com/talk-story-with-neil-dutch-kuyper-of-parker-ranch/>

²⁹ Real Agriculture. *Five Pillars of Sustainable Food Production*. Accessed from: <https://www.realagriculture.com/2012/10/the-five-pillars-of-sustainable-food-production/>

³⁰ American Cattlemen. *Parker Ranch—Home of the Hawaiian Cowboy*. Accessed from: <http://www.americancattlemen.com/articles/cover-story-parker-ranch-home-hawaiian-cowboy>

³¹ Interview with Dutch Kuyper, Parker Ranch. September 2016.

³² College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa. 2008. *Economic Impacts of Increasing Hawaii's Food Self-Sufficiency*. Accessed from: <http://www.ctahr.hawaii.edu/oc/freepubs/pdf/EI-16.pdf>

³³ The Ulupono Initiative. *Our Goals*. Accessed from: <http://ulupono.com/our-goals>

resources to be food secure and securing local beef sources and expertise played a role in the state's overall food resiliency.³⁴

Following Parker Ranch's internal diligence, in 2012 they partnered with the Ulupono Initiative to jointly fund pre-commercial trials for pasture raised beef production on the Big Island. The Parker Ranch-Ulupono Initiative pilot aimed to explore the feasibility of leveling the cost of local beef with imported products and create an at-home thriving cattle industry that was energy efficient and protected against volatility in fuel and feed costs.³⁵ Kuyper explained that this venture with Ulupono provided them with what he called, transformational capital. "Transformational capital is very useful in situations like ours, where there is a fundamental value to assets, such as the land and the cattle, but those assets need to be deployed in a different way. It will give us continuity and flexibility during this period of transition."³⁶ The transformational capital was critical in taking another step towards altering the local agriculture system and providing the community with sustainable and value-based food sources.

The pre-commercial trials took place between September 2012 and May 2013 and consisted of 100 head of cattle grazing on 70 acres of pasture. The goal of the trials was try to create a more robust local beef supply chain and ensure that a quality, consistent product could be made available to all Hawaiian consumers.

After the successful trial period, in February 2014 Parker Ranch and Ulupono launched the Paniolo Cattle Company (PCC); a joint venture aimed at statewide local beef production.³⁷ Parker Ranch provided calves and cattle management expertise for the joint venture, while Ulupono contributed the intellectual capital to develop best practices for profitability and sustainable agricultural methods.³⁸ Paniolo Cattle Company reduced beef production costs by focusing on sourcing cattle from local, world class cow-calf operators, and using holistic pasture management techniques to maximize the average daily gain of weight per cattle during the final finishing months. To accomplish this, Paniolo Cattle Company operated irrigated pastures and employed rotational pasture techniques, a regenerative grazing approach that improved soil health and enhanced pasture fertility over time.³⁹ "Converting pasture to higher yield grasses, and reinvesting in our natural capital will pay dividends for years to come," said Kyle Datta, General Partner at the Ulupono Initiative.

At the beginning of the program, Paniolo Cattle Company committed 1,400 head of cattle, sourced from Parker Ranch's successful and well established cow-calf and pure-bred operation. This represented the largest commitment of grass-fed beef by a single ranch in the state of Hawaii and increased the supply of grass-fed steers to the market by nearly 35%.⁴⁰ By leveraging Hawaii's abundant natural resources and building out a robust, local program, Parker Ranch established a strategic hedge against rising oil prices and diversified their business operations. As Kuyper said,

³⁴ Paniolo Cattle Company, *Fact Sheet*. Accessed from: <http://parkerranch.com/wpcontent/uploads/PanioloCCFactSheet0314.pdf>

³⁵ The Ulupono Initiative is part of a group of companies affiliated with Pierre Omidyar, the founder of eBay, and is a Hawaii-focused impact investing firm that uses for-profit and non-profit investments to improve the quality of life for island residents in three areas: locally produced food; clean, renewable energy, and waste reduction.

³⁶ American Cattlemen. *Parker Ranch—Home of the Hawaiian Cowboy*. Accessed from: <http://www.americancattlemen.com/articles/cover-story-parker-ranch-home-hawaiian-cowboy>

³⁷ Paniolo Cattle Company, *Fact Sheet*. Accessed from: <http://parkerranch.com/wp-content/uploads/PanioloCCFactSheet0314.pdf>

³⁸ Paniolo Cattle Company, *About*. Accessed from: <http://paniolocattle.com/about>

³⁹ Hawaii Cattlemen's Council, Inc. 2007. *Strategic Plan*. Accessed from: <http://www.hicattle.org/CMDocs/HawaiiCattle/White%20Paper%20&%20Info/HI%20Beef%20Strategic%20Plan%20Final%20Nov%202007.pdf>

⁴⁰ Ibid.

“given the intensive process for cultivating row crops, grass finishing helps us to unplug from the national food system. Grass is a natural hedge.”⁴¹ This represented a shift in business strategy to focus on margins, risk and volatility as opposed to the pure maximize volume approach that was dominant between 2006 and 2010. **[Exhibit 11 provides a breakdown of this shift in business strategy].**

Paniolo Cattle Company planned to expand statewide, based on consumer demand and the newly segmented market, with the possibility of collaborating with other ranches on Oahu, Maui, and Kauai to broaden the program’s reach and benefit Hawaii ranchers, processors, and consumers throughout the islands with this business operational hedge.⁴² **[Exhibit 12 includes a general marketing flowchart.]**

Changes in Consumer Demands and Whole Foods’ Segmentation of the Market

The U.S. grass-fed beef sector experienced exponential growth in the early 21st century. Retail sales of domestically produced grass-fed beef exceeded \$400 million in 2013, compared to less than \$5 million in 1998.⁴³ And, the Wall Street Journal documented the growth of the grass-fed beef market stating that, “while sales of grass-fed beef comprised just 1.4% of the \$18 billion fresh-beef market in the U.S. in 2015, its growth rate has far outpaced conventional beef in recent years. In 2015, sales of grass-fed beef rose nearly 40% over the year before, while conventional beef grew 6.5% during the same period.”⁴⁴ Additionally, consumers desiring grass-fed beef products were willing to pay “30% to 80% more for a pound of grass-fed beef than for conventional beef.”⁴⁵ While costs were higher to maintain local, pasture-raised beef production programs in Hawaii, which historically pushed ranchers to the mainland markets, the price premium achieved by this niche product offset the additional labor and costs incurred by the local program.

Based on data from the USDA and the University of Hawaii, the average annual beef consumption in Hawaii was 54.1 pounds per full-time resident. In 2016 tourism data suggested that over 8.6 million tourists visit Hawaii annually, eating approximately 0.148 pounds of beef per day.⁴⁶ The total demand for residents and tourists exceeded 88 million pounds annually, or close to 150,000 market cattle. However, the local beef supply as of 2015 was just over 5.75 million pounds. Parker Ranch saw great opportunity to increase local production given that local statewide supply was only meeting 6.53% of local demand. In addition to being an important piece of the total local demand, Parker Ranch also considered the role that tourists from around the world could play as a captive audience for exposure to specialty branded products. The general shift to specialty branded products allowed Parker Ranch to connect with global consumers in a new and differentiated way and increase the reach of their brand.

As consumers began demanding grass-fed products, segmentation within the market began to occur. As the most agile component of the traditional supply chain, retailers such as Whole Foods, Safeway and Albertsons responded to this change by implementing programs to satisfy consumer desires for local beef products and capture this shift in demand. This higher willingness

⁴¹ Interview with Dutch Kuyper, Parker Ranch. September 2016.

⁴² Hawaii Cattlemen’s Council, Inc. 2007. *Strategic Plan*. Accessed from:

<http://www.hicattle.org/CMDocs/HawaiiCattle/White%20Paper%20&%20Info/Hi%20Beef%20Strategic%20Plan%20Final%20Nov%202007.pdf>

⁴³ <https://mosesorganic.org/farming/farming-topics/livestock/grass-fed-beef-is-good-for-producers/>

⁴⁴ Wall Street Journal, *Grass-Fed Beef is on a Roll*. Accessed from: <http://www.wsj.com/articles/why-grass-fed-beef-is-on-a-roll-1474388110>

⁴⁵ Ibid.

⁴⁶ Data available from USDA Economic Research Service. Accessed from: <https://www.ers.usda.gov/>

to pay provided an opportunity to insert a local product into the market that could compete with the imported products at a competitive price. Parker Ranch also saw this as a chance to “de-commoditize” the local beef industry and shift from a commodity price-taker to a value-added, “niche” producer. Jason Van Tassell, the Livestock Manager for Paniolo Cattle Company, described the shift in demand he observed from their local consumers: “They want quality beef with the knowledge that the animals were raised humanely and responsibly in a sustainable environment.”⁴⁷ Van Tassell also added that “wholesalers want local beef at a price they can support, while restaurants need consistency in quality and supply”; two additional factors in ensuring the success of the local program and owning more of the supply chain.⁴⁸ More than simply meeting consumer demand, achieving price parity with a local product was a critical benchmark for determining if the local beef product and import substitution model was successful.

With a focus on the issues of animal welfare and sustainability, Whole Foods helped to launch an international, independent organization that created and oversaw a robust animal welfare certification program. Whole Foods commissioned a survey in 2006 that revealed that in addition to overall product flavor, consumers were concerned with safety and the humane treatment of animals when choosing quality meat. Whole Foods invited animal-welfare groups and scientists to join them at the table with producers to address this growing area of interest and materiality for consumers. After five years, the company settled on a system that recognized there can be variation as well as continuous improvement in the treatment and processing of animal products. By spring 2008, the Global Animal Partnership (GAP) standard was created to improve the way farm animals were cared for from birth to slaughter.⁴⁹ **[Exhibit 13 includes an overview of GAP’s 5 step program.]**

For ranchers, GAP recognized “good management practices that addressed animal welfare.”⁵⁰ As President and Chief Operating Officer of Whole Foods, A.C. Gallo, said in the press release announcing the program in 2011,

With an overarching goal to continuously improve the lives of farm animals, Global Animal Partnership’s 5-Step Animal Welfare Rating system is one of the single most impactful programs we have implemented to date at Whole Foods Market. Our customers have long been asking for information on the raising practices on the farms and ranches that provide products to our stores. We are proud to adopt this new rating system that helps shoppers make even more informed buying decisions while offering them peace of mind that the animals from our producers are raised with care.⁵¹

Country Natural Beef, the mainland based cooperative that Parker Ranch participated in, was a primary participant within the Whole Foods supply chain during this early work related to GAP certification. Country Natural Beef responded to Whole Food’s push for GAP certification with an integrated view of the supply chain to ensure that the best practices the retailer was demanding

⁴⁷ Interview with Jason Van Tassell, Parker Ranch, September 2016.

⁴⁸ Taste of the Hawaiian Range, *Paniolo Cattle Company*. Accessed from: http://www.tasteofthehawaiianrange.com/blog/index.php/tag/paniolo-cattle-company/?doing_wp_cron=1477431958.2808110713958740234375

⁴⁹ Global Animal Partnership. *Our History*. Accessed from: <http://www.globalanimalpartnership.org/about/history>

⁵⁰ Global Animal Partnership. *Become a 5-Step Farmer and Rancher*. Accessed from: <http://www.globalanimalpartnership.org/get-involved/join/producers>

⁵¹ 2011, February 2. Whole Foods Market, *When shopping for meat, the more you know the better*. Accessed from: <http://multivu.prnewswire.com/mnr/wholefoods/46970/>

were met. This solidified a shift from celebrating the chef who was preparing and serving the final product, to the ranch and cowboy who was producing it.

Innovating the Supply Chain

At the turn of the century, the meatpacking industry had seen rapid consolidation, integration, and coordination in pursuit of economies of scale and lower transaction costs. By 2016, the beef industry was classified as highly concentrated by the Department of Justice (DOJ), with four multinational meatpacking corporations (Cargill Inc., JBS, Tyson Foods, and National Beef Packing Co.) processing over 85 percent of all the beef slaughtered in the US.⁵² While consolidation of the meat supply chain had in some ways been beneficial to the meat industry in terms of efficiency and consistency, small and mid-sized producers did not always benefit from these changes.⁵³ It could be argued that the tremendous size and disproportionate economic power of these multinational corporations had caused distributional income losses to producers. Concentration among beef packers pushed down the price beef producers receive for their cattle because their collective power put a ceiling on the competitive pressure to bid up cattle prices. This high concentration led to many investigations and lawsuits against these multinational beef packers, questioning whether they were using their considerable market power to control cattle prices. In 2016, when cattle prices plummeted faster and further than any other time in history, R-CALF USA, a cattle trade association, filed a letter with the DOJ to investigate antitrust claims against two of the top three largest meat packers, Cargill Cattle Feeders, LLC and Friona Industries. The basis of concern surrounded the acquisition of all cattle feeding assets owned by Cargill, Inc. by Friona Industries. As CEO Bill Bullard wrote in his letter to the Senate judiciary committee and the US Attorney General regarding this acquisition, "...this proposed acquisition will substantially and severely reduce competition in the U.S. feeder cattle market... this loss of competition within the live cattle supply chain will directly harm U.S. independent cattle producers."⁵⁴

This letter came after Senator Chuck Grassley, Republican from Iowa, reintroduced legislation to amend the Packers and Stockyards Act of 1921 that made it "unlawful for a packer to own, feed, or control livestock intended for slaughter."⁵⁵ Grassley's motivation was based on his observations of the lack of competition within the market and the massive volume of cattle secured by packers in 2015. Nationally the volume of packer-owned cattle jumped to 78.7% and was recorded at 97.4% in the Southwest region of the US market. Grassley's hope was that the amendment could help to fix the broken market. As CEO of R-CALF Bill Bullard said, "Our cattle markets are seriously broken, and Senator Grassley's long-needed legislation to ban the largest packers from owning and feeding their own cattle will provide immediate relief from the abusive control that packers are exerting in our markets."⁵⁶ The legislation did not take hold and the reality of the consolidation and packer market power remained true in 2016. These market conditions

⁵² The DOJ defines "highly concentrated" as having a Herfindahl Hirschman Index (HHI) of higher than 1,800 (U.S. Department of Justice, 2009). The HHI is calculated by squaring the market share of competing firms and then summing the resulting numbers. According to a 2008 study by the Agricultural and Applied Economics Association, the beef industry has an HHI of 1,826 when looking at federally inspected slaughter data (Anderson & Hudson, 2008). | <http://www.hcn.org/issues/43.5/cattlemen-struggle-against-giant-meatpackers-and-economic-squeezes/the-big-four-meatpackers-1>

⁵³ http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1013&context=scm_pubs

⁵⁴ R-CALF, *Letter to Senate Judiciary Committee and US Attorney General*. Accessed from: <http://r-calfusa.com/wp-content/uploads/2016/07/160711-Letter-to-Senate-Judiciary-Committee-and-U.S.-Attorney-General.pdf>

⁵⁵ Center for Rural Affairs. *Senator Grassley Re-Introduced Bill to Ban Packers from Owning Livestock*. Accessed from: <http://www.cfra.org/news/160526/senator-grassley-re-introduced-bill-ban-packers-owning-livestock>

⁵⁶ Ibid.

further squeezed producers down the supply chain and commoditized the industry further in which any producer who sold their product in such an environment became severely vulnerable to the fluctuation of market prices due to supply and demand.⁵⁷

Traditionally, the beef processor and packer maintained the relationships with the retail channels and wholesale suppliers. The traditional model pushed for centralization of processing, however, there has been an industry shift in recent years towards celebrating your local farmer. This provided an opportunity for Parker Ranch to disrupt the traditional relationships and work directly with Hawaiian retail chains to market and price their local, grass-fed product. Given this opportunity, Kuyper and team began to question if using the cooperative model was the best use of their volume. As the largest cattle producer in Hawaii, Parker Ranch accounted for the majority of beef flowing through the Hawaii Ranchers Cooperative, yet Parker Ranch did not have the ability to negotiate prices effectively with the packer and had to defer to the cooperative.

Kuyper and his team realized that they were the only ranch with the volume of cattle and a large enough balance sheet to absorb potential losses to confront the packer with a new business strategy and model. Paniolo Cattle Company acted as a vehicle to enact change and innovate the traditional supply chain. Parker Ranch was able to produce a niche product and grow alongside this newly segmented market, insulating themselves from the risk of market fluctuation by becoming a “price maker” in the process. This vertical integration of the supply chain, in which Parker Ranch began to work directly with retailers, allowed Parker Ranch to own more of the value chain and ultimately gain access to margins that were traditionally tied up in production and distribution. Concurrently, it allowed Parker Ranch to adopt a system thinking approach. Managers and key decision makers were able to see the interdependence of the complex system of Paniolo Cattle Company, from operations to marketing and relationships to distribution, and increase their understanding of Parker Ranch’s overall business risk and opportunity. This system thinking fit within the strategic planning framework that the Ranch supported. Projects and business opportunities were considered strategically, operationally, and then through benchmarks and targets related to people, processes, and systems.

As the migration path was established to achieve a new “sustainable” business strategy for the cattle operations, mainland cattle prices began to achieve new record highs. In July of 2015, mainland cattle prices exceeded \$160/cwt for the first time ever.⁵⁸ The mainland cattle operations for Parker Ranch was experiencing operating margins in excess of 20% to 30% and ROIC in the range of 30% to 40%; results not seen in decades. The Board of Directors was pleased with the remarkable returns posted by the cattle operations, primarily driven by the results on the mainland. A few Directors began questioning whether any real measurable value would be derived from the local grass-fed business. However, all of the Directors recognized the value created from an economic development standpoint.

By supporting the development of a local product, Kuyper and his team were pursuing an import substitution strategy for the island as a whole.⁵⁹ Kuyper was first exposed to the studies of

⁵⁷ Sexton, 2000. http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1013&context=scm_pubs

⁵⁸ In the cattle industry, cwt. is the abbreviation for hundredweight. Cattle prices are tracked through live cattle contracts with a ticker symbol on the CME of “LC” and a contract unit of 40,000 pounds (or roughly 18 metric tons). Price is quoted in cents per pound. Additional contract specifications can be found at: http://www.cmegroup.com/trading/agricultural/livestock/live-cattle_contract_specifications.html

⁵⁹ Import substitution is a strategy utilized by governmental entities that emphasizes replacement of some agricultural or industrial imports to encourage local production for local consumption, rather than producing for export markets. Import substitutes are meant to generate employment, reduce foreign

comparative and development economics during his time at the London School of Economics during his undergraduate years. Usually taught in the context of under developed and developing countries, the import substitution strategy applies to Hawaii given the state's large import of Australian beef to meet local demand. Yet as the volume of Paniolo Cattle Company product continued to fill the shelves, Kuyper and his team knew that reducing dollars of imports would translate into increases in Hawaii's GDP; an outcome critical to sustainable local economic development. Some of the Directors, however, were beginning to question the logic behind developing a local branded beef strategy. Parker Ranch was experiencing record margins on the mainland. Just as the minority of Directors were questioning the merits of this new business strategy, mainland cattle price began to roll over. From Summer 2015 to Fall 2016, mainland cattle prices declined over 50%, the largest decline in cattle prices in over 50 years. Volatility in cattle prices had returned. It was certainly true that Paniolo Cattle Company had achieved breakeven in 2015 only after nearly 18 months of entering the local market with a branded product, but whether it would produce the "natural hedge" against the possible decline in returns anticipated in the mainland operations was yet to materialize. Kuyper was also worried that potential losses on the mainland from the precipitous decline in mainland cattle prices could actually swamp any margins derived from the operations and successful launch of Paniolo Cattle Company.

Decisions for a CEO

The feedback Van Tassell and Kuyper received from the store managers, chefs and consumers who were purchasing and eating Paniolo Cattle Company's beef was overwhelmingly positive. In addition, the Paniolo Cattle Company program achieved profitability in Q3 of 2015, less than a year and a half after establishing the program and hiring a marketing manager. That said, Kuyper had concerns about product consistency moving forward and the overall balance between the three cattle operations that Parker Ranch now supported—cow/calf, Paniolo Cattle Company, and the off-ranch Wilson Cattle joint venture on the mainland. The voice of young cowboy, Scott Spence echoed through Kuyper's head as Kuyper thought about the first meeting he had with the cowboys about Paniolo Cattle Company: "Have you ever eaten the leather of an old shoe?" Spence asked him. "It's the same as grass-fed beef." Kuyper hoped that Spence was alone in that perception of grass-fed beef, but he knew that grass-fed beef had a different flavor than commodity beef products. Kuyper didn't know how to best maintain the same flavor and beef quality moving forward as Paniolo Cattle Company continued to scale.

Related to his concerns about consumer preference, Kuyper also wondered about the growing segment of alternative meat products from companies like Beyond Meat⁶⁰ and how much competition soy and plant based proteins posed to Paniolo Cattle Company's future growth and successful capture of consumers' discretionary dollar. The market for local, grass-fed beef had already been established, but would this trend of reverse globalization and localization continue in their favor?

In addition, while Paniolo Cattle Company's brand wasn't outwardly associated with the Parker Ranch name, there was a growing understanding that the two organizations were one and

exchange demand, stimulate innovation, and make the community self-reliant in critical areas such as food, defense, and advanced technology.

<http://www.businessdictionary.com/definition/import-substitution.html>

⁶⁰ Beyond Meat is a Los Angeles-based producer of plant-based meat substitutes. Beyond Meat's products became available nationwide at Whole Foods Markets in 2013. Tom Foster (2013-11-18). "Can Artificial Meat Save the World". Popular Science

the same. Kuyper debated the timing of introducing the Parker Ranch brand and fully committing the Ranch name to this growing specialty product. Kuyper understood that the efforts to truly relaunch the Parker Ranch brand needed to be intentional and coordinated and wondered what the best strategy was to complete that successfully. The Paniolo Cattle Company venture grew out of concerns about volatility and risk and capturing a newly segmented market emerging out of the local food movement, but how would Kuyper and his team manage this new reputation risk moving forward? Related, Kuyper wondered if the Paniolo Cattle Company venture was a way to hedge the risk arising from the mainland operation, but if eventually shifting too much of the production balance to the Paniolo Cattle Company side of the business would just result in a new kind of risk from owning more of the supply chain?

More than all of those other concerns, however, was Kuyper's concerns around the economic development of his community. When thinking about the two business strategies Kuyper said, "This was both a diversification strategy and just one-way Parker Ranch was working to ensure Waimea would continue to be a sustainable and thriving community for the next generation to inherit."⁶¹ Local economic development was a huge focus of a sustainable and thriving community and therefore, focusing on GDP growth and work force development was also critical for on-going success.

Now four years later, was Parker Ranch at a point at which it had achieved their board's mandate and become a sustainable cattle operation? Was the price premium in Hawaii that was central to the program's success going to erode as other local ranches begin to shift to a similar diversified business strategy? Kuyper knew he needed to answer all of those questions at the next board meeting just a few weeks away to both put his critics at bay and reinforce what a long-time horse trainer and legendary cowboy said to Kuyper at their recent Labor Day Rodeo: "The Ranch is back."

⁶¹ Interview with Dutch Kuyper, Parker Ranch. September 2016.

Case Questions:

1. What are the key considerations in the migration from a commodity product to a branded, specialty product? How does that diversification support overall business sustainability?
2. Now that Parker Ranch owns more of the value chain, how does the complexity of its operations compare between the historic business strategy and the new local, grass-fed model? How should Parker Ranch think about marginal cost and marginal revenue for this new, more complex, and diversified business strategy?
3. What should the growth strategy be for Parker Ranch and how does that impact the organization's overall investment, branding, and marketing strategies and organizational structure?
4. Given the introduction of this new specialty product, how should the Ranch strategically manage and relaunch their brand?
5. As grass-fed beef continues to grow in popularity, should Parker Ranch consider shipping their grass-fed beef to the mainland for sale? Given the demand for beef in Hawaii, how should Parker Ranch think about growing Paniolo Cattle Company while remaining profitable, especially considering there could be competition from non-Hawaii based, larger scale/lower cost grass-fed beef producers?
6. Should Parker Ranch be concerned about the grass-fed beef business cannibalizing their mainland operation? If so, when?

Exhibits

Exhibit 1: Five Year History of Parker Ranch Livestock Operating Margin (2006-2010)

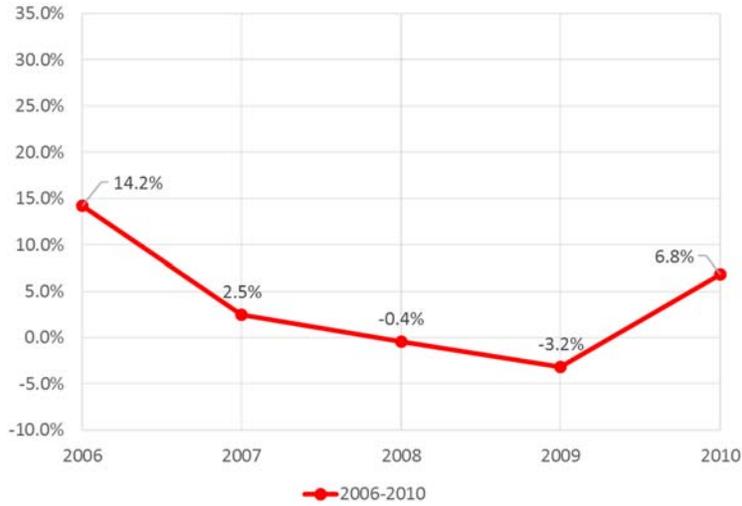


Exhibit 2: Organizational Structure for Parker Ranch

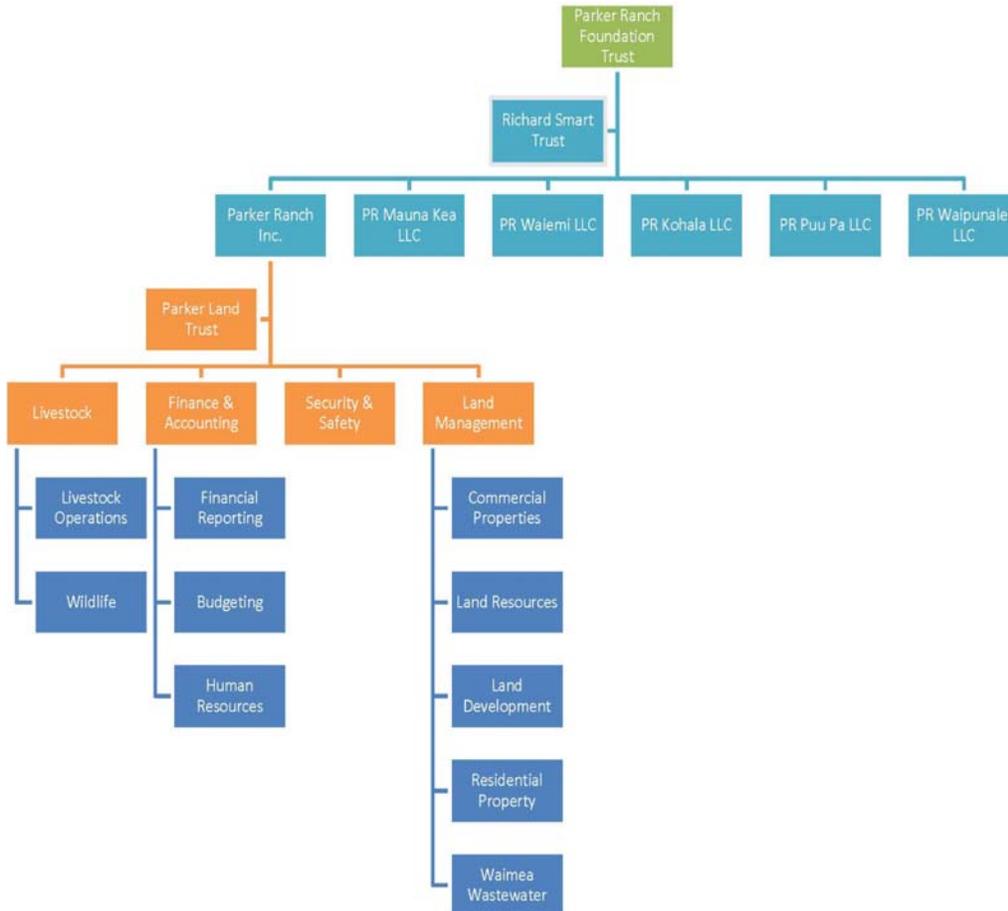
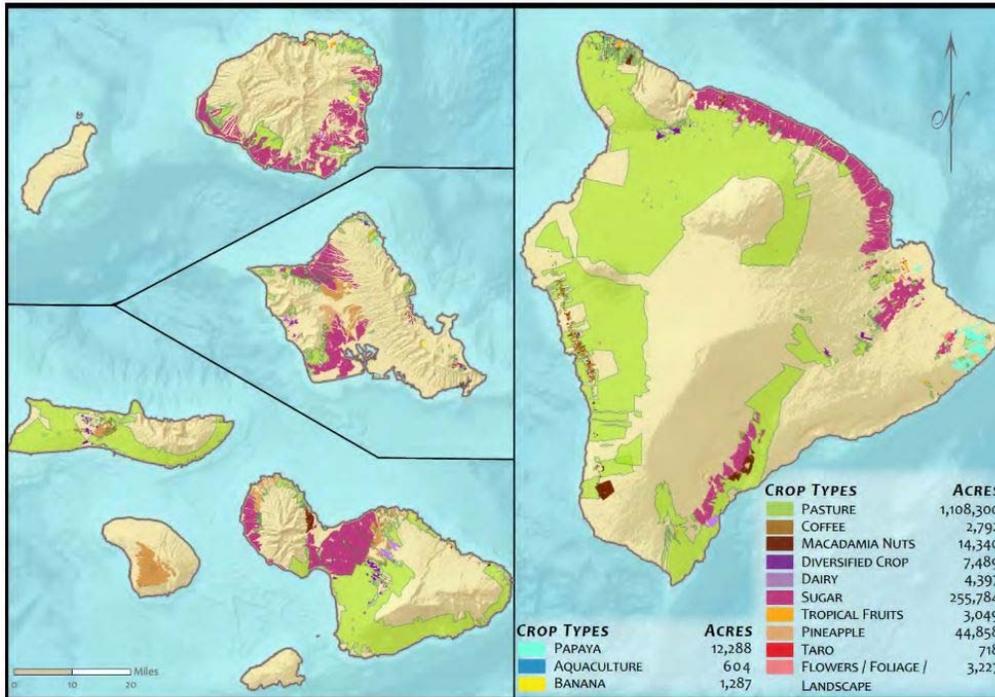
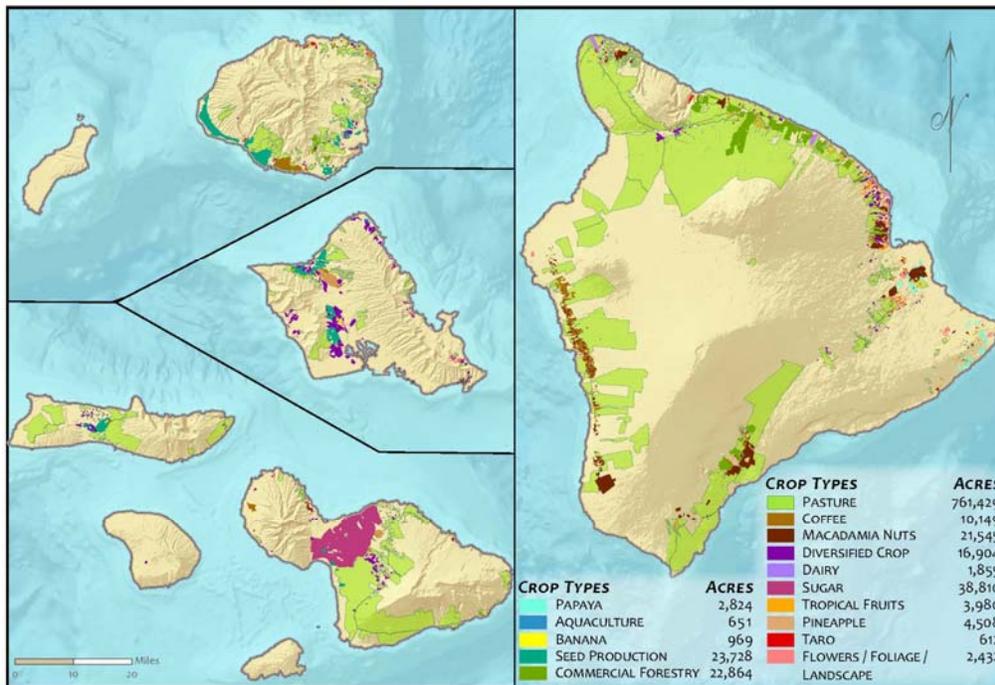


Exhibit 3: University of Hawaii's Statewide Agriculture Land Use Baseline⁶²



HAWAII'S AGRICULTURAL LAND UTILIZATION (1980)
SOURCE: DEPARTMENT OF AGRICULTURE AND STATE OFFICE OF PLANNING



HAWAII AGRICULTURAL LAND UTILIZATION (2015)



⁶² University of Hawaii, Department of Agriculture. Accessed from: <http://hdoa.hawaii.gov/salub/>

Exhibit 4: Change in Cattle Inventory in Hawaii from 1993-2012⁶³

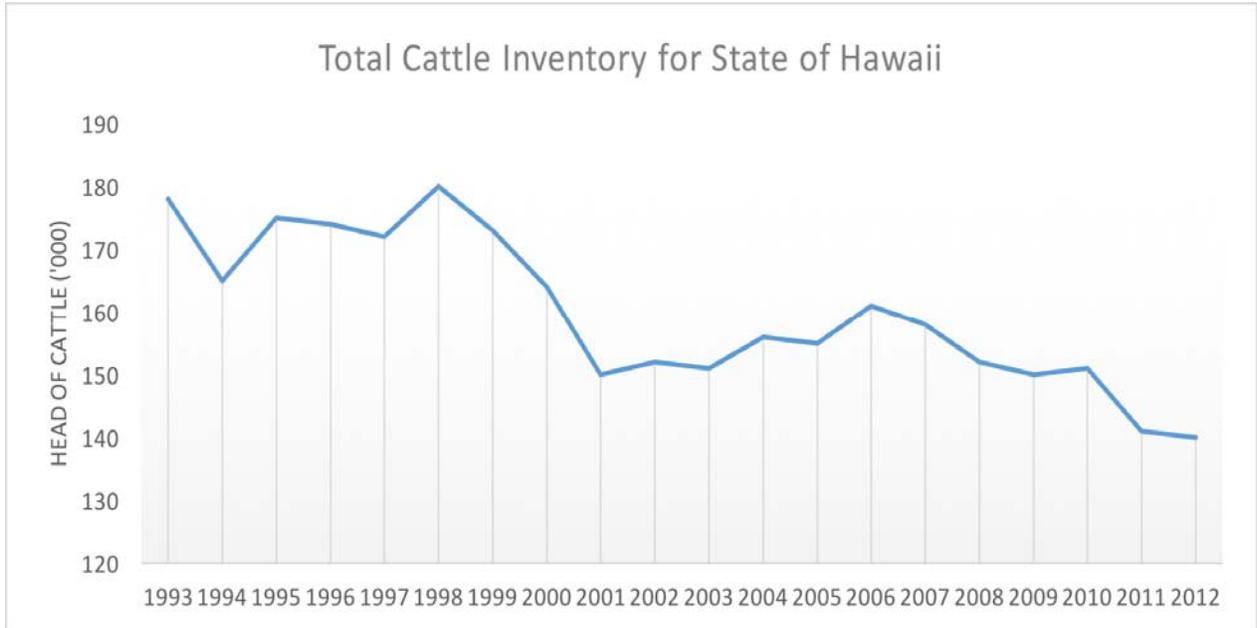
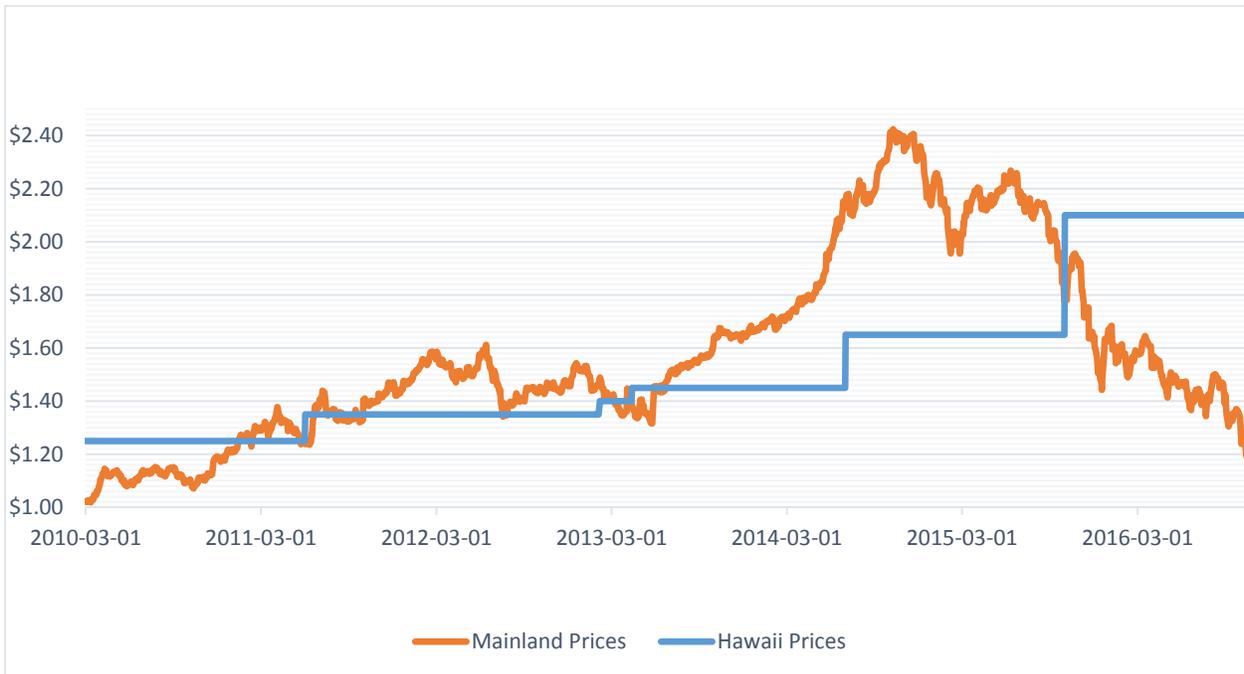
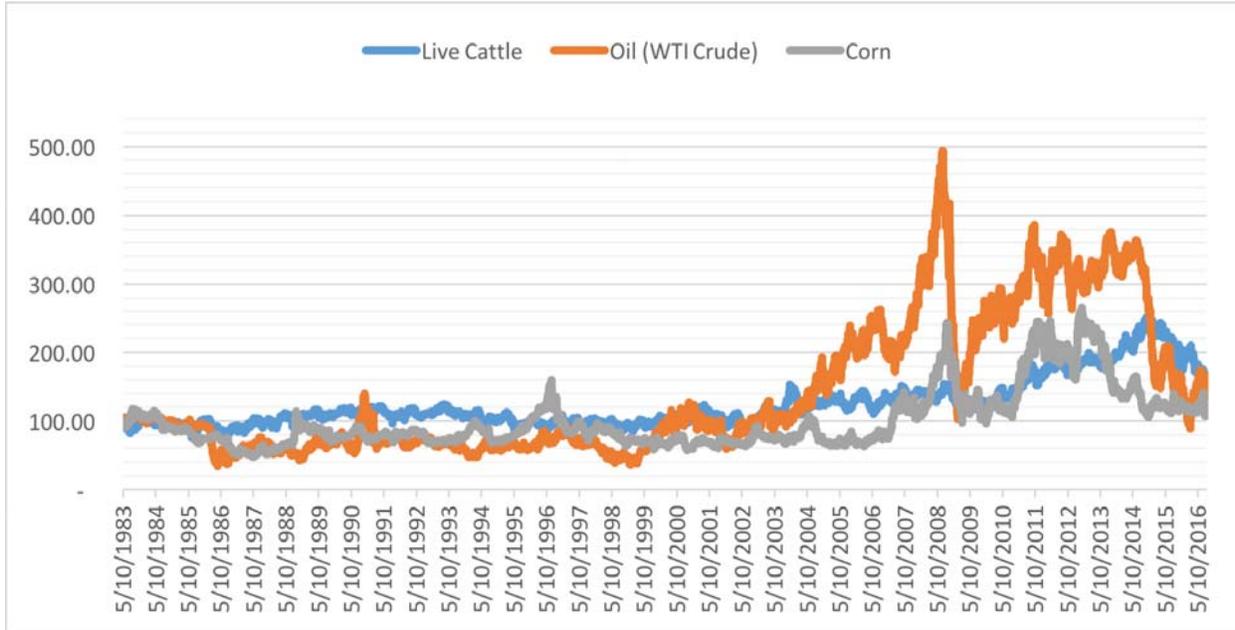


Exhibit 5: Mainland versus Hawaii Cattle Price per Pound (Live Cattle—2010-2016)

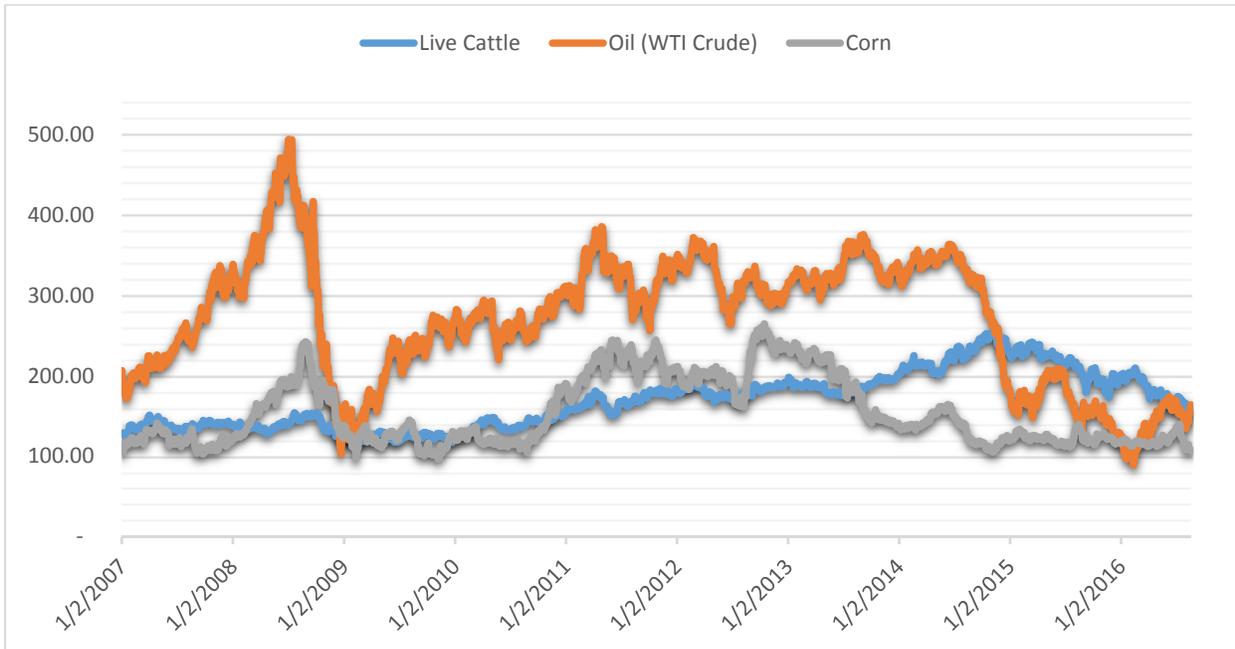


⁶³ USDA's National Agricultural Statistics Service, Accessed from: https://www.nass.usda.gov/Statistics_by_State/Hawaii/Publications/Archive/index.php#cattle

Exhibit 6: Indexed Commodity Prices of Live Cattle, Corn, and Oil (1983-2016)⁶⁴



Indexed Commodity Prices of Live Cattle, Corn, and Oil (2007-2016)⁶⁵



⁶⁴ Quandl Databases. Accessed from: https://www.quandl.com/browse?idx=database-browser_commodity-data_agriculture_continuous-futures-contracts

⁶⁵ Quandl Databases. Accessed from: https://www.quandl.com/browse?idx=database-browser_commodity-data_agriculture_continuous-futures-contracts

Exhibit 7: Graphic depiction of the traditional beef supply chain and cattle production cycle⁶⁶

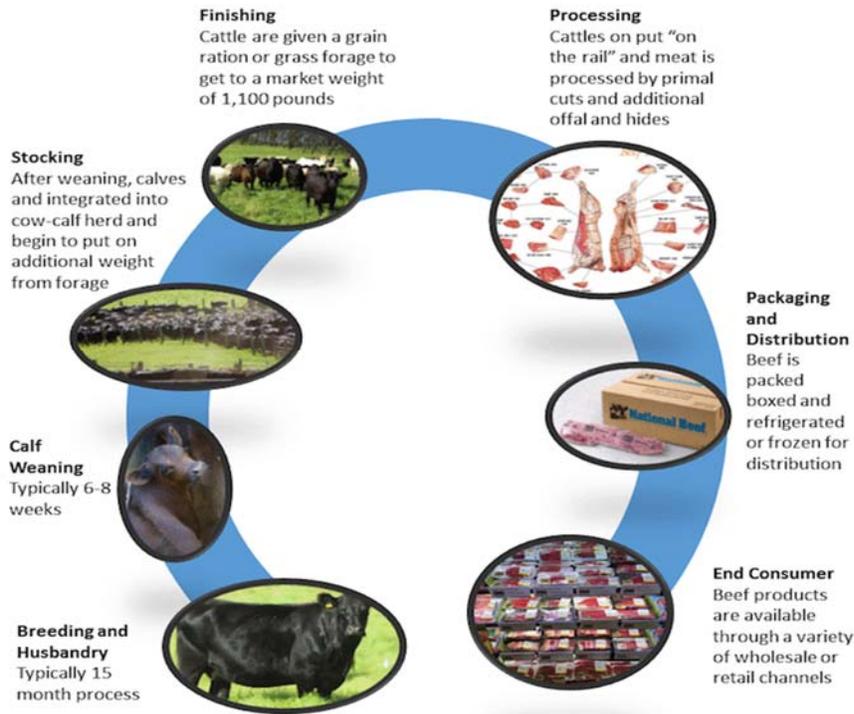
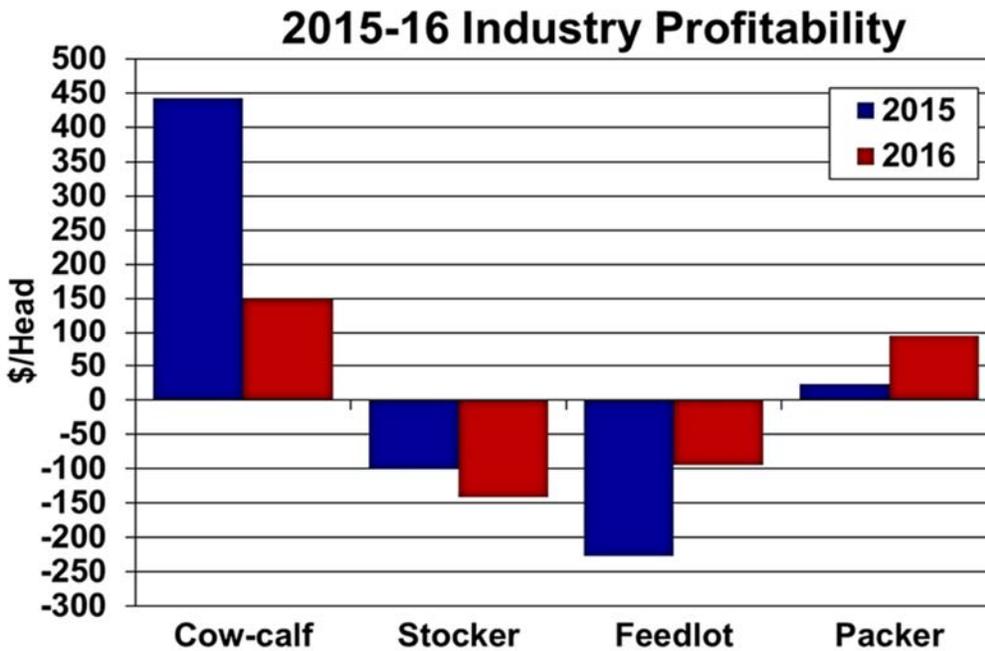


Exhibit 8: Industry Profitability by Segment of the Supply Chain



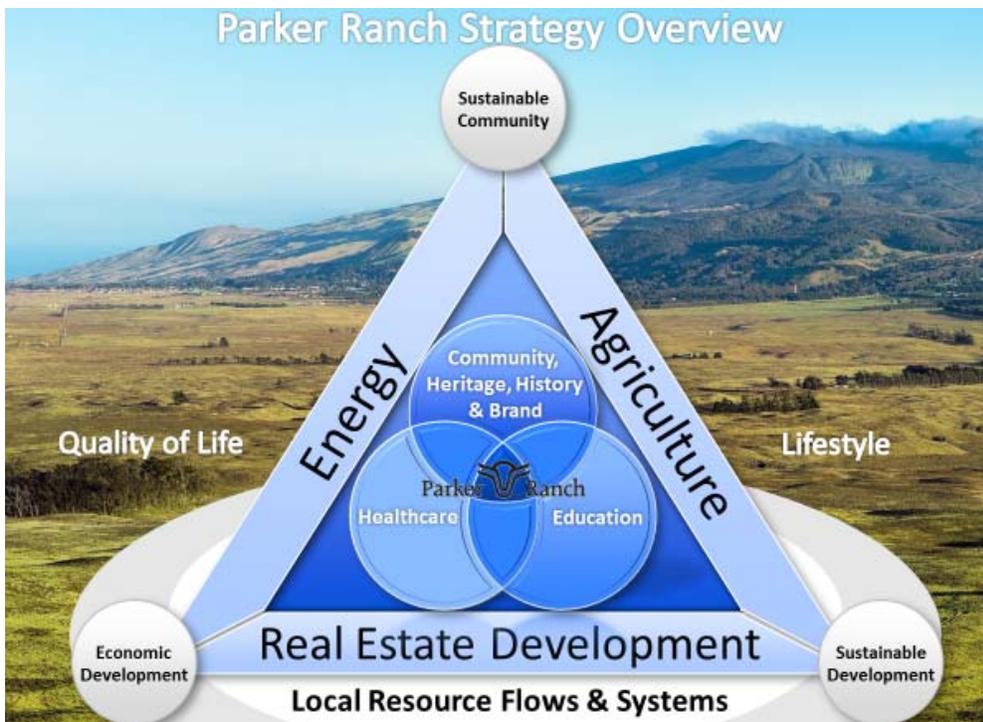
Source: CattleFax

⁶⁶ www.idahobeef.com/images/beef-primal-cuts.jpg; www.nationalbeef.com/products/NBBrands/publishingimages/pt-programoverview2.jpg

Exhibit 9: Cattle Pricing Methods and Attributes⁶⁷

Cattle Pricing Method			
	Live	Dressed	Grid
<i>Pricing level</i>	Pen level	Pen level	Animal level
<i>Paid for quality</i>	No	No	Yes
<i>Paid for yield</i>	No	No	Yes
<i>Paid for dressing %</i>	No	Yes	Yes
<i>Who pays trucking?</i>	Buyer	Seller	Seller

Exhibit 10: Components of Parker Ranch strategy

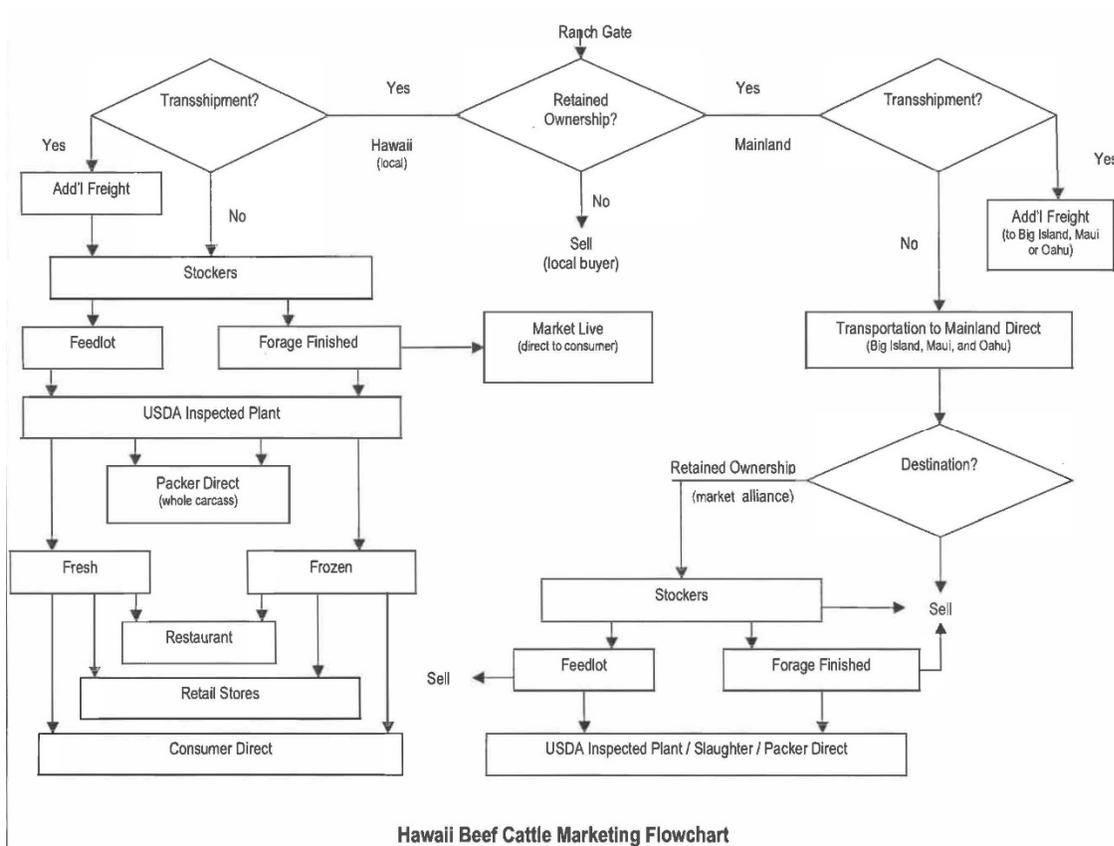


⁶⁷ AgriLIFE Extension, Texas A&M. *Grid Price of Fed Cattle*. Accessed from: <http://agecoext.tamu.edu/files/2013/10/rm1-11oh.ppt>

Exhibit 11: Shift in Business Strategy to Focus on Margins, Risk, and Volatility



Exhibit 12: Hawaii Beef Cattle Marketing Flowchart⁶⁸



⁶⁸ University of Hawaii at Manoa, Mealani Forage Field Day. 2006. *Hawaii Beef Cattle Marketing Flowchart*. Accessed from: <http://www2.ctahr.hawaii.edu/oc/freepubs/pdf/Mealani06.pdf>

Exhibit 13: 5 Step GAP Certification Process⁶⁹

STEP 5+	ANIMAL CENTERED; ENTIRE LIFE ON SAME FARM
STEP 5	ANIMAL CENTERED; NO PHYSICAL ALTERATIONS
STEP 4	PASTURE CENTERED
STEP 3	ENHANCED OUTDOOR ACCESS
STEP 2	ENRICHED ENVIRONMENT
STEP 1	NO CAGES, NO CRATES, NO CROWDING

Glossary of Terms⁷⁰

Cattle Cycle — The approximately 10-year period in which the number of US beef cattle is alternatively expanded and reduced over several consecutive years in response to perceived changes in profitability by producers. Generally, low prices occur when cattle numbers (or beef supplies) are high, precipitating several years of herd liquidation. As cattle numbers decline, prices gradually begin to rise, causing producers to begin adding cattle to their herds. The cycle is relatively long due to the long period of time it takes between the time a cow-calf operator decides to expand a cow herd to breed more beef cattle and the time those animals reach slaughter weight.

Conventional Agriculture — Generally used to contrast common or traditional agricultural practices featuring heavy reliance on chemical and energy inputs typical of large-scale, mechanized farms to alternative agriculture or sustainable agriculture practices. Mold-board plowing to cover stubble, routine pesticide spraying, and use of synthetic fertilizers are examples of conventional practices that contrast to alternative practices such as no-till, integrated pest management, and use of animal and green manures.

Cooperative — An enterprise or organization owned by and operated for the benefit of those using its services. In agriculture, such an organization is owned and used by farmers mainly to handle

⁶⁹ Global Animal Partnership, *The 5-Step Animal Welfare Rating Program*. Accessed from: <http://www.globalanimalpartnership.org/>

⁷⁰ *Agriculture: A Glossary of Terms, Programs, and Laws, 2005 Edition*, Congressional Research Service Report for Congress

the off-farm part of their businesses (i.e., buying farm supplies, marketing their products, furnishing electric and telephone service, and providing business services) at cost. Essential features are democratic control, limited return on capital, and operation at cost, with distribution of financial benefits to individuals in proportion to their use of the services made available by the cooperative (called patronage refunds). In 2002, there were 3,140 farmer cooperatives in the United States. As a variation from the traditional design, so-called “new generation cooperatives” are characterized by limited membership, require substantial investment, and include delivery contracts. Producers are increasingly using this model to create their own value-added business enterprises. The Rural Business- Cooperative Service (RBS) assists in forming new cooperative businesses and improving the operations of existing cooperatives through technical assistance, research, and information products. Cooperatives are afforded certain antitrust exemptions by the Capper- Volstead Act. Many farming-related cooperatives are members of the National Council of Farmer Cooperatives.

Cow-calf Operator — A ranch or farm where cows are raised and bred mainly to produce calves usually destined for the beef market. The cows produce a calf crop each year, and the operation keeps some heifer calves from each calf crop for breeding herd replacements. The rest of the calf crop is sold between the ages of 6 and 12 months along with old or nonproductive cows and bulls. Such calves often are sold to producers who raise them as feeder cattle.

Return on Assets — Return on assets (ROA) can be defined as net income divided by total assets.

Return on Invested Capital — Return on invested capital (ROIC) can be defined by its pure accounting definition as net operating profit after taxes divided by invested capital.

Sustainable Agriculture — A systematic approach to farming intended to reduce agricultural pollution, enhance natural resource and financial sustainability, and improve efficiency. Overall, alternative agriculture emphasizes management practices that take advantage of natural processes (such as nutrient cycles, nitrogen fixation, and pest-predator relationships), improve the match between cropping patterns and agronomic practices on the one hand and the productive potential and physical characteristics of the land on the other. Commercial fertilizer and pesticides are used selectively to ensure production efficiency and conservation of soil, water, energy, and biological resources. Examples of sustainable agricultural practices include use of crop rotation, animal and green manures, soil and water conserving tillage systems, such as no-till planting methods, integrated pest management, and use of genetically improved crops and animals. Sustainable farming is not considered a midpoint on a line between conventional and organic farming. Producers who want to label their commodities as organic must be certified as complying with the list of acceptable and non-acceptable inputs and practices under the National Organic Program (NOP). Genetically modified crops and livestock, and most commercial agricultural chemicals, are not permitted under the NOP.