Designing and Creating a Website:

“Low-Stress Handling Beef Cattle”

A Senior Project

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By

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Abstract

The purpose of this project was to create an informational website that was designed for cattle handlers, or interested individuals who want up-to-date information on cattle handling. The website provides information about stress in cattle, low-stress handling, and low-stress handling techniques. It includes many photographs and videos as a visual way of providing information. By creating this website, it is hoped that a simple means of information that is easy to understand is provided.
Acknowledgements

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# Table of Contents

Abstract ........................................................................................................... i
Acknowledgements .......................................................................................... ii
Table of Contents ............................................................................................ iii
List of Figures ................................................................................................... iv

Chapter One: Introduction ............................................................................. 1
Statement of the Problem .................................................................................. 1
Importance of the Project .................................................................................. 2
Purpose of the Project ....................................................................................... 2
Objectives of the Project ................................................................................... 2
Definition of Important Terms ......................................................................... 3
Summary ........................................................................................................... 3

Chapter Two: Review of Literature ............................................................... 4
Stress In Animals .............................................................................................. 4
Effects of Stress On Animals ............................................................................ 5
Low Stress Handling Techniques .................................................................... 7
Summary ........................................................................................................... 8

Chapter Three: Methodology ......................................................................... 9
Drafting ............................................................................................................ 9
Meeting With Experts ....................................................................................... 10
Additional Research ......................................................................................... 11
Developing the Website .................................................................................... 12
Continuous Revision Process ......................................................................... 12
Summary ........................................................................................................... 13

Chapter Four: Results and Discussion .......................................................... 14
Results ............................................................................................................. 14
Discussion ......................................................................................................... 14

Chapter Five: Summary, Recommendations, and Conclusions .................. 33
Summary .......................................................................................................... 33
Recommendations ............................................................................................ 33
Conclusion ........................................................................................................ 35

Reference List ................................................................................................ 36
List of Figures

Figure 1. Cattle Flight Zone and Point of Balance........................................7

Figure 2. First Screenshot of the Home Page..............................................15

Figure 3. Second Screenshot of the Home Page..........................................16

Figure 4. First Screenshot of the What Is Low Stress Handling Page.............17

Figure 5. Second Screenshot of the What Is Low Stress Handling Page...........18

Figure 6. Third Screenshot of the What Is Low Stress Handling Page.............19

Figure 7. Fourth Screenshot of the What Is Low Stress Handling Page...........20

Figure 8. Fifth Screenshot of the What Is Low Stress Handling Page............21

Figure 9. First Screenshot of the Why Should I Use This Method For My Cattle Page..........................................................22

Figure 10. Second Screenshot of the Why Should I Use This Method For My Cattle Page..........................................................23

Figure 11. Third Screenshot of the Why Should I Use This Method For My Cattle Page..........................................................24

Figure 12. Fourth Screenshot of the Why Should I Use This Method For My Cattle Page..........................................................25

Figure 13. First Screenshot of The Swanton Pacific Ranch Page......................26

Figure 14. Second Screenshot of The Swanton Pacific Ranch Page..................27

Figure 15. Third Screenshot of The Swanton Pacific Ranch Page....................28

Figure 16. First Screenshot of The About Page..............................................29

Figure 17. Second Screenshot of The About Page........................................30

Figure 18. Third Screenshot of The About Page..........................................31
Figure 19. First Screenshot of The Contacts Page.
Chapter One

Introduction

Ranchers for many years have been working on perfecting cattle management to get the highest quality and quantity product for the cheapest and most efficient means possible. Stress is a major contributing factor to lower performance rates in beef cattle. It is ideal to handle cattle using low-stress methods to reduce the amount of stress put on these animals. This is easier for the rancher, easier on the cattle, and helps improve overall cattle performance (Broom, 2000). It is difficult to find correct information on what low-stress handling is and how to use it properly. Being able to search online and find one website covering a large variety of aspects on the topic can help people expand their knowledge on low-stress handling, and how it can affect the business.

Statement of the Problem

There is no one correct way to properly handle cattle, which can make it challenging to decide what methods to use. The point is not to find the “correct” way, but to research and try different methods to see what works best. Though there are many books and websites that explain ways to manage cattle, there is a need for an up-to-date website that provides information about effective, efficient, and low-stress ways of handling cattle. Many books and websites that currently exist are confusing to readers, which is why a website that can provide pictures, easy to read diagrams, and simplistic language can better educate people on how to use low-stress handling while working with cattle.
**Importance of the Project**

The importance of this project is to illustrate the effectiveness of using low-stress handling on cattle. Having knowledge on how to practice low-stress handling and the affects it has on cattle performance will improve the cattle business.

**Purpose of the Project**

The purpose of this project is to create an easy to understand and interactive website to educate the importance of low-stress handling and methods of low-stress handling used with cattle.

**Objectives of the Project**

The objectives of this project are to create an up-to-date website to:

1. Provide information on the importance of low-stress handling of beef cattle
2. Provide methods of low-stress handling
3. Provide information on how stress can affect cattle performance
4. Provide information and examples of how low-stress handling can increase cattle performance
Definition of Important Terms

Cattle performance- The manner in which cattle react to feed, environment, and other aspects of herd management in regards to fulfilling the goal of having a successful beef cattle business.

Low-stress handling- managing cattle using methods that produce little stress in the cattle and the handler.

Summary

This project is a simplistic means of finding information on the importance of low-stress handling on cattle and a variety of methods of practicing low-stress handling. Though there are many books and information currently online about herd handling methods, there needs to be an updated, and easy to understand website for those who do not have much experience working with cattle. This website contains images, simple diagrams, definitions, and simple explanations of low-stress handling methods. It also contains the importance of reducing the amount of stress one puts on cattle and how it will affect cattle performance, which ultimately will affect the business. It is important for ranchers to handle their cattle in the simplest and most efficient means to aid in higher quality and yield. This website is a wonderful tool for people to gain this knowledge.
Chapter Two

Review of Literature

This literary review will discuss a multitude of aspects of low stress handling of cattle. This section will define stress, explain where stress comes from, and describe the causes of stress on animals. The effects of stress on animals will be broken down into two categories: performance and product. Lastly, low stress handling techniques will be identified in this section.

Stress in Animals

Stress can be seen when an animal is unable to cope with its environment (Dobson, 2000). “Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well-being” (Lazarus, 1). These demands or threats are seen commonly in a variety of places. Heat stress is a major contributor to the change in the welfare of animals. Long hauls go hand in hand with heat because typically trailers packed with loads of animals tend to increase not only temperatures, but also the relative humidity. This has negative effects such as a decrease in feed intake, panting, reluctance to rise, general dullness, etc. (Caulfield, 2013). “Many detrimental effects of handling stressors on animal performance and health are likely due to fear” (Grandin, 1). Most fear comes from everyday objects and activities such as new corrals, people, equipment, movement within pastures or graze land. The United States Department of Agriculture argues that stress within cattle and sheep herds will come from poor handling and management. This may include improper feeding and watering
of the animals, crowding, lack of veterinary attention, improper use of transport vehicles, poor or incorrect bedding, high or low temperatures, poor ventilation, and lack of cleanliness (United States Department of Agriculture). The lack of knowledge and education handlers have is the most common stressor on animals. Not understanding how animals think and move in a herd, their vision, how they are affected by noise, their point of balance, and their flight zone greatly increases the amount of stress animals undergo (Grandin, 1998). Animals also become stressed when there is change. Absence of training as well as inconsistency when moving herds of cattle, for example, can increase the amount of stress (Grandin, 1998). Many everyday, common things seen by animals cause stress.

**Effects Of Stress On Animals**

With all of the things that cause stress in animals, it is important to be aware of these stressors and strive to minimize them. Any level of stress can decrease the wellness of an animal (Grandin, 1998). As a result of stress, a change in both performance and product may occur. High performance is necessary for maximum, high quality yield of a product (United States Department of Agriculture).

In a research experiment conducted by the University of the Witwatersrand Medical School, samples of blood were taken from a group of unstressed cattle and a group of cattle undergoing handling stress, transport stress, and slaughter. The group of cattle undergoing stress had a significantly high level of tri-iodothyronine, cortisol, lipid, and lactate concentrations (Mitchell, 1988). From this experiment, it was concluded that there are two responses to stress: one associated with perceived environmental stress, and
one associated with neurogenic stress, such as transportation (Mitchell, 1988). A combination of stresses produce a mix of responses.

It is not the short-term stressors of an animal’s life that is the issue; it is the combination of all of the stressors that have an overall negative affect on an animal (Moberg, 2000). Stress causes physiological changes within animals that result in lower productivity. Improper use of restraint is shown to reduce conception rates, and stressful transportation causes a reduction in both immune and rumen function in cattle (Grandin, 1998). “Stress has a proven impact on animal performance: it can reduce milk and meat production, alter reproduction on the animals natural defenses” (Noirot, 1). It is not only the quality of a product that is at risk, but also the health of consumers. “A review highlighted a link between stress in farms animals and increased risks of carriage and shedding of foodborne pathogens such as E. Coli, Salmonella, and Campylobacter, which represents major public health and economic concerns for the industry” (Noirot, 2).

Another important issue to address is weight loss due to animals’ lack of interest in food. Stress affects hormonal pathways, which reduces appetite and feed intake (Noirot, 2013). Any type of stress can cause an animal to decrease feed intake. This decrease in feed intake can lead to nutrient deficiencies, a decrease in immunity, and a decrease in body weight (Grandin, 2007). Stress also creates problems in meat of animals. Stress can induce dark-cutters, which means the meat is darker and drier, and has a shorter shelf life (Grandin, 2007). All of these different stressors add up to create negative affects on animals.
**Low Stress Handling Techniques**

There are a variety of techniques that are used to reduce stress when managing animals. One study shows that cattle are calmer when in herds instead of individually. This study put an individual cow in front of a mirror and it was much calmer than when it was isolated. This helps prove that working with cattle in herds creates a calmer and less stressful environment for animals that naturally live in herds (Grandin, 2007). Human position should always be taken into consideration when handling animals. Bud Williams, an experienced North American cattle handler, argues that the rancher’s position is more important than facility design when it comes to moving and handling cattle (Grandin, 2007). Quiet, quick, but not too quick as to spook the animals, and simplistic movements help make handling animals low stress. When working with cattle, one must stay close, but not too far as to enter into the flight zone of the animal. The flight zone is the animal’s personal space. When a person enters the flight zone, the animal will move away (Gradin 1989). This flight zone area is can be seen in Figure 1 below.

Figure 1. Cattle Flight Zone and Point of Balance
Having grazing plans is also a major contributor to low stress handling of animals. This allows planning for as little movement as possible within the graze land, which means less handling in general (Gradin, 2007). There are a multitude of techniques that may be used to help reduce stress when handling animals.

**Summary**

It is important to have a strong foundation before creating a website about low-stress handling of beef cattle. There are many factors that go into handling animals and many handling factors that affect stress in cattle. This website should serve as a means for people to easily find updated information about low-stress handling on cattle. People who handle cattle, especially as a business, should have proper knowledge and should do research to get the best performing cattle, in a low stress environment, for the best product.
Chapter Three
Methodology

This senior project involves the design and creation of an informational website about low-stress handling of beef cattle. This website will take a lot of research online, through books, and out in the field. Throughout this process, it is important to remember the main goals of the website are as followed: an end product that is easy to understand, provides information from a wide range of sources, includes pictures and videos from the field to help make the website and information practical, interactive to allow viewers to contribute by asking questions and giving feedback. This project will provide the opportunity to continuously add information and connect with the viewers. The purpose of this chapter is to consider what will be involved in the creation the website which includes drafting, gathering information, creation of the website, and a continuous revision process.

Drafting

The first step in designing the website was to draft a layout of what the complete website will look like. This draft includes what type of information will appear on the website, as well as how to categorize the information so that it is presented in a neat and organized manner. This process helped with deciding what information will be included on the website so that preparation for gathering information can begin. There were six categories that were to be included on the website. These categories include a Home page, a “What Is Low Stress Handling” page, a “Why Should I Use This Method For My
Cattle” page, an “About” page, and a “Contact” page. Information was gathered with respect to these categories.

**Meeting With Experts**

The four experts that contributed to the creation of this website are Dr. Marc Horney, Mr. Gordon Claassen and his wife Susan Claassen, and Mr. Aaron Lazanoff. The goal of meeting with these four people was to ask them questions in order to gather information that would be added onto the website. The reason for choosing these four individuals is they all have extensive and diverse history and experience of working with beef cattle and handling them using low-stress techniques.

Dr. Marc Horney was involved by participating in a few meetings that were held in his Cal Poly office to discuss project ideas, as well as good contacts. Once the website was the final decision for the project, he participated in a recorded interview at the beef unit on Cal Poly’s campus. He was able to use the cattle at the beef unit to help with his explanations, which created videos to post on the website.

There was also a planned trip up to Swanton Pacific Ranch in Santa Cruz to meet with Gordon and Susan. There were many phone conversations before the trip took place. These conversations consisted of ideas for what should be included on the website, as well as what activities should be done the day of the trip up to the ranch. This trip allowed the website to contain practical and real footage from an active cattle ranch. It also provided a better understanding of how low-stress handling techniques are used on cattle ranches by seeing examples first hand.
A meeting with Mr. Aaron Lazanoff at Cal Poly’s Beef Cattle Evaluation Center was set up to record an interview in which he answered questions that were provided to him about low-stress handling and beef cattle. Lazanoff also provided handouts with information about cattle and handling management. Meeting with all four of these experts provided guidance to a successful project.

**Additional Research**

There were additional resources that were used to gather information that were both print and online. One printed resource used was the book, *Stockmanship: A Powerful Tool for Graze Lands Management*, by Steve Cote. Another print that was used was a handout Mr. Aaron Lazanoff provided, titled *Working Cattle*, by Bud Williams. The third print used is *Bud Williams Stockmanship >> Herding*, by Bud Williams. These prints were tools that provided relevant information about low-stress cattle handling. The online resources that were used in the production of this website are the Purdue Online Writing Lab, the APA formatting website, and Dr. Temple Grandin’s online article, *Is Acting Like a Predator Low Stress Cattle Handling?*. These Purdue Online Writing Lab and the APA formatting website was useful in the description of how to use APA format. Temple Grandin’s online article gives relevant information regarding handling and managing cattle. All of these additional sources added useful information that was used to add detail and further explanations on the website.
Developing the Website

After meeting with the experts and researching using print and online resources, the development of the website began. There were many online website templates that made it simple to create a website. The Website Builder was used because of it is user friendly, has a variety of templates to choose from, and is easily changed to fit the creator’s needs. Information, pictures, and videos that were gathered from research were organized onto the website according to the different categories. Each category became a separate page. This website was developed in a way that is simple for viewers to use. The vocabulary and wording was simplified so that it is easier to understand for viewers that do not have much experience with livestock.

A Contact page was created to allow the viewers to interact with the website creator. This gives viewers the opportunity to make suggestions, comments, and ask questions. In return, the creator can gain ideas and answer questions, while continuing to learn about the topic of low-stress handling of cattle.

Continuous Revision Process

Throughout the development of this website, there were many meetings held with experts on the topic of low-stress handling of cattle, advisors, and professors. These meetings would last anywhere from ten minutes to hours. However, this project will never completely be finished. This website was created in a way that the creator can constantly update it with new information, pictures, and videos.
Summary

In the process of creating this project, it is necessary to continuously ask questions, think of new ideas, and keep the audience in mind. Keeping the correct format constant throughout the entire project is essential. Making it so that this format works well with the audience is something that should always in process. Consulting faculty and other experts is ideal for keeping the website up-to-date, making sure the correct format is used, and making it the best it can be.
Chapter Four

Results and Discussion

The overall goal of this project was to develop an informational website. The full project, including pictures and videos, can be reviewed at lowstresshandlingbeefcattle.com. This website was officially published online on June 9, 2015.

Results

The result of this project is a functioning interactive website about low-stress handling of beef cattle. This website will be presented in this section through screenshots of each page that is included in the website.

Discussion

This project successfully presents all of the information it was intended to in a manner that was originally planned. Each category of the overall topic ended up in the finished product in an organized fashion. The finished product also allows the creator to go back and edit the website at any time. This was the intention because the information on this topic is constantly changing. A website that contains information that is constantly being researched and changed should also be changed to keep up with current research. The contact page allows this project to be interactive, which was another intention of this website. Overall, this project was successfully created.
Figure 2. First Screenshot of The Home Page

Figure 2 is a view of the top of the home page. This is the page viewers will be sent to when they click on the link to the website. At the top, there is a bar with the title of the website, “Low-Stress Handling”, as well as different pages viewers can click on to view. The image on this page was taken at Swanton Pacific Ranch of eleven of the cattle on the ranch. There is another box titled “Beef Cattle” that contains a quote stated by Aaron Lazanoff about low-stress handling of beef cattle.
Figure 3 is a view of the bottom of home page of the website. This section is titled “Interviews” and contains three videos. Beneath each video, the names of each person in each video are provided. Beneath each name is a paragraph about each person and their experience with cattle. This is included to the prove credibility of each person. The video on the far left is a recording of the interview with Mr. Aaron Lazanoff, which viewers have the option to click on to make the video play. In this video, Lazanoff is answering the question, “What are some examples of low-stress handling?” The video in the center is a recording of Mr. Gordon Claassen answering the question, “What is your view on the way cattle should be handled?”. The video on the far right is a recording of Dr. Marc Horney answering the question, “What does low-stress handling mean to you?”.
Figure 4. First Screenshot of The What Is Low Stress Handling Page

Figure 4 is a view of the top of the What Is Low Stress Handling Page. This picture was taken at Swanton Pacific Ranch of Mr. Gordon Claassen herding cattle in a pasture near the ocean. The title of the page is included on the picture to make it simple for viewers to know what information is provided on the page they are looking at.
Figure 5 is a view of text that contains information about what low-stress handling is. Low-stress handling is defined, and there are some examples of low-stress handling provided. On the top right corner of this section, there is a video that viewers can click on the watch. This is a video of Mr. Gordon Claassen answering the question, “What does low-stress handling mean to you?” Directly below the video is an image of the area around a cow that was taken and cited from a page written by Richard McConnell and Tina Williams. This image was added as a visual of the information provided on the page.
Figure 6. Third Screenshot of The What Is Low Stress Handling Page

Figure 6 is a view another view of the What Is Low Stress Handling Page. On the far right of this section, there is text provided about the image above. This text helps to explain the image and provide further information. The left of the screen contains a video of Mr. Aaron Lazanoff answering the question, “What is an animal’s flight-zone?” that viewers can click on to watch.
Steve Cote, author of *Stockmanship*, believes calmness is one of the most important factors of gaining control over your cattle. If there is a lack of calmness in an animal, you will have difficulty getting the animal to do anything, or they will do it incorrectly. If your cattle are not calm, it is important to work out the stress before doing anything else with them. An extremely important thing to remember is if you are not calm, the animals will not be calm. Your calmness ultimately ends up in the cattle. If you are learning how to drive a car, for example, how can you stay calm if your driving teacher is stressed while telling you what to do? It is much more relaxing if your teacher is calm, and it is much easier to focus and do what you are asked to do.

Notice how, in the video to the right, Dr. Horney remains calm throughout the entire time he is working with the cattle. As a result, she also remains relatively calm.

Dr. Temple Grandin is a well-known lady in the industry. She is a professor of Animal Science at Colorado State University. She is a designer of livestock handling facilities. She also developed an objective scoring system for assessing handling of cattle and pigs at meat plants. She believes that when a handler does simple things, such as move into the flight zone of an animal to make it move, all of these things are based on instinctual behavior patterns that the cattle use to get away from predators. Her explanation for this is the nature behind it. When a handler is outside of a cow’s flight zone, the cow will face and look at the handler to watch the “predator”. When the handler enters the cow’s flight zone, the cow will turn away and leave to stay safe from any potential danger. It is important to keep only enough pressure on cattle to make them walk at a slow pace, and prevent the herd from bunching. This will ensure as little stress as possible.

What causes fear in cattle? Bud Williams explains that there are many things that can cause cattle to become fearful. Fear and force are two things you want to prevent while handling cattle. Some examples of how fear and force can be imposed upon cattle are listed below.

Figure 7 is a view of a section of the What Is Low Stress Handling Page. This section contains more text about what low-stress handling is. The text on the bottom of the page is information taken and cited from Dr. Temple Grandin. The video on the right is a recording of Dr. Marc Horney using the beef cattle to answer the question, “What is the flight-zone of an animal?”. Viewers can click on the video to watch it.
Figure 8. Fifth Screenshot of The What Is Low Stress Handling Page

What causes fear in cattle? Bud Williams explains that there are many things that can cause cattle to become fearful. Fear and force are two things you want to prevent while handling cattle. Some examples of how fear and force can be imposed upon cattle are listed below.

1. Keeping a constant pressure on an animal without any release of pressure
2. Having to much pressure on that animal
3. Putting pressure at the wrong angle or at the wrong spot
4. Being too loud or making too much noise
5. Animals are not able to see what is pressuring them
6. Trying to turn an animal, whether in a pasture or corral, but not allowing enough room for the animal to make that turn

Ultimately, it is necessary to train, gain trust, and know your cattle. Allowing cattle to stay in their natural state and feel relaxed can allow you to accomplish what you want done with little stress. Finding ways to work with your cattle that sets them feel at ease may take a bit of work, but overall will be much better for you and them. Yes, it is important to think about efficiency in regards to time, especially if you are working with big cattle operations, but if you take a little extra time to practice low stress techniques the process will go a lot more smoothly. You will never have perfect control over cattle. Rather than pushing them along at a quick pace, getting in sync with them and moving them along at their pace is a much less stressful way to work with cattle. Pay attention to how the animals react to you - how they react will tell you a lot about what they are thinking. The goal is to have the animals do what you want them to do as quickly as possible, with creating as little stress as possible.

References


Figure 8 is a view of the bottom of the What Is Low Stress Handling page. This section provides more information about low-stress handling in text form. Below the information is a references section. This section includes the references of the information that was gathered and included on this page.
Figure 9 is a view of the top of the Why Should I Use This Method For My Cattle page. The background image was taken at Swanton Pacific Ranch of a herd of cattle that are being grown on the ranch. The title of the page is included to make it easy for viewers to know what information they will find on this page of the website.
Figure 10. Second screenshot of The Why Should I Use This Method For My Cattle Page

Using low-stress handling is beneficial to both the cattle and the handler. In the book Stockmanship, written by Steve Coles, there are many benefits to handling your cattle this way. Using low-stress handling techniques will allow you to drive your hands easily, while getting the animals to stay together, and keeping them where you want them. Pulling your cattle to try to get the job done faster will not make it easier on you. The more you pull your cattle, the more their frustration will increase and the less willing they will become. Another benefit of low stress handling is your cattle will be more ready to move through the difficult areas, such as creeks and bridges because they trust you and are more willing. There is no need to use hot shots, fancyervals, and other expensive items. You can achieve the same thing without spending a ton of money.

The biggest benefit of low-stress handling is cattle are overall less stressed. Stress can cause illness, loss of appetite, and weight loss. Illness in your herd can result in a loss of cattle, or the large expense of healing the animals. Loss of appetite can also contribute to illness and injury because the animals are not as strong. Think about what stress does to the human body...it has the same effect on cattle.

Figure 10 is a view of some of the information that is provided about why this method should be used on cattle. The reasons are typed in bold to make it simple for the viewers to find the answer to why this method is beneficial. The image on the right is of a few cattle at Cal Poly’s beef unit.
Figure 11 is a view of a video that viewers can click on to watch. This video was taken at Swanton Pacific Ranch of a herd of cattle that graze on the ranch’s land. The video was taken from the inside of a mule with Mr. Gordon Claassen as the narrator. The mule was used to herd the cattle from pasture to pasture.
Figure 12. Fourth screenshot Of The Why Should I Use This Method For My Cattle Page

The video to the left was recorded at Swanton Pacific Ranch. These cattle have been trained by Gordon Claassen to respond to a whistle. It was lucky enough to participate when Gordon moved the cattle from one pasture to another. After I blew a loud whistle a few times, the cattle followed the sound. It was as simple as that. While moving these cattle, it only took a few moves for these cattle to pick up on following the sound of the whistle. Although the cattle are excited about the whistle, this method is still low-stress because there is no chasing, pushing, or pressure involved.

Some of the cattle were spooked at the fence and were having a difficult time moving to the next pasture. Gordon encourages them to move through the fence by talking to them. Because the cattle trust him it calms them down to hear his voice, and they are more willing to go through the fence. This low-stress handling technique that is used to get the cattle to the next pasture makes it simple for Gordon and the cattle.

References

Figure 12 is a view of the bottom of the Why Should I Use This Method For My Cattle page. In this view there is a video on the left hand side that viewers may click on to watch. This video was recorded at Swanton Pacific Ranch of a herd of cattle that are being grown at the ranch. This video shows low-stress handling in action. To the right of the video, there is additional information provided about the video. Below the video and additional information there is a references section. This references section provides information about the source that some of the information that is on the page was taken from.
Figure 13. First Screenshot of The Swanton Pacific Ranch Page

Figure 13 is a view of the top of the Swanton Pacific Ranch page. The image in the background was taken of a few of the cattle that are being grown at the ranch. The title of the page is included to allow the viewers to easily see what the information on this page of the website is about. The text to the right of the title is information about Swanton Pacific Ranch and the stocker enterprise project at Cal Poly.
Figure 14 is a view of how the Swanton Pacific Ranch page is laid out. The subtitle of explains what the pictures and information are about. This page includes information about how cattle that were received by Swanton Pacific Ranch in 2014 were trained as soon as they were unloaded from the trucks onto the ranch. There is one picture provided for each step in the sequence. Directly beneath each picture there is a subtitle describing what the picture is of. Beneath the subtitle, information about the picture and how the cattle were trained is provided.
Figure 15 is a view of the bottom of the Swanton Pacific Ranch page. This map shows the location of Swanton Pacific Ranch. By clicking on this map, viewers can zoom in or out to get a better idea of where the ranch is located.
Figure 16. First Screenshot of The About Page

Figure 16 is a view of the top of the About page. The background picture was taken at Swanton Pacific Ranch of a handler trying to get the herd of cattle to slow down. The title “About” is at the top of the page to allow the viewers of the website to easily figure out what information is provided on this page.
Figure 17. Second Screenshot Of The About Page

About Me

My name is Lauren Rothstein and I am a fourth-year at California Polytechnic State University, San Luis Obispo. I am working toward my Bachelor of Science Degree in Agricultural Science, with a minor in Equine Science and a concentration in Animal Science. I grew up around horses, but was not involved with agriculture outside of that. I really started to get involved when I first got to Cal Poly. I did not truly understand what agriculture was all about, but decided by the time I graduated, I wanted to know. I got involved with many agriculture clubs, enterprise projects (liming, organic vegetable farm, dairy, stocker cattle) and FFA State finals for three years. I worked at the Cal Poly dairy as well as out in the field for the Strawberry Research Center. After four years of trying to get myself involved as I could be so that I could figure out what agriculture is all about, I grew a passion for it. Pursing a degree in agriculture is one of the best decisions I could have ever made.

As a student at Cal Poly, I am lucky enough to have the opportunity to create a senior project as a requirement for graduation. When I first began thinking about what I wanted to do for my project, I felt lost. I wanted to do something to promote agriculture, but I am certainly no expert on the topic. After speaking with advisors, professors, and friends, I finally decided on the perfect project for me.

I was a part of the Swanton Pacific Ranch Steerier Enterprise Project at Cal Poly, but unfortunately only had the opportunity to travel up to the ranch once. The one time I went I loved it and learned so much but I wanted to learn more. I remembered Gordon blossom mentioning something called low-stress handling. After remembering that, I had my heart set on using low-stress handling of beef cattle as my project topic, but I did not know much about it. I decided I would create a website because by doing this, I could learn a lot about low-stress handling, which was my goal.

Figure 17 is a view of the first section of the About page. This section contains information about the creator of the website. Some of this information includes the creators education, background in agriculture, and how this topic and website was chosen as the senior project. A picture of the creator is included in this section on the left-hand side.
Figure 18. Third Screenshot Of The About Page

About The Website

My main goal for this project, besides expanding my knowledge of low-stress handling, was to create a very practical website. During my research for information, I came across many videos that looked almost too perfect to come from realistic ranches. I wanted to create a website that allows my viewers to see what it is actually like on a ranch and how real cattle handlers actually do things on the ranch. Thanks to Gordon Claassen and his wife Susan Claassen, DR. Marc Horrey, and Mr. Aaron Lazotte, I was able to gather information and learn a lot about low-stress handling, while creating a website with information that I received from real handlers.

It was very important to me that I went to Swenson Pacific Ranch so that I could collect information, pictures, and videos that I knew were genuine. Being at the ranch and having the opportunity to help Gordon move cattle allowed me to really get a feel for what it is like to use low-stress handling techniques on cattle. I would love for my viewers to have the chance that I had at the ranch and experience the real deal, but I know this is obviously not possible. Because of this, I wanted my website to resemble the real thing as much as I could make it. I included a lot of videos because I think allowing viewers to watch videos of ranchers actually working with cattle will help them to gain a better understanding of the information. I have a contact page which allows my viewers to contact me with questions, comments, and suggestions because I want this project to be interactive. This allows me to get feedback, as well as add to my website information that people want to learn about. I had a wonderful time creating this website and I am looking forward to adding to it as I gather more information.

Figure 18 is a view of the second section of the About Page. This section includes information about the purpose of this website and why it was created. There are also reasons for specific sections of the website.
Figure 19 is a view of the Contact page. This page includes a background photo that was taken Mr. Gordon Claassen herding some of the cattle that are being grown at Swanton Pacific Ranch along the ocean. This page includes an email address at which viewers can send comments, suggestions, and questions. These emails that are sent will help with updates to the website.
Chapter Five

Summary, Recommendation, and Conclusions

Summary

The creation of the informational website will educate viewers on the importance of low-stress handling of beef cattle, as well as methods and practices. The website will encourage handlers to use these methods of low-stress handling to increase cattle performance and an overall improvement of the cattle business. The website allows viewers to get a general idea of what low-stress handling is and how it works. The website should be frequently updated to ensure the most relevant information regarding the cattle industry.

Recommendations

The following recommendations should be considered before revisions of the website:

1. Gather information from a variety of reliable sources

   - The success of the creation of the website would not have been possible without a variety of sources which information was gathered. Gathering research from many reliable books, websites, papers, and pamphlets allowed for a variety of up-to-date, relevant, and useful information. Working in the field, with ranchers and handlers is also a way to add an assortment of information to the website because getting hands-on allows for observing the realities of working with cattle.

2. Meet with the senior project advisor frequently
This recommendation will help you to keep on track, so that you do not fall behind. Falling behind negatively affects the overall quality of the website due to a decrease in the amount of time allowed for completion. Meeting with the advisor regularly also allows for you to receive assistance in formatting and content of the website to meet the expectations of viewers and the department.

3. Advertise and promote the website to encourage more viewers and responses
   - This website would be more successful with the addition of advertisement through, for example, social media. Since the website is new and not many people know about it, advertising and getting the website name around to people would allow for the website to have more viewers and as a result more feedback. This is crucial for upkeep of the website, and guaranteeing the information on the website is what people want to know about.
Conclusion

Completing the design and creation of the website was a success because it met the objectives that were established at the beginning of the project. The variety of information, videos, and pictures prove the importance and success of low-stress handling of beef cattle, as well as allows viewers to understand different methods and practices of handling cattle in a low-stress manner. As stated in the objectives, the website is easy to use and understand, while still allowing viewers to get an ample amount of information. The one negative outcome of the creation of the website is the lack of responses via email from viewers. This problem can be eliminated by advertisement to encourage an increase in number of viewers, with the result of more feedback. This feedback from viewers would have made it possible to add more information to the website that the viewers want to learn about, and the overall quality of the website.
Reference List


