

Investigative Reporting and the Meat Industry

by

Amber Kiwan

Journalism Department

California Polytechnic State University

2011

TABLE OF CONTENTS

CHAPTER	PAGE
<p>One. Introduction.....3 (A history and background of investigative reporting. An overview of the project topic.)</p>	3
<p>Two. Research and Organization.....6 (Description of how research sources and interview subjects were chosen.)</p>	6
<p>Three. Interviewing.....9 (Methods of interviewing used, based on research and advice from experienced journalists.)</p>	9
<p>Four. Writing the Report.....13 (Methods of compiling data and research into a complete news report, based on research and advice from experienced journalists.)</p>	13
<p>Five. Lessons Learned.....18 (Discussion of the struggles and challenges of the reporter and the lessons learned at the end of the project.)</p>	18
<p>Six. Literature Review.....19 (Overview of how scholarly sources and trends discovered in the analysis of research.)</p>	19
<p>Seven. Bibliography.....20</p>	20

Chapter One: Introduction

While investigative journalism can be expensive and risky, investigative stories play an important role in achieving one of the goals of journalism: helping people and promoting transparency in companies and governments. Investigative journalism often exposes misconduct, aims to correct societal wrongs and raises awareness of important issues. For example, *Seattle Times* reporter Paul Henderson, who won a Pulitzer Prize for his investigative reporting, successfully proved the innocence of a convicted sexual offender through his journalistic investigation. Steve Titus, who was wrongly convicted of sexual assault, went free.¹

Upton Sinclair's 1906 novel *The Jungle*, an investigation into the meat packing industry, is one of the most famous examples of investigative journalism. The novel quickly became a best seller and it inspired real change. After Theodore Roosevelt read *The Jungle*, he took action. He ordered an investigation of the meat packing industry and shortly after, Sinclair's investigation was proven successful with the passing of the Pure Food and Drug Act (1906) and the Meat Inspection Act (1906).²

Successful investigations like these are the kind that set a precedent for future investigations. They provide insight into information gathering, efficient and non-efficient interview techniques, and generally how to create a story that results in positive societal change.

¹ Paul Henderson, "Looking back at Titus case," *The Seattle Times* 1981, 15 Feb. 2011 <<http://seattletimes.nwsourc.com/news/local/tituscas/lookingback.html>>.

² John Simkin, "Upton Sinclair: Biography," *Spartacus Educational*, 12 Feb. 2011 <<http://www.spartacus.schoolnet.co.uk/Jupton.htm>>.

Choosing a topic for an investigative piece means finding an issue that the public needs to know about. This often results in a story topic that is controversial, or one that reveals misconduct, also known as whistleblowing. Journalism with a focus on health, ethics and the environmental impact of meat production has grown in number and popularity in the past decade. The issue is sensitive and meat industry professionals are often passionate about their own methods.

On one extreme of the spectrum is the factory farm. What was once called a farm can no longer be called that because of the intensity and high volume that farms now raise and produce. The term that is now used is “concentrated animal feeding operations”, or CAFO’s, but it’s often replaced by “factory farm”. This side argues that commercial farm and feedlot operations are feeding the world. They proudly state that if their operations were smaller or slower, people would not be able to buy meat at such affordable prices. But the nature of the factory farms creates an environment where ethics and morality are forgotten and replaced with speed and a need to produce more. The products have become unnatural meats filled with added hormones and antibiotics, marked by the worse sort of suffering during the animals’ life, and further poisoning the world through devastating environmental impacts.

On the other end of the spectrum is the sustainable, organic, local farm. They argue that their products are healthy and natural. And although their farms are smaller and producing less meat, at least their product is wholesome and kinder to the environment. Some people on this end of the spectrum believe that if the entire country depended on local farming, prices would not sky-rocket as much as the other side says

they would. Hidden costs that come with factory farming are nonexistent in this type of farm.

My project analyzes the role agricultural education plays. California Polytechnic State University, San Luis Obispo's College of Agriculture, Food and Environmental Sciences offers a prestigious agricultural education program. With more than 3,500 students studying these industries, Cal Poly's program undoubtedly has the power to impact the industry. In order to produce an accurate and objective story, investigations like this must be approached carefully.

My investigative report compares real meat industry practices to Cal Poly's meat industry curriculum. Through research of legitimate materials representing all sides of the debate, carefully planned interviews characterized by preparation and confidence, and an organized final report that is written with the proper style and tone, the reporter can accurately portray their investigative story in an objective, yet inspiring way.

Chapter Two: Research and Organization

Many sources of information about the meat industry exist and are easily available to anyone doing research. Some of these sources are dependable, while others are either overly biased or compiled with unreliable scientific data as their basis. The vast amount of articles, journals, novels and industry publications that exist written on the topic of the meat industry needed to be sorted through. I needed research on factory farming, meat production, slaughter techniques, organic farming and agricultural sustainability. I knew that obtaining a variety of forms of information would benefit my research. In addition, data obtained from any of the sources could be used to enhance not only my article, but to improve interview questions.³

Two books provided in-depth analysis of issues similar to those that I would write about and compare with Cal Poly's curriculum. *Eating Animals* by Jonathon Safran Foer is part investigative journalism and part self-discovery, but Foer provided real industry information regarding meat production companies and CAFO's. The information he included in his book was valuable in that it could only be obtained through long-term research and investigation. Foer's book also included testimony and opinion from different people who are involved in the meat industry in vastly different ways. Examples of these people include a vegan who builds slaughterhouses, PETA activists, meat producers, and factory farm workers and ranchers who are both meat eaters and vegetarians. Because my project had a three-month time limit, precompiled, yet trustworthy data was necessary. *The Omnivore's Dilemma* by Michael Pollan is an

³ Jennifer LaFleur, "Using Data for Investigative Reporting," Expose: America's Investigative Reports, 10 Feb. 2011 <http://www.pbs.org/wnet/expose/expose_2007/etools/guide10.html>.

analysis of the meat industry that includes in-depth description of visits to different types of farms and scientific relevance of farming techniques. This book is also relevant because of Michael Pollan's involvement with some debates that took place on Cal Poly's campus. These debates are discussed in my final investigative report.

Additional research was chosen based on relevance to the topic. By relying heavily on university-sponsored databases, academic and professional publications make up the remaining informational sources.

Categorization and organization of the data had to be completed before any effective interviewing could take place. Reporter Rob Menchaca wrote about the process of conducting two investigative stories, one regarding issues within a local fire department, and the other regarding safety of local school buses. He said after conducting research and educating themselves about the fire fighting industry, they found there were many problems that needed to be addressed. Each problem was given its own title in its own category, so that it could then be effectively addressed and reported upon. Each category had its own sets of interviews, research and writing.⁴ The result of Menchaca's investigative series was accurate reporting that earned them respect within the firefighting community. Each category's report that was published earned the team new tips, new information, and better interviews for the following report. And although my investigation would not be as long-term as Menchaca's, I felt a similar strategy had to be employed for my investigation. With so many subtopics under the umbrella of the meat industry, I chose to focus on beef and poultry production and the role of agricultural education. Regarding beef and poultry, each of these livestock issues would be covered,

⁴ Ron Menchaca, "Employing Different Strategies with Two Projects," Nieman Reports 2008, 7 Feb. 2011.r

touching upon health and environmental issues that arise from different techniques of raising the animal. After much of my research was completed, I decided to add a sub-focus of education's role in the meat industry. I felt it was necessary because of the feedback I received through my interviews with faculty and students.

Chapter Three: Interviewing

Most of the information used in journalistic writing comes from the interviews. They provide quotes and information that gives readers insight into a certain person's thoughts and beliefs. The writer uses information from sources to build the story. I knew that I needed a wide range of sources, who then had to be approached with carefully worded questions. But to carry this out, some rules had to be followed.

In my quest for interview subjects, I started at the source of the topic: Cal Poly's College of Agriculture, Food and Environmental Sciences, which includes the animal science department, the agriculture department, and the Center for Sustainability. I chose sources who were beef experts, poultry experts and industry professionals, all of whom had different views of the meat industry. I also interviewed students, a Cal Poly graduate, and other various sources. Some of the students I interviewed were studying agriculture-related topics as their major. Other students I interviewed were actively involved in different sustainable clubs on campus. A credible news article has a variety of sources, to accurately portray all sides of an issue. With the time I had, I collected as many different viewpoints as possible.

After scheduling an interview with a source, preparation before each interview was crucial. Todd Schindler, a freelance journalist and television producer, created four broad interviewing rules for every investigative journalist.

The first rule is to know the source's background information. Better questions and dialogue will occur if the interviewer knows what experience the source has and their

relationship to the center focus of the story.⁵ Background knowledge will also show the source the professionalism of the interviewer. If the subject views the interviewer as professional, they will be more likely to trust you as a reporter and in turn, give you more information.

In this case, there are many scientific statistics and claims made by both sides of the agriculture industry which aim to prove factory farming as either sustainable or not sustainable, ethical or not ethical. Most of my interviews incorporated some of these claims, and it was necessary that I ask many of my sources their views or opinions on said information. The second rule is to have documentation prepared and accessible to back up any of these claims, whether they are incorporated into the interview questions, or have the possibility of being brought up in dialogue.⁶ Through my interviews, I found that this brought credibility and legitimacy to my questions and to my project as a whole. Professors seemed impressed when I knew things about their areas of expertise, even when the facts I brought up were not topics they were necessarily happy to talk about. Because I had that knowledge, it seemed like they felt more of an obligation to give me an honest and complete answer.

The third step is to know what questions you will ask and what order you will ask them in.⁷ While this step may seem obvious, it can truly impact the success of an interview. Having the questions written out is the only way to remember each topic and area you want to discuss. Even when I had my list, after scribbling notes all over the paper and listening to a source's continuous tangents, there were still questions I ended

⁵ Todd Schindler, "Conducting an Interview," EXPOSÉ: America's Investigative Reports, 26 Feb. 2011 <http://www.pbs.org/wnet/expose/expose_2007/etools/guide2.html>.

⁶ Todd Schindler, "Conducting an Interview."

⁷ Todd Schindler, "Conducting an Interview."

up forgetting. Eric Nalder, a Pulitzer Prize-winning journalist, teaches interviewing and investigative reporting workshops and has 35 years of reporting experience. On the topic of interviewing, he wrote, “It is okay to fail as long as you learn from your mistakes.” This phrase is so applicable to young journalists. With each interview I conducted, the questions got better, I gained confidence, and certain mistakes I made in the past (like forgetting to ask questions on my list) did not happen again.

Dana Priest won a Pulitzer Prize for her investigative coverage of harsh conditions for injured soldiers and marines at a medical center. She later gave a presentation, “Creating an Investigative Narrative,” about the process of her investigation. She said in the presentation that listening and patience were two of the most important things she has learned in her interviewing experience. “Listening is so fundamental to what we do. And if you have a heightened ability to do that, and a heightened sense of that importance, you can pick up so much,” Priest said. In addition to listening, she cited patience as especially important when talking to sources about sensitive and potentially controversial topics. Sources will need time to get comfortable before they start talking about the harder topics. For this reason, Priest, and many other journalists, suggest starting the interview with the easier questions before moving on to the controversial part.⁸ Patience and listening both aid the interviewer when they are able to endure potentially awkward silences. Subjects often feel awkward during silences and will continue talking to fill the void. What they say in this time can often be important, key information.⁹

⁸ "Creating an Investigative Narrative," Nieman Reports 62.2 (2008): 57-62, Web.

⁹ Todd Schindler, "Conducting an Interview."

In my case, I started by asking simple, factual questions. For example, when talking to a student, I asked them about their major and the classes they are taking. I would then ask the questions about sustainability, ethics, and their opinion on certain situations within the meat industry. Finally, I saved the questions seeking their opinions on Cal Poly teaching methods and balance of curriculum for last.

The final rule is simple: Never give the interview subject the questions ahead of time. Pre-rehearsed answers will not enhance your investigation in any way. The best answers are those that are true, honest, and given in real-time.

Interviews, all done following those rules, should be conducted in rounds. The first round of interviews should be with a variety of supporting sources. The next round should be sources that are considered more important and relevant to the story. The final interviews you do should be the main targets of the investigation. When you do interviews in this way, you will already have obtained almost all of the information about the topic by the time you get the most important interviews. Your knowledge that you spent months collecting will improve that last few interviews and therefore, improve your final investigative story.¹⁰ Once you have this level of information from a variety of sources, then you are ready to sort all of your data and research and compile a well-written, accurate, and compelling piece of journalistic writing.

¹⁰ William Gaines, Investigative Reporting for Print and Broadcast (Chicago: Nelson-Hall, 1994) 13.

Chapter Four: Writing the Report

After months spent researching and interviewing for the investigative report, once the reporter has collected all of their required information, it is finally time to write the report. In his book *Watchdog Journalism*, Stephen J. Berry wrote that the reporter should be prepared to spend as much time writing as they did reporting. Berry even advised that reporters could start writing drafts during the analytical process. By requiring the reporter to think about all of the levels of information that they gathered at different stages of the process, this has the potential to help the reporter to understand what they know, what they do not know, and what they still need to find out.¹¹ In my case, I was not able to spend the same amount of time writing as I spent researching and interviewing, but I did try to finish the majority of data collection as soon as possible to allow myself adequate time to write.

Because of the nature of the meat industry, my interviews and information sources often presented contradicting views and even contradictory data. Different people stated different things as fact. For example, there is a plethora of research stating that grass-fed cattle are scientifically healthier, happier, stronger, and lead less stressful lives as compared to corn or grain-fed cattle, who are said to be sick from their feed, stressed, and overall unhappy. At the same time, some sources I talked to said both feeds were equally as healthful for cattle. In addition to this example, many sources have much of their lives invested in the side of the debate (factory farm vs. local farm, organic s. not organic, etc.) that they were discussing. Their passion and emotion came through in the

¹¹ Stephen J. Berry, *Watchdog Journalism: the Art of Investigative Reporting* (New York: Oxford UP, 2009) 202.

form of loaded words and obvious, though not always ill-intentioned, bias. This is a common occurrence in investigative journalism due to the nature of the reporting that occurs. As a reporter, I had to remain objective at all times and when it finally came time to analyze the data in order to create a well-written story, there were many occasions that I had to interpret two different versions of same story. “Objectivity is not a state of being, in which robotic, unbiased neutrality is achievable by anyone with blood flowing through their veins. Rather, it is a reporting approach and a way of trying to get to the bottom of things,” Berry wrote.¹² With this in mind, I knew that I could analyze data and figure out some sort of truth, based on further research of a statement, regardless of my own biases or beliefs. Before writing, I approached each topic with preliminary research (on top of research done before beginning the writing process) through a variety of different books, website, and articles, to ensure that I had the correct information. Furthermore, opinions are interesting and helpful in news writing, as long as they are the opinions of sources. Highly contrasting opinions can be presented in my story to illustrate the state of the industry, especially in the microcosm of the Cal Poly community.

After sorting through the notes, other steps to prepare for the writing process can begin. In his book *Investigative Reporting for Print and Broadcast*, William Gaines lists six steps to follow when producing an investigative story.

The first step is called “the thrust.” The reporter must pinpoint the focus of their story. This is comparable to the angle of a standard news story. While the discovery of this focus can happen before the investigation, during, or right before the writing begins, the reporter almost always needs to gather additional information directly after it is

¹² Stephen J Berry, Watchdog Journalism: the Art of Investigative Reporting (New York: Oxford UP, 2009) 139.

determined. This information will clarify the point of the story.¹³ My thrust is slightly broad in terms of a focus. The story will focus on how Cal Poly handles the important role it plays in impacting the meat industry. The thrust is conveyed in the anecdotal lead I start with. It tells the story of a debate that occurred on campus, between a sustainable agriculture activist and a corporate meat industry company. The way Cal Poly solved this problem led to questions of academic freedom and corporate influence in university classrooms. The ideas of debating sides of the meat industry, as well as the role education plays, were all illustrated in the lead.

“The sacrifice” is the next step. After the reporter chooses their focus, or their thrust, certain information collected will become irrelevant because it does not relate closely enough to the focus of the story. The reporter may be attached to this information; whether they are attached because they think it is interesting or because it took a lot of effort to obtain, either way, it must be sacrificed. If the information does not further the point of the story, including it will confuse readers and the writing will seem forced and unnecessary.¹⁴ I had to sacrifice a lot of information regarding sustainable and organic farming of produce. Fruit, vegetables, and grains are not relevant to my main point, which is meat. They are slightly related, but not enough to write extensively about, with quotes and entire paragraphs dedicated to the topic. I touch on it briefly towards the end of the story, but only where it fits.

The “Line of Ducks” is the third step. The reporter must line up all of the facts and main points that they have. Once all of the facts are in line, the reporter can see what

¹³ William Gaines, Investigative Reporting for Print and Broadcast (Chicago: Nelson-Hall, 1994) 89.

¹⁴ William Gaines, Investigative Reporting for Print and Broadcast (Chicago: Nelson-Hall, 1994) 89.

is still needed to write the story fluidly and efficiently. This step can be completed by creating an outline, like I did. This is the stage that a reporter should check their information for imbalance. In stories with controversy like mine, all sides of the controversy must be represented. But, since the purpose of investigative journalism is to communicate a certain point, which is backed up and proven through the information gathered, one side of the controversy would probably be represented more than the others.¹⁵

Two more steps stand between the writer and the lead. Before that important hook can be written, the reporter must decide on an appropriate format for their story, hence the name of the next step: “the format.” The reporter must decide if the story is worthy of being a straight news story, a news feature, or a vignette feature. The straight news story is written with traditional, formal news writing techniques and will look similar to all of the other stories published in the paper that day. This is for serious topics. A news feature format allows the story to be highlighted as a special, investigative story. The writer also has room for slight creativity with the option of beginning with an anecdotal lead. The writing will be heavy on narrative and allows for some well placed editorializing, which is never found in a straight news story. Vignette features are for smaller stories that are important, but still allow room for light-hearted, fun writing. These can sometimes be a stand-alone sidebar focusing on a specific incident or event.¹⁶ My investigative report will be written in the news feature format. The topic is slightly serious, but an anecdotal lead would work well in this case.

¹⁵ William Gaines, Investigative Reporting for Print and Broadcast (Chicago: Nelson-Hall, 1994) 90.

¹⁶ William Gaines, Investigative Reporting for Print and Broadcast (Chicago: Nelson-Hall, 1994) 91.

Finding the tone of the story is the final step before the writing can begin. Through word choice and sentence structure, the writer can create a formal or informal tone, serious or light-hearted, or somewhere in between. Also, using jargon is only appropriate for certain, specialized types of stories. Often the tone will come naturally, through the writer's knowledge of the message of the subject.¹⁷

Now, using the outline and the other tools in the steps about, the writer can finally being the process of putting all of their information together to create a coherent story. In Todd Schindler's *Guide to Investigative Journalism*, he urged writers to bring focus to characters in the story. "A story without characters is just a report," he wrote. "But a well-told tale involving a conflict and resolution, and featuring sympathetic individuals engaged in a struggle people can relate to, is something the public will remember for a while."

His knowledge helped me find better ways to express the information that I had. Through the characters in my story, I delivered information and opinions and also transitioned smoothly to the next topic. In addition, I decided that the most interesting conflict/resolution anecdote of my story would be the lead. Not only does it involved agricultural education, but it is an anecdote that perfectly illustrates the tension between opposing sides of the meat industry. This lead transitions well into the other subtopics within my story outline.

¹⁷ William Gaines, *Investigative Reporting for Print and Broadcast* (Chicago: Nelson-Hall, 1994) 92.

Chapter Five: Lessons Learned

After reading countless stories of lessons learned by other investigative journalists while simultaneously trying to figure out how to conduct my own investigative report, I am finally finished and at the point where I can reflect upon my own experience.

Time was my biggest obstacle. Ten weeks to research, interview, and produce an investigative report is simply not enough. This is something I did not entirely realize until I began the writing process (which admittedly did not start until around week 8). Looking back, I should have realized my time constraints and scaled down the magnitude of the project I originally intended to create. But on the bright side, I now know my limits as a journalist. I know what I can do within certain amounts of time and I have a much better knowledge of how to gauge and plan a project based on deadlines and available research.

The second biggest challenge was interviewing. A journalist can read as many books and tips about interviewing techniques, but actually doing it is, in my opinion, the only way to get better. I have actually done interviewing for quite a while now, but I have never handled topics like this one before. The things I had to ask people were controversial and often could be taken as insulting to the subjects' careers and livelihoods. There were actually a few times where I was too scared to ask a certain question, so I ended up skipping it. Looking back, I know that I could have asked these questions in a proper way without offending anyone. Over time, I know that I grew as a person and as an interviewer. Based on the type of information I was gathering from the beginning versus the end of the interviewing process, I know there was a great improvement in my own interview skills. And while this will help me in the future, it still was an added challenge to creating this report.

The final challenge was finding a writing style for the investigative report. I am accustomed to formal news writing, in the form of news stories and press releases. It was difficult for me to find a balance between formal writing and an investigative piece of my own. Towards the end, I realized that this was my story. It was my idea, my reporting and my own writing. It did not have to fit into the guidelines of any certain publication because frankly it was not necessarily going to be published in any certain publication. I had to consider all of the investigative reports I had read or skimmed in preparation for my own. They were all different. Some were formal five page reports and some were book-length investigations with author opinions and personal life anecdotes. I tried to give my story my own style.

Chapter Six: Literature Review

In the course of research, I found that investigative reporting is best learned through experience. I learned that the second best method is through the research of the investigative reporting experiences of others. This became clear through the many examples of journalists writing about their investigative reporting experiences in the hopes of spreading knowledge to future journalists. These firsthand accounts were the most helpful. And, even the guides and books about investigative reporting stressed the fact that the books were supplements that could not replace actual experience.

Bibliography

Berry, Stephen J. *Watchdog Journalism: the Art of Investigative Reporting*. New York: Oxford UP, 2009. Print.

"Creating an Investigative Narrative." *Nieman Reports* 62.2 (2008): 57-62. EBSCO Host. Web.

Gaines, William. *Investigative Reporting for Print and Broadcast*. Chicago: Nelson-Hall, 1994. Print.

Henderson, Paul. "Looking Back at Titus Case." *The Seattle Times*. Web. 15 Feb. 2011. <<http://seattletimes.nwsourc.com/news/local/tituscase/lookingback.html>>.

LaFleur, Jennifer. "Using Data For Investigative Reporting." *Expose: America's Investigative Reports*. PBS. Web. 10 Feb. 2011.

Menchaca, Rob. "Employing Different Strategies With Two Projects." *Nieman Reports* (Fall 2008): 21-24. Web. 7 Feb. 2011.

Schindler, Todd. "Conducting an Interview." *EXPOSÉ: America's Investigative Reports*. PBS: Public Broadcasting Service. Web. 26 Feb. 2011. <http://www.pbs.org/wne t/expose/expose_2007/etools/guide2.html>.

Schindler, Todd. "Packaging Your Story." *EXPOSÉ: America's Investigative Reports*. PBS: Public Broadcasting Service. Web. 28 Feb. 2011. <http://www.pbs.org/wne t/expose/expose_2007/etools/guide5.html>.

Simkin, John. "Upton Sinclair : Biography." *Spartacus Educational*. Web. 12 Feb. 2011. <<http://www.spartacus.schoolnet.co.uk/Jupton.htm>>.

Meat School

A look into agricultural education at Cal Poly.

By Amber Kiwan

It was one presentation about sustainable agriculture, one angry company representing industrial meat and one passionate speaker that sparked the controversy at California Polytechnic State University, San Luis Obispo (Cal Poly). This controversy quickly became a widespread debate that made headlines across the nation. Some media outlets questioned the academic freedom of public universities and others questioned the motives of the meat producer involved, Harris Ranch Farms, Inc.

Harris Ranch is a big industry feedlot and meat processor based in Selma, California. When best-selling author Michael Pollan, who is known for his views on sustainable agriculture, was invited to speak at Cal Poly in fall 2009, Harris Ranch immediately attacked the seemingly innocent presentation.

Harris Ranch chairman and Cal Poly alumnus David Wood threatened to pull \$500,000 worth of funding if Pollan's presentation was not reformatted to incorporate what he called "balance" to Pollan's otherwise "controversial and unsubstantiated statements."

Wood wrote in a letter to Cal Poly's then-president Warren Baker, "The view of elitists like Michael Pollan can no longer go unchallenged."

To many critics, the backlash of Harris Ranch was not only unsurprising, but also expected. According to The Los Angeles Times, Pollan has experienced similar resistance from farm industry officials regarding some of his previous campus appearances.

But Cal Poly's appeasement to their deep-pocketed donors, whom they were relying on to help fund the construction of a new on-campus meat processing plant, garnered most of the disappointment. The Los Angeles Times called Cal Poly's "disgraceful acquiescence" distressing.

It was distressing but it served its purpose. The \$500,000 was still donated, as originally planned.

The conflict that resulted from Pollan's presentation, which was obediently changed from an hour-long speech by Pollan alone to a panel featuring Pollan, a meat scientist, and an organic produce grower, revealed other issues and problems that had been building up in the department.

"(The controversy) came for reasons far beyond Michael Pollan," animal science professor Robert Rutherford said.

Rutherford said that Cal Poly officials told alumni, who were concerned about a lack of certain important features within the agriculture department (such as a livestock judging team), that they did not have enough money for such things. So when the department's next step was to pay money to host Pollan, the letters from alumni started to arrive.

Meanwhile, a class Rutherford taught at the time called Issues in Animal Agriculture, which he said specifically caused students to think about issues of sustainability, was causing concern amongst the same groups of alumni, specifically those who now worked in the meat industry.

“(That) was the class that Harris Ranch wanted to take me out of teaching,” Rutherford said.

Rutherford eventually gave up the class.

“They were concerned that our students were not getting a balanced presentation in their education,” Rutherford said. “Out of their 96 units (towards their major), I had three of those. The other 93 were pretty much whatever the industry said. That was still too much for them.”

The cancellation of the class, along with Rutherford’s well-know pro-sustainability views, put him right at the center of the controversy. Rutherford said he was interviewed by numerous media outlets, including the Chronicle of Higher Education.

“Everybody was worried about academic freedom and about outside influences dictating our curriculum,” Rutherford said.

It was an argument that could have gone on forever. Wood told *The New York Times* he supported academic freedom, but if students were not presented both sides of the story, that was what he considered to be “academic ignorance.”

On the other hand, Pollan told *The New York Times* that although he welcomes debates like the panel discussion he ended up participating in, he felt this was an effort to silence his point of view.

“The need for balancing my presentation strikes me as a stretch,” Pollan said.

California State Senator Leland Yee issued a statement shortly after the program change occurred.

“Our public institutions of higher learning are supposed to be free from corporate meddling. Instead, Cal Poly has enabled a culture of corruption and has said to the world that their curriculum can be bought. Corporate executives should not be calling the shots at our public universities,” Leland said.

Nevertheless, the debate over academic freedom and university corruption is secondary to the real debate, where all of the anger and passion regarding Pollan’s presentation stems from: the meat industry.

From the arguments that seem to have no solution to the way that the opposing sides have the ability to view the same issue through completely different eyes, the events that took place during this period created a microcosm of the agriculture industry right here on Cal Poly's campus.

And if Michael Pollan, along with a growing number of writers, journalists, scientists and concerned consumers want to see change, the university is where they should begin.

Agriculture education has the job of shaping the farmers of the future. So finding out what all the animal science and agriculture business students are learning may be an important step forward.

The Classroom

Walking through the Agricultural Sciences building at Cal Poly, it would not be uncommon to see students in lab coats doing tests on meats or boot-clad students covered in dirt after a long day working with cattle.

Cal Poly's motto is "learn by doing" and the animal science and agribusiness departments fully embrace that phrase.

In fact, for one course, called Meat Industry Study Tour, select students have the opportunity to tour commercial meat businesses. Students learn about the products being produced and the equipment being used.

Animal science professor and meat scientist Bob Delmore said students that go on the trip are those that are serious about working in the meat industry.

Delmore said students are prepared and educated about real meat production plants before they take the tours, so they usually know what to expect.

"They're typically only surprised to see that it's exactly as I described," Delmore said. "We are very open about what goes on and we are very honest in how we portray what occurs in the industry."

Delmore said the sheer size and volume of meat production plants is often the only thing that catches students off guard.

For the student that does not aspire to work in commercial meat production plants, other "learn by doing" opportunities for meat and animal sciences are available at Swanton Pacific Ranch, a 3200-acre property in Santa Cruz, California owned by Cal Poly.

Most of the cattle at Swanton Pacific Ranch are natural, grass-fed cattle.

“Part of why we have the natural, grass-fed beef is to give students an opportunity to see that and participate in that type of farming,” Swanton Pacific Ranch livestock manager Gordon Claassen said.

A small cow herd (of about 50 cows) produce calves at Swanton, which are then grazed on grass until they reach market weight.

“Our cows that we have here are sold as natural beef, and in that we mean there are no added hormones or antibiotics,” Claassen said.

When naturally grown cattle reach the appropriate weight, which according to Claassen takes about a year longer than grain-fed/hormone enhanced cattle, they are taken somewhere else to be slaughtered, then sold as all-natural Cal Poly beef.

Students can also choose to participate in the enterprise program, which gives students food production practice on campus and also relates their production to real monetary loss or gain.

Meat science enterprises include production of beef jerky, sausage, or beef fabrication.

Professor Delmore said that since the enterprises have no other source of funding, all of the money made from selling the products goes right back into the program itself.

Beef production is only one of the three types of livestock found at Cal Poly. There is also a swine unit and a poultry unit.

The poultry unit can accommodate more than 30,000 chickens total. Cal Poly raises laying hens (which produce eggs that are sold locally), replacement pullets (which are younger females that do not yet lay eggs) and frying chickens, which are more commonly known within the industry as broilers.

Cal Poly is a contract grower for Foster Farms; the group of broilers are raised on campus for educational value and then sent to for Foster Farms for “harvesting”, which is a euphemism in the meat industry used to mean slaughtering.

“Probably 95 percent of the chickens actually go back to Foster Farms alive,” animal science professor and poultry specialist Robert Spiller said. “A very small portion are used here for classes.”

Some professors see these classes and hands-on projects, combined with the others not mentioned here, as a suitable balance of curriculum for students that will prepare them for the future and cause them to think about all issues of agriculture.

“We are really striving to be able to demonstrate sustainability, especially in beef production,” animal science professor and senior beef specialist Michael Hall said. “We want to give our students a broad-spectrum education and let them find their niche.”

Hall, who is in charge of Cal Poly's beef cattle program, said sustainability is the main focus.

Professor Rutherford, on the other hand, sees things differently.

"At the very highest levels at Cal Poly, if there was a commitment to sustainability, it would be made eminently clear that it would be expected across the entire curriculum," Rutherford said. "Efforts to do that would not only be recognized, but rewarded. But that commitment isn't here."

Rutherford said that while there are great examples of green initiatives on campus such as fuel-efficient vehicles, it is still evident that the campus does not reflect sustainable thinking to a degree that will sustain for the future.

An example he cited was the building of parking lots that has taken place over healthy, useful soil.

"What will fuel prices be in 20 years? I've seen projections of \$20 per gallon. When gas is \$20 per gallon, do you think we will need more parking lots?" Rutherford said. "Why should we kill perfectly healthy, living communities with something that in 20 years is going to be totally obsolete? It doesn't make sense."

Rutherford said that healthy soil effects and is affected by all aspects of agriculture.

"That is the level of thinking that I think a university should be doing," Rutherford said.

Being the campus sheep specialist, he even incorporates soil health into his sheep classes, stressing that sheep can be used to improve soil, which would benefit the farmer as well as the animal.

Rutherford's holistic management class he teaches aims to make students think about exploring different ways to ensure that agriculture methods will be able to sustain for the future.

Because according to Rutherford and many other writers, researchers, farmers and scientists, commercial methods of agriculture and meat production will not be able to do that.

The Factory Farm

The farming model that is so often criticized by Michael Pollan and many others is the factory farm. According to FarmForward, 99 percent of animals raised and slaughtered in the United States spend the duration of their (short) lives in factory farm conditions.

Imagine the farms depicted in most dairy and meat advertising: Happy cows grazing on grass, a big red barn, chickens pecking at food on the ground and pigs happily frolicking in the mud. Now imagine the polar opposite.

“These places are so different from farms and ranches that a new term was needed to denote them: CAFO—Concentrated Animal Feeding Operation,” Pollan wrote in *The Omnivore’s Dilemma*.

CAFO is the term most often used in newspapers, but it technically only refers to the largest of factory farms, which can hold up to 750,000 animals.

Sheer size alone leads to many of the negative issues (overcrowding, illness from close quarters and abundance of waste in small areas, etc.) that are often written about and investigated.

But professor Michael Hall said that the big picture is feeding the world.

“Everyone is quick to blame factory farms,” Hall said. “But they are doing a wonderful job using science to produce food.”

Despite the amount of food this science has produced, the scientific methods often employed by factory farms have garnered much criticism. For example, feed created to grow animals faster does indeed produce more food, but at the expense of the animal’s health, the environment’s health, and even the health of the person consuming the meat.

Factory farm cattle, as well as Cal Poly cattle (other than the grass-fed herd at Swanton) are given grain-based feed, made from mostly corn and soybeans.

According to a report written by ScienceDaily, through research from more than 50 scholarly investigations, grain diets lead to ulcers, rapid bacterial growth (such as E.Coli) and overall stress to the cow, which is a ruminant naturally meant to eat grass.

Various other sources including Pollan’s *The Omnivore’s Dilemma* cite grain feed as the reason for constant sickness and lowered immune systems in cattle.

But Professor Delmore is one of many meat industry professionals that still believe both types of feed are equally as healthy and effective.

“One (feed) is not better and the other is not worse, it’s just that they are two different production systems,” Delmore said.

Also, Delmore is not the only one who interpreted the concept of “better” to mean a better end result of meat for food, rather than “better” in terms of the health of the animal.

“We raise grass-fed because some customers like that. We also produce grain-fed because customers like that,” Delmore said.

The wholesome and natural benefits of grass-fed cattle seem to be forgotten by those who work in the industry; the benefits they see all relate to marketability.

All of these factors lead to sick cows, which is why meat producers use more than 25 million pounds of antibiotics on their animals every year, according to CQ Researcher.

The antibiotics are often administered to the animals in their feed and are given to them on a regular basis as preventative treatments rather than limiting their use on ill cows. This leads many people to worry about public health in terms of antibiotic resistance.

Cal Poly animals are not given antibiotics unless they are sick. If one of the cows from the grass-fed herd at Swanton is given antibiotics for illness, they are no longer “natural” or “antibiotic-free” (as the grass-fed herd are packaged and marketed as), so they are often sent somewhere else to be sold.

In addition to being antibiotic-free, Cal Poly’s grass-fed herd is also free from added growth hormones. But another group of cattle raised at Swanton, which belongs to another rancher and are not sold as Cal Poly beef, are in fact “implanted”, or given growth hormones.

Poultry are a different story. Because Cal Poly has a contract, they receive birds and feed from Foster Farms and Cal Poly is responsible for raising the birds. Although Cal Poly students and staff have not administered antibiotics at the Poultry Unit in many years, the Foster Farms feed contains antibiotics.

Those antibiotics are a "Coccidiostat", which Professor Spiller said reduces the number of disease causing protozoa in the gut.

“Birds on the floor pick through each others feces thus spreading Coccidiosis which can cause ulcerations in the gut wall and high mortality,” Spiller said. “The coccidiostat simply reduces the number of harmful protozoa.”

The Foster Farms feed also contains Bacitracin MD, which Spiller said is an "enteric", meaning that it does not get absorbed into the bird's bloodstream and therefore there is no risk of finding it in the animal's.

And even though it is against the law to give poultry added hormones, Foster Farms is one of many poultry producers that actually does not want their customers to know that.

“I think our industry needs to come out and tell the public that we haven’t used hormones in over 40 years,” Spiller said, in reference to the United States law against added hormones in poultry production.

If the poultry industry did make it more widely known that growth hormones are illegal in their industry, it would take away from marketing techniques they use to make their product stand out. Foster Farms products have a medallion-type label on their packaging that proudly states that their product has “No added hormones or steroids. Guaranteed.”

“Their marketing people seem to think that there is some value in being able to say that,” Spiller said. “They aren’t lying to anyone in saying ‘We don’t use hormones.’ But nobody does.”

Spiller said the poultry industry, like all of the meat industry, is very sensitive to perception.

The meat industry is one with so many different attributes and labels for customers to consider. From “natural” to “organic” and “factory farm” to “pasture-raised”, all of these are vague statements that in some cases, do not really mean anything and in other cases, can mean a variety of things.

Even the word “sustainable” can mean different things to different people.

Cal Poly animal science alumnus Jeff Clarke graduated recently and now works as a feedlot manager for JBS Five Rivers Feeding, a cattle feedlot with locations in seven states, which have the capabilities of feeding more than 900,000 cattle at any given time.

“This is honestly the sustainability of the future,” Clarke said of his employer’s current practices, which are pretty standard for feedlots in America.

At Clarke’s location in Colorado, cattle are shipped to their feedlot and given a mixed ration, grain-based feed until they reach slaughter weight. They are then sent somewhere else to be slaughtered, packed and shipped.

“Grain-fed cattle produce 38 percent less methane gas and since 1955, we reduced the land use needed to grow our beef by over 4 million acres,” Clarke said.

He also cited contained lagoons of waste as a positive aspect of confining cattle in smaller areas, something many others see as clearly negative.

“It is all contained in one spot so it doesn’t get into the drinking water or pollute neighboring areas,” Clarke said. “We couldn’t produce the amount we produce here if we did it any other way.”

Clarke said his Cal Poly education thoroughly prepared him for his current job. Despite his love for his job and his firm belief that big industry feedlots are sustainable, Clarke said he still plans on having his own small, local farm with natural, grass-fed cattle.

“I don’t care if it’s the opposite of what I’m doing now,” Clarke said. “It’s a plan I have for later in life.”

The Local Farm

Clarke’s plan of having a natural, local farm is one that is becoming more popular, desirable and encouraged, much to the dismay of those in the commercial meat industry.

While he said his education at Cal Poly prepared him to be able to succeed in any type of farm atmosphere, the values conveyed throughout most of the faculty made sustainable practices seem to be beneficial primarily for their marketability.

Professor Rutherford, who is in some ways the go-to person in the animal science department for all things regarding sustainability, said an emphasis on local, natural farming is one of the most important things that can happen for the meat industry.

Rutherford said transactions between customers and local farmers creates a direct accountability on that farmer to produce a wholesome, healthful and delicious product because the customer is someone in their own community.

There were other benefits he cited as well.

“If you come back to local and you have some trust amongst people then we can do away with a lot of the regulation that is making food prices go up,” Rutherford said.

This is important because higher prices for local, “green” food is one of the main points that industry professionals use to explain away some of their practices.

Many meat industry professionals also say that small local farming cannot produce enough food to feed the world. But according to Rutherford, human-powered agriculture, when done the right way, can far out-produce any of the fossil fuel-guzzling practices that are widely used today.

The significance of this is staggering because when it comes to conserving fossil fuels, most people think of turning off lights and riding their bikes instead of driving. But they should also consider buying local meat from small farms.

According to *The New York Times*, United Nation’s Food and Agriculture Organization estimates that livestock production generates nearly a fifth of the world’s greenhouse gases — more than transportation.

Members of the commercial meat industry also point out that places with snowy winters would not be able to grow during those seasons and are therefore dependent upon outside sources of food production.

This relates back to an idea that Michael Pollan called the “vegan utopia.” People who choose not to eat animal products for animal rights reasons do so because they can. Pollan wrote that the idea of animal rights in general is “parochial” and “urban.” It leaves out many people who have no other choice than to eat meat.

“In New England, for example, the hilliness of the land and the rockiness of the soil has dictated an agriculture based on grass and animals since the time of the Puritans,” Pollan wrote. “The world is full of places where the best, if not the only, way to obtain food from the land is by grazing animals on it.”

This is the way many in the meat industry see it (or at least claim they do): They produce meat the way they do because they have to. They do it in such intensely large operations because they have to feed the world. And they condone shipping agriculture products rather than selling locally, because they have to.

In reality, technology and preservation techniques make it possible for everybody, not just those living in sunny California, to live off of locally grown food.

“That’s another one of the lame arguments,” Rutherford said. “(People in Iowa will farm in the winter) the same way they did 100 years ago.”

With root crops and food preservation, green houses and hoop houses, people all over the country can eat locally grown food year round. Seasonal eating is key because most crops are naturally seasonal. This also applies to animal products, which Rutherford said changes slightly in taste, from season to season.

“There are people who eat cheese produced from grass-fed cows,” he said. “Every month the cheese is a little different because of the vegetation. It’s different each time. That makes food exciting.”

But to many people, eating food is much more exciting than actually growing the food. This is another issue that industry professionals say impacts the probability of a world fed through small, local farms.

According to the Environmental Protection Agency, less than one percent of Americans claim farming as their occupation. And according to Rutherford, less students in the College of Agriculture, Food and Environmental Sciences are looking to go into farming.

But overall, more people in the U.S. are beginning to question where their food comes from. It is clear, from sales of organic products, thriving health food stores and books like Pollan’s *The Omnivores Dilemma* becoming best-sellers, that Americans are becoming

more interested in wholesome, ethical, and naturally produced food. Cal Poly's campus is no exception.

The Campus Community

Cal Poly's Empower Poly Coalition is an umbrella organization made up of Cal Poly's sustainability related student-run clubs and organizations. There are 28 member clubs that make up the coalition, which overall works towards sustainability on campus and in the world.

"There is definitely a good group of people (on campus) who are conscious of what they eat," nutrition junior Alana Hendrickson said. "There are a lot who aren't, but I think it's growing."

Hendrickson is a member of Cal Poly's branch of CoFed, which is a national program that trains and empowers students to create ethically sourced, cooperatively run sustainable cafés on college campuses.

By working with CoFed and networking with other campuses, Hendrickson is part of a team that is working to organize a café on campus that is completely created by students, for students. From the design of the building, to the marketing for the café to the menu of food served inside, the goal is to have it all done by Cal Poly students.

"We want this place to raise awareness, to be a place of knowledge, and to awaken students to a whole different side of food that they haven't thought about," Hendrickson said.

Because while there is a strong force of students who fight for sustainability, there are some who do not. And it does not help when Cal Poly's own Campus Dining does not endorse sustainability either.

Environmental management and protection senior and president of The Empower Poly Coalition Sam Gross said that Campus Dining does not offer enough sustainable alternatives to the campus community.

According to Gross, Campus Dining does not order any organic, free-range, pesticide-free, hormone-free, grass-fed or cage-free food. He said none of the food produced on campus is actually served in campus dining facilities and when food is ordered, no concern is placed in how farm workers are treated.

Gross is also part of the Real Food Challenge, a national campaign that harnesses student power to inspire change in university dining facilities. The goal of the Real Food Challenge is to make at least 20 percent of Campus Dining's purchases "real" food.

According to their website, “real” is a holistic term they use to describe food that truly nourishes the earth, producers, consumers, and communities by being organic, humane, local, socially just, and otherwise sustainable.

Gross said he believes that if Cal Poly’s Campus Dining provided students with sustainable options and also with information, such as how far the food had to travel, a list of all antibiotics and pesticides used, the conditions the animals lived in during production, and the working conditions and wages of the workers involved, in the end, students would make the right choice.

But students have to be given the choice. Just as students studying agriculture should be given the tools and the knowledge necessary to choose the path they want to take.

It almost seems as if Cal Poly’s university community, which has been poisoned with corporate influences, finds more inspiration and encouragement to embrace sustainability in their own student peers than in the faculty and staff.

But regardless, things are changing, people are learning, and the meat industry will be forced to move in a certain direction. Which direction that is will definitely be impacted by the state of agricultural education.