

SELECTED NEWSPAPER COVERAGE OF THE 2008
CALIFORNIA PROPOSITION 2:
A CONTENT ANALYSIS

By

KATHERINE ANN KUYKENDALL

Bachelor of Science in Agricultural Communications

Purdue University

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Thesis Approved:

Dr. Traci L. Naile

Thesis Adviser
Dr. Dwayne Cartmell

Dr. Shelly Sitton

Dr. Gerald Fitch

Dr. Sheryl A. Tucker
Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Background and Setting

This study explored state and regional print coverage of the legislation regarding the 2008 California Proposition 2, the Standards for Confining Farm Animals initiative. The proposition introduced the California Prevention of Farm Animal Cruelty Act, which includes the following prohibition:

In addition to other applicable provisions of law, a person shall not tether or confine any covered animal, on a farm, for all or the majority of any day, in a manner that prevents such animal from: (a) Lying down, standing up, and fully extending his or her limbs; and (b) turning around freely (Prevention of Farm Animal Cruelty Act, 2008).

Proposition 2 is an example of legislation related to animal welfare and consumers' views of how their food is produced. U.S. consumers are increasingly interested in how their food is produced and want transparency from producers (Tonsor & Wolf, 2010). The proponents of Proposition 2 claimed that established housing practices were flawed and did not allow normal movement (The Humane Society of the United States, n.d.). However, critics of the legislation claimed passage of the new laws would be detrimental to California's agriculture industry, and that modern housing methods protected consumers and animals from disease (What Proposition 2 really means

for agriculture, 2008).

Although the veal and pork industries also were targeted, the largest effect was on California's egg industry, which had a value of \$337 million in 2007 (Sumner, Rosen-Molina, Matthews, Mech, & Ritcher, 2008). Some predictions noted the passing of Proposition 2 would lead to an essential elimination of the state's egg industry by 2015 (Sumner et al., 2008). The input costs for new facilities and training for employees likely would move egg production to states without these regulations (Sumner et al., 2008).

Although previous animal welfare legislation addressed gestation crates for pregnant sows and calves raised for veal, California's Proposition 2 was unique in that it also addressed egg-laying hens (Springsteen, 2009). Included in the egg-laying hens category were "any female domesticated chicken, turkey, duck, goose, or guinea fowl kept for the purpose of egg production" (Prevention of Farm Animal Cruelty Act, 2008). Confinement for hens was not addressed in the Florida, Arizona, Colorado, or Oregon animal welfare laws that were passed (Springsteen, 2009).

The Humane Society of the United States (HSUS) was a key player in the campaign for Proposition 2. HSUS introduced the bill and was the top contributor to the fundraising for Yes on Proposition 2, donating \$4.1 million of the \$10.6 million raised (Jorsett, 2009). Several companies involved in production agriculture contributed to the "No on Proposition 2" campaign. The top contributor was Cal-Maine Foods, with a \$591,210 donation of the total \$8.9 million raised (Jorsett, 2009). Opponents of Proposition 2 held the belief that the law would have a detrimental impact on the state's egg industry because of increased cost in production methods and input costs to change facility types (Lee, 2008b).

General newspaper coverage of agriculture has been seen as crisis-oriented and superficial, in addition to having limited space for agricultural news (Reisner & Walter, 1996). However, potential voters learn from the media “not only which issues and candidates are most important but also more detailed information about issue positions” (Weaver, 1996, p. 45). Much of the battle for consumers between animal rights activists and those involved in agriculture was fought through language and the media (Croney & Reynnells, 2008).

Agricultural scientists generally view the media to have somewhat negative coverage of science and agriculture (Ruth, Telg, Irani, & Locke, 2004). The involvement of the media is crucial in this desire, but “unfortunately, creating an agriculturally literate public is challenging; focusing on increased media coverage of agricultural issues, however, is a step in the right direction” (Lundy, Ruth, Telg & Irani, 2006, para. 19).

This legislation provided an opportunity to study how agricultural political events were portrayed to the public. Sitton (2000) stated that “media coverage of agricultural issues and topics should be investigated in future research” (p. 73). This need was echoed by King (2005), who recommended further research regarding the media’s coverage of agricultural issues, including specific events or issues.

The importance of framing in agricultural news was recognized over a decade ago, when Reisner and Walter (1994) stated that more research was needed to determine what frames reporters used when covering agricultural issues in newspaper or magazine articles. Studying the media coverage of an issue lends itself to a content analysis, as evidenced by similar studies, including Sitton (2000) and King (2005) in addition to Westwood-Money’s 2008 media framing analysis of the E-coli outbreak in spinach.

Ruth, Eubanks, and Walter (2005) found that framing of agricultural issues could create repercussions throughout agriculture in general, beyond the specific issue being reported.

Statement of the Problem

Media coverage of animal welfare legislation, including framing and tone, can impact voters' attitudes toward the agriculture industry and legislation that affects it. The 2008 California Proposition 2, titled the Standards for Confining Farm Animals initiative, presented a controversial agricultural initiative for which media coverage needed to be examined.

Purpose of the Study

The purpose of this study was to evaluate selected newspapers' coverage of Proposition 2 from January 1, 2008, through December 31, 2008, which included coverage both prior to and following the public vote.

Objectives of the Study

The specific objectives of this study were to:

1. Identify the frames used in selected newspaper content that contained information about the 2008 California Proposition 2.
2. Identify sources and affiliations represented in the selected newspaper content.
3. Determine whether the tone of the selected newspaper content was positive, negative, or neutral toward agriculture.

Scope of the Study

The scope of the study included news articles, columns, editorials, feature stories, and reader-generated responses published between January 1, 2008, and December 31,

2008, regarding Proposition 2 in the largest circulating newspapers available from each agricultural district in California. Articles that were not about Proposition 2 but were present after the initial search because of a brief mention of Proposition 2 were not used.

Significance of Study

Greater understanding of media coverage of agricultural legislation in California, including the frames chosen by writers and editors, will lead to an increased awareness of what the general media chooses to focus on regarding similar legislative issues. The knowledge gained regarding the tone in the selected articles will provide an understanding of how agriculture is portrayed to the public.

The findings from this study will help writers, editors, and those responsible for disseminating agricultural information to the media to understand what information is portrayed to the public and what topics need to be presented to give the public a greater understanding agriculture and related issues. In addition, professionals involved in proposing or working with agricultural legislation will have a greater understanding of what information has been given to the public on similar issues.

Assumptions

The following assumptions apply to this study:

1. Reporters in search of information about a controversial topic are guided by some ethic of fairness (Commission on Freedom of the Press, 1947).
2. The press and other news media are the main conduits of information to the public (Commission on Freedom of the Press, 1947).
3. The coders understood and reached a consensus on the frame, article type and tone for each article.

4. All articles in the selected newspapers including information about Proposition 2 were found by the researcher.
5. There was a difference between newspaper generated content and reader-generated responses.

Limitations

The following limitations apply to this study:

1. The results of this study can be applied only to the news outlets included in the analysis.
2. This study included only news articles, columns, editorials, feature stories, and reader-generated responses from the selected newspapers and did not include television, Internet, radio, or other media reports.
3. The results of this study included only the opinions of the coders.

Definitions

Agenda setting: “The placing of issues on the public agenda for discussion and decision” (The Missouri Group, 2011, p. 11).

Animal welfare: “Animal welfare means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behavior, and if it is not suffering from unpleasant states such as pain, fear, and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling, and humane slaughter/killing. Animal welfare refers to the state of the animal: the treatment that an animal receives is covered by the

other terms such as animal care, animal husbandry, and humane treatment” (Bayvel & Cross, 2010, p. 3).

Bias: As presented by Merriam-Webster.com, bias is defined as “an inclination of temperament or outlook; especially a personal and sometimes unreasoned judgment” (“Bias,” n.d.).

Editorial: As presented by Merriam-Webster.com, editorial is defined as “a newspaper or magazine article that gives the opinions of the editors or publishers” (“Editorial,” n.d.).

Favorable: As presented by Merriam-Webster.com, favorable is defined as “disposed to favor; expressing approval” (“Favorable,” n.d.).

Feature article: “Feature stories go into depth about a generally newsworthy situation or person. Timeliness is relevant, but not critical” (Brooks, Kennedy, Moen, & Ranly, 2011, p. 233).

Frame: “To select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman, 1993, p. 52).

News: As presented by Merriam-Webster.com, news is defined as “a report of recent events; material reported in a newspaper or news periodical or on a newscast; a matter that is newsworthy” (“News,” n.d.).

Unfavorable: As presented by Merriam-Webster.com, unfavorable is defined as “opposed, contrary; expressing disapproval; not pleasing” (“Unfavorable,” n.d.).

CHAPTER II

REVIEW OF LITERATURE

Media coverage of animal welfare legislation can impact voters' perceptions of agriculture, specific legislation, and their voting choices. The purpose of this study was to evaluate selected newspaper coverage of the 2008 California Proposition 2, including framing, sources used, and tone of relevant newspaper articles. The objectives of the study were to identify frames, sources, and tone used in selected newspaper content related to Proposition 2.

Animal Welfare Legislation

Many states have faced legislation that attempted to regulate how livestock producers handle animals, given the complexity of animal welfare, described by Bayvel and Cross (2010) as a “complex international public policy issue, with important scientific, ethical, economic, cultural, religious, and political dimensions and which also raised important international trade policy considerations” (p. 3). According to Springsteen (2009), by 2009 all 50 states had some type of law that prohibited cruelty to animals, but roughly 30 states had some type of exemptions for “common,” “normal,” or “customary” (p. 2) farm animal husbandry practices—which was where the debate was sparked.

Springsteen (2009) noted that 11 states and the federal government had attempted and failed at passing laws that override these farm animal exemptions. On the other hand, seven states *did* pass laws that in some way limit these exemptions. The most common—and perhaps more complicated—legislation occurred in the 23 states that allow ballot-initiatives to be placed on state ballots by way of petitions. Although activists likely were interested in a national law, Congress did not show interest, and activists have chosen to

pursue a more effective state-by-state strategy (McGlone & Salak-Johnson, 2009).

Springsteen (2009) noted that three states—Florida, Arizona, and California—saw laws become reality following ballot-initiative votes, and animal rights organizations have stated their intentions to develop initiatives in other states.

The pork industry has been a target for animal welfare legislation since the housing standard for sows moved to individual housing systems in the 1960s and 1970s (McGlone & Salak-Johnson, 2009). The following states have passed legislation addressing housing for pregnant sows: Florida, Arizona, Oregon, Maine, Colorado, and Michigan (McGlone & Salak-Johnson, 2009; Springsteen, 2009).

Some producers chose to phase out sow gestation crates voluntarily, including the Colorado Pork Producers Council and Smithfield Foods Inc., the world's largest hog producer and pork producer, in 2007 (Kilian, 2008). However, Colorado passed a law to legally ban gestation crates in May 2008 (Springfield, 2009). A complete timeline of animal welfare legislation in the United States is provided in Figure 1.

McGlone and Salak-Johnson (2009) maintained that it appears gestation crates eventually will no longer be the industry standard. To coincide with this, Tonsor, Wolf, and Olynk (2009) found national support exists for a ban on gestation stalls for sows.

The housing issue for all species requires an adjustment for producers in input costs and knowledge. McGlone and Salak-Johnson (2009) stated economic costs are associated with the move to group housing, in addition to skills that need to be learned or re-learned by farm workers. However, “early adopters will gain easier market access and perhaps some premium markets will prefer pork from farms that use group housing rather than individual housing of sows” (McGlone & Salak-Johnson, para. 22).

November 2002	Florida voters passed initiative to ban gestation crates (Kilian, 2008). This was the first animal welfare statute to pass and went into effect in November 2008. It was sponsored by Floridians for Humane Farms and supported by HSUS (Springfield, 2009).
November 2006	Arizona voters passed an initiative to ban gestation crates for pregnant sows and veal crates beginning in 2013. The statute was titled Humane Treatment of Farm Animals Act (Springfield, 2009).
June 2007	The Oregon legislature passed a bill that banned gestation crates for pregnant sows. Originally, the bill also addressed veal crates, but the restrictions for calves were dropped before the bill was passed (Springfield, 2009).
December 2007	Colorado Pork Producers Council announced voluntary phase-out of gestation crates over a 10-year period (Kilian, 2008).
May 2008	Colorado governor Bill Ritter signed a bill into law that banned gestation crates and addressed confinement for veal calves. This legislation went into effect for veal calves January 1, 2012, and for gestating sows January 1, 2018. The legislation was worded: (1) No person shall confine a calf raised for veal or gestating sow in any manner other than the following: (a) A calf raised for veal shall be kept in a manner that allows the calf to stand up, lie down, and turn around without touching the sides of its enclosure. (b) A gestating sow shall be kept in a manner that allows the sow to stand up, lie down, and turn around without touching the sides of its enclosure until no earlier than twelve days prior to the expected date of farrowing. At that time, a gestating sow may be kept in a farrowing unit.
June 27, 2008	California proposition numbers announced (California Secretary of State, 2008).
August 28, 2008	The American Veterinary Medical Association announced its opposition to Proposition 2 (California Farm Bureau Federation, 2008a).
October 30, 2008	California Governor Arnold Schwarzenegger announced his opposition to Proposition 2 (California Farm Bureau Federation, 2008b).
November 4, 2008	California voters passed Proposition 2.
November 3, 2009	Ohio voters passed the Livestock Care Standards Board, a preemptive initiative by legislators that established the board to create standards for livestock care in Ohio (Springsteen, 2009).
January 1, 2015	Provisions of the Prevention of Farm Animal Cruelty Act are effective.

Figure 1. Timeline of animal welfare legislation in the United States.

Although California's Proposition 2 targeted the pork, veal, and egg industries, the passage of Proposition 2 had the largest impact on egg producers ("Proposition 2 — Improving animal welfare?", 2008). Much of the issue regarding the effect on the egg industry was unclear because of the ambiguous wording of the proposition (Lee, 2008b). Some producers chose to wait for regulators to interpret the law before making any changes to their operations ("Proposition 2 — Improving animal welfare?", 2008). Hen housing regulations also were present on a national level. The United Egg Producers and Humane Society of the United States agreed to propose a piece of federal legislation that would create a national standard for hen housing by 2028 (California Department of Food and Agriculture, Association of California Egg Farmers, 2011).

Sumner, Matthews, Mench, and Rosen-Molina (2010) discussed the cost issues that California egg producers faced with respect to the passage of the Treatment of Farm Animals Act. They estimated producers would have increased production costs between 41% and 70%. These price increases included "higher feed use per bird, higher cost per pullet, lower average productive life of a hen, higher mortality rates, fewer eggs of acceptable marketability per hen, fewer birds per facility, and higher labor costs per hen and especially per egg" (Sumner et al., 2010, p. 434).

Additional increased cost impacts were from the cost of upgrading production facilities. Sumner et al. (2010) estimated the capital investment for hen housing systems in California to have been between \$300,000 and \$1.2 million per house. This did not include acquisition of additional land, which was needed for the larger housing systems, or zoning or other regulation issues that could have hindered their progress. These

investments did not guarantee long-term profits, as other states did not have equally limiting legislation in place.

Other states' egg industry input costs, and therefore eggs, would remain less expensive (Sumner et al., 2010). An article from Sumner, Rosen-Molina, Matthews, Mench, and Richter (2008) predicted that "the expected impact would be the almost complete elimination of egg production in California within the six-year adjustment period" (p. iv). Unfortunately for those involved with agricultural production, similar studies regarding animal welfare legislation have found that voters "may not fully appreciate price or tax implications when supporting additional animal welfare legislation" (Tonsor & Wolf, 2010). Kaufman, Israel, and Irani (2008) stated that although voters in population-dense areas have the potential to control public policy, these voters were less aware of the economic impacts that agriculture had on the surrounding communities. It may be beneficial for agricultural communicators to create messages that stray from talking about economic impacts, and instead focus on agriculture's "good neighbor" appeals (Kaufman et al., 2008, p. 51).

Animal Welfare, Animal Rights, and the Livestock Industry

The terms animal rights and animal welfare often are used interchangeably but are notably different. Boyd and Hale (1989) provided a description of animal welfare advocates as promoting proper care of animals that ensures their comfort and production level. Meanwhile, Boyd and Hale (1989) described animal rights activists as part of a political movement asserting that animals have the same rights of life as a human and should not be exploited by humans for any reason. The reporting of animal rights and animal welfare is complicated, as well. In Goodwin and Rhoades' (2011) study of the

presence of Proposition 2 on YouTube, they found that although animal rights organizations were the creators of many videos, a small number of videos featured animal rights, but most featured animal welfare. Goodwin and Rhoades (2011) concluded that animal rights organizations may feature animal welfare rather than animal rights to hide their true intentions.

Bayvel and Cross (2010) elaborated on this by going into a technical definition of animal welfare:

Animal welfare means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behavior, and if it is not suffering from unpleasant states such as pain, fear, and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling, and humane slaughter/killing. Animal welfare refers to the state of the animal: the treatment that an animal receives is covered by the other terms such as animal care, animal husbandry, and humane treatment.” (Bayvel & Cross, 2010, p. 3).

Illustrating the complexity of this public policy issue, Bayvel and Cross (2010) explained that interest in animal welfare legislation and policy had increased dramatically during the past 30 years and likely would continue to grow in popularity. Bayvel and Cross (2010) recommended that a “science-based, ethically principled policy approach, complemented by an incremental change management paradigm, will ensure continuous improvement along the animal welfare journey” (p. 10) and encouraged the involvement

of all stakeholders in the issue to get involved in the debate. These stakeholders, however, hold polarized opinions about animal welfare issues, according to Getz and Baker (1990). Examples of these groups were identified by Getz and Baker (1990) as animal rights advocates, service-industry representatives, and ranchers.

Agricultural Literacy and the Public

When the public thinks about agriculture, understanding often is limited to food, clothing, and shelter, and understanding of the numerous by-products of the food and fiber system and its economic impacts is lacking (Leising, Igo, Heald, & Yamamoto, 1998). The lack of knowledge about agriculture leads to poor public policy decision making that can affect the agriculture industry and food supply (Raven, 1994). Holloway (2004) supported this, saying that “public understandings of agricultural practices, and the effects of these on behavior and public sphere discourse, have implications for consumption practices and debates over the future of the countryside” (p. 329).

Agricultural literacy was defined by Frick, Kahler, and Miller (1991) as “possessing knowledge and understanding of our food and fiber system” (p. 52). An individual with positive agriculture literacy is able to understand and communicate basic information about agriculture, which helps individuals understand processing and marketing of agricultural products in addition to the impact of agriculture (Frick et al., 1991).

The public’s contrasting views of the food and fiber system and agriculture can be impacted by geographic location or personal background, particularly following the U.S.’s move from a rural to urban society (Leising et al., 1998). Participation in agriculture has been shown to increase agricultural literacy (Boogaard, Bock, Oosting,

Wiskerke, & Van Der Zijpp, 2010). In Boogaard et al.'s 2010 study of dairy farms, it was found that the more familiarity and contact people had with farming, including just visiting a farm, the more satisfied they were with contemporary dairy farming practices. Additionally, respondents who grew up and still lived in rural areas were the most satisfied with dairy farming, while the least content included people who neither grew up nor at the time lived in rural areas (Boogaard et al., 2010).

Wagler et al. (2008) concluded that to build a positive perception of agriculture, students would benefit from agricultural curricula for all grade levels. Leising et al. (1998) identified five themes in agriculture and benchmarks for grades K-12. Themes addressed by Leising et al. (1998) included understanding food and fiber systems; history, geography, and culture; science, technology, and environment; business and economics; and food, nutrition, and health.

Frick, Birkenholz, Gardner, and Machtmes (1995) found that although both rural and urban high school students had positive perceptions of agriculture, rural students had significantly higher "knowledge concept scores" (p. 7) than urban students in all sections studied. Pense, Beebe, Leising, Wakefield, and Steffen (2006) similarly found that students in urban/suburban schools scored lower than students in rural schools in the concept areas identified in the food and fiber system framework developed by Leising et al. (1998). Frick et al. (1995) noted that rural students most likely had more access to farmers and others involved with agriculture; conversely, their urban counterparts had less access to these individuals. An ongoing need for agricultural education for elementary and secondary schools existed, and "graduates of our secondary school systems should not be considered to have received a 'well-rounded education' if they

lack an understanding and appreciation of the significance of agriculture in their daily lives” (Frick et al., 1995, p. 8).

Focusing on students’ perceptions of agriculture was a beneficial way to shape the public’s opinion of agriculture, as well. Holloway (2004) stated, “Targeting children draws in associated adults (e.g., parents and teachers), allowing them too to be targeted with a particular narrative about farming, and enrolling them into the process of representing farming to children in particular ways” (p. 325). The public’s understanding of agriculture is crucial to how agriculture operates, as it affects debates over agricultural legislation in addition to consumption practices (Holloway, 2004).

More communication and education by professionals is needed for the public to understand agriculture and other food issues (Wilcock, Pun, Khanona, & Aung, 2004). Wilcock et al. (2004) also found consumers’ trust of the food industry and government agencies affected their attitudes of food safety.

Contributing to the understanding of agriculture is a public debate between animal agriculturalists and animal welfare extremists (Hodges, 2003). However, agricultural professionals no longer can blame the current animal welfare debate on extremists or a “failure to understand science” (Hodges, 2003, p. 2890). Reisner (2007) conducted a study of the public’s opinion of large-scale swine facilities and found, “The resistance and negative feelings about the swine facilities are not coming from outsiders or other people who do not understand agriculture, but from residents” (p. 1595). Reisner (2007) continued, “the large scale operations are, at least temporarily, eroding farmers’ traditional base of support” (p. 1595).

Agriculture in the Media

The involvement of the media is crucial in the desire to improve the public's attitude toward agriculture, but "unfortunately, creating an agriculturally literate public is challenging; focusing on increased media coverage of agricultural issues, however, is a step in the right direction" (Lundy, Ruth, Telg & Irani, 2006, para. 19). Much of the battle for consumers between animal rights activists and those involved in agriculture has been fought through language and the media (Croney & Reynnells, 2008). However, agricultural scientists generally view the media to have somewhat negative coverage of science and agriculture (Ruth et al., 2004), although previous research has shown that most articles are written accurately (Irlbeck, Akers, & Palmer, 2011). Scientists do not believe the public has a firm understanding of science or agricultural topics, and while they do see it as their responsibility to help the public understand agriculture, they feel less responsibility to help the public understand science in general (Lundy et al., 2006).

The public receives agricultural news from a variety of sources. Lundy et al. (2006) stated that "scientists, public information officers, and the media comprise a diverse group of individuals attempting to communicate scientific topics to the public" (para. 6) and a combination of input from scientists and media professionals is needed to disseminate information appropriately. All of these sources have different perceptions and knowledge regarding science, and thus different responsibilities for providing information to the public (Lundy et al., 2006). From there, editors and reporters shape the way news is presented to the public in their roles as gatekeepers, including their decisions and definitions regarding the agriculture industry (Cartmell, 2001).

Agricultural communicators are faced with the task of taking agriculture's message to the news media. Ruth-McSwain and Telg (2008) found that although agricultural communicators value relationships with reporters and perceive them to exist, the parties do not seem to engage in "authentic dialogic relationships" (p. 56). Often, agricultural communicators limit their discussions with reporters as to avoid "bothering" them. This apparent lack of relations between agricultural communicators and the media may explain the low levels of agricultural news in general media (Ruth-McSwain & Telg, 2008). Building on these relationships would allow reporters to gain access to experts and other new sources (Irlbeck et al., 2011).

Although much of the public has little experience with agriculture, this "does not mean that they are unwilling to or incapable of discussing the real dilemmas that exist in farming" (Boogaard et al., 2010, p. 260). Boogaard et al.'s (2010) study of the perception of dairy farms indicated that the public recognized advancements in farming and did not always think negatively of agriculture. Jamison and Lunch (1992) studied American animal rights activists and found them to be, in general, "middle-class, well-educated people with strong views and a sense of obligation about expressing them" (p. 452). American animal rights activists also were found to be skeptical of science, which presented the idea that facts and numbers alone will not help the argument against activists' ideals (Jamison & Lunch, 1992). Although much of the farm press and other agricultural professionals have animosity toward animal rights and welfare activists, these activists likely will continue to be a part of animal welfare legislation in the future and must be recognized as part of the animal industry (Getz & Baker, 1990).

When communicating with other agricultural professionals, the farm press itself does not choose to create a discussion that seriously considers animal rights activists' positions (Reisner, 1992). Furthermore, "the farm press's coverage of the more extreme frames of animal rights, in particular the philosophical reasoning leading to such views, was at best poor, and probably more accurately described as seriously incomplete" (Reisner, 1992, p. 45). Agricultural professionals tend to portray their opponents as "ignorant, biased, and irrational" (Weber-Nielsen & Bergfeld, 2003, p. 2909) and do not acknowledge the relevancy of their viewpoints:

We choose to avoid the discussions altogether or attempt to discredit their arguments by stating that others are not able to fully understand the complex situation. When confronted with good, open philosophical debate, most of us elect one of three responses: avoidance or "flight," confrontation or "fight," or less frequently, we will attempt to engage in a meaningful exchange of ideas. (Weber-Nielsen & Bergfeld, 2003, p. 2909)

Reisner and Walter (1994) found that neither general newspapers nor farm magazines offered complete and sufficient coverage of agricultural topics. Animal agriculture in particular has been conflicted about conveying a positive and not misleading message about the animal agriculture industry (Croney, 2010). To alleviate this problem, a transparent message is needed to convey a positive perception of agriculture to the public (Croney, 2010). Many consumers prefer not to be informed about all food animal production practices due to the graphic nature that full disclosure would provide. However, it commonly is stated that consumers need to be more aware of production practices, and the avoidance of being completely transparent can be seen as

deceptive (Croney, 2010). Goodwin, Chiarelli, and Irani (2011) recommended reporters address this problem by writing stories with frames that “fit the current social structure in the culture” (p. 31), which may include stereotypical farming images.

If the message of agriculture is not transparent, others outside the industry could reveal “disconcerting aspects of animal production, which could erode credibility and further heighten public concern” (Croney & Reynnells, 2008, p. 390). Animal agriculturalists should choose to interact with those outside of their field and be open with the public about management practices and the benefits of new advancements in their industry (Croney & Reynnells, 2008). If animal agriculturalists choose to be involved in an open debate with the public, they have an opportunity to become “positive agents of change” (Weber-Nielson & Bergfeld, 2003, p. 2911). Those involved with animal agriculture have the potential to be the most influential in the debate over animal welfare, as explained by Cuomo (2003):

But, ironically, the fact is that animal scientists have a great deal of intimacy with animals: they think about and spend time with animals and are familiar with the details of what it is like to be a cow, pig, or chicken. Knowledge and proximity can be a starting point for exploitative use, but it is also a starting point for empathy and affection (p. 2905).

Furthermore, although many animal agriculturalists look toward the argument that the best welfare for farm animals would yield the highest profits, Cuomo (2003) recommended animal agriculturalists should take a common-ground approach with others involved in the animal welfare debate. Goodwin et al. (2011) recommended that the term “best management practices” (p. 31) be used as little as possible because it reminded

readers of corporations and was viewed unfavorably by readers. Reporters should use more “local and farmer-based terms as well as words that create mental images” (Goodwin et al., 2011, p. 31). Because campaigns by anti-agriculture organizations appeal to viewers’ emotions, they have been very effective, and agricultural communicators should develop stronger, more convincing arguments that compete with these messages (Goodwin & Rhoades, 2011).

Theoretical Framework

Agenda setting and framing commonly are used together in research, and it has been suggested that framing is a part of agenda setting (McCombs, Shaw, & Weaver, 1997). Westwood-Money’s (2008) study of the 2006 e-coli outbreak serves as an example of an agricultural communications study that tied agenda setting and framing.

Agenda Setting Theory

The agenda setting theory addresses the relationship between the media agenda and audience perceptions, which was first researched by McCombs and Shaw (1972), who concluded that mass media “may not be successful much of the time in telling people what to think, but is stunningly successful in telling its readers what to think *about*” (p. 13).

According to McCombs and Shaw (1972), the information that the media delivered to the public appeared to affect what voters considered major issues. Furthermore, McCombs and Shaw (1972) suggested a strong relationship between the media’s emphasis on campaign issues and voters’ understanding of and interest in campaign issues. The media was needed because so few members of the public actually participated in political campaigns; therefore, “information flowing in interpersonal

communication channels is primarily relayed from, and based upon, mass media coverage” (McCombs & Shaw, 1972, p. 185). Mass media provides the public with the best and most readily available information on national politics (McCombs & Shaw, 1972).

The formation of public opinion begins with the transfer of information from the news media to the public, and that process becomes more complex with continuous advances in technology (McCombs, 2005). The subsequent agenda-setting effects “have significant consequences for people’s attitudes and opinions” (McCombs, 2005, p. 549). Further explained by Weaver (1996), “the media contribute greatly to the construction of a secondhand reality that is relied upon in making decisions about whether and for whom to vote” (p. 39).

In addition to learning about candidates during elections, readers and potential voters also were affected by the positions taken by various groups and candidates on pertinent issues (Weaver, 1996). Weaver (1996) continued by stating that television and newspapers provide potential voters with which issues are important and supporting information about issue positions. Although individual media outlets differed in their amount and focus of coverage, the combined views of all media outlets shaped the public’s view of what was important (McCombs & Shaw, 1972), which particularly suggested an agenda-setting function in mass media. Weaver (1996) described the agenda-setting function of the media as it related to voters:

Regardless of the reasons for differences in political learning, the media are most likely to matter to voters in making them aware of and concerned about certain issues, candidates, and traits of candidates. Media are

somewhat less likely to teach more specific information on the issue positions of candidates and parties, even less likely to directly teach attitudes and opinions, and least likely to directly influence behavior such as campaigning or voting (p. 46).

A study on the agenda-setting function of the media on consumer confidence in the safety of the U.S. food system by Bharad, Harrison, Kinsey, Degeneffe, and Ferreira (2010) found that the media had a negative effect on the public's perception of food safety. Westwood-Money (2008) also used agenda setting as the basis for a study of newspaper coverage of an E. coli outbreak in beef and found that articles were published with an amplified risk frame for food safety.

Framing

Framing is “based on the assumption that how an issue is characterized in news reports can have an influence on how it is understood by audiences” (Scheufele & Tewksbury, 2007, p. 11). Scheufele and Tewksbury (2007) explained that framing is a way for journalists to explain complicated issues to their readers and is not necessarily used to deceive audiences. Another, perhaps less positive, definition was provided by Entman (2007), who described it as “the process of culling a few elements of perceived reality and assembling a narrative that highlights connections among them to promote a particular interpretation” (p. 164).

Callaghan and Schnell (2010) found that the media sometimes intervened with issue framing, including establishing its own frames, favoring one side of an issue, or creating their own subtexts. The media introduced their own frames into the coverage, in

addition to those frames that were influenced by interest groups (Callaghan & Schnell, 2010).

A framing analysis of media coverage of the foot-and-mouth disease outbreaks in Great Britain found that articles were framed most commonly with fear (Cannon & Irani, 2011). The researchers concluded that the framing analysis was important to illustrate the generalities and “broad brush and dark strokes” that were used to negatively paint agriculture. A similar content analysis of coverage of the bovine spongiform encephalopathy (BSE) outbreak by Ruth, Eubanks, and Telg (2005) concluded that the framing of BSE in the media could affect perceptions of agriculture. They stated:

It is very difficult to get an agricultural issue on the media’s agenda.

However, when agricultural issues are reported, they tend to be negative in nature, creating an inaccurate schema for the lay public about agriculture.

The framing of mad cow disease as a crisis or health risk issue illustrates this notion about agricultural media coverage and could cause harmful repercussion for the entire agricultural industry in addition to the damage it has caused the cattle industry (Eubanks & Telg, 2005, p. 13).

A framing study regarding organic food news coverage conducted by Meyers and Abrams (2010) found that the news media relied on ethical and moral choices for choosing organic food, and the media limited discussion of scientific evidence. Meanwhile, other content analysis studies have shown that framing also has implications for public policy and political communications. Entman (1993) explained that framing “plays a major role in the exertion of political power, and the frame in a news text is really the imprint of power” (p. 55).

CHAPTER III

METHODOLOGY

Media coverage of animal welfare legislation can impact voters' perceptions of agriculture, specific legislation, and their voting choices. The purpose of this study was to evaluate selected newspaper coverage of the 2008 California Proposition 2, including framing, sources used, and tone of relevant newspaper content. The objectives of the study were to identify frames, sources, and tone used in selected newspaper content related to Proposition 2.

Animal welfare legislation is a complicated issue that many are passionate about. Although all 50 states have laws prohibiting cruelty to animals, some states have exemptions for farm animal husbandry practices. Animal welfare legislation often targets these exemptions and often impacts the pork, veal, and poultry industries. Educating the public about agriculture is critical because lack of communication can lead to poor public policy decision making that can affect agriculture and the food supply. The public gets most of its information through the media, which develops content from a variety of sources.

This study used agenda setting and framing to describe how Proposition 2 was covered in newspapers throughout California. Agenda setting has been described as not necessarily telling readers what to think, but instead telling them what to think about. Framing has been used in previous studies to determine how the media presents certain issues to the public.

Research Design

A content analysis, defined as “a research technique for making replicable and valid inferences from textual data to their context” (Miller, Stewart, & West, 2006, p. 7), was used to study selected newspaper content related to the Standards for Confining Farm Animals initiative, California’s Proposition 2, in 2008. The descriptive analysis focused on the framing, tone, and sources cited in the articles.

Oklahoma State University Institutional Review Board

Institutional Review Board approval was not required for this study because the study did not involve human subjects.

Population and Selection of Newspaper Content

The population of this study included news articles, columns, editorials, feature stories, and reader-generated responses of the largest circulating newspapers in each agricultural district in California. Circulation information was obtained from the Audit Bureau of Circulations. The following agricultural districts were reported for California by the National Agriculture Statistics Service: North Coast, North Mountain, Northeast Mountain, Central Coast, Sacramento Valley, San Joaquin Valley, Sierra Nevada, and Southern California. Figure 1 contains a map showing the agricultural regions of California and the location of selected newspapers. Agricultural regions were used to provide a difference in news coverage based on geographical distance, population sizes, and agricultural practices and assumed familiarity with agriculture.

The Southern California district had the most circulating newspapers and the highest circulation numbers, according to the Audit Bureau of Circulations. The San Joaquin Valley district was the leading agricultural district, leading the state in



Figure 2. California agricultural districts and location of selected newspapers. The locations of newspapers selected for this study are denoted with stars. Source: USDA, National Agricultural Statistics Service, California Field Office, 2011.

production of a variety of crops and livestock commodities (USDA, National Agricultural Statistics Service, California Field Office, 2011). The Sacramento Valley, South Coast, and Central Coast districts are known for their production of horticultural and field crops (USDA, National Agricultural Statistics Service, California Field Office, 2011). A large portion of the Northeast Mountain and Sierra Nevada districts are mountainous and not arable (University of California Agricultural Issues Center, 2009). Figure 3 shows California agricultural production level by county.

Because the papers were selected based on their placement in the California agricultural districts, circulation numbers varied due to the population density differences among districts. The highest circulating paper was the *Los Angeles Times* from the Southern California district, with a circulation of 605,243 average daily Monday through Friday. The *Eureka Times-Standard* was the largest circulating newspaper from the North Coast district with a circulation of 19,118 average daily Monday through Saturday. The Northeast Mountain and Sierra Nevada districts did not have circulating newspapers, according to the circulation data from the Audit Bureau of Circulations. A complete listing of circulation numbers can be seen in Table 1.

Newspaper content from January 1, 2008, through December 31, 2008, was collected. The study included the full calendar year to include newspaper content both preceding and following the vote. The researcher gathered the newspaper content using the database ProQuest. Keywords used to search for newspaper content were “proposition 2” or “prop 2” or “standards for confining farm animals.”

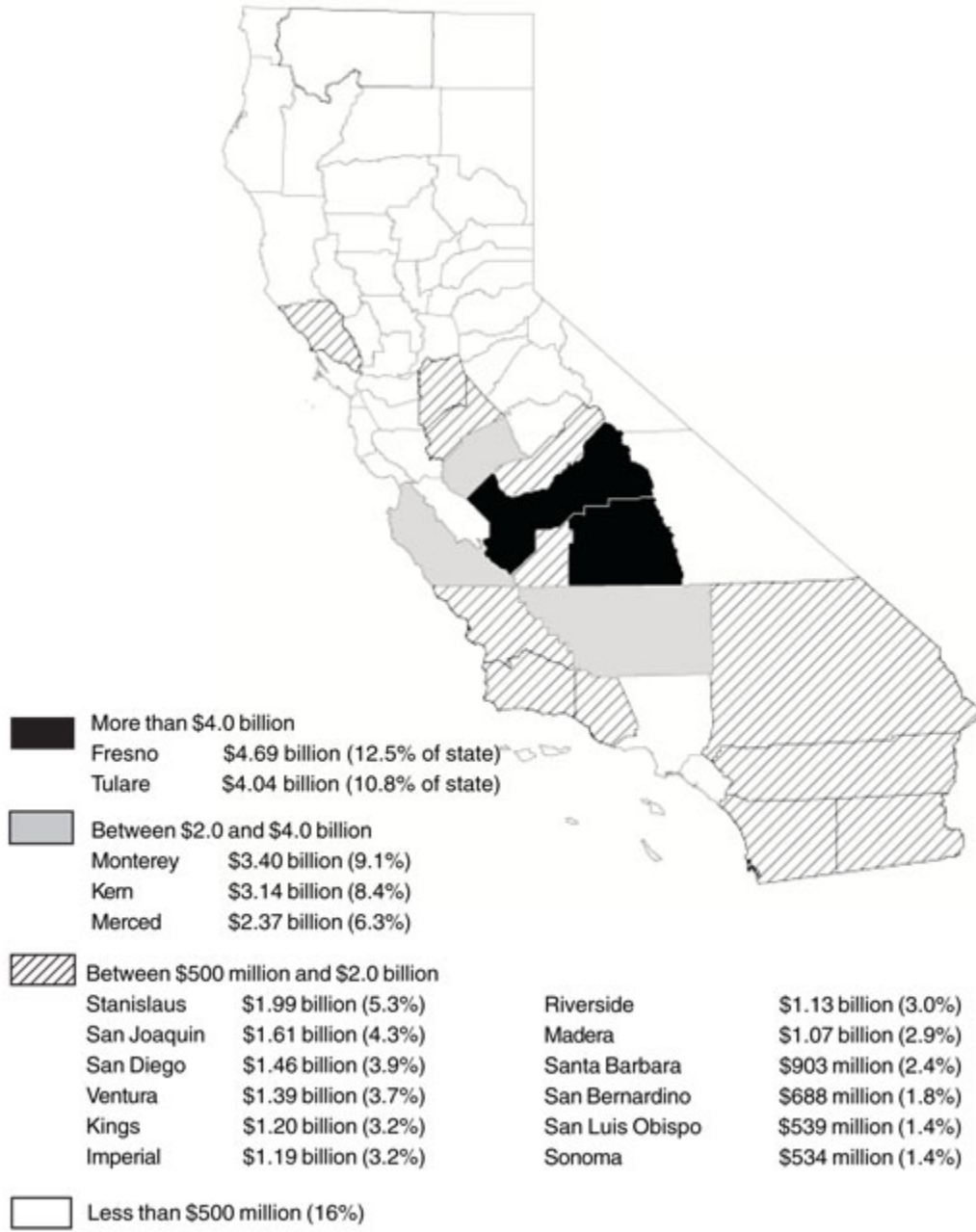


Figure 3. Map of California agricultural production level by county. Source: University of California Agricultural Issues Center, 2009.

Table 1
Circulation numbers for selected newspapers

Paper/agricultural region	Circulation
<i>Los Angeles Times</i> /Southern California	605,243 (Monday–Friday)
<i>San Jose Mercury News</i> /Central Coast	577,665 (Monday–Friday)
<i>Sacramento Bee</i> /Sacramento Valley	210,925 (Monday–Friday)
<i>Fresno Bee</i> /San Joaquin Valley	115,242 (Monday–Friday)
<i>Redding Record-Searchlight</i> /North Mountain	21,729 (Monday–Friday)
<i>Eureka Times Standard</i> /North Coast	19,118 (Monday–Saturday)

Note. Circulation numbers are averages of Monday through Friday circulations, if available. There were no circulating papers for the Northeast Mountain or Sierra Neva districts as reported by the Audit Bureau of Circulations. The Eureka Times Standard only had circulation numbers available for Monday through Saturday.

An initial search produced 134 articles, distributed as follows: 3 articles from the *Eureka Times Standard*, 33 articles from the *Fresno Bee*, 28 articles from the *Los Angeles Times*, 1 article from the *Redding Record Searchlight*, 26 articles from the *Sacramento Bee*, and 45 articles from the *San Jose Mercury News*. The only article from the *Redding Record-Searchlight* ultimately was omitted by the coders for being irrelevant to the study and only briefly mentioning Proposition 2; the *Redding Record-Searchlight* thus was omitted from further analysis of sources, frame, and tone.

Content Analysis

Coder Selection and Training

The principal investigator served as one coder, and two additional coders also were chosen. The coders had backgrounds in agricultural communications, giving them knowledge in journalism and communications in addition to general agricultural topics.

The coders also had backgrounds in animal science to better relate to the specific legislation covered.

During an initial meeting, the principal investigator provided background on Proposition 2 related to the timeline of events and the basic prohibitions in the proposition. Five newspaper content types were introduced to the coders, including news articles, feature articles, columns, editorials, and reader-generated responses. The newspaper content types were defined and coders were expected to categorize the articles into one of the five article types during the first round of coding. Definitions of newspaper content types are seen in Table 2.

The principal investigator and a faculty adviser introduced the framing techniques, newspaper content types, and tone to the coders. Framing techniques were explained with references to previous studies, and newspaper content type examples were given. Tone was described to the coders as being positive, negative, or neutral toward agriculture. Coders were reminded that a positive or negative tone toward agriculture did not necessarily coincide with a negative or positive portrayal of the proposition. Coders were trained to recognize possible frames to be equipped to individually develop their own frames for the initial coding.

Content Analysis

Content from all newspapers was identified and given a number. In addition, content that contained multiple relevant reader-generated responses was divided to represent the different responses. Including the individual reader-generated responses, 100 articles were included in the study.

Table 2
Definitions of content types used by coders to facilitate the first round of coding

Content type	Definition
News article	Presents factual information about a situation or event that has timeliness connected to it. Objective. (The Missouri Group, 2011).
Feature article	Presents factual information but does not necessarily have a timeliness factor. Often focuses on a person or activity of interest. May be subjective (The Missouri Group, 2011).
Editorial	Expresses the opinion of the writer or publisher (A. Riggs, personal communication, November 8, 2011).
Column	An opinion piece written in a recurring section by the same writer or about the same topic (A. Riggs, personal communication, November 8, 2011).
Reader-generated response	A submission by a reader not associated with the reporter or publication. Most commonly a letter to the editor (A. Riggs, personal communication, November 8, 2011).

During the initial coding, coders evaluated the newspaper content for the following: content type, dominant frame, tone, and sources cited. Content type options included news, feature, column, editorial, and reader-generated response. Coders used an inductive development of frames by creating their own initial frames independently. Tone was evaluated on a scale from 1 to 5, with 1 being defined as very negative, 3 as neutral, and 5 as very positive. Regarding sources cited, coders were asked to name the source, affiliation, title, and quote or information attributed, as applicable.

An online form was provided by Qualtrics.com to facilitate the data gathering process for each coding session (see Appendix A). After the initial meeting on December 2, 2011, coders had until January 10, 2012 to code the articles independently by entering

their data on Qualtrics.com. The researcher then aggregated the coders' entries before the second coder meeting on January 18. At the January 18 meeting, coders came to a consensus on 8 frames that logically emerged from their initial review of the content.

Coders then had until January 25 to complete their second round of coding, which consisted of applying one of the seven frames to all articles. During a final meeting on January 25, the coders met to come to a consensus on all evaluated categories. If more than one frame appeared, coders were given the option of assigning a secondary frame for each article. In addition, the coders placed each of the sources cited in each article into one of the following categories: government sources, university sources, nonprofit sources, corporate sources, or individuals.

Validity

The coding standards were introduced to the coders by the principal investigator and her faculty adviser. Coders were chosen based on their experiences with agricultural communications and the agricultural industry.

Reliability

Three coders coded the data over a period of three rounds of coding to ensure reliability. The coders independently coded all of the articles before coming to a consensus on frames that emerged. The list of frames produced in the first round of coding showed a 56% overlap among the coders. Following the second coding, 69% of the articles had been assigned the same frames by all three coders, and 93% of the articles had been assigned the same frame by at least two of the coders.

Data Analysis

The researcher looked for themes and relationships based on the frequency of the codes reported. Coverage characteristics were studied by the researcher, including sources, frame, tone, and terminology, as well as the types of frames and interrelationships between them. Frequencies, medians, and modes were calculated in Microsoft Excel and analyzed to satisfy the study's objectives.

CHAPTER IV

FINDINGS

Media coverage of animal welfare legislation can impact voters' perceptions of agriculture, specific legislation, and their voting choices. The purpose of this study was to evaluate selected newspaper coverage of the 2008 California Proposition 2, including framing, sources used, and tone of relevant newspaper content. The objectives of the study were to identify frames, sources, and tone used in selected newspaper content related to Proposition 2.

Animal welfare legislation is a complicated issue that many are passionate about. Although all 50 states have laws prohibiting cruelty to animals, some states have exemptions for farm animal husbandry practices. Animal welfare legislation often targets these exemptions and often impacts the pork, veal, and poultry industries. Educating the public about agriculture is critical because lack of communication can lead to poor public policy decision making that can affect agriculture and the food supply. The public gets most of its information through the media, which develops content from a variety of sources.

A content analysis was used to research the newspaper coverage of Proposition 2 in newspapers in the agricultural districts of California. Three coders evaluated the content by frame, tone, and sources cited over three rounds of coding.

Cases and Population

The newspapers identified for this study were chosen based on the agricultural districts in California. The following newspapers were included in the study: the *Los Angeles Times* from the Southern California district, the *Fresno Bee* from the San Joaquin Valley district, the *San Jose Mercury News* from the Central Coast district, the *Sacramento Bee* from the Sacramento Valley district, the *Redding Record-Searchlight* from the North Mountain district, and the *Eureka Times-Standard* from the North Coast district. The *Redding Record-Searchlight* had one article, which eventually was omitted because the coders agreed that it was not relevant to the study and only briefly mentioned Proposition 2.

The initial search produced 134 ($N = 134$) articles. Content was omitted that was not about Proposition 2 but was present in the search results because of a brief mention of Proposition 2. Content that contained more than one reader-generated response was divided into separate responses. The final set of data included 100 articles ($n = 100$). The most content came from the *San Jose Mercury News* ($f = 31$). The newspaper content per paper is presented in Table 3.

As broken down by newspaper content type, 50 items were reader-generated responses, 24 were news articles, 17 were editorials, 7 were feature articles, and 2 were columns.

Findings Related to Identifying Frames Used in Selected Newspaper Content

Objective one was to determine what frames appeared in the selected newspaper content. The coders came to consensus on eight frames, including animal welfare, animal rights, endorsements, results, voting guide, economic impact, food safety, and political.

Table 3
Newspaper content per paper/agricultural region (n =100)

Paper/agricultural region	Article count (f)
<i>San Jose Mercury News/Central Coast</i>	31
<i>Sacramento Bee/Sacramento Valley</i>	25
<i>Fresno Bee/San Joaquin Valley</i>	21
<i>Los Angeles Times/Southern California</i>	21
<i>Eureka Times Standard/North Coast</i>	2

Coders established a definition for each frame. Definitions of the frames are presented in Table 4.

The most frequently used frame was animal welfare, which was assigned to 46 of the 100 articles. Seven additional frames were used, including economic impact with 15, political with 12, and endorsements with 9. The number of articles per all frames is listed in Table 5. A complete table of all articles with assigned frames is provided in Appendix C.

The framing counts for each article type are shown in Table 6. Articles each were assigned one frame. The reader-generated response category had 35 of 50 articles framed with animal welfare. From a total of 24 articles, the news category included 8 articles framed with economic impact, 5 articles framed with results, 4 articles framed with animal welfare, and 4 articles framed with voting guide. The editorial category had 9 of

Table 4
Definitions of frames used by coders to facilitate the second round of coding

Frame	Definition
Animal welfare	The quality of care provided for animals, including moral and ethical questions regarding quality of care; it may include, but is not limited to, animal conditions, animal cruelty, and animal protection.
Animal rights	Animals' legal right to quality of care, including moral and ethical questions regarding their legal rights.
Endorsements	A paper's staff or personal endorsement of the legislation, one way or the other; it may include, but is not limited to, background information on the issue that is biased.
Results	Unbiased, factual voting results.
Voting guide	A presentation of facts portraying both sides of the issue and intending to be unbiased.
Economic impact	The economic impact on farmers, consumers, or the state in general; does not include campaign funding.
Food safety	The concern of keeping farm products safe for human consumption; may include, but is not limited to, references to egg cleanliness and disease control.
Political	Campaign funding, campaign strategy, and other information regarding the legislative process.

17 articles framed with endorsements. The news and feature content types were considered news with intent to be unbiased. The column and editorial content types were considered opinion pieces that may or may not have been biased.

Table 5
Number of articles per primary frame (n = 100)

Dominant frame	Article count (<i>f</i>)
Animal welfare	47
Economic impact	15
Political	12
Endorsements	9
Voting guide	6
Results	5
Food safety	4
Animal rights	2

Findings Related to Identifying Sources Used in Selected Newspaper Content

Objective two was to identify the types of sources used in the selected newspaper content. Twenty-two articles cited sources. The most frequently cited source type was nonprofit ($f = 24$), followed by government ($f = 13$), individual ($f = 10$), corporate ($f = 6$), and university ($f = 5$). A bar graph of the types of sources cited, and how frequently, is shown in Figure 4. The definitions of source types were created and agreed upon by the coders during the final meeting.

Table 6
Framing counts for each content type

	News		Opinion		Reader-generated response (<i>f</i>)
	News (<i>f</i>)	Feature (<i>f</i>)	Column (<i>f</i>)	Editorial (<i>f</i>)	
Animal welfare	4	2	2	4	35
Animal rights	0	0	0	0	2
Endorsements	0	0	0	9	0
Results	5	0	0	0	0
Voting guide	4	0	0	2	0
Economic impact	8	2	0	2	3
Food safety	0	1	0	0	3
Political	3	2	0	0	7

The most frequently cited source was HSUS, which accounted for 58.33% ($f=14$) of all nonprofit organizations that were cited. Of the 22 articles in this study that cited a source, 14 of them (63.64%) referenced HSUS in some way. Other frequently cited sources included University of California-Davis, which was included in the university category; Farm Bureau, which was included in the corporate category; and Ryan Armstrong, an egg farmer who was included in the individual category.

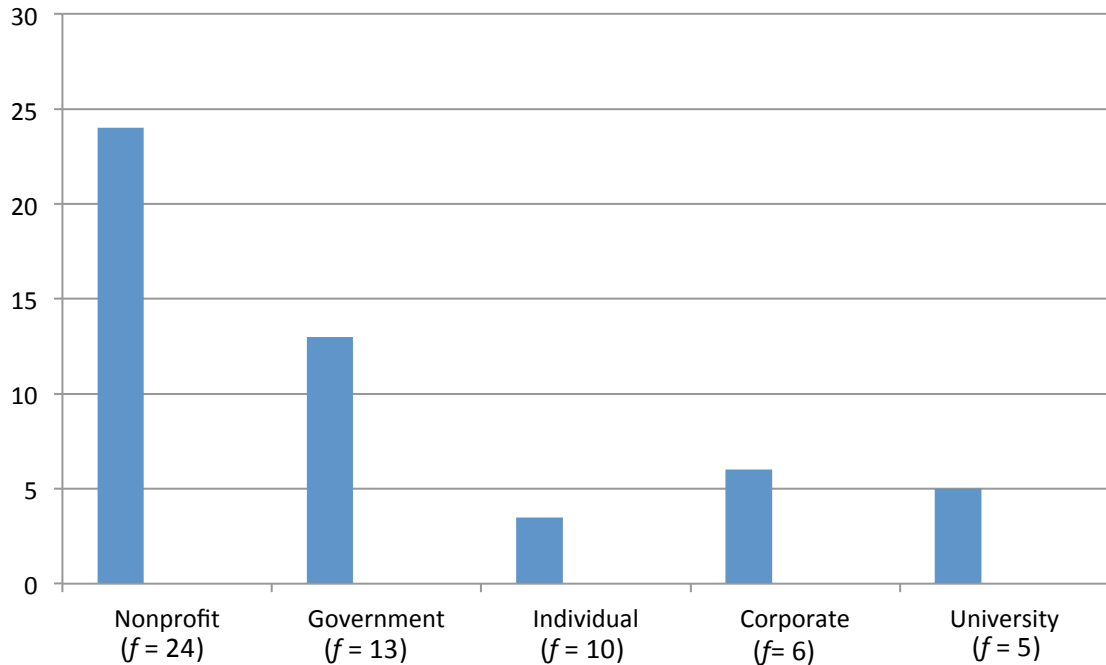


Figure 4. Bar graph of types of sources cited. The total number of citations found in the data was 58.

Findings Related to Determining Tone of Selected Newspaper Content

Objective three was to determine whether the tone of the selected newspaper content was positive, negative, or neutral toward agriculture. Tone was evaluated on a scale from 1 to 5, with 1 being defined as very negative, 3 as neutral, and 5 as very positive.

The median and mode tone for all of the articles included in the final consensus was neutral. Numerical representations of medians, modes, and frequencies for all newspapers are shown in Table 7.

Table 7
Tone per paper/agricultural region

Paper/agricultural region	Median (<i>Mdn</i>)	Mode	Tone frequencies (<i>f</i>)				
			1	2	3	4	5
<i>Fresno Bee</i> /San Joaquin Valley	3	3	1	2	18	0	0
<i>San Jose Mercury News</i> /Central Coast	2	2	2	14	12	2	1
<i>Los Angeles Times</i> /Southern California	3	3	4	3	13	1	0
<i>Sacramento Bee</i> /Sacramento Valley	2	2	5	8	8	4	0
<i>Eureka Times Standard</i> /North Coast	2	n/a	1	0	1	0	0

Note. Only two articles were included in the data for the *Eureka Times Standard*, and a mode was not applicable. Tone was evaluated on a scale from 1 to 5, with 1 being defined as very negative, 3 as neutral, and 5 as very positive.

The tone per framed articles is shown in Table 8. Content written with an endorsements, results, voting guide, economic impact, or political frame had medians and modes of 3. The more negative frames were animal rights (*Mdn* = 2.5) and animal welfare and food safety, which both had medians and modes of 2.

The tone per content type is shown in Table 9. When looking at content by type, the types were grouped by unbiased content (news and column content types), opinion pieces (editorial and feature content types), and reader-generated responses. The unbiased and opinion content groups had medians and modes of 3. Reader-generated responses had a median and mode of 2.

Table 8
Tone for newspaper content as divided by frame

Content type	Median (<i>Mdn</i>)	Mode	Tone frequencies (<i>f</i>)				
			1	2	3	4	5
Endorsements	3	3	0	1	6	2	0
Results	3	3	0	0	5	0	0
Voting guide	3	3	0	0	6	0	0
Economic impact	3	3	1	1	11	2	0
Political	3	3	0	4	8	0	0
Animal rights	2.5	n/a	0	1	1	0	0
Animal welfare	2	2	11	18	14	3	1
Food safety	2	2	1	2	1	0	0

Note. Only two articles were included in the data with an animal rights frame, and a mode was not applicable. Tone was evaluated on a scale from 1 to 5, with 1 being defined as very negative, 3 as neutral, and 5 as very positive.

Table 9
Tone for newspaper content as divided by content type

Dominant frame	Median (<i>Mdn</i>)	Mode	Tone frequencies (<i>f</i>)				
			1	2	3	4	5
Unbiased (news & column content types)	3	3	1	2	27	1	0
Opinion (editorial & feature content types)	3	3	1	4	10	4	0
Reader-generated response	2	2	11	21	15	2	1

Note. Only two editorials were included in the data, and a mode was not applicable. Tone was evaluated on a scale from 1 to 5, with 1 being defined as very negative, 3 as neutral, and 5 as very positive.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Media coverage of animal welfare legislation can impact voters' perceptions of agriculture, specific legislation, and their voting choices. The purpose of this study was to evaluate selected newspaper coverage of the 2008 California Proposition 2, including framing, sources used, and tone of relevant newspaper content. The objectives of the study were to identify frames, sources, and tone used in selected newspaper content related to Proposition 2.

Animal welfare legislation is a complicated issue that many are passionate about. Although all 50 states have laws prohibiting cruelty to animals, some states have exemptions for farm animal husbandry practices. Animal welfare legislation often targets these exemptions and often impacts the pork, veal, and poultry industries. Educating the public about agriculture is critical because lack of communication can lead to poor public policy decision making that can affect agriculture and the food supply. The public gets most of its information through the media, which develops content from a variety of sources.

A content analysis was used to examine selected newspaper coverage of Proposition 2 in newspapers in the agricultural districts of California. Three coders evaluated the content by frame, tone, and sources cited over three rounds of coding.

Summary of Findings

Findings Related to Identifying Frames Used in Selected Newspaper Content

Objective one was to identify the frames used in selected newspaper content by newspapers throughout California. The following papers were used in the study: The *Los Angeles Times*, the *Fresno Bee*, the *San Jose Mercury News*, the *Sacramento Bee*, and the *Eureka Times-Standard*. The coders came to a consensus on 8 frames, including animal welfare, animal rights, endorsements, results, voting guide, economic impact, food safety, and political. Coders established a definition for each frame, which can be seen in Table 4.

Of the 100 articles ($n = 100$) that contained information about Proposition 2 published by the selected newspapers, the most commonly used frame was animal welfare, which accounted for nearly half (46.0%) of the articles' primary frames. The second most used frame was economic impact (15.0%), followed by political (12.0%), and endorsements (10.0%). The frame that was used the least was animal rights (2.0%).

The reader-generated response category had 35 of 50 articles framed with animal welfare. From a total of 24 articles, the news category included 8 articles framed with economic impact, 5 articles framed with results, 4 articles framed with animal welfare, and 4 articles framed with voting guide. The editorial category had 9 of 17 articles framed with endorsements.

Findings Related to Identifying Sources Used in Selected Newspaper Content

Objective two was to identify the sources used in the selected content. Sources were placed into one of the following categories: nonprofit, government, university,

corporate, and individual. The most frequently cited source type was nonprofit, with 24 citations (41.4%) out of a total of 58 citations.

The most frequently cited source was HSUS, which accounted for 58.33% of all nonprofit organizations that were cited. Of the 22 articles in this study that cited a source, 14 of them (63.64%) referenced HSUS in some way. Other commonly cited sources include University of California-Davis, which was included in the university category; Farm Bureau, which was included in the corporate category; and Ryan Armstrong, an egg farmer, who was included in the individual category.

Findings Related to Determining Tone of Selected Newspaper Content

Objective three was to determine whether the tone of the selected newspaper content was positive, negative, or neutral toward agriculture. Tone was evaluated on a scale from 1 to 5, with 1 being defined as very negative, 3 as neutral, and 5 as very positive. Both the median and mode tone for all of the content included in the final consensus was 3.

Content written with an endorsement, results, voting guide, economic impact, or political frame had medians and modes of 3. The more negative frames were animal rights (*Mdn* = 2.5) and animal welfare and food safety, which both had medians and modes of 2.

When looking at content by type, the types were grouped by unbiased content (news and column content types), opinion pieces (editorial and feature content types), and reader-generated responses. The unbiased and opinion content had medians and modes of 3. Reader-generated responses had a median and mode of 2.

Conclusions

The following conclusions have been reached based on the findings of this study.

Conclusions Related to Identifying Frames Used in Selected Newspaper Content

Animal welfare was a dominant topic among reader-generated responses and opinion pieces (columns and editorials). This may be because this is the topic with which the public most relates and is the main topic in the legislation. The topic of animal welfare holds “important scientific, ethical, economic, cultural, religious and political dimensions” (Bayvel & Cross, 2010, p. 3) and is probably a topic about which many readers are passionate.

The economic impact frame was used noticeably less, although it was the second most common frame overall and was used most often in the news category. The argument from opponents of this legislation primarily focused on the economic impact. Based on the results of the vote, it appears that although opponents of the legislation were successful in getting their message to reporters, it was not a frame that resonated with the public. Tonsor and Wolf (2010) stated that voters do not understand economic implications that surround animal welfare legislation, which also may have been the case with Proposition 2 voters.

Newspaper-generated content was more likely to include frames outside of animal welfare, including the endorsements, economic impact, political, and results frames. Reporters, editors, and writers for newspapers are responsible for disseminating information from a variety of sources (Lundy et al., 2006), which may have led to the different frames present in newspaper-generated content. Although newspapers published content that included articles not framed in animal welfare, information beyond facts and

numbers may not have been included, which may have made the information less likely to resonate with the public (Jamison & Lunch, 1992).

Conclusions Related to Identifying Sources Used in Selected Newspaper Content

Reporters predominantly chose to cite sources from nonprofit organizations. Of those nonprofit organizations, reporters overwhelmingly cited HSUS. In Irlbeck et al.'s (2011) study of food safety news coverage, government sources, including the FDA, were relied heavily upon. Alternatively, the presence of nonprofit organizations, specifically HSUS, in this animal welfare study may prove that different types of sources are used depending on the subject matter.

Few reporters went out of their way to contact others who would have beneficial information for the voters on this proposition. Many of the citations in the individual category were from the same egg farmer, similar to the Irlbeck et al. (2011) study of the 2009 salmonella outbreak that found only one food scientist was used as a source. Reporters are often unaware of expert sources or are too busy to contact them (Irlbeck et al., 2011). Consequently, agricultural communicators could have provided additional farmers and agricultural experts as contacts to reporters. The number of university, corporate, and individual sources cited decreased dramatically from the number of nonprofit and government sources cited. Given the amount of agricultural communications services at universities throughout the country, additional information from universities may have been provided but not presented to the public.

Conclusions Related to Determining Tone of Selected Newspaper Content

The selected papers from the two districts with the most agricultural production (San Joaquin Valley and Southern California) were more positive toward agriculture than

the other districts. This may be because those more familiar with agriculture generally have a higher degree of agricultural literacy and a more positive perspective of agriculture (Boogaard et al., 2010; Wagler et al., 2008).

The tone for all selected newspaper content generated by the newspaper, including the news, column, editorial, and feature content types, was mostly neutral. Previous studies found that the vast majority of reporting was accurate and fair (Irlbeck, et al., 2011), a conclusion echoed in this study. Reader-generated responses were the most negative, showing that the public, or at least those passionate enough to submit their opinions to a newspaper, had negative views of agriculture. This is likely because of the very polarized opinions held about animal welfare issues (Getz & Baker, 1990).

The reader-generated responses commonly were framed with animal welfare, demonstrating the polarized opinions referred to by Getz & Baker (1990) and had the most negative overall tone. Most other frames, including animal rights, endorsements, results, voting guide, economic impact, and political, were neutral and primarily were found in the newspaper-generated content. The exception was the food safety frame, which had a negative tone associated with it although it was included in newspaper-generated content. Reporters who write news and feature articles about issues such as Proposition 2 present balanced information so their readers can draw their own conclusions, an example of the agenda-setting function of informing readers of not necessarily what to think, but what to think about (McCombs & Shaw, 1972).

Recommendations

Recommendations for Practice

Reporters should develop relationships with sources who disseminate agricultural information, and sources should be located who are not necessarily appointed by groups involved with the legislation. Reporters and agricultural communicators should remember that animal welfare is a complex and emotional issue (Getz & Baker, 1990) and their audiences are interested not only in economic issues related to agriculture, but also animal welfare.

Agricultural communicators should strive to educate the media and the public about agriculture. People involved with agriculture who are passionate about one side of an issue should not be afraid to contact reporters, write letters to the editor, and contact the public in other ways to tell agriculture's side of the story.

Future legislation and propositions involving similar topics are likely to be present throughout the country. Agricultural professionals should develop a plan to disseminate information regarding animal housing and other common animal welfare issues so they are more equipped to deal with the media interest and opposing sides of animal welfare legislation. This plan should include a variety of sources for journalists to contact. Although the economic impact of the legislation is important, agricultural communicators should develop an emotional message that will compete with opposing animal welfare messages and resonate with readers.

Recommendations for Future Research

Additional research needs to be conducted on the impact of new media on agriculture and agricultural legislation. Voters now obtain information through channels

beyond traditional media (Goodwin & Rhoades, 2011). Online news resources, social media, and television should be studied to gain a comprehensive view of the information voters receive.

Animal welfare legislation and its impact on the public also should be studied. Currently, the public is not perceptive of how this legislation will affect them (Kaufman et al., 2008). More insight into this impact could help reporters relay relevant information to readers. Developing additional ways to stratify newspapers would be beneficial to future studies.

This study may serve as a basis for using the selected frames in content analyses involving newspaper coverage of animal welfare legislation. Future researchers should develop a strategy for working with articles used by wire services and thus replicated by multiple papers, although none were present in this data. To ensure reliable coding, coders should code a percentage of the articles and verify coding with the researcher to develop consistent coding practices.

Implications

Although numerous studies have regarded reporting of agricultural events, a smaller number have studied legislation and the combination of agriculture and policy. This study presents an overview of how animal welfare legislation was presented in news articles. The economic impact frame did not resonate with the public enough to be present in published reader-generated responses, even though it was used by reporters in news stories. The knowledge that content framed with animal welfare is generally more negative in tone should allow reporters and editors alike to be vigilant of how animal welfare is being portrayed to readers.

Reporters and agricultural communicators can ensure that by disseminating the correct and most relevant information to readers and potential voters, they provide an accurate picture of agricultural legislation. The organizations involved in similar debates can gain a greater understanding of how this type of news is being covered in the media, which allows them to choose the information that needs additional attention. Developing a variety of sources and choosing appropriate frames for animal welfare newspaper content will benefit all parties involved in the animal welfare legislation debate and will help to ensure a neutral tone for newspaper coverage.

REFERENCES

- Bayvel, A. C. D. & Cross, N. (2010). Animal welfare: A complex domestic and international public-policy issue — who are the key players? *Journal of Veterinary Medical Education*, 37(1), 3-12.
- Bharad, A. B., Harrison, R. W., Kinsey, J., Degeneffe, D., & Ferreira, G. (2010, February). *Analysis of media agenda-setting effects on consumer confidence in the safety of the U.S. food system*. Paper presented at the meeting of the Southern Agricultural Economics Association Annual Meeting, Orlando, Florida.
- Bias. (n.d.) In *Merriam-Webster's online dictionary*. Retrieved from <http://www.m-w.com/dictionary/bias>
- Boogaard, B. K., Bock, B. B., Oosting, S. J., Wiskerke, J. S. C., & Van Der Zijpp, A. J. (2010). Social acceptance of dairy farming: The ambivalence between the two faces of modernity. *Journal of Agricultural and Environmental Ethics*, 17(1), 24-50.
- Boyd, L. H., & Hale, G. (1989). A special report: The animal rights movement has come of age. *The Professional Animal Scientist*, 1(1).
- Brooks, B. S., Kennedy, G., Moen, D. R., & Ranly, D. (2011). *News reporting and writing* (10th ed.) Boston, MA: Bedford/St. Martin's.
- California Department of Food and Agriculture, Association of California Egg Farmers. (2011). *California's Egg Industry* [Powerpoint]. Retrieved from http://cdfa.ca.gov/state_board/pdfs/Presentations/8%20ACEF.pdf

- California Farm Bureau Federation. (2008a, August). Veterinarians oppose Proposition 2. *Food & Farm News*. Retrieved from <http://www.cfbf.com/news/FoodAndFarmNews.cfm?FFNID=977&rec=CC1AA436277138F61CDA7039911069EAF#4>
- California Farm Bureau Federation. (2008b, October). Governor opposes Proposition 2. *Food & Farm News*. Retrieved from <http://www.cfbf.com/news/FoodAndFarmNews.cfm?FFNID=1024&rec=021BBC7EE20B71134D53E20206BD6FEB#2>
- California Secretary of State. (2008). Secretary of State Debra Bowen assigns numbers to ballot measures certified for the November 4, 2008, general election, invites Californians to submit ballot arguments by July 8 [Press release]. Retrieved from <http://www.sos.ca.gov/admin/press-releases/2008/DB08-072.pdf>
- Cannon, K. J., & Irani, T. A. (2011). Fear and loathing in Britain: A framing analysis of news coverage during the foot and mouth disease outbreaks in the United Kingdom. *Journal of Applied Communications*, 95(1), 6-21.
- Cartmell, D. D. (2001). *Arkansas daily newspaper editors attitudes toward agriculture and the gatekeeping criteria used when publishing agricultural news*. Unpublished doctoral dissertation, University of Missouri, Columbia.
- Centner, T. J. (2009). Limitations on the confinement of food animals in the United States. *Journal of Agricultural and Environmental Ethics*, 23(5), 469-486.
- Commission on Freedom of the Press. (1947). *A free and responsible press, a general report on mass communication: Newspapers, radio, motion pictures, magazines, and books*. Chicago: The University of Chicago Press.
- Croney, C. C. (2010). Words matter: Implications of semantics and imagery in framing animal-welfare issues. *Journal of Veterinary Medical Education*, 37(1), 101-106.

- Croney, C. C., & Reynnells, R. D. (2008). The ethics of semantics: do we clarify or obfuscate reality to influence perceptions of farm animal production? *Journal of Poultry Science*, *87*, 387-391.
- Cuomo, C. (2003). Science, values, and common ground. *Journal of Animal Science*, *81*(11), 2904-2907.
- Editorial. (n.d.) In *Merriam-Webster's online dictionary*. Retrieved from <http://www.m-w.com/dictionary/editorial>
- Entman, R. (2007). Framing bias: Media in the distribution of power. *Journal of Communication*, *57*(1), 163-173.
- Entman, R. (1997). Framing: Towards clarification of a fractured paradigm. *Journal of Communication*, *43*(4), 51-58.
- Favorable. (n.d.) In *Merriam-Webster's online dictionary*. Retrieved from <http://www.m-w.com/dictionary/favorable>
- Farm Animal Cruelty Act, Chapter 13.8, California Division 20 of the Health and Safety Code § 25990-25994 (2008)
- Frick, M. J., Birkenholz, R. J., Gardner, H., & Machtmes, K. (1995). Rural and urban inner-city high school student knowledge and perception of agriculture. *Journal of Agricultural Education*, *36*(4), 1-9.
- Frick, M. J., Kahler, A. A., & Miller, W. W. (1991). A definition and the concepts of agricultural literacy. *Journal of Agricultural Education*, *32*(2), 49-57.
- Getz, W. R., & Baker, F. H. (1990). Educational methodology in dealing with animal rights and welfare in public service. *Journal of Animal Science*, *68*(10), 3468-3474.

- Goodwin, J. N., Chiarelli, C., & Irani, T. (2011). Is perception reality? Improving agricultural messages by discovering how consumers perceive messages. *Journal of Applied Communications*, 95(3), 21-33.
- Goodwin, J. N., & Rhoades, E. (2011). Agricultural legislation: The presence of California Proposition 2 on YouTube. *Journal of Applied Communications*, 95(1), 22-35.
- Hodges, J. (2003). Livestock, ethics, and quality of life. *Journal of Animal Science*, 81, 2887-2894.
- Holloway, L. (2004). Showing and telling farming: agricultural shows and re-imagining British agriculture. *Journal of Rural Studies*, 20, 319-330.
- Irlbeck, E. G., Akers, C., & Palmer, A. (2011). A nutty study: A framing analysis of the 2009 salmonella outbreak in peanut products. *Journal of Applied Communications*, 95(2), 48-59.
- Jamison, W. V., & Lunch, W. M. (1992). Rights of animals, perceptions of science, and political activism: Profile of American animal rights activists. *Science, Technology, and Human Values*, 17(4), 438-458.
- Jorsett, J. (2009, February 3). Calif initiative spending at a glance. *Sacramento Bee*. Retrieved from ProQuest database.
- Kaufman, E. K., Israel, G. D., & Irani, T. A. (2008). Voter confidence in the agricultural industry. *Journal of Applied Communications*, 92(1 & 2), 31-55.

- Kilian, E. (2008, May). Pork industry culture to change. *Feedstuffs*, 21(80). Retrieved from <http://www.feedstuffsfoodlink.com/ME2/dirmod.asp?sid=&nm=&type=news&mod=News&mid=9A02E3B96F2A415ABC72CB5F516B4C10&tier=3&nid=0BAA9BF8B587444EAF6E35B2838F46B5>
- King, J. M. (2005). *Newspaper coverage of the bovine spongiform encephalopathy outbreak in the United States: A content analysis*. (Unpublished master's thesis). Oklahoma State University, Stillwater, Oklahoma.
- Lee, C. (2008b, November). Farmers discouraged by Prop. 2 passage. *Ag Alert*. Retrieved from <http://www.agalert.com/story/?id=1175>
- Leising, J. G., Igo, C. G., Heald, A., Hubert, D., & Yamamoto, J. (1998). *A guide to food & fiber systems literacy*. W. K. Kellogg Foundation & Oklahoma State University, Stillwater.
- Lundy, L., Ruth, A., Telg, R., & Irany, T. (2006). It takes two: Public understanding of agricultural science and agricultural scientists' understanding of the public. *Journal of Applied Communications*, 90(1), 55-68.
- McCombs, M. (2005). A look at agenda-setting: Past, present and future. *Journalism Studies*, 6(4), 543-557.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36(2), 176-187.
- McGlone, J. J., & Salak-Johnson, J. (2008, January). *Changing from sow gestation crates to pens: Problem or opportunity?* Paper presented at the Manitoba Swine Seminar, Winnipeg, Manitoba, Canada.

- Miller, J. D., Stewart, D. M., & West, L. M. (2006). Themes, authors, and citations in the *Journal of Applied Communications*, 2000–2004. Proceedings of the 2006 SAAS Agricultural Communications Section Meeting, Orlando, FL.
- News. (n.d.) In *Merriam-Webster's online dictionary*. Retrieved from <http://www.m-w.com/dictionary/news>
- Ohio Newspaper Association. (2011). *2011 Directory of Ohio Newspapers*.
- Panach, M. A. (2007). *A content analysis of print media coverage of a water quality dispute between the state of Oklahoma and the Arkansas poultry industry*. (Master's thesis). Available from ProQuest Dissertations and Theses database. (UMI No. 1446698)
- Pense, S. L., Beebe, J. D., Leising, J. G., Wakefield, D. B., & Steffen, R. W. (2006). The agricultural literacy of urban/suburban and rural twelfth grade students in five Illinois high schools: An ex post facto study. *Journal of Southern Agricultural Education Research*, 56(1), 5-17.
- Raven, M. R. (1994). The need for agricultural literacy. *Vocational Education Journal*, 69(3), 37.
- Reisner, A. (1992). An activist press: The farm press's coverage of the animal rights movement. *Agriculture and Human Values*, 9(2), 38-53.
- Reisner, A. E., & Taheripour, F. (2007). Reaction of the local public to large-scale swine facilities. *Journal of Animal Science*, 85(6), 1587-1595.
- Reisner, A., & Walter, G. (1994). Agricultural journalists' assessments of print coverage of agricultural news. *Rural Sociology*, 59(3), 525-537.


- Ruth, A. M., Eubanks, E. E., & Telg, R. (2005). Framing of mad cow media coverage. *Journal of Applied Communications, 89*(4), 39-54.
- Ruth, A., Telg, R., Irani, T., & Locke, D. (2004, February). *Agricultural scientists' perceptions of fairness and accuracy of science and agriculture coverage in the news media*. Paper presented at the meeting of the Southern Association of Agricultural Scientists, Agricultural Communication Section, Tulsa, OK.
- Ruth-McSwain, R., & Telg, R. (2008). To bother or not to bother? Media relationship development strategies of agricultural communication professionals. *Journal of Applied Communications, 92*(3 & 4), 47-60.
- Scheufele, D. A., & Tewksbury, D. (2007). Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication, 57*, 9-20.
- Sitton, S. R. (2000). 1998 newspaper coverage of Oklahoma swine production issues: A content analysis (Doctoral dissertation, Oklahoma State University, 2000). *Dissertation Abstracts International, 62*, 2662.
- Springsteen, E. R. (2009). A proposal to regulate farm animal confinement in the United States and an overview of current and proposed laws on the subject. *Drake Journal of Agricultural Law, 14*(3), 437-463.
- Sumner, D. A., Matthews, W. A., Mench, J. A., & Rosen-Molina, J. T. (2010). The Economics of Regulations on Hen Housing in California. *Journal of Agricultural and Applied Economics, 42*(3), 429-438.
- Sumner, D. A., Rosen-Molina, J. T., Matthews, W. A., Mench, J. A., & Ritcher, K. R. (2008). *Economic Effects of Proposed Restrictions on Egg-laying Hen Housing in California*. University of California Agricultural Issues Center, 2008.

- The Humane Society of the United States. (n.d.). *An HSUS report: The welfare of intensively confined animals in battery cages, gestation crates, and veal crates*. Retrieved from <http://www.humanesociety.org/assets/pdfs/farm/hsus-the-welfare-of-intensively-confined-animals.pdf>
- The Missouri Group. (2011). *News Reporting and Writing, Tenth Edition*. Boston, Massachusetts: Bedford/St. Martin's.
- Tonsor, G. T., & Wolf, C. A. (2010). Drivers of resident support for animal care oriented ballot initiatives. *Journal of Agricultural and Applied Economics*, 42(3), 419-428.
- Tonsor, G. T., Wolf, C., & Olynk, N. (2009). Consumer voting and demand behavior regarding swine gestation crates. *Agricultural and Resource Economics Review*, 38(2009), 371-383.
- Unfavorable. (n.d.) In *Merriam-Webster's online dictionary*. Retrieved from <http://www.m-w.com/dictionary/unfavorable>
- University of California Agricultural Issues Center. (2009). *The measure of California agriculture*. Retrieved from <http://aic.ucdavis.edu/publications/moca/moca09/moca09.pdf>
- USDA, National Agricultural Statistics Service, California Field Office. (2011). *California Agricultural Statistics, Crop Year 2010*. Retrieved from http://www.nass.usda.gov/Statistics_by_State/California/Publications/California_Ag_Statistics/Reports/2010cas-all.pdf
- Weaver, D. H. (1996). What voters learn from media. *Annals of the American Academy of Political and Social Science*. 546, 34-37.

- Weber-Nielsen, M. S., & Bergfeld, E. (2003). Critical perspectives in animal agriculture: A response. *Journal of Animal Science*, 81, 2908-2911.
- Westwood-Money, K. (2008). *News wire coverage of the E-coli outbreak in spinach: A media framing analysis* (Master's thesis). Available from ProQuest Dissertations and Theses database. (UMI No. 1461816)
- What Proposition 2 really means for agriculture. (2008, November). *The Beef Site*. Retrieved from <http://beefmagazine.com/government/1110-prop-2-means-agriculture>
- Wilcock, A., Pun, M., Khanona, J., & Aung, M. (2004). Consumer attitudes, knowledge and behaviour: A review of food safety issues. *Trends in Food Science & Technology*, 15, 56-66.

APPENDICES

APPENDIX A
QUALTRICS FORMS



AGRICULTURAL ECONOMICS

Article Information

Article Number

Author Name Last

Coder Initials

Article Type

News

Feature

Column

Editorial

Reader Generated Response

Dominant Frame

Tone

	1 (Very Negative)	2	3 (Neutral)	4	5 (Very Positive)
Tone					

Sources Cited

	Source	Affiliation	Title	Quote/Information Attributed
Click to write Statement 1				
Click to write Statement 2				
Click to write Statement 3				
Click to write Statement 4				
Click to write Statement 5				
Click to write Statement 6				
Click to write Statement 7				
Click to write Statement 8				

AGRICULTURAL ECONOMICS

Article Information

Coder Initials

Article Number

Author Name Last

What was the main frame present in the article? (Select all that apply)

ANIMAL WELFARE - Quality of care provided for animals, including moral and ethical questions regarding quality of care. May include, but is not limited to, animal conditions, animal cruelty, animal protection.

ANIMAL RIGHTS - Animals' legal right to quality of care, including moral and ethical questions regarding their legal right.

ENDORSEMENTS - A paper's staff or personal endorsement of the legislation, one way or the other. Could include background information on the issue that is biased.

RESULTS - Unbiased, factual voting results.

VOTING GUIDE - Presentation of facts portraying both sides of the issue, intended to be unbiased.

ECONOMIC IMPACT - The economic impact on farmers, consumers or the state in general. Does not include campaign funding (political).


FOOD SAFETY - The concern of keeping farm products safe for human consumption. May include references to egg cleanliness and disease control.

POLITICAL - Campaign funding, campaign strategy, legislative processes.

None

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AGRICULTURAL ECONOMICS

Article Information

Article Number

Author Name Last

Article Type

News

Feature

Column

Editorial

Reader Generated Response

Tone

	1 (Very Negative)	2	3 (Neutral)	4	5 (Very Positive)
Tone					

Dominant Frame

ANIMAL WELFARE - Quality of care provided for animals, including moral and ethical questions regarding quality of care. May include, but is not limited to, animal conditions, animal cruelty, animal protection.

ANIMAL RIGHTS - Animals' legal right to quality of care, including moral and ethical questions regarding their legal right.

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FOOD SAFETY - The concern of keeping farm products safe for human consumption. May include references to egg cleanliness and disease control.

POLITICAL - Campaign funding, campaign strategy, legislative processes.

None/Article Omitted

Secondary frame

ANIMAL WELFARE


ANIMAL RIGHTS

ENDORSEMENTS

RESULTS

VOTING GUIDE

ECONOMIC IMPACT



AGRICULTURAL ECONOMICS

Article Information

Article Number

Author Name Last

Article Type

News

Feature

Column

Editorial

Reader Generated Response

Tone

	1 (Very Negative)	2	3 (Neutral)	4	5 (Very Positive)
Tone					

Dominant Frame

ANIMAL WELFARE - Quality of care provided for animals, including moral and ethical questions regarding quality of care. May include, but is not limited to, animal conditions, animal cruelty, animal protection.

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FOOD SAFETY - The concern of keeping farm products safe for human consumption. May include references to egg cleanliness and disease control.

POLITICAL - Campaign funding, campaign strategy, legislative processes.

None/Article Omitted

Secondary frame

ANIMAL WELFARE

ANIMAL RIGHTS

ENDORSEMENTS

RESULTS

VOTING GUIDE

ECONOMIC IMPACT

[https://okstategasnr.qualtrics.com/SE/?SID=SV_09wwSZRN1Szemng\[4/6/2012 9:05:28 AM\]](https://okstategasnr.qualtrics.com/SE/?SID=SV_09wwSZRN1Szemng[4/6/2012 9:05:28 AM])

FOOD SAFETY


POLITICAL

None

Sources Cited - Specify how many, and which category:

- Government sources
- University sources
- Non-profit sources
- Corporate sources
- Individuals

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APPENDIX B

TONES AND FRAMES OF ALL ARTICLES

Table 1
News Articles, Paper, Date, Type, Frame, and Tone

Article	Paper	Date	Type	Frame	Tone (<i>Mdn</i>)
1. Election 2008: Results	LA Times	11/6/08	News	RE	3
2. Food: Prop. 2 unlikely to hike egg prices; A study notes the measure approved by state voters doesn't take effect until 2015.	LA Times	11/6/08	News	EC	2
3. Election 2008: Farm animal protection measure wins; Redistricting also is poised for victory. Propositions 1A and 4 are too close to call.	LA Times	11/5/08	News	VG	3
4. Endorsements 2008: The Times' choices	LA Times	11/4/08	Editorial	EN	3
5. Endorsements 2008: Ballot recommendations	LA Times	11/3/08	Editorial	EN	3
6. Endorsements 2008: Reasons to recommend: The thinking behind The Times' suggestions on the major ballot issues in this election.	LA Times	11/1/08	Editorial	EN	3
7. Endorsements 2008: The Times' picks	LA Times	10/31/08	Editorial	EN	3
8. Endorsements 2008: That's the ticket	LA Times	10/30/08	Editorial	EN	3
9. Prop 2: It's the humane thing to do	LA Times	10/28/08	Editorial	AW	1
10. Ruffled feathers	LA Times	10/20/08	RGR	PO	3
11. California elections: Prop. 2 pits animal rights against farmers	LA Times	10/21/08	Feature	AW	3
12. George Skelton/Capitol Journal: Prop. 2 is for the birds	LA Times	10/20/08	Editorial	AW	4

13. Voter guide: The Nov. 4 elections; The 12 state propositions	LA Times	10/19/08	News	VG	3
14. Group alleges cruelty to hens; Supporters of Prop. 2 release video said to be taken at a ranch in Riverside County	LA Times	10/14/08	Feature	AW	1
15. Endorsements 2008: Just to recap; Recommendations on bonds, taxes, runoffs and measures that make up this year's ballot	LA Times	10/11/08	Editorial	EN	3
16. Help the chickens	LA Times	9/29/08	RGR	AW	1
17. Endorsements 2008: Not chicken feed; Though admirable, Proposition 2's ban on tight cages for hens could drive the egg business out of state	LA Times	9/25/08	Editorial	AW	2
18. Props to the people; Stories behind the November ballot initiatives that you won't find in an official voter guide	LA Times	9/21/08	Editorial	VG	3
19. Negligence is criminal	LA Times	8/10/08	RGR	AR	2
20. Proposition funds flow from out of state; Large amounts are targeted for and against gay marriage initiative and Prop. 2, a farm cruelty measure	LA Times	8/1/08	News	PO	3
21. Change requires a step at a time	LA Times	7/8/08	RGR	AW	1
22. The (nearly) final tally	Eureka TS	11/12/08	News	RE	3
23. (*OMIT)					
24. A moral issue	Eureka TS	10/29/08	RGR	AW	1

25. Prop. 2/Focus shifts to D.C.; Animal-rights group seeks voice on Ag secretary	Sac Bee	9/28/08	Feature	PO	2
26. The Buzz	Sac Bee	11/11/08	News	EC	3
27. Proposition 2/Caged hens banned; What voters hatched unclear; Rest of U.S. will determine egg business impact	Sac Bee	11/8/08	Feature	EC	3
28. Letters/High-speed rail, Proposition 2, gay marriage, initiatives, etc.	Sac Bee	11/8/08	RGR	EC	4
29. (*OMIT)					
30. Tuesday's vote: The Bee recommends	Sac Bee	11/2/08	Editorial	EN	4
31a. Letters/Yosemite, absentee ballots, gay marriage, animal rights, etc. (Pedersen)	Sac Bee	10/23/08	RGR	AW	3
31b. Letters/Yosemite, absentee ballots, gay marriage, animal rights, etc. (Glatz)	Sac Bee	10/23/08	RGR	AW	3
32. The Buzz	Sac Bee	10/22/08	News	EC	4
33. Letters/Bee's endorsement of Rep. Lungren, GOP Web site, 'Joe the Plumber,' etc.	Sac Bee	10/19/08	RGR	AW	1
34. Letters/Fire prevention, animals, sprawl, Reagan's legacy, etc.	Sac Bee	10/18/08	RGR	AW	1
35a. Letters/Economy, Prop. 2, McCain's first marriage, Obama's 401(k) idea, etc. (Alexander)	Sac Bee	10/17/08	RGR	PO	2

35b. Letters/Economy, Prop. 2, McCain's first marriage, Obama's 401(k) idea, etc. (Bremer)	Sac Bee	10/17/08	RGR	AW	2
36. Letters/Proposition 8, correctional officers' pay, Proposition 2	Sac Bee	10/15/08	RGR	AW	2
37. Letters/Democrats' agenda, Proposition 2, bus crash, kids and pets, etc.	Sac Bee	10/14/08	RGR	AW	1
38. Some animal images don't really apply	Sac Bee	10/13/08	News	AW	3
39a. Letters/Proposition 2, West Campus, presidential candidates, McClintock (Meeks)	Sac Bee	10/13/08	RGR	AW	1
39b. Letters/Proposition 2, West Campus, presidential candidates, McClintock (Forrester)	Sac Bee	10/13/08	RGR	AW	1
40. Letters/Proposition 2, McClintock, legislators, Proposition 8, etc.	Sac Bee	10/10/08	RGR	AW	2
41. Say 'No' to all propositions except 11; With state broke and initiative machine run wild, it's time to reject ballot measures	Sac Bee	10/9/08	Editorial	EN	4
42. Letters/The bailout; Propositions 2, 5 and 8; Sacramento as a 'destination city'	Sac Bee	10/8/08	RGR	AW	2
43. Propositions/12 measures crowd November ballot; Initiatives run the gamut from social to economic issues	Sac Bee	9/28/08	News	PO	3
44. Proposition 2/Standards for confining farm animals	Sac Bee	9/27/08	News	VG	3

45a. Letters: Narrow-minded Americans, President Bush, farm animals, water, etc. (DeCarlo)	Sac Bee	8/21/08	RGR	AW	2
45b. Letters: Narrow-minded Americans, President Bush, farm animals, water, etc. (Gallagher)	Sac Bee	8/21/08	RGR	AW	2
46. Caged hens set off battle; More space sought, but egg price jump predicted	Sac Bee	8/15/08	News	EC	3
47. (*OMIT)	San Jose MN				
48. Anti-Prop 8 protest snarls Friday traffic in San Francisco	San Jose MN	11/7/08	News	EC	3
49. Governor calls Prop 11 as passing, despite narrow lead	San Jose MN	11/5/08	News	EC	3
50. (*OMIT)					
51. Prop. 2, animal protection measure, wins	San Jose MN	11/4/08	News	AW	3
52. Readers' letters	San Jose MN	11/1/08	RGR	AW	2
53. Letter: Prop. 2 stops cruel treatment of farm animals	San Jose MN	10/31/08	RGR	AW	2
54. Oct. 28 Readers' letters	San Jose MN	10/27/08	RGR	AW	2
55. Prop. 2: Both sides claim they're looking out for welfare of chickens and humans	San Jose MN	10/25/08	News	AW	3
56. Fisher: What I learned about Proposition 2 at the egg farm	San Jose MN	10/22/08	Column	AW	4
57. Roundup of California state propositions	San Jose MN	10/18/08	Column	VG	3
58a. Oct. 16 Readers' letters (Ramakrishna)	San Jose MN	10/15/08	RGR	PO	2

58b. Oct. 16 Readers' letters (Nazarian)	San Jose MN	10/15/08	RGR	AW	2
59. Oct. 15 Readers' letters	San Jose MN	10/14/08	RGR	AW	2
60. (*OMIT)					
61. Additional Oct. 14 Readers' letters	San Jose MN	10/14/08	RGR	PO	3
62. Fisher: Free the chickens?	San Jose MN	10/12/08	Column	AW	2
63. Election recommendations from the Mercury News	San Jose MN	10/12/08	Editorial	EN	2
64. Oct. 9 Additional Readers' letters	San Jose MN	10/9/08	RGR	AW	2
65. Oct. 8 Additional Readers' letters	San Jose MN	10/8/08	RGR	FS	2
66. Oct. 8 Readers' letters	San Jose MN	10/7/08	RGR	AW	4
67. Oct. 7 Additional Readers' letters	San Jose MN	10/7/08	RGR	AW	5
68. Oct. 6 Additional Readers' letters	San Jose MN	10/6/08	RGR	AW	3
69. Oct. 5 Readers' letters	San Jose MN	10/5/08	RGR	AW	3
70a. Oct. 4 Additional Readers' letters (Bystricky)	San Jose MN	10/4/08	RGR	FS	1
70b. Oct. 4 Additional Readers' letters (Ramakrishna)	San Jose MN	10/4/08	RGR	PO	2
70c. Oct. 4 Additional Readers' letters (Towell)	San Jose MN	10/4/08	RGR	AW	2
71. Editorial: Vote yes on Proposition 2 to let chickens spread their wings	San Jose MN	10/2/08	Editorial	AW	2
72. Oct. 2 Readers' letters	San Jose MN	10/2/08	RGR	AW	3

73. Sept. 24 Readers' letters	San Jose MN	9/23/08	RGR	PO	3
74. Success of algebra plan is uncertain	San Jose MN	7/15/08	RGR	EC	3
75. Additional 'Letters to the Editor'	San Jose MN	7/13/08	RGR	AW	1
76. Calories on menus: It's good for us	San Jose MN	7/13/08	RGR	AW	2
77. 11 propositions make it onto November state ballot	San Jose MN	6/29/08	Feature	PO	3
78. (*OMIT)					
79. (*OMIT)					
80. Prop. 2 lays no egg, wins convincingly; Valley counties oppose it, but not most of the rest of state	Fresno Bee	11/6/08	News	EC	3
81. The propositions, and how they fared	Fresno Bee	11/5/08	News	RE	3
82. The propositions, and how they fared	Fresno Bee	11/5/08	News	RE	3
83. How the other propositions fared	Fresno Bee	11/5/08	News	RE	3
84. Letters to the editor	Fresno Bee	11/4/08	RGR	AW	3
85. (*OMIT)					
86. Local briefs	Fresno Bee	10/28/08	News	AW	3
87. Letters to the editor	Fresno Bee	10/28/08	RGR	AR	3
88a. Letters to the editor (Hubl)	Fresno Bee	10/26/08	RGR	AW	3
88b. Letters to the editor (Caffrey)	Fresno Bee	10/26/08	RGR	AW	2

88c. Letters to the editor (Stevens)	Fresno Bee	10/26/08	RGR	PO	3
88d. Letters to the editor (Stutzman)	Fresno Bee	10/26/08	RGR	AW	3
89. Letters to the editors	Fresno Bee	10/24/08	RGR	EC	1
90. Flying the coop?; Prop. 2 would uncage hens, and, opponents say, undo the state's egg industry.	Fresno Bee	10/20/08	News	EC	3
91. Easy choice on ballot measures: No!!! No!!!	Fresno Bee	10/19/08	Editorial	EC	3
92. Letters to the editor	Fresno Bee	10/17/08	RGR	FS	2
93. Funds flow from out of state on Prop. 2; Ballot measure targets living space for farm animals.	Fresno Bee	10/16/08	News	PO	3
94. Letters to the editor	Fresno Bee	10/16/08	RGR	AW	3
95. Prop. 2 gives farm animals more room	Fresno Bee	10/15/08	Feature	EC	3
96. Proposition 2 is a well-intentioned effort — that voters should reject	Fresno Bee	10/14/08	Editorial	EC	3
97. In brief	Fresno Bee	8/27/08	News	VG	3
98. Compounds add spice to research on food safety	Fresno Bee	8/2/08	Feature	FS	3

Note. RGR = Reader-generated response; AW = Animal welfare; AR = Animal rights; EN = Endorsements; RE = Results; VG = Voting guide; EC = Economic; FS = Food safety; PO = political; Tone ranges from 1 to 5 with 1 being defined as very negative, 3 as neutral, and 5 as very positive.

APPENDIX C
FRAMING COUNTS BY NEWSPAPER

Table 1
Framing counts for the Fresno Bee

Dominant frame	Article count
Animal welfare	6
Animal rights	1
Endorsements	0
Results	3
Voting guide	1
Economic impact	6
Food safety	2
Political	2
Total	21

Table 2
Framing counts for the Eureka Times Standard

Dominant frame	Article count
Animal welfare	1
Animal rights	0
Endorsements	0
Results	1
Voting guide	0
Economic impact	0
Food safety	0
Political	0
Total	2

Table 3
Framing counts for the Sacramento Bee

Dominant frame	Article count
Animal welfare	14
Animal rights	0
Endorsements	2
Results	0
Voting guide	1
Economic impact	5
Food safety	0
Political	3
Total	25

Table 4
Framing counts for the San Jose Mercury News

Dominant frame	Article count
Animal welfare	19
Animal rights	0
Endorsements	1
Results	0
Voting guide	1
Economic impact	3
Food safety	2
Political	5
Total	31

VITA

Katherine Ann Kuykendall

Candidate for the Degree of

Master of Science

Thesis: KATHERINE ANN KUYKENDALL

Major Field: Agricultural Communications

Biographical:

Personal Data: Born in Greensboro, North Carolina, on October 19, 1988, the daughter of Kevin and Sara Kuykendall.

Education: Graduated from Richland Center High School, Richland Center, Wisconsin, in May 2006; received Bachelor of Science degree from Purdue University, West Lafayette, Indiana, in May 2010, Major: Agricultural Communication, Minor: Animal Science. Completed the requirements for the Master of Science degree with a major in Agricultural Communications at Oklahoma State University in May, 2012.

Professional Experience: Raised on a farm in Richland Center, Wisconsin; Student Writer at the Purdue Youth Education and Agricultural Education department, August 2008 to May 2009; Intern and Photographer at Banner Publications, June 2007 to August 2009; Graphic Designer and Web Developer at Novel Designs, December 2009 to present.

Professional Memberships: Agricultural Communicators of Tomorrow and Oklahoma State University Agricultural Education Graduate Student Association.

Name: Katherine A. Kuykendall

Date of Degree: May, 2012

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: SELECTED NEWSPAPER COVERAGE OF THE 2008 CALIFORNIA PROPOSITION 2: A CONTENT ANALYSIS

Pages in Study: 83

Candidate for the Degree of Master of Science

Major Field: Agricultural Communications

Scope and Method of Study: Media coverage of animal welfare legislation and can impact voters perceptions of agriculture, specific legislation, and their voting choices. The purpose of this study was to evaluate selected newspaper coverage of the 2008 California Proposition 2, including framing, sources used, and tone of relevant newspaper articles. A content analysis was used to examine selected newspaper coverage of Proposition 2 in newspapers in the agricultural districts of California. The scope of the study included news articles, columns, editorials, feature stories, and reader-generated responses published between January 1, 2008, and December 31, 2008, regarding Proposition 2 in the largest circulating newspapers available from each agricultural district in California.

Findings and Conclusions: Coders came to a consensus on 8 frames present throughout the selected newspaper content, including animal welfare, animal rights, endorsements, results, voting guide, economic impact, food safety, and political. Animal welfare was a dominant frame among reader-generated responses, perhaps because of the passionate nature of the topic. The economic impact frame was used noticeably less, although it was the most often used in the news category. The most frequently cited source was a nonprofit organization, and within that category the most often cited source was HSUS, who proposed the legislation. Few reporters went out of their way to contact sources who would have beneficial information for the voters on this proposition. The selected newspapers from the two districts with the most agricultural production were more positive toward agriculture than the other districts. The tone for all selected newspaper content generated by the newspaper, including the news, column, editorial, and feature content types, was mostly neutral. Previous studies found that the vast majority of reporting was accurate and fair (Irlbeck et al., 2011), a conclusion echoed in this study. Reader-generated responses were the most negative, showing that the public, or at least those passionate enough to submit their opinions to a newspaper, had negative views of agriculture.

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