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Erica Irlbeck
Texas Tech University

Austin Moore
Texas Tech University

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Crisis Communications in a Natural Agricultural Disaster

Abstract

Wildfires in Texas, Oklahoma, and Kansas in the late 2010s caused seven deaths and catastrophic damage to millions of acres of ranch and farmland. Because of the rural location of these disasters, agricultural communicators were releasing information to media, internal stakeholders, social media, and other agricultural audiences. The purpose of this study was to explore the communications efforts made and subsequent lessons learned from agricultural communicators during the fires. Through a qualitative case study, researchers interviewed 14 agricultural communicators about their experiences in disseminating information about the fires. Most of the findings align with pre-existing literature; however the researchers found that communicators should be prepared to develop a system to communicate about and accept donations, develop a network of organizations that can be supportive in a crisis situation, and let people be the subject of the messaging. The data also indicate that an undergraduate course in crisis communications would be beneficial.

Keywords

Risk & crisis communications; natural disaster; wildfires

Crisis Communications in a Natural Agricultural Disaster

Introduction

Natural disasters are one form of crisis and can include tornados, flooding, hail, blizzards, hurricanes, and wildfires. For three straight years – 2016, 2017, and 2018 – a significant swath of the United States High Plains in Texas, Oklahoma, and Kansas experienced large-scale wildfires. In the three years, seven people and thousands of head of cattle died, nearly two million acres burned, and numerous homes, barns, and miles of fences were destroyed as a direct result of the fire (Gabbert, 2017; InciWeb, 2017 & 2018; National Aeronautics & Space Administration [NASA], 2016). When the fires occurred, flames were reported to reach more than 70 feet high, and the burn scars on the land were easily identified from space (King, 2018).

In the summers preceding the fires, the High Plains had rainfall amounts that allowed for plenty of grass and other vegetation to grow. However, the winters and early springs of 2016-18 saw little-to-no rainfall, converting the forage into fuel, and creating an environment for frequent and intense fires (Climate Signals, 2017). Although prairie fires have always occurred, climate change has intensified these typical weather events into widespread and catastrophic disasters with devastating impact to life, land, and livestock (Black, 2012). The total area burned from wildfires on the High Plains rose 400% between 1984 and 2014 (Donovan, Wonkka, & Twidwell, 2017).

In all three years, the wildfires received national media attention and evoked a massive disaster relief response of money, hay, fencing supplies, milk replacer, bottled water, and other donations. Because these wildfires were in rural areas and involved livestock (mostly beef cattle), farmland, pastures, fencing, barns, and farm/ranch equipment, agricultural communicators led the information dissemination efforts. Those communicators were employed by extension, livestock associations, state departments of agriculture, and other agricultural organizations, as well as agricultural media outlets.

As the climate continues to change and weather events become more extreme (Climate Signals, 2017), communicating about natural disasters is becoming a more important part of an agricultural communicator's job. The purpose of this study was to explore the communications efforts made and subsequent lessons learned from agricultural communicators during the 2016, 2017, and 2018 wildfires in Texas, Oklahoma, and Kansas. This research was guided by three objectives:

1. Determine agricultural communications practitioners' efforts to create a natural disaster crisis communications plan.
2. Explore the practitioners' strategies to communicate during and after the wildfires.
3. Determine the lessons learned by communicators during the wildfires.

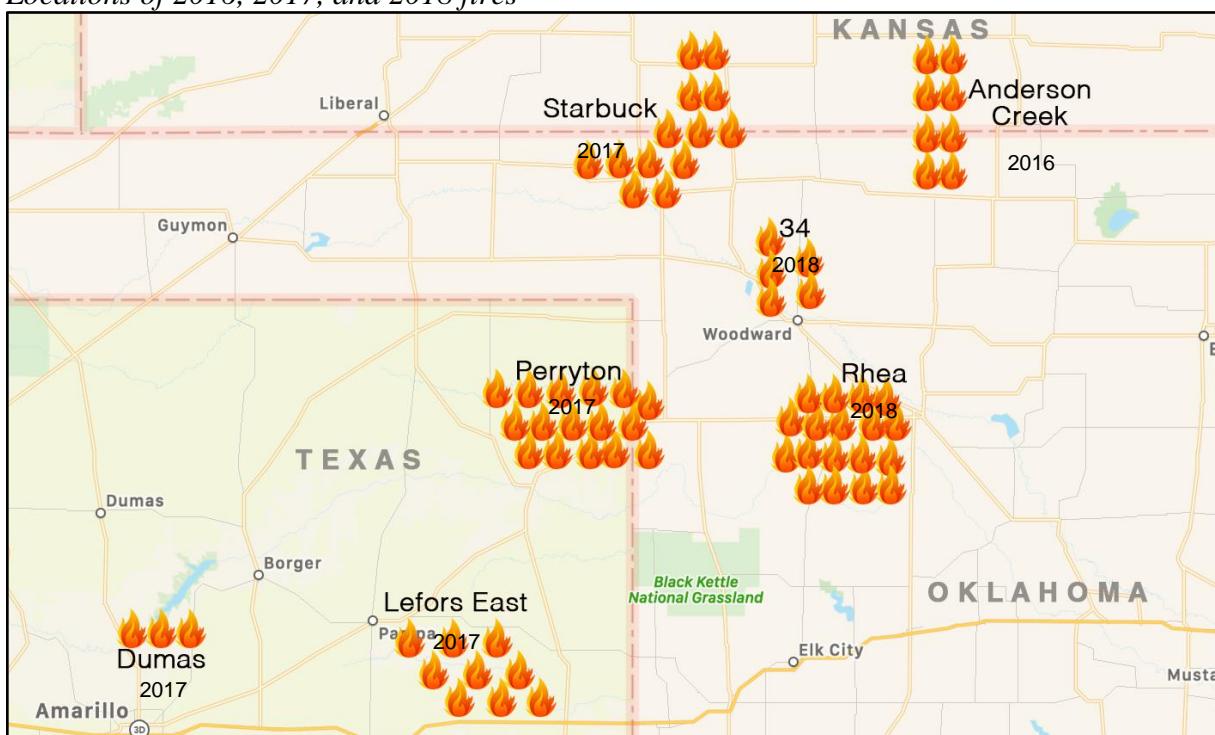
Understanding communications during a natural disaster is an important field of study (Terracina-Hartman, 2017), and investigating effective strategies can lead to better communications before and during an event (Steelman & McCaffrey, 2013). The knowledge

gleaned from this study will help agricultural communicators develop a crisis communications plan centered around a natural disaster.

Although massive fires occurred in other parts of the U.S. in the same years, this study is limited to Texas, Oklahoma, and Kansas in 2016, 2017, and 2018 for three reasons. Geographically, the fires occurred in a relatively close region (see Figure 1). Wildfires occur every year throughout the nation, but it is unusual to have fires of that scale three years in a row relatively close to each other. Finally, the fires occurred in rural areas and mostly damaged livestock, fencing, barns, feed and hay, and other agricultural entities, rather than homes and municipalities. Specifically, this study focused on seven fires (see Table 1).

Figure 1

Locations of 2016, 2017, and 2018 fires



Note. The locations on the map are not exact in location, scale, or shape. This figure is author-created to provide a general visualization of the geographic area impacted.

The area of study is a portion of the U.S. High Plains. The landscape in Figure 1 contains mesas, escarpments, and rolling lowlands (Johnson, 2020). The vegetation in the region consists mostly of short grasses, with minimal trees (Johnson, 2020). The grasslands and soil structure make the area very conducive to agriculture as the region is the nation's predominant hard winter wheat growing region (Johnson, 2020); however, sorghum, cotton, corn, and other crops are regularly grown. Much of the region below is irrigated from the Ogallala Aquifer, which supplements the area's limited rainfall (High Plains Water District, 2020). Stocker and grazing cattle are common, and the area is the nation's largest cattle feeding region (Texas Cattle Feeders Association, 2020).

Table 1*Dates and descriptions of wildfires*

Date	Fire Name	Location	Number of Acres
2016 – March 22	Anderson Creek Fire	Woods Co., OK; Barber & Comanche Cos., KS	397,420
2017 – March 6	Starbuck Fire	Beaver Co., OK & Clark Co., KS	779,292
2017 – March 6	Perryton Fire	Ochiltree, Lipscomb, & Hemphill Cos., TX	315,135
2017 – March 6	Lefors East Fire	Gray Co., TX	92,571
2017 – March 6	Dumas Complex	Potter Co., TX	29,197
2018 – April 12	34 Complex Fire	Woodward Co., OK	62,432
2018 – April 12	Rhea Fire	Dewey Co., OK	286,196

Gabbert, 2017; InciWeb, 2017 & 2018; NASA.gov, 2016.

Conceptual Framework: Crisis Communications

Agriculture has seen its share of crises, and the efforts of communicators have been studied to further the knowledge base of these communications strategies. Animal diseases (Ashlock, Cartmell, & Kelemen, 2006; Cannon & Irani, 2011; King, Cartmell, & Sitton, 2006; Ruth, Eubanks, & Telg, 2005; White & Rutherford, 2009) and foodborne illnesses (Irlbeck, Akers, Baker, Burris, & Brashears, 2014; Irlbeck, Akers, & Palmer, 2011; Irlbeck, Jennings, Meyers, Gibson, & Chambers, 2013; Eyck, 2000) are commonly researched topics in agricultural communications literature. There is research regarding natural disaster communications (Cathey, Coreil, Schexnayder, & White, 2007; Gibson, Irlbeck, Meyers, Akers, & Price, 2019; Telg, Irani, Muegge, Kistler, & Place, 2007), but few focus on wildfires (Steelman & McCaffrey, 2013; Stidham, et al., 2011; Terracina-Hartman, 2017). Regardless, a natural disaster is a crisis (Coombs, 2019), and information exists to tell us how to prepare for and manage such an event.

Communication during a crisis is critical. If the impacted public is not adequately informed, they may not know where to go or what to do (Steelman & McCaffrey, 2013). In situations where information is lacking, researchers found media filling in the gaps with inaccuracies (Stidham, et al., 2011). Communicators should avoid speculation and commenting outside the scope of their experience; however, they should also guide journalists in understanding the information, speak in lay terms without jargon, and be transparent (Lundgren & McMakin, 2013).

Coombs (2019) argued that an organization is careless if it has not assessed its risk and created a plan. Without a crisis plan, there is rarely enough time to train employees about the

proper response to the crisis (Sandman, 1998). In a natural disaster without a plan, employees reported confusion, lack of clarity in their roles, and ineffective communications (Telg et al., 2007). Although there is not one accepted definition of a crisis (Coombs, 2019), generally, a crisis is unexpected (Adkins, 2010), could damage an organization's reputation and/or financial standing (Jacques, 2010), creates an imminent need for information (Coombs, 2007), creates uncertainty, and could produce negative outcomes (Adkins, 2010). Coombs (2019) divides crises into two categories: organizational crisis and disaster. Disasters are sudden, disrupt systems, require new ways of thinking, and require a response from multiple governmental agencies (Coombs, 2019). Seeger (2006) defined events such as wildfires, flooding, earthquakes, and other events that occur in nature as a natural hazard event.

The fires in this study all occurred in the spring after an unusually dry winter. Therefore, there is a fire "season," a known risk, and adequate time to educate the public about fire hazard reduction. There is also time to prepare a crisis communications plan (Steelman & McCaffrey, 2013).

There is plentiful literature based on previous crises to assist a communicator in preparing a crisis plan. Foremost though, is to have one. Although it is true that no two crises are alike, a simple plan is necessary (Gibson et al., 2019; Sandman, 1998). At a minimum, communicators should name a team with responsibilities, create a stakeholder and media contact list, designate the crisis control center, gather standard company information, and write key messages (Coombs, 2019). Then, ensure all involved in the communications efforts know their roles (Telg et al., 2007). One primary example is a trained, pre-designated spokesperson(s). Reporters prefer to speak with a farmer or rancher. As noted by Irlbeck et al. (2013), crises can occur anywhere, and media are everywhere. If possible, have spokespeople trained in several locations throughout the geographic service region.

Literature suggests an active and consistent social media presence to help develop a relationship with the audience. If a crisis occurs, the organization already would have an established and trusted medium to release information for stakeholders, media, and the general public (Gibson et al., 2019). Relationships with other state, national, and partner organizations have been a helpful support system in previous crises (Irlbeck et al., 2013). Additionally, previous research shows that developing relationships with media in the pre-crisis phase is critical when information needs to be released quickly (Irlbeck et al., 2013; Seeger, 2006; Seeger, Sellnow, & Ulmer, 2003). It is also helpful for members of the media to have access to a library of generic photos and video to be provided to media on short notice (Irlbeck et al., 2013).

Natural disasters are possible everywhere, and an organization will very likely have to move from "pre-crisis" to "in-crisis" at some point. Previous research shows that daily emails to stakeholders and potential spokespeople with the daily talking points help keep the crisis team unified and informed (Irlbeck et al., 2013).

For in-crisis media relations, Irlbeck et al. (2013) recommend fulfilling all interview requests. Proactively contact media with subject matter experts. This is even more helpful if web-based interview with experts are possible, as the media may not be able to travel for an in-person interview (Irlbeck et al., 2014). Media still utilize press releases, but Chambers (2015)

recommended posting the same information to Facebook, Twitter, and the organization's website. Finally, create an incident hashtag and reference it in press releases, press conferences, and other contacts with media so they can easily locate information (Chambers, 2015).

Specific to a natural disaster, literature suggests identifying and creating a unified plan for all potential disasters (Telg et al., 2007), as all organizations are susceptible. As such, if a known disaster is looming, Coombs (2007) recommends providing information for stakeholders to deal with the physical threat of the disaster, and then communicate concern for any victims. The psychological threat of a disaster creates a need for information (Coombs, 2007), so have a system developed ahead of time to push out as much information as possible. If needed, print extra recovery materials that can be helpful to victims of a disaster, such as information on do-it-yourself cleanup (Cathey et al., 2007). The extension office in the affected county is often the first place victims will go for information on preparedness, mitigation, and/or recovery (Eighmy et al., 2012), and if needed, stressful emotions (Cathey et al., 2007).

In communicating with media, some of the more important immediate messaging is to simply state the conditions (Seeger et al., 2003). Expect reporters to focus on numbers, such as loss of lives, animals (livestock and domestic), homes, and/or acres impacted (Terracina-Hartman, 2017). People are generous in a disaster, so utilize the media to communicate about donations (Cathey et al., 2007). The media rarely report disaster recovery information, so create a plan to do so without media involvement (Terracina-Hartman, 2017). Collect and distribute all employees' contact and emergency contact information before a disaster occurs (Cathey et al., 2007). Be able to account for all personnel during a prolonged disaster (Cathey et al., 2007).

For wildfires in particular, Steelman and McCaffrey (2012) recommend establishing a system of credible information before a fire so publics know where to turn for information. In a fire, they recommend communicating often with accurate information and credible sources. In these situations, it is important to remember the landowners and homeowners in the path of the fire are extremely stressed and scared (Stidham, et al., 2011).

Methodology

A basic qualitative research study was designed to meet the research objectives. This study particularly focused the agricultural communications practitioners that communicated about the 2016, 2017, and 2018 fires in Texas, Oklahoma, and Kansas. The data sources involved interviews, documents, news articles, and observations and followed the structure set by Creswell and Poth (2018). Because the wildfires occurred in rural areas, the researchers purposefully sampled communicators that work for agricultural organizations or ag news outlets. To identify participants, the researchers first examined agricultural news publication archives during the fires and found individuals or organizations that were frequently quoted. From there, those individuals' email addresses were located, contact was made, interviews were scheduled, and suggestions for other additional interview participants were requested. Additionally, agricultural journalists that reported on the fire were identified from news archives and contacted. A total of 14 agricultural communicators were interviewed, an ideal number as suggested by Stake (2006). Five women and nine men participated: four worked for livestock organizations, four agricultural/weather journalists, three extension communicators, two

communications directors for general agricultural organizations, and one public information officer for a state department of agriculture. Due to time and budget constraints, not all that communicated about the fires were interviewed; however, data saturation on several themes occurred by the fifth interview.

The lead researcher conducted the interviews. Eight were in the participant's office; one participant worked from home and was interviewed in a coffee shop; the remainder were interviewed via telephone. Although the researchers prefer in-person interviews, Creswell (2007) states that phone interviews are an adequate substitute. Establishing a collaborative relationship between the interviewer and interviewee is an important aspect in making a participant feel comfortable in expressing their truth (Creswell, 2013; Kvale & Brinkmann, 2009). For this particular study, the lead researcher was directly or indirectly acquainted with the participants before data collection began, so trust and rapport were quickly established for the participants to feel comfortable in speaking freely. Even so, before the interviewer began recording each interview, she explained again what the research would be used for and explained the rights as a human subject. Participants then signed the IRB-approved consent form.

The researcher used a semi-standardized interview protocol that sought to address each research objective. Questions were scripted; however, the interviewer adjusted and/or eliminated questions based on the unique story of each participant (Merriam & Tisdell, 2015). Questions were written to understand each participant's role in communicating the fires, lessons learned, best practices, and suggestions for others. During and after each interview, the researcher wrote reflexive notes.

Most interviews lasted approximately 60 minutes and were recorded with a pocket-sized audio recorder. The audio files were transcribed using an online transcription service, verified, then saved on a password-protected computer. Participants were assigned aliases, and the files were saved as the alias to protect their identities. To analyze the data, the researchers first read through all the transcripts and other documents to reflect on the overall meanings. Using NVivo software, the researchers then organized the data using open and axial coding to first organize the data, then create themes. In all, 11 themes and seven sub themes emerged.

Trustworthiness

According to Lincoln and Guba (1985), a qualitative research study must establish procedures to ensure trustworthiness: credibility, transferability, dependability, and confirmability. Credibility was established through triangulating the various interview transcripts against each other and with the news reports that were utilized for background information in this study. Researcher bias is addressed below. Researchers addressed transferability by providing a rich description of findings (Bloomberg & Volpe, 2008). Additionally, Lincoln and Guba (1985) argue that engaging in purposeful sampling, as described above, helps to provide the information for inclusion in the thick description. Much more data is available than can be reported in a manuscript, but the researchers provided as much as possible in the findings section below. The agricultural communications industry is relatively small, and a reader could possibly identify a participant. Participants were forewarned and were given the opportunity to decline the interview request; however, the researchers went to great lengths to protect the identity of the

participants to accomplish dependability. Confirmability was achieved with the researcher's audit trail, transcripts, audio files, and NVivo files. A secondary researcher reviewed the methodology, findings, and conclusions to ensure the product representants the data collected which establishes both the dependability and confirmability of the inquiry (Lincoln & Guba, 1985).

Researcher Bias

Since the researcher is the instrument, mistakes can be made and personal biases can interfere (Merriam, 1998). The lead researcher is originally from Oklahoma and her family lives near several of the fires. Her entire family is involved in High Plains agriculture and family members have twice had structures and livestock threatened by wildfires. Although the researcher has an emotional connection to the topic of this study, those emotions and biases were set aside to learn about the participants' experiences in communicating about the wildfires.

Findings

RO1: Determine agricultural communications practitioners' efforts to create a natural disaster crisis communications plan

To address the first research objective, five themes emerged from the participants regarding the crisis plan preparation: Have a plan, take pre-crisis measures, establish and train spokespeople, assign roles for staff, and pre-plan messages.

Have a plan

The state department of agriculture and the extension communicators had crisis plans prepared. The livestock and general ag organizations said they did not have an official, written plan, especially for a wildfire. With large-scale fires occurring in three consecutive years, each state viewed 2016 as a learning situation, and they all developed a plan after that. For some organizations, it is a formal document, for others, it is informal, but understood.

I'm gonna be really honest and tell you that we don't have a written down on paper crisis plan. We know who our spokespeople are. We know that it's probably going to be our leadership... When something like this occurs, the first thing we do is sit down as a staff. And everybody kind of knows their role as far as who was going to help coordinate donations. We knew that communications was going to coordinate communications with members and with spokespeople. Our CEO was going to coordinate with agencies and other associations (Maggie, livestock association communications director).

Take pre-crisis measures

Based on the participants, pre-crisis measures can include developing media relationships, establishing partner organizations, creating social media presence, and pre-planning the website.

It's important you develop those relationships [with media] on the 'blue sky days' when things aren't going haywire. Those relationships you build on those days serve you so well. Anything you can do to build a relationship on the 'blue sky days' are really going to serve you right (Charlie, state department of ag communications director).

If weather conditions are conducive to fire for several months, Liz, a regional extension communications director, pitches fire prevention stories to area media and releases video via social media. In addition to developing media relationships, several participants discussed the partnerships with other agricultural organizations they developed. For example, Maggie's organization worked with the state's Farm Bureau to coordinate volunteers to distribute donations. Cooperative extension was mentioned as a partner for all interviewed. Likewise, two extension communicators described the networks they had developed:

Elected officials, commissioners, judges: they're part of our network. They fund those [county] agents so there's a lot of communication that happens. We have two trainings a year here where all the judges and commissioners come in here and a lot of our training over that time period pertains to fire... That partnership, I think that's why we kind of became the central communication point (Phil, regional extension director).

We know who the [ag] communications people are... And pretty much everything they put out comes to me, and so we were communicating and hopefully have the same kind of messages. (Liz).

Social media was mentioned by several participants as part of their daily communication activities, and it also plays a large role in pre-crisis measures. Charlie used social media on the "blue sky days," by posting regularly and sharing information from partner organizations to build an audience. With a pre-built audience, sharing critical information about the fires and recovery efforts was easier.

Updating social media is a simple task; however, updating a website may be more difficult. Several participants said someone on staff should know how to quickly update the website multiple times a day in the event of a crisis.

Establish and train spokespeople

Almost all participants said that pre-training spokespeople was a key part of their crisis plan. Some participants were strategic in the geographic locations of their spokespeople. When fires were happening in remote parts of the respective states, having people on the ground was critical. In addition to training spokespeople on *what* to say, it is also important to train them on the location of interviews. For example, Maggie urged members to suggest interview locations that were away from deceased cattle. Tony, a communications director for a statewide ag association, felt it was an invasion of privacy to shoot video of a rancher's burned home. Beyond media interviews, some groups trained members about social media posts:

From an association standpoint, that's something you have to think through...maybe you try to educate your members all along the way before there's any kind of crisis on, you know, it's probably not best that we post a dead animal on Facebook (Maggie).

Assign roles

In the fires in 2016, many of the participants said office staff members' roles emerged. Afterward, they established a clear set of responsibilities for a crisis. Mary, a state extension communications director, said her office takes rotating vacations. For example, photographers cannot take vacation at the same time; there must always be someone in the office that can take photos.

Pre-plan messages

With weather events, there is usually a "season." Liz said she pulls extension wildfire resources and has them ready to distribute via social media or to regional media.

"We tried to create, whether it was on paper or mentally, was create a standard set of talking points to make sure we reiterate," said Katie, a communications director for a state livestock association. Maggie restated the point: "In any kind of situation, whether it's an issue or whether it's a crisis, we will always have talking points if we think there's a chance media is going to contact us."

RO2: Explore the practitioners' strategies to communicate during and after the wildfires

Every crisis is different, and even with a plan in place, each crisis requires a set of strategies to communicate. In a wildfire, a state or federal agency will manage the firefighting efforts and all communication relevant to fire itself. Extension, department of agriculture, livestock, and general ag organizations managed the communications efforts regarding people, livestock, homes, and land. The participants' strategies emerged into three themes: people first, get and give information quickly, and stay out of the way.

People first

Every person interviewed for this study somehow reinforced the fact that the human aspect must come first. Nick, an ag radio reporter, summed up the human factor simply: "Understand that you are dealing with people under incredible stress." With that in mind, the participants were sensitive to the messages they were sending.

One of one of the things that I think is very important, and it's become a very important part of my life, is pulling the name from the number. Don't leave a situation as just a statistic. They're not known as number 54, number 16, or whatever. They had a name and a family (Charlie).

Will, a marketing director for a state livestock association, said his office hosted a town hall meeting with a meal. He used extension, USDA, and other specialists to answer questions

regarding disaster assistance, helped fill out paperwork, and simply listened. “I think that sense of community really helps to let the conversation lines be open,” he said.

Get and give information quickly but accurately

Several participants said their office would do a daily internal briefing. In those meetings, they would have a fire status update, handle misinformation, and update talking points. Maggie’s office sent a daily (more if needed) email to the newsletter mailing list. Under this theme, three subthemes emerged: social media, media relations, and internal communications.

Social media.

Because of social media’s immediacy and reach, it is a critical piece of crisis communications. Mary said it was her office’s main communications strategy. Her employees even took over a county extension office’s Facebook page to help manage inquiries and information dissemination. Katie said her office will “communicate as much as we can through social media.” Will’s office used social media to send “thank you” messages for large donations. Charlie said he posted to Facebook 242 times in the 2018 fires. Some were re-posts of other agencies to get all information out.

Facebook is almost a clearinghouse for information. You’re still more than welcome to call us for information if you’re a member of the media. But since we know there’s a 24-hour news cycle we would put that information on Facebook...You [reporters] could pull off photos, you pull off videos, you pull off text (Charlie).

Some of the fires had an incident hashtag. Others did not. All interviewed agreed that a consistent hashtag is beneficial to search for information.

Media relations.

Media relations is another critical component in crisis communications. “We need them, they need us,” said Liz. Maggie estimated that she and her executive director took at least 150 media calls in the two fires. Tony stressed the importance of helping reporters by providing ranchers’ contact information. All the communications directors said they sent press releases, and Anna, an ag newspaper reporter said “news releases are very helpful and a necessary way for a reporter to get information.”

Internal communications.

Internal communications can mean staff, but it can include a board of directors that may also take an inquiry. Charlie and Maggie both sent daily internal messages of what they communicated that day. “Does everyone within your own agency know what all is going on?” (Charlie). They said this strategy kept the entire office or board of directors informed in the event they fielded questions.

Stay out of the way

In some situations, it is necessary for a communicator to be at the scene. In others, it is best to be out of the way. None of the participants went to the scene while the fire was in progress. “I just don’t feel like you need to be there in the way of first responders and all the people that are trying to help the people that are actually physically involved with a disaster,” said Anna. Mark said he did not want the firefighters to have to take care of him when they were trying to protect the lives, property, and animals of those that actually lived there. “I guess I just don’t feel like you need to be there in the way of first responders and all the people that are trying to help the people that are actually physically involved with a disaster” (Mark).

RO3: Determine the lessons learned by communicators during the fire.

Managing donations was a resounding theme from the participants. Two other themes emerged as lessons learned or unexpected factors in communicating about the fires: the emotional toll the fires took and managing request for updated numbers.

Donations

People will help and want information to do so. Help came in the form of monetary donations, supplies, and volunteers. In three of the situations, the communicator managed the donations.

Monetary donations.

A website was needed so people could donate online. Maggie managed her office’s donation website and had to set it up quickly. She said she had to consider the look to keep it consistent with her organization’s branding and create an online form so it could accept donations from other states and countries.

So that was something we had to do very quickly because people, thankfully, were wanting to donate. And it got to the point where we kind of had the (livestock) feed we needed for a while, we had the supplies, but we knew in the long term, we needed money.

Will added that file management is crucial, as well as a system to send receipts for tax purposes. He added it is vital to understand the state’s tax laws. Once monetary donations were received, Will had to establish protocols to distribute funds. He also said to seek help from partner organizations so they can direct donors to the website. “Do a social media “thank you” for a larger donation, it makes people more inclined to give, because they see legitimacy when they see buy-in from other companies,” said Will.

Supplies.

When it comes to supplies, all advised to be very specific about what is needed.

The first thing they think is ‘let's gather up water. Let's gather up things that firefighters need.’ Well, the fire was over in a day. So, when you bring a truckload of water to the livestock supply point, we got nowhere to put it, we don't need it (Phil).

Establishing a supply point and communicating its location was the second step. Liz warned to avoid listing personal cell phones as the contact for donations. Hay donations arrived by the semi-truckload at all hours, and one volunteer often took calls in the middle of the night.

Distributing donations.

The participants noted a curious phenomenon surrounding donations. Because ranchers are very proud, many would not pick up the donated supplies.

What we find is, that folks aren't really telling us how bad it is. So, they're like, ‘I'm fine. I'll be okay. The guy over there, he lost a barn. You need to go talk to him. And this guy's lost 20 miles and fence and 400 bales of hay.’ It's a humble attitude but we've actually had extension folks tell us you know, ‘No, no, this dude is suffering. We really need to help him, and he put in his application only because I twisted his arm to put one in’ (Henry, director of a state livestock association).

Nobody's going to come to the livestock supply point and pick up anything. They will come and pick it up for their neighbor. But they won't pick up their own. So, the agents just automatically got with their ag committees are like, ‘All right, we're gonna take it to them.’ And so they just started running hay to ranches or a location somewhere where guys can get it anonymously. You knew that they lost cattle. You knew their ranch was burning up. When you'd call they'd say ‘no, you need to check with someone else because there's is worse than mine’ instead of just taking it (Phil).

Emotional toll

All participants described the emotional toll that seeing burned cattle, homes, barns, fences, and pastures took. They know their members, listeners, and/or readers well, and when the participants heard victims' stories, it stayed with them. As Tony put it, “It's hard for me to even talk about it now.”

The other side of that is that, putting one [calf] down is one thing, having to put 30 down...We had ranchers who called their neighbors and said, ‘I can't do this. Can you come do it for me?’ (Henry).

Sometimes [the ranchers] just break down because they've lost so much. And they just say... decades of work just go up in flames in a matter of 15 minutes. So that was the hardest thing to do. But I'll probably say the most useful thing I did was put a face and a person in that position that a reader can say, ‘God, these people are hurting.’ (Mark).

Disasters are a reality in the agricultural industry, and communicators will have to deal with traumatic situations. The participants recommended to keep the victims in mind and know

they are going through worse. Also, focus on the positive stories that come from a disaster, such as rain that followed fires, volunteers, or donations.

Requests for numbers

Three of the participants said they fielded numerous media calls requesting numbers of acres, homes, and/or cattle burned. “The fire’s not even out. We can’t count cattle if the fire’s not out, but people (the media) don’t know (better),” said Katie. Phil said individuals were making estimates that proved very wrong. “They want that information immediately in number of acres, number cattle. That took weeks. It really took a month to get that data firm,” said Phil.

Even when statistical data was ready, Henry suggested putting numbers in context. For example, providing the monetary value of a mile of fence or an acre of burned pasture.

That was a challenge of how do you position the numbers so that they mean something? Because they do. You’re not trying to make something up. You’re trying to accurately present what happened. To a normal consumer, you know, especially even in [our state] who’s used to a tornado taking out 1,000 houses in a mile stretch, [a fire] doesn’t even take out 10 [houses] but [the burned area is] the size of Rhode Island.

Conclusions

It is important to acknowledge that participants do not communicate about fire on a day to day basis. Fire is one crisis an agricultural communicator may face. At the same time, massive wildfires have occurred in multiple years; they should be expected and included in all risk assessments in the High Plains region, if not nationally. The researchers recommend that all communicators assess potential severe weather risks and develop a plan accordingly.

Most of the findings aligned with previous crisis communications literature. In the pre-crisis phase, establish a plan (Gibson et al., 2019; Sandman, 1998), develop relationships (Irlbeck et al., 2013, Seeger, 2006; Seeger et al., 2003), train spokespeople from a wide geographic area (Irlbeck et al., 2013), assign roles (Telg et al., 2007), and plan messaging where possible (Coombs, 2019). The data yielded a new pre-crisis strategy: develop networks with partner organizations, such as with other ag organizations, extension, or other communicators. These people can be a valuable help and support system in a crisis situation. They can also help avoid duplication of efforts.

The in-crisis strategies employed by the participants of this study aligned with the literature: use social media and press releases regularly (Chambers, 2015); communicate with internal audiences (Irlbeck et al., 2013); create an incident hashtag (Chambers, 2015); and provide data to reporters quickly (Terracina-Hartman, 2017). To add to the literature, this study found that it is of utmost importance to keep people first. “You are dealing with people under incredible stress,” said one participant. Keep the human side of agriculture top of mind in all messages. In today’s standard of instantaneous news, the general audience expects photos and videos immediately from the fire site. The participants said gathering images while fires are burning may cause more of a problem. Avoid becoming the story.

Finally, the more impactful findings from this study are those regarding donations and the emotional toll of communicating about a wildfire. People want to help those in a catastrophic situation. Be prepared to accept monetary and material donations. In advance of a crisis, fill out the necessary tax paperwork and know tax laws in advance, then set up a website that makes it easy to donate. When asking for materials, such as fencing or hay, be very specific about what is needed.

Because of Facebook's algorithm, a message can be viewed for several days after it was posted, and then others share the post, so someone may see a request for donations that is five or more days old. Liz and Phil said this caused a steady stream of donations – sometimes for two weeks – even though the request had been fulfilled within a day or two. They both said in future disasters they will clearly communicate when all needed supplies have been received.

Seeing a tragedy like a massive wildfire is very upsetting, and many participants were still sad when they talked about it, a year-and-a-half later. Although a person can never be truly prepared for seeing the images or hearing the stories that a fire causes, Mark said that it is a great service to the ag industry by telling the stories.

Canon, Specht, and Buck (2016) found only six crisis communications courses nationwide. As programs continue to grow and improve, preparing students to communicate about a crisis is an important topic that agricultural communications educators should consider including in curriculum. Only a few participants had a plan, and it is possible the participants were never taught how.

Recommendations for future research

This research was limited to the wildfires in the late 2010s; however, much can be learned from other natural disasters, such as floods, blizzards, tornados, or fires in other parts of the world. As the author is writing these recommendations in September 2020, wildfires are devastating California and other places in the American West. Those communicators deal with different situations – many more homes, smaller farms where livestock is less concentrated, more dairies, and many more forested areas. A study with those agricultural communicators would fill a critical gap in the literature.

Flooding was devastating to the agricultural industry in 2019 in some of the same areas as the fires. A few of the participants referenced the work they did in those communications efforts. Although some of the communications strategies would be the same, some would be very specific and warrant future study.

Studying news patterns surrounding these events is a valuable way to learn how to craft messages and could be the focus of an entire study (Terracina-Hartman, 2017).

An interesting finding was the way that many of the organizations worked together, such as extension working with the lead firefighting agency, or Farm Bureau working with livestock organizations. This systems approach to communication has been studied in the general crisis

communications literature (Coombs, 2014), but focusing on the agricultural agencies would be very beneficial for current and future ag communicators.

With several participants discussing donations as a major part of their job during the fires, this is an area that needs to be explored and possibly taught to agricultural communications students. An additional study focusing on best practices in managing donations in a disaster situation would yield very helpful data.

Finally, the researchers would like to explore the emotional factor a disaster could have on a communicator. The researchers only asked one question about the emotional toll, but the question yielded a wealth of data. Information on this topic is something that needs to be provided to agricultural communications students so they can be a little more prepared for some of the more difficult situations they may face.

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