#ChemicalAwareState: Farm safety goes social

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Introduction

Teaching farm safety is a paramount challenge for agricultural educators. The National Institute for Occupational Safety and Health (NIOSH, 2014) reported that work-related injuries led to a fatality rate of 20.2 deaths per 100,000 farm workers in 2012. In response to the prevalence of work-related deaths in agriculture, the National Occupational Research Agenda (NORA) Agriculture, Forestry, and Fishing (AgFF) Sector Council revised its national agenda in 2016. Goal five of the new agenda addresses farm health. Intermediate goal 5.03 specifically relates to farm chemicals including pesticides, and chemicals are implicitly linked to each sub goal in goal five (NORA AgFF, 2016). Secondary agricultural educators in Mississippi have echoed the desire for safer practices involving farm chemicals (C. Jagger, personal communication, May 23, 2017). In a convenience sample of the agricultural educators, 43.5 percent indicated they would like to receive information on safe farm chemical use. Delivering farm safety content is straightforward, but meeting complex information consumption needs is more challenging.

Social media outlets have taken an increasingly important role in millennial information consumption (Hirst & Treadwell, 2011), and in higher education classrooms (Tess, 2013). Social media—including Twitter, Instagram, Facebook, and other outlets—offer an innovative way to engage targeted audiences. If social media is an innovative way to engage audiences about a specific topic, and there is a need for greater engagement and outreach regarding farm chemical safety in Mississippi, then how can agricultural educators and communicators get farm safety to go social?

To meet this challenge, this team of agricultural educators and communicators coalesced around an innovative idea: creating and disseminating chemical farm safety curricula in both classroom and social media spheres.

The purpose for this project was to create a social media campaign that high school agriscience teachers could use during National Farm Safety Week. Goals of this project included delivering sequenced lessons for one week of content to agriscience teachers, developing social media posts to incorporate with the sequenced lessons, and tracking use of social media during National Farm Safety Week.

How it Works

Our team split up into two groups and began gathering pertinent information related to chemical safety. One subset of our team focused on developing lesson plan topics and content and communicated those ideas with the other half of our team who focused on curating and creating social media content to correspond with the lesson plans. During the development of the lesson plans and social media posts, we chose hashtags, created a logo, and wrote a feature story.

We created, designed, and curated social media content for three platforms—Twitter, Instagram, and Facebook—which included one post per day per platform for Southeast Center for Agricultural Health and Injury Prevention (SCAHIP) to post as part of National Farm Safety

Week (September 17 to 23). In addition, we contacted agricultural businesses and opinion leaders (e.g. Tom Farms, Mississippi Farm Bureau) with social media presence to ask them to share the content the Center posted. In total, we contacted 33 businesses or organizations to inform them about the campaign and seek their participation. Including the Center, nine organizations agreed to participate in disseminating the social media content and four organizations participated.

Results to Date

The content created for this campaign had a potential reach of 46,871 social media users, not including public engagement. Admittedly, much of that potential engagement was not reached, either because of underuse of the content created or because of under promotion or sharing of content. For example, although we created 21 unique posts for three distinct media platforms, the Center only posted 10 unique posts. Social media contest participation (Instagram photo contest and Twitter 'Dad Joke' contest) was not promoted widely and did not generate the entries needed for content re-use. Despite these potential pitfalls, the campaign did generate noticeable social media impact. By the end of the week-long campaign, the content had generated 712 likes across three social media platforms (Instagram n=680, Facebook n=26; Twitter n= 12).

We emailed a digital .pdf book of lesson plans and instructional materials to 144 agriscience teachers in Mississippi. Because the actual use of provided materials was unmeasurable, we sent a feedback questionnaire to the same group of agriscience teachers. The teachers provided minimal feedback, but those who responded indicated they would consider using the materials again in the future and, if another campaign is launched next year for National Farm Safety Week, they would be likely to use the provided materials. The agriscience teachers' feedback also indicated that they used portions of the weekly content but did not use the entire series.

Advice to Others

This partnership was valuable in disseminating information about farm chemical safety. Partnering organizations indicated they were willing and interested in distributing information, but follow-ups are important for maintaining buy-in. Instagram content generated the most likes; therefore, we recommend the use of Instagram as a starting place for disseminating scientific information. We recognize our content may have garnered more likes on Instagram as a function of the number of Instagram followers the accounts had, as opposed to the nature of the content, so future research should investigate the nature of Instagram user engagement with educational information.

Costs

The Southeast Center for Agricultural Health and Injury Prevention provided $7005 for the completion of the project. We used a large part of the funds for graduate student stipends, freelance contracts, and travel. We contracted two freelance consultants—one to create the campaign logo and one to write a feature story highlighting a Mississippi producer. However, the project could have been completed with minimal to no monetary costs as the curation and creation of social media content and lesson plans simply took time to produce.

References

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