



EMERGENCY RESPONSE TO ACCIDENTS INVOLVING LIVESTOCK

\$52.1 BILLION

pounds of meat produced by the livestock industry in the U.S.

MILLIONS

of animals transported across the U.S. weekly



Some first responders have limited animal-handling knowledge and benefit from animal handling demonstrations.

IMPACTS

The Emergency Response to Accidents Involving Livestock (ERAIR) program is designed to provide training and resources for people that may be responding to accidents involving animals. This program focuses on providing a network of highly trained, skilled individuals that have the tools and equipment needed to complete an effective and efficient response, protecting the safety of the public traveling the roadways, the responders assisting with the accidents, the welfare of the animals involved and the public image of the animal agriculture industry.



80%

of education program participants found the training they received applicable to their operations or occupations.



82%

of participants found that the information shared created an awareness about the important issue of responding to accidents involving livestock.



91%

of participants increased their skill set and will implement new methods of accident response following the training.



96%

of participants plan to provide training based on the information shared for their local organizations.

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“With our vast number of livestock operations in Michigan, it is important that we are prepared to respond to unplanned events that may arise. The work of the MSU Extension ERAIR team better positions the pork industry and the entire animal agriculture industry in Michigan to safely and effectively respond to these types of situations.”

— Mary Kelpinski, chief executive officer, Michigan Pork Producers Association



ESSENTIAL TRAINING FOR FIRST RESPONDERS PROVIDED THROUGH ERAIL PROGRAM



First responders are trained in animal behavior and handling during an ERAIL training event.

Responding to accidents is never an easy task for first responders. Responding to an accident that involves large trucks, people and animals can quickly turn into a chaotic event if the local response team is not prepared or trained to handle such an occurrence. Following several livestock truck rollovers over the last few years in Michigan and adjacent states, Michigan State University (MSU) Extension Emergency Response to Accidents Involving Livestock (ERAIL) team recognized the need to have a network of trained people across the state with access to the specialized equipment needed to respond to these situations.

With frequent livestock transportation accidents occurring, first responders, along with the livestock and dairy industry, must be prepared to respond effectively to these situations. Since, in the United States, total red meat production is around 52.1 billion pounds (Shahbandeh, 2021), large numbers of animals are transported over the nation's highways. According to the 2017 agriculture census (U.S. Department of Agriculture, National Agricultural Statistics Service, 2019), there are 3.26 million head of livestock in Michigan. The Animal Agriculture Team identified the need to prepare first responders to deal with livestock transportation accidents as the state was starting to experience an influx of livestock truck haulers and

transportation of animals. The team knew that increasing the ability for areas to respond to emergencies was high on the list to best position Michigan to respond to these types of situations.

Being prepared for the unexpected is critical to the response success in accident situations. Proper emergency response planning and training is a major key component to that success. Those involved in the transportation process and those responsible for responding to an accident must be trained to properly coordinate solutions to transportation accidents involving animals. Most first responders lack training in handling large livestock and may not be familiar with aspects of farm animal behavior, livestock trucks and euthanasia methods as well as the many people who need to be notified and involved in the response. Improperly handled livestock, especially those uncontained, can be a risk to responders, the public and a company's public relations.

The ERAIL program was designed to address this need. It consists of four different components:

- In-person training for response professionals and those involved in transporting animals
- Virtual training modules dedicated to expanding the reach of the ERAIL training program
- Individual consultations with organizations, locations and units looking to be best prepared for these types of situations
- Establishment of a fleet of emergency response trailers in Michigan dedicated to providing the equipment and tools needed by responders to address emergency situations that involve animals

The in-person trainings offered by the ERAIL team focus on both classroom and hands-on demonstrations to help attendees understand animal behavior, containment needs and animal-handling practices. Team members also work to familiarize the participants with various types and styles of transport vehicles, so they are better prepared to respond to an accident. Many of the trainees in this program have never seen an animal transporter up close. These training experiences allow them to get inside the trailer and understand how the gating systems and ramps work. During the in-person training, the ERAIL team also focuses on getting the attendees comfortable handling and moving animals, as the majority of responders have limited or no animal-handling experience. Past program participants of this training indicate that they are more comfortable and feel better able to work through an emergency situation that involves animals directly because



First responders get firsthand knowledge of the structure and design of transportation trailers during the ERAIL training.

of this training. To date, there are trained responders in 36 counties in Michigan and trainees representing seven other states that have gone through the MSU Extension ERAIL program.

In addition to the in-person training, MSU Extension has designed a virtual ERAIL curriculum using the MSU D2L online learning platform. This training consists of 13 self-paced modules that include key objectives, interactive scenarios, video and computer-generated graphic examples, and assessment points. Once a participant has completed the course and successfully passed the knowledge comprehension exam, they receive a certification of completion.

As a third component of the ERAIL program, MSU Extension offers guidance to organizations on how to prepare to respond to accidents involving livestock. The ERAIL team calls upon their comprehensive expertise in the area of emergency response when giving guidance. Team members provide organizations with options, ideas, recommendations and connections that will help them develop a response plan. For example, team member and MSU veterinarian Madonna Benjamin provides euthanasia education and training, which unfortunately is sometimes a needed occurrence when animals have been involved in an accident. She has assisted companies and organizations in determining the correct equipment to purchase and provided essential trainings to those tasked with euthanizing livestock.

The team has worked with transportation companies, animal control departments, local county emergency managers, first responder units, farmers and agriculture organizations. Members of the ERAIL response team are currently exploring opportunities to partner with other states that have reached out for assistance in creating ERAIL programs in their states.

One of the final components of the ERAIL program is the establishment of a fleet of fully equipped response trailers across the state. When responding to an accident involving animals, there is a need for specialized tools and equipment not commonly stocked on fire trucks or responder vehicles. This equipment can be difficult to source when accidents like these suddenly occur. The ERAIL team has developed a resource list, with pricing and options for procurement for organizations that want to be prepared when livestock accidents occur. This list also includes potential funding sources for purchasing trailers, along with counties that want to work with MSU Extension to house a fleet of response trailers in the state.

The original goal was to place six fully functional trailers across the state. By identifying major highways, locations of processing companies and livestock densities across the state, six ideal locations were identified. As the ERAIL team is moving through the process of placing these trailers, they are also identifying additional areas that may benefit from having a trailer and hope to secure funding for at least seven more across the state. At this time, Otsego, Jackson and Branch counties each have a fully funded emergency response trailer.



Response trailers house the tools and equipment needed to properly respond to an accident involving livestock.



First responders have limited animal-handling knowledge.

In addition to the fleet of response trailers, the ERAIL team has developed training curriculum dedicated to the response trailers. These trainings focus on how and when to properly use the tools and equipment found in the trailers. Team members work through scenario situations with the trainees to help them understand the steps needed to effectively and efficiently respond to accidents involving livestock. Organizations near the operational trailers are anxiously waiting for their turn at this popular training program.

By creating and providing these resources, the ERAIL team has developed a network of trained individuals throughout Michigan that can respond to these events. This network includes first responders (paid and on-call), law enforcement officers, animal control departments, farmers, transportation companies, truck drivers, veterinarians, processing companies and allied agriculture industry members. As interest in this area grows, the ERAIL team will continue to enhance the understanding of the need for fully equipped response trailers across the state, designed to aid first responders in managing accidents involving livestock. By combining these resources, providing training, developing informational materials and building this network, Michigan first responders and their partner stakeholders will be poised to respond to accidents involving livestock effectively, thereby securing animal welfare, reducing risks to public safety and avoiding the negative economic impact these events can have on food production.

36

Michigan counties with responders trained through the ERAIL program

3

\$45,000

operational response trailers currently located in the state

of additional funding support for the ERAIL program sourced

“They (Otsego County Animal Control workers) cannot thank MSU Extension and all of the donors enough for the training and equipment for our emergency response trailer. We are thankful that we now have the resources to be proactive to issues. It was very frustrating wasting four hours and the lives of many of the cattle in the rollover accident because we did not have the equipment necessary for the job. Thanks to MSU Extension, we now have the right equipment and knowledge to handle accidents involving livestock.”

— Melissa Fitzgerald, director,
Otsego County Animal Control

REFERENCES

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