

Preventing Farm Injuries

Fire and EMS are Trusted Community Advisors

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RURAL FIREFIGHTERS DELIVERING AGRICULTURE SAFETY & HEALTH

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Collaborators

- Funded by Upper Midwest Agricultural Safety and Health (UMASH) Center
- Wisconsin State Fire Chiefs Association
- Wisconsin State Firefighters Association
- South Area Fire Emergency Response District (WI)
- South Central College (MN)
- Northcentral Technical College (WI)
- Penn State Extension
- McMillan Warner Mutual Insurance
- Professional Dairy Producers of Wisconsin (PDPW)
- Agricultural Safety and Health Council of America
- New York Center for Agricultural Medicine and Health
- Central States Center for Agricultural Safety and Health (CS-CASH)
- Utah State Extension
- Pacific Northwest Agricultural Safety and Health (PNASH) Center



McMILLAN WARNER MUTUAL
INSURANCE COMPANY



South Central
College

A MINNESOTA COMMUNITY
AND TECHNICAL COLLEGE



The Problem

- Agricultural workers 8-10 times more likely to die on the job than the average U.S. worker
- Inadequate number of safety consultants exist to assist farmers

The Solution

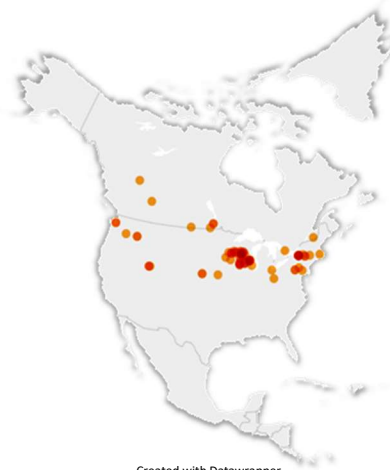
- Emergency responders untapped safety resource in rural communities
- Rural Firefighters Delivering Agriculture Safety and Health (RF-DASH)



RF-DASH

- Farmers expressed willingness to make changes if given advice from their local fire department
- Program designed to equip rural firefighters and EMS with agriculture health and safety knowledge
- 6 train-the-trainer events
- Trained over 70 fire and EMS trainers from 10 states and 5 provinces
 - Trainers have gone out and trained over 30 trainers in other regions

RF-DASH Trainer Locations



Created with Datawrapper



RF-DASH

- Five modules
 - 1) Intro to Ag Emergencies
 - 2) Pre-Planning and Mapping farms
 - Farm MAPPER
 - 3) Farm Hazard Analysis
 - Safer Farm
 - 4) Farm First Aid
 - 5) Reaching out to the Farm Community
- Eight hour training (4 hours in the classroom and 4 hours at a local farm)





Intro to Ag Emergencies

- Fire and EMS demographics
- Accumulation of incidents
- Mechanisms of injury
- Costs to communities



Pre-Planning and Mapping Farms

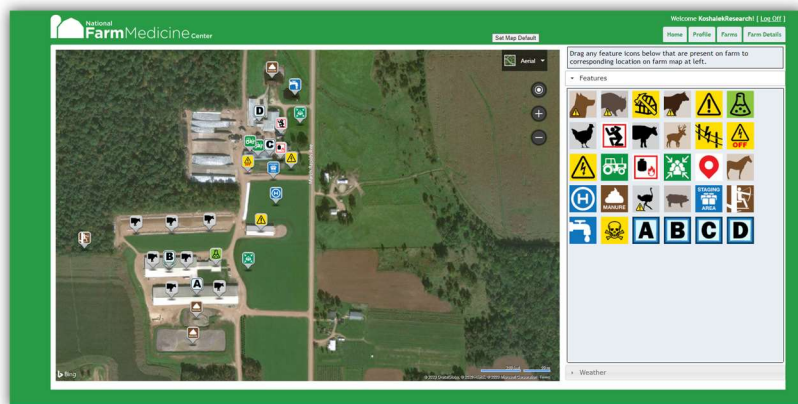
- Compared w/ other right-of-way scenarios
- An altruistic ask, “This is to protect Fire/EMS personnel.”
- Improve and expedite response
- OSHA regulations may or may not be relevant
- Other versions of maps and preplans
- This is more than maps and layouts
- Building the relationship



Farm MAPPER

Interactive web tool that provides emergency responders onsite information about hazards and physical layouts of agricultural operations aimed to make responding to emergencies on farms safer.

<https://www.youtube.com/watch?v=43HibmCnMDc>



<https://www.farmmapper.org>



Farm Hazard Analysis

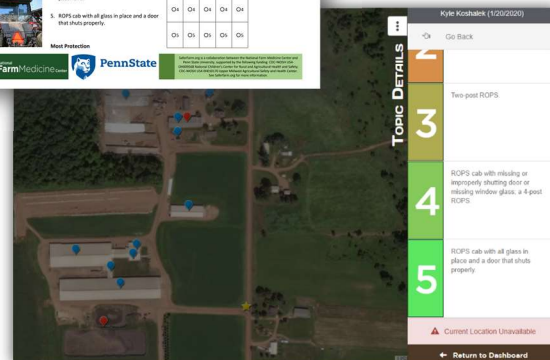
- “What is the greatest risk for human/property loss here?”
- How do we frame critique versus advise



Safer Farm

Simple method for evaluating and recommending corrections for hazards in agricultural environments (perform a safety consultation).

https://www.youtube.com/watch?v=LKtmHrqC_HI



<https://saferfarm.org/>



Farm First Aid

- **Barriers to care: personnel, time, and distance**
- **Give farms good things to do**
 - Improving injury outcomes
 - Mitigate feelings of uselessness, fault, etc.
- **Making farm families and personnel see the potential danger**
- **Give them skills to handle an incident well**
- **Punctuate with injury prevention/mitigation strategies**



Farm Community Outreach

- **Friendly targets, local champions, high risk folks**
- **Insurance companies potential role**
- **Use farm events**
- **Recruit the farm community to Fire and EMS**
- **Frame the work as community risk analysis and mitigation (NFPA 1300) for local leadership**



Expanding Outside the Midwest

- Collaborated with northeast colleagues and conducted training in New York state
- Strong interest and response from various regions around the country
- Piloted a national training to see if RF-DASH was generalizable enough for use in other regions of the country as well as increase partnerships between stakeholders.



National Training

- Invited 18 individuals to Minneapolis, MN
 - Washington, Idaho, Utah, Minnesota, Wisconsin, Nebraska, Ohio, Pennsylvania, and New York
- Fire and EMS partnered up with their local Ag Safety and Health Specialist in their state
- Two National Fire Protection Association (NFPA) representatives attended
 - Focus on eliminating hazards
 - Create codes and standards for fire/EMS departments to follow



National Training

- **8 hour training**
 - Engaging in five modules and hands-on application of the program at a local farm
- **Round table discussion**
 - Program effectiveness for fire/EMS to implement in their regions
 - Ways to improve program
 - NFPA



International



CASA | ACSA
CANADIAN AGRICULTURAL SAFETY ASSOCIATION
ASSOCIATION CANADIENNE DE SÉCURITÉ AGRICOLE

- **Trained 6 Fire Chiefs/ Safety Officers and a Agriculture Safety Specialist from 5 provinces in Winnipeg, Manitoba, Canada**



Results

- Flexible program model
- Receptivity and enthusiasm by Fire/EMS on RF-DASH has been tremendous
- National Fire Protection Association (NFPA) Standards
 - i.e. 1300 standard on community risk assessment and community risk reduction
- Triple threats
 - Fire/EMS
 - Farmer
 - Educator/trainer
- Positive media attention and community response
- Fire/EMS around U.S. searching for programs to fulfill gap in pre-planning and hazard reduction on farms



"There's a huge lost opportunity with us not doing essentially pre-incidence plans at these agricultural sites because we do it all the time for our local industry and factories. However, for some reason, it just slips the mind that we don't visit our farms. We don't get that eyes-on, see what everything looks like, and get familiar with that. That was the whole eye-opening takeaway for me with the whole thing." – RF-DASH National Trainee

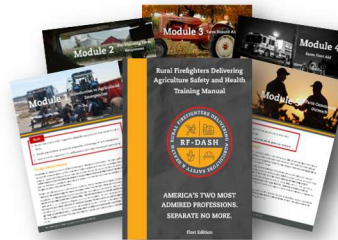
"I think that's the plus of the program, taking rural firefighters and engaging them with that population. It's a small enough community that everyone knows each other. There's already a relationship there so— it's not a government agency or an insurance company or something threatening, it's someone who knows them and says, 'Dude, I care about you, Let's work together to make it better.'" – RF-DASH Trainee

"When I see a victim of a farm accident, it's just like when it's someone from the fire service, even if I don't know them it feels like I do because they are like brothers to me. Anything I can do to help make the ag industry safer I am more than willing to do"

—RF-DASH WEMSA Trainee

Outcome

- RF-DASH Training Manual Developed
- RF-DASH Website Developed (RFDASH.org)
 - Increased networking and communication
- Create flexible materials for trainers
- Focusing on sustainability of the program beyond the grant
- Merge RF-DASH into NFPA standards
- Merge RF-DASH into FEMA Emergency Preparedness Systems
- Continue to improve Safer Farm and Farm MAPPER
- Establishing RF-DASH Canada program



RF-DASH “Next Steps”

- Grant awarded (2022-2027)
- Further need for improved research on dissemination and implementation of RF-DASH program on farms
- 15 RF-DASH sites: 5 Midwest, 5 national, 5 Canada
 - Each site to enroll five farms in their regions into RF-DASH
- Support future sustainability and technical support of program including more formal alignment with federal standards (NFPA & FEMA)



Funding Acknowledgement

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CDC/NIOSH (UMASH) (2022-2027)

Project Website

<http://rfdash.org/>



Questions?

- Connect with us!
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