





# Rural Preparedness: Strategies and resources to help strengthen the resilience of families and communities

Ashley Ahrens, Soni Cochran, Emily Jacobson, Ed Sheldon and Aaron Yoder











Strengthen Resilience with Personal Planning and Readiness

Soni Cochran

#### **Disaster Management Cycle**

- Mitigation
- Preparedness
- Response
- Recovery
- Ongoing Overlap

All communities are in at least one stage of this cycle at any time.



Image Source: Penn State College of Earth and Mineral Sciences







#### The Origins of Disasters

#### Hazards:

- Origins of disasters.
- Becomes a disaster when it impacts communities and societies.

#### Emergencies:

- Small-scale events, localized, resolved quickly with local resources.
- Can escalate and become a disaster.

#### Disasters:

- Hazards that disrupt the functioning of communities and societies.
- Require response and recovery greater than local communities can provide.







#### All-Hazards: Tornadoes, Trains, and Toxins

- Atmospheric: Thunderstorms, tornadoes, blizzards, heat waves, fog
- Geological: Earthquakes, volcanoes, landslides
- Hydrological: Floods, drought, wildfires
- Extraterrestrial: Meteorites, asteroids

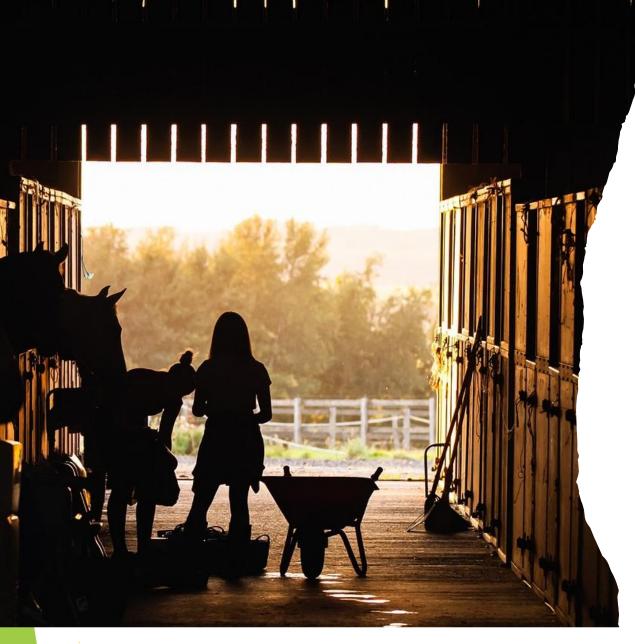
- Biological Human and Animal: Diseases, Epidemics, Pandemics, Overpopulation
- Non-Intentional: Technological, Hazardous Materials, Transportation, Structural
- ► Intentional: Cyber-attacks, civil disobedience, terrorism, violence

Hazard classifications - Federal Emergency Management Agency or FEMA









## Why it matters

- All disasters start and end local
- One size doesn't fit all identify all hazards
- Culture, demographics, language, veterans, first-time farmers, age
- Geography, distance to resources, transportation, isolation
- Type of operation and size
- Economics, rural stress, health and wellness, relationships, support







# **Assessing Needs on Farm/Ranch Visits**

Emily Jacobson and Ashley Ahrens







#### **Assessing Needs on Farm/Ranch Visits**

- Complete Worksite Assessment
  - ► This assessment will help you to understand the farm/ranch and if the client feels prepared for an emergency
    - Utilize sections: Overall Farm/Ranch Accessibility and General Farm/Ranch Maintenance
- If no emergency plan in place, set them up with resources to create one
- Emergency Preparedness Overview
  - Ensure safety for all farmers, ranchers & farm workers, including those with disabilities.
  - Steps:
    - Assess current emergency plans.
    - Identify risks (e.g., equipment failure, severe weather, health emergencies).
    - Address disability-specific needs in the emergency procedures.







**Inclusive Emergency Preparedness** 







#### Assessing Needs on Farm Visit

#### Key Areas of Emergency Preparedness

- Communication and Accessibility:
  - Accessible emergency procedures (large print, Braille, audio).
  - Accessible escape routes and exits.
- First Aid and Medical Support:
  - Stock first aid kits and include disability-specific supplies.
  - Ensure medical information is up to date.
- Training and Drills:
  - Provide CPR and first aid training.
  - Conduct regular emergency drills with all workers.



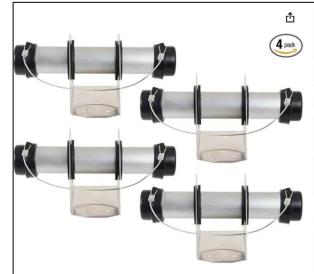




#### **Assessing Needs on Farm Visit**

#### Continuous Improvement

- Review and Update Plans:
  - Regularly assess and update emergency protocols.
  - Conduct drills for fire, severe weather, and animal-related emergencies.
- Family and Community Involvement:
  - Keep family/contact info for workers with disabilities.
  - Familiarize with local emergency resources.
- Document Holders for Farm/ Ranch Sites
  - Can Place on a fence post by entrance of property for emergency access



Mytee Products (4 Pack) Trailer Document Holder Registration Card Box Insurance Aluminum 5-3/4" x 2-4/5" x 4"

Visit the Mytee Products Store

4.5 ★★★★ ✓ 185 ratings | Search this page

Amazon's Choice

50+ bought in past month

To see product details, add this item to your cart. You can always remove it later.

FREE Returns >

Size: 4 - Pack



- Size: 5.75"H x 2.81"W x 4"D (4 Pack)
- Rubber Caps Provide Tight Seal
- · Material: Aluminum
- Weight: 1 lbs
- · Aluminum Document Holder is ideal for tractor trailer applications
- > See more product details







# Overcoming Barriers: Challenges Faced by Rural Individuals and Families with Access and Functional Needs in Disasters

#### Geographic Isolation

- ▶ **Delayed emergency Response**: Fewer emergency services lead to longer response times.
- ▶ **Limited Transportation**: Mobility impairments and lack of specialized transport hinder evacuation.
- ► Limited Access to Health Care and Specialized Services
  - ▶ Few Medical Facilities: Lack of specialized care for chronic illnesses and disabilities.
  - **Supply Disruptions**: Medications, oxygen and medical equipment may be difficult to access.

#### Communication Barriers

- Limited Access to Information: Warnings may not be accessible for people with hearing or visual impairments,
- Poor internet Connectivity: Reduces access to emergency alerts and communication.







# Overcoming Barriers: Challenges Faced by Rural Individuals and Families with Access and Functional Needs in Disasters

- Physical and Environmental Barriers
  - Impassable Roads: Poor infrastructure worsens evacuation challenges.
  - Inaccessible Shelters: Lack of accommodations for mobility & medical needs.
- Economic and Resource Constraints
  - Financial Struggles: Many cannot afford evacuation costs or emergency supplies.
  - ▶ **Limited Social Services:** Essential support (food assistance, in-home care) is scarce.
- Social Isolation and Community Support
  - ▶ Few Support Networks: Fewer local organization and overwhelmed volunteer groups.
  - Stigma and Understanding: Fear of judgement can prevent individuals from seeking help.







# Overcoming Barriers: Challenges Faced by Rural Individuals and Families with Access and Functional Needs in Disasters

- Inadequate Planning and Preparedness
  - ▶ Lack of Inclusive Plans: Emergency plans often overlook access in functional needs.
  - ▶ Limited First Responder Training: Lack of awareness can lead to ineffective assistance.
- Cultural and Linguistic Barriers
  - ▶ Language and Communication Gaps: Non-English speakers may struggle with emergency instructions.
  - ▶ Mistrust of Authorities: Hesitation to seek help increase vulnerability.







# Rural Realities: Barriers and Strengths for Individuals with Disabilities in Disasters

- ► Challenges in Rural Areas for People with Disabilities
  - ► Limited Healthcare and Specialized Services: Fewer providers and delayed access to essential care.
  - ▶ Transportation Barriers: Lack of accessible transit hinder evacuation efforts.
  - ▶ Social Isolation: Fewer support networks increase vulnerability in emergencies.
  - ► Communication Challenges: Poor internet and inaccessible alerts limit emergency information.
  - Inadequate Emergency Shelters: Many shelter lack necessary accommodations.
  - ▶ **Disaster Preparedness Gaps:** Plans often overlook disability-specific needs.
  - **Economic Constraints:** Limited Financial resources affect preparedness and recovery.







# Rural Realities: Barriers and Strengths for Individuals with Disabilities in Disasters

- **▶** Strength of Rural Communities in Disaster Response
  - ▶ **Strong Community Bonds:** Neighbors provide informal support and assistance.
  - Volunteerism and Local Resilience: Local fire departments and community groups step in.
  - ► Environmental Familiarity: Residents known the land and alternative evacuation routes.
  - Family and Community Support Systems: Strong social ties help those in need.
  - ▶ Resourcefulness and Self-Sufficiency: Rural residents adapt quickly with available resources.
  - Lower Population Density: Emergency response can be more personalized and focused.
  - ▶ Local Disaster Adaptations: Communities develop specific response strategies.







# Rural Realities: Barriers and Strengths for Individuals with Disabilities in Disasters

- Balancing Barrier and Strengths
  - ► Rural areas face significant challenges for individuals with disabilities in disasters, but strong community ties and local resilience can help bridge those gaps. Strengthening disaster preparedness with inclusive planning and leveraging rural strengths can create more resilient and supportive communities.







# Farm and Ranch Mapping

Aaron Yoder







#### Creating a Farm and Ranch Map

- When seconds count, your home, farm, or ranch maps are a key source of information for first responders. Map your home property. If you have farm or ranch operations, create a map of all locations, including any land you rent. A map can help identify hazards on these properties and help you identify primary and secondary evacuation routes.
- Keep the maps simple and easy to read. Make copies and place them in binders along with other emergency information. Keep the binders in strategic locations (barn, house, vehicle) — wherever you need quick access to provide information to first responders.







#### Creating a Farm and Ranch Map

#### Features of the map can include:

- ▶ Buildings and structures be sure to label these. Label and number grain bins (Grain Bin #1, Grain Bin #2).
- Roads, lanes, and driveways.
- Locations of all livestock (if you have livestock on several properties, note and map those locations).
- Gates, fences, and all access points.
- Irrigation pumps and wells.
- Hazardous materials (fuel, chemicals, manure pits, pipelines).
- ► Locations for electrical, water, and gas shutoffs.









#### BLUE AND GOLD

Pennsylvania FFA Happenings

One Emblem, Endless Opportunities www.paffa.state.pa.us

#### **FFA SAFE Protects Farm Property**

**SUZANNAH** MELLINGER State FFA Reporter

STATE COLLEGE, Pa. -Think about a farm near where you live. Do you know how many buildings are on that farm? Can you list what is in each building? How many cows do they have? Where are the fertilizers, pesticides, and fuel tanks stored? What if there is a fire, explosion, or someone in need of rescue on the farm? Rescue workers need to know where all these potential hazards lie and they need that information for every farm in their response area. Unfortunately, very few farms have this type of information readily available to emergency responders. However, this is starting to change thanks to FFA members and the FFA Saving Area Farms Effectively (FFA SAFE) program.



Global positioning devices and software were used to accurately plot the location of various items on the maps.

The FFA SAFE program allows FFA members to create farm emergency response maps, with the owner's permission, to show emergency responders the location of buildings, equipment, and chemicals, inform them of different types of silos (conventional versus oxygen limited), and show



FFA members work with a Centre County farmer to map his farm during the FFA SAFE Mapping Camp.

FROM THE

PENNSYLVANIA FFA **BEGINS A NEW YEAR** Suzannah Mellinger State FFA Reporter

month, the Pennsylvania FFA As- Langagter Farming, If you have

tion on our Website ( www.paffa. state.pa.us ) on how to properly prepare an article for the Blue and Gold pages as well as putting the Blue and Gold pages on our website so you can show it to friends and family who do not receive the

to Bermudian Springs, to Canton, to Walter Biddle Saul, to Northern Potter FFA and many other chapters were all participants of this camp and are now prepared to map local farms. In fact, 17 farms in the State College area were mapped during these two camps and a hand-full of other farms have been mapped since the camps. The long term goal for this program is to train teachers the teachers can use this program in their regular curriculum every

cy responders if the need arises.

the FFA teamed up to offer two

Farm-Mapping camps in June.

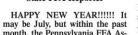
Students from Upper Dauphin,

than 59,000 farms. "This is not a class project, this is for real," said Rick Day, associate professor at there is still much progress to Penn State University.

teacher at State College High School noted that he has received nothing but positive feedback from the participating farmers. "It allows our kids to get out into the community and work with loas well as FFA members so that cal farmers and provides so many opportunities for the kids to gain skills and learn about job opporyear and continue to map more tunities (in technology area of agand more of Pennsylvania's more riculture)" said Heasley.

A lot of progress has been made in the FFA SAFE program, but be made. "We need to get more Paul Heasley, the agriculture schools to participate in the program. We have sixteen school districts trained but we need all the chapters to get involved," said

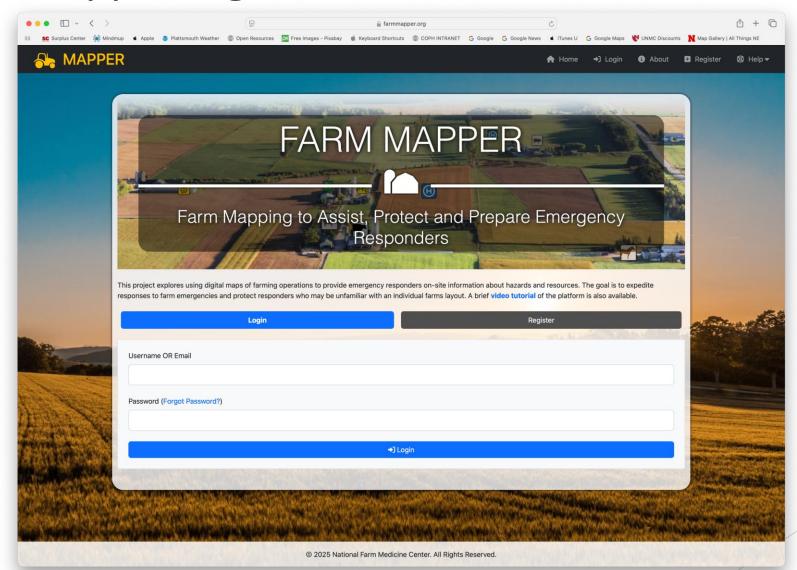
FFA members who are interested in getting their chapter involved in this program, talk to the school's agriculture teacher and tell them to contact Mike Brammer, executive manager at the Pennsylvania FFA Office to get started.







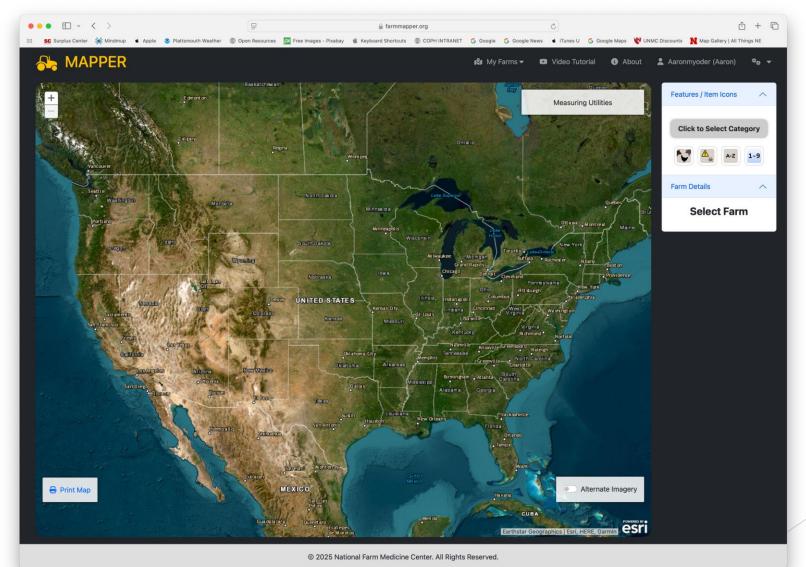








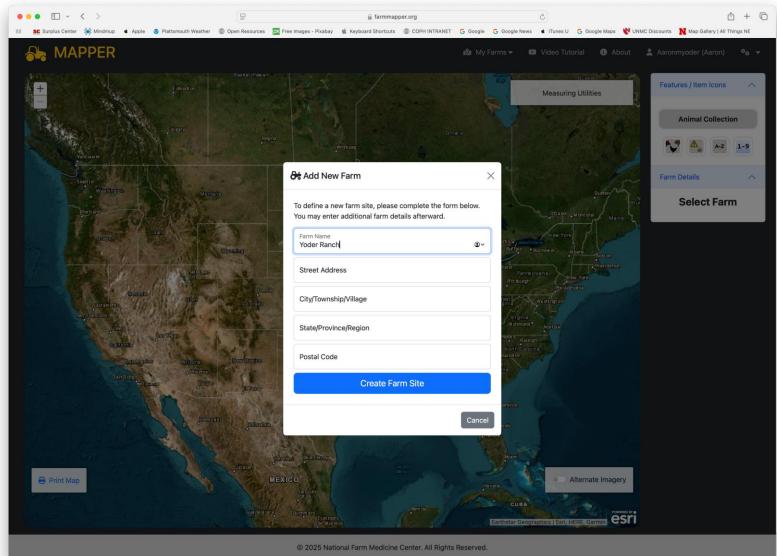








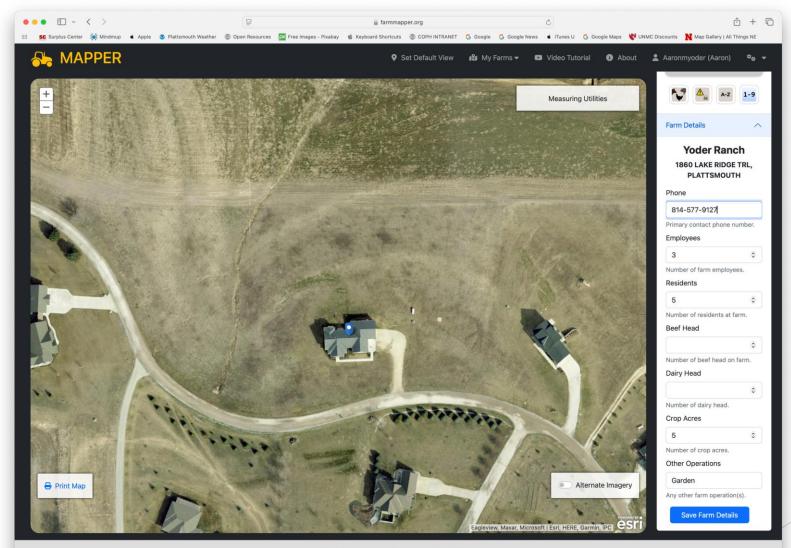










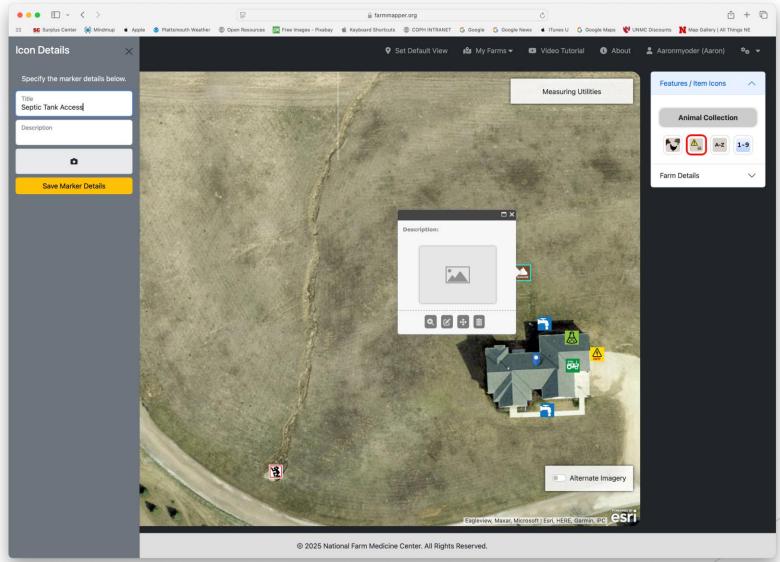


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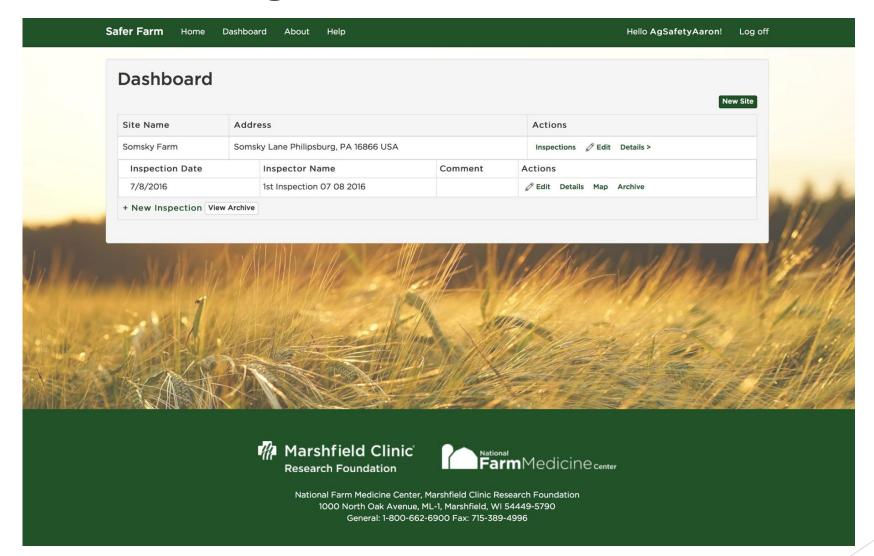








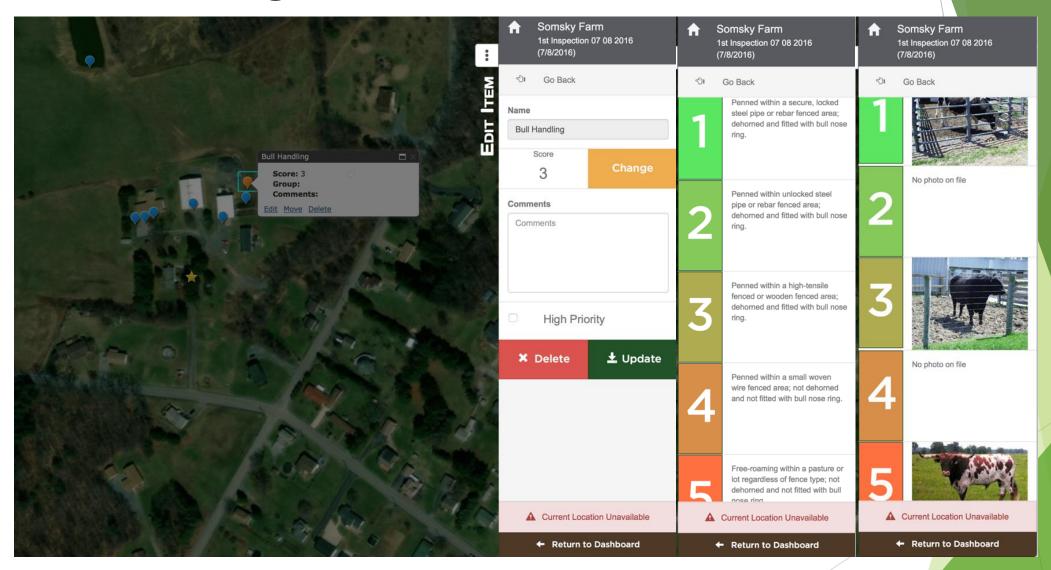








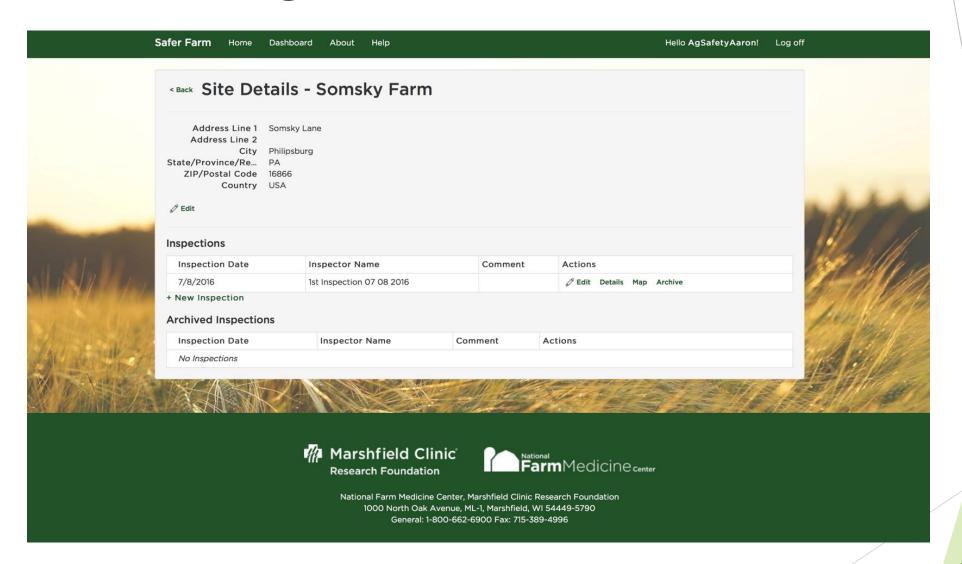








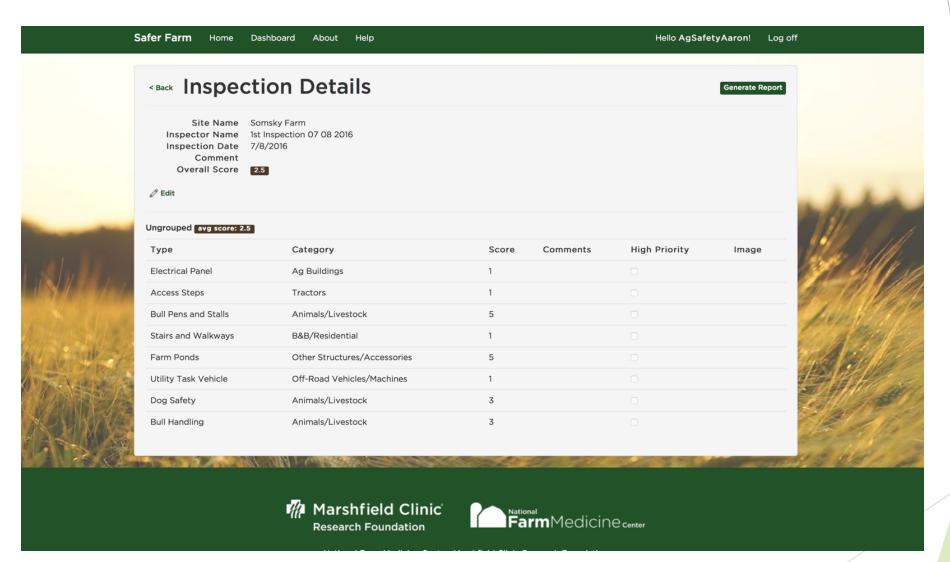








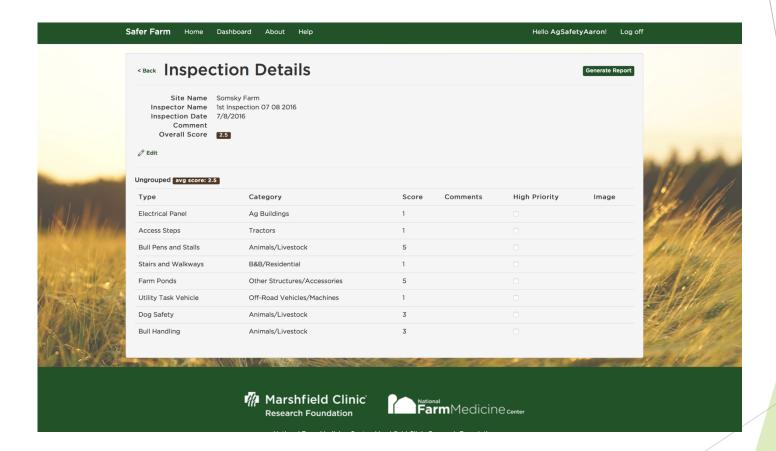


















#### Farm and Ranch Mapping Resources

- https://cropwatch.unl.edu/2024/emergency-planning-essential-homefarm-or-ranch/
- https://extension.umn.edu/farm-safety/creating-farm-emergencyaction-plans
- https://www.extension.purdue.edu/eden/ruralsecurity/edoc.html
- https://farmmapper.org/map.php
- https://www.saferfarm.org









# Exploring some useful (hopefully) emergency prepresources from Purdue





**Extension** 

#### Indiana PREPared





#### **Quick Links:**





































- Purdue Extension resource for disaster preparedness, response, recovery, and mitigation.
- Address unique challenges faced by Indiana's farms, agribusinesses, rural residents, and first responders
- Highlight current emergency and disasterrelated issues and disseminate timely and specific information.

#### Facebook.com/INPREPared





# Indiana PREPared Resource Page

- Primary audiences Extension staff and teachers
- Lesson materials, resource pages, videos, news releases, etc.
- Indiana focus but easily adapted
- Materials and resources added regularly (somewhat regularly anyway)









#### Inclusive Emergency Preparedness

- Developed Fall 2024 with team of county educators (ANR, HHS, Youth)
- Highlights challenges faced by individuals with disabilities during disaster and emergency situations.
- "Inclusive Emergency Preparedness" teaching lesson materials
  - Slide set w/ instructor notes
  - Family Emergency Plan Template
  - Handouts
    - Summary flyer
    - Home Emergency and Go Bag Checklist
- Resources suitable anywhere (not Indiana focused except for Purdue logos)







Welcome to INPREP's & Purdue Extension's Inclusive Emergency Preparedness

ourrently, we have gosted draft versions of the brand new (as of 10,4,04) "inclusive amergency evaparedness" educational lesson, others materials are designed for axtension advocators, teachers, and volunteers to teach a 4-hour leason. The resources include a side set with full instructor notes, a handout summery sheet, a governo precipino checklist, and a filiable you template for developing a family emergency plan these materials focus on preparedness needs for even one, but maintain a focus on those with disability or chronic health challence.

these materials are posted for review by auterialon staff and others, and will be edited to final form in the near future, in the meantime. Fyou would like to use the materials before final versions are posted, contact ejaheldo@purdue for copies without "pinAem" markings.



pilok above to download a draft version of the "inclusive ameroency Preparedness' PowerPoint lesson, including full instructor notes. NOTE - Large file could take some time to download



plick above to download a your version of the "inclusive ameroence Preceredness' slide set. (only slides, no instructor notes



olick above to download the inclusive amergency erecaredness" handout that presentation, this fiver includes tios for completing the remitsmergency Man template.



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the inclusive amergency designed for use as Leader Lessons for indiana auterator Homemakers, olick above for







#### Farm Emergency Plans

- Resource was the starting point for the Inclusive Emergency Prepared in the Inclusive Emergency Prepared Inclusive Emergency Prepared
- Resources for developing a customized farm emergency plan
  - Tips/instructions
  - Template
  - Videos and publications
  - Additional resources
- Teaching resources
  - Slide set & notes
  - ► Also available as a Gearing Up for Safety Lesson
- Materials stress importance of accounting for disability issues among family members and farm staff



indian arraneous disciply, recoverage very form family to been an emergency plant for their flow operation. At some point, alread every firm contained in efficient exergency distants, with an adversed intelligity, first, or related mission, which their gas emergency global gain departs to be intelliging from integrated for such as event congraved byte as to other family members or from talk as wall as informations such as designed, as we want and gain event byte as a constraint of their proposal constraints. The operation is also an extra exercise constraints of the first.

The operation constraints the operation is designed and could be offered in an emergency distance on the first.

this als includes a template that furnilles can use to develop an emergency response plan for their form operation. We suggest the entire form furnilly along with employees of other staff to income in comparing this plan, we are years to be successful ourning an emergency everyone needs to be for the same page? By creating the plan together, all their personnel will have located and understand their come is also and expenditure.

- the template is set up to be a resource for both the farm family, staff and for emergency responder
- we recommend the producer shares the plan with their local fire department, first responders occurby awa directors may be willing to input the plan information into the country awa gistern as the ew dispatcher has immediate access during an emergency call
- insurance companies may offer a discount if a farm has a formal emergency plan
- attread copy of your earn amergency elan in a permanent accessible and marked location on the farmshed for use by first respondens

words the Amm amergancy Alen marplets was originally developed as a special project of Auroba automator. Americ pountly in one, the templets has been used to deve emergancy place for several form operations, and has been reviewed by first responders, assA, and safety education professionals.

Emergency Plan Template and Resources (pdf)

















#### Farm & Ranch Emergency Planning Videos

PREPolip: Emergency Preparedness (Creating an Emergency Plan)



PREPolip: Emergency Weather Preparedness - After the Event



Collaboration Between Farms, Local Emergency Planning Committees, and Emergency Responders



#### Additional Resources for Farm Families and Educators

#### Code Red

Accessing vital paperwork and personal or business information is essential to recovery from a classing emergency mits tool developed by the Audua women in agriculture mans stores passwords bank account information, notal agreements, lineurance agests access of attomate documents, and much more agests access of attomate documents, and much more

#### Farm Safety Inventory

A great project to complete along with a farm emergency plan is a safety inventory of your farm operation. Blok the icon below to scoses works Agriculture safety a seaths arm a wanch safety inventory, the inventory opera all facets of most

#### Disaster Preparedness Guide for Caregivers

rayms are somewhat unique in that we typically both live and work at the same location, commonly, farm families serve as caregivers to elderly relatives, or individuals with disabilities. As caregivers, those in









#### **Avian Flu Resources**

- New site included because it's a really big topic right now
- Intended as tool for Extension educators
- Variety of resources to answer "most" questions about HPAI and provide material for news releases, interviews, workshops, etc.
  - Current status Indiana and national
  - **Publications**
  - Social media releases
  - Video clips
- Includes information on human health issues







and federal government agencies, researchers, and university extension staff are compiled here for access. The site will focus on information specific to Indiana, but many resources will be applicable elsewhere.

Avian influenza, or "bird flu," is a contagious viral disease of domestic and wild birds. It's a major threat to the poultry industry, animal health, trade, and the economy worldwide

Caused by influenza type A viruses, the disease varies in severity depending on the strain and species affected Highly pathogenic avian influenza (HPAI) strains are deadly to domestic poultry and can wipe out entire flooks within a matter of days. Low pathogenicity avian influenza (LPAI) strains typically cause few or no signs of illness They occur naturally in wild birds around the world. However, some LPAI strains can become highly pathogenic in

According to the Centers for Disease Control and Prevention (CDC):

- . He bird flu is widespread in wild birds worldwide and is causing outbreaks in poultry and U.S. dairy cows with several recent human cases in U.S. dairy and poultry workers.
- . While the current public health risk is low, CDC is watching the situation carefully and working with states to monitor people with animal exposures.

#### **Current Situation**

Indiana HPAI Cases in Domestic Poultry

Reporting Sick or Dead Wildfowl -

National HPAI Cases in Domestic Poultry

National Cases in Wild Birds









#### **EDUCATOR** TOOLS

Thank you to Purdue Extension Specialists and county Extension Educators for developing

Letter to Poultry Producers in Outbreak Area - MS

Social Media Post -Protect Your Flook"

Sources for Information on Avian Flu", Purdue Ext.









#### **Gearing Up for Safety**

- ► Original development 1990's, with several updates since
- ► Hazardous Occupations Orders for Agriculture Certification for youth 14 & 15 years old
- ▶ 2018 present: major update
  - Additional lessons
  - ► Broadened scope
  - ► National promotion
- ► Currently 30 lessons available, more in development
- ► Each lesson approximately 50 minutes (or more depending on instructor)
- Several appropriate for emergency preparedness











#### Gearing Up Emergency/Disaster Prep Lessons



General Farm and Ranch Safety Overview



First Aid and Emergency Response



General Disease Prevention for Young Agricultural Workers



Preventing Fires, Explosions, and Burn Injuries on Farms and Ranches



Biosecurity in Agricultural Operations



Farm Youth Stress Management



Farm and Ranch Emergency Planning



Inclusive Emergency Preparedness (coming soon)



Agrosecurity (coming soon)



Weather Preparedness(coming soon)







# Resources

Strengthen Resilience with Personal Planning and Readiness

















#### **Extension Disaster Education Network**

Reducing the impact of disasters through research-based education.



The Extension Disaster Education Network (EDEN) is a collaborative multi-state effort by Cooperative Extension Services across the country to improve the delivery of services to people affected by disasters.









#### https://extensiondisaster.net/



- Searchable database of resources and educational materials focused on helping people address allhazards disaster events.
- Professional development webinars.
- Directory of EDEN delegates representing member institutions in all 50 states and three U.S. territories.







## **Educator / Trainer Resources**







**Educator / Trainer Resources** 













# Thank you!!

- Emily Jacobson, Program Manager, Easterseals Nebraska Nebraska AgrAbility, ejacobson@ne.easterseals.com
- Ashley Ahrens, MSN, RN, Nebraska Extension, Nebraska AgrAbility, agoad2@unl.edu
- Soni Cochran, MS, Nebraska Extension, Nebraska AgrAbility, scochran2@unl.edu
- Aaron Yoder, PhD, University of Nebraska Medical Center, Nebraska AgrAbility, aaron.yoder@unmc.edu
- ▶ Ed Sheldon, Purdue University Extension, Purdue AgrAbility, ejsheldo@purdue.edu







