

Hazards in Livestock Production Developing a Safety Culture

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Introduction

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EAOH – UNMC

BSE – UNL

CS-CASH



Objectives

At the end of the presentation, you will be able to:

1. Explain the Importance of Safety in Livestock Production
2. Identify Common Hazards in Livestock Production
3. List Strategies for Mitigating Hazards in Livestock Production
4. Develop a Safety Culture in Livestock Production

Importance of Safety in Livestock Production

Impact on Workers



Importance of Safety in Livestock Production

Impact on Livestock



Importance of Safety in Livestock Production

Economic Implications



Common Hazards in Livestock Production - Physical Hazards

Injuries from animals



Common Hazards in Livestock Production - Physical Hazards

Equipment-related injuries



Common Hazards in Livestock Production - Physical Hazards

Slips, trips, and falls



Common Hazards in Livestock Production - Biological Hazards

Zoonotic diseases



Common Hazards in Livestock Production - Chemical Hazards

Exposure to pesticides
and disinfectants



Common Hazards in Livestock Production - Chemical Hazards

Medication handling



Common Hazards in Livestock Production - Environmental Hazards

Extreme weather
conditions



Common Hazards in Livestock Production - Environmental Hazards

Dust and respiratory issues



Strategies for Mitigating Hazards - Engineering Controls

Safe facility design



Strategies for Mitigating Hazards - Engineering Controls

Equipment maintenance
and safety features



Strategies for Mitigating Hazards - Administrative Controls

Standard Operating Procedures (SOPs)

<https://extension.psu.edu/standard-operating-procedures-a-writing-guide>



Clarity Farms Parlor SOP #5. Cows With Abnormal Milk.

Effective Date: Feb. 27, 2001

Developed by Parlor Staff

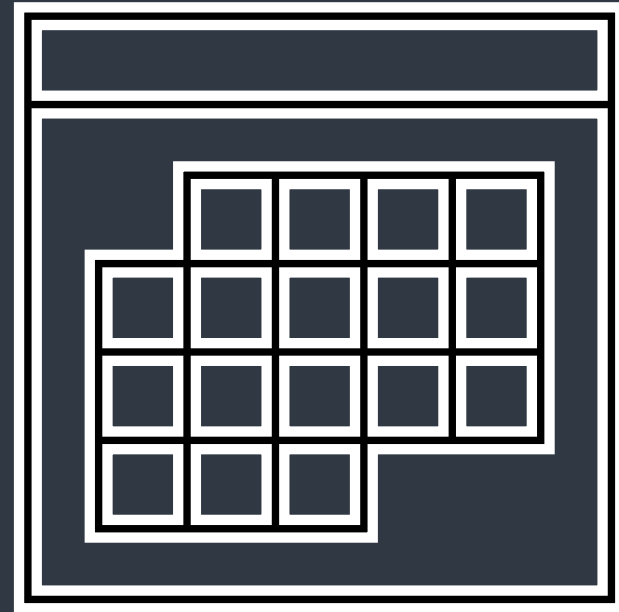


Figure 6. Sample Flow Chart Operating Procedure Format



Strategies for Mitigating Hazards - Administrative Controls

Scheduling and workload
management



Strategies for Mitigating Hazards - Personal Protective Equipment (PPE)

Types of PPE



Strategies for Mitigating Hazards - Personal Protective Equipment (PPE)

Proper use and maintenance



Safety Culture in Livestock Production - Definition and Importance

What is safety culture?



Safety Culture in Livestock Production - Definition and Importance

Benefits of a strong
safety culture



Safety Culture in Livestock Production - Developing a Safety Culture

Leadership commitment



Safety Culture in Livestock Production - Developing a Safety Culture

Employee involvement



Safety Culture in Livestock Production - Developing a Safety Culture

Continuous training and education



Safety Culture in Livestock Production - Best Practices

Safety protocols and procedures



Safety Culture in Livestock Production - Best Practices

Regular safety audits and inspections



Certified Safe Farm 

NIOSH OSHA 3348-01

The Certified Safe Farm (CSF) is a comprehensive total worker health program consisting of producer/farm manager education, third party on farm safety and health review, and clinical occupational health and wellness screenings. Nearly 1000 farms have gone through the program to date, and there is important data that indicates farms that qualify as a CSF have reduced injuries, illnesses, and lowered health care costs. The 24 member National CSF Coalition members aim for this program to become nationally available and sustainable. The success of this program will depend on incentives (defined economic benefits) to producers from their insurers, their agribusiness service and suppliers, and farm organizations. Success also will be dependent on realized incentives to agribusiness supporters of CSF farms including gaining a loyal productive customer base, marketing and public relations advantages. The tag line for this program is: ***“keeping farmers, their families, their workers and their supporting agribusinesses alive and well through mutual incentives.”***



The CSF is versatile in that it can be tailored to small family farms, local production farms, as well as large farms with many employees.



The following manual describes the program, its components, and implementation:

The original of this manual came from the 1995 – 2006 Certified Safe Farm Program of Iowa's Center for Agricultural Safety and Health (funded in part by NIOSH, Farm Bureau of Iowa, Monsanto, Blue Cross-Blue Shield, and Pioneer Hi-Bred). This revised version was developed

Safety Culture in Livestock Production - Best Practices

Reporting and addressing incidents



Case Studies and Real-Life Examples

Fatality Assessment and Control Evaluation (FACE) Program

<https://www.cdc.gov/niosh/face/default.html>



The screenshot shows the NIOSH FACE Program website. At the top, the CDC logo and the text "The National Institute for Occupational Safety and Health (NIOSH)" are visible. Below this, the page title "Fatality Assessment and Control Evaluation (FACE) Program" is displayed. A navigation menu on the left includes links for "Home Content", "About the Program", "Investigations", "NIOSH FACE Reports", "State FACE Reports", "Resources", and "Contact Us". The main content area features a grid of five images showing various workplace safety scenarios. Below the images, a paragraph explains the program's purpose: "Each day about 15 U.S. workers die on the job from traumatic injury. In an effort to address these deaths, the National Institute for Occupational Safety and Health's (NIOSH) Fatality Assessment and Control Evaluation (FACE) Program and State FACE Programs study fatal workplace injuries and prepare reports with recommendations to prevent similar deaths. Worker safety matters." Two buttons are present: "NIOSH FACE Reports" and "State FACE Reports". Below these, a section titled "Washington State FACE Fatality and Injury Narratives" provides information about the state's program. At the bottom, there is a "FACE Spotlight" section and a "Sign up for NIOSH eNews" form with a "Submit" button.

Case Studies and Real-Life Examples

Ag Injury News

<https://aginjurynews.org>



The screenshot displays the AgInjuryNews website interface. At the top, the logo "AGINJURY NEWS" is visible. Below it, a green banner reads "WELCOME TO AGINJURYNEWS" and "A free, interactive collection of new real-time agriculture related news reports". There are "Sign Up" and "Log In" buttons. A statistics bar shows "4,702 Incidents", "6,221 Victims", and "2,990 Fatalities". The main content area features a video player with the title "Farming accidents claim many lives" and a list of news items. A dark green footer contains the text: "FREE SERVICE: Register today for immediate access to the entire agricultural injury news database." and "AgInjuryNews.org is a free data service provided, in part, by the National Farm Medicine Center."

AGINJURY NEWS

WELCOME TO AGINJURYNEWS
A free, interactive collection of new real-time agriculture related news reports

Sign Up Log In

4,702 Incidents: 6,221 Victims: 2,990 Fatalities

Man operating skid loader on farm killed in accident in York County: Coroner's Office
A 57 yr male skid loader operator was fatally injured after skid loader flipped.
64262524 1 Victims: 1 Pennsylvania

Details released on Monday's semi and farm tractor collision
An unspecified tractor operator and an unspecified semi-truck operator were both non-fatally injured in a roadway collision.
63110204 2 Victims: 2 Minnesota

11-year-old dies in Pasquotank County after being pinned underneath an ATV
An 11 yr male ATV operator was fatally injured in a rollover incident.
63062824 1 Victims: 1 North Carolina

Authorities respond to fatality ATV, tractor accident in Sheridan County
A 2 yr male ATV operator was fatally injured in a collision with a tractor.
62502924 1 Victims: 1 Nebraska

FREE SERVICE: Register today for immediate access to the entire agricultural injury news database.

AgInjuryNews.org is a free data service provided, in part, by the National Farm Medicine Center.

Case Studies and Real-Life Examples - Case Study 1: Animal Handling Injury

Incident description

In summer 2011, a 53-year-old farmer who worked with her husband in a family dairy operation was injured by a 2 ½-year-old Holstein bull during morning milking chores. On the day of the incident, the victim and her husband began their usual chores: the wife was in the dairy building working cows in the holding pen through the milking parlor to milk, while her husband was in the nearby barn, cleaning the floors with a skid loader. When his wife did not come out of the milking area after starting a group of cows on the milking machines, the husband went into the parlor to check on her. He found her lying near the gate between the holding pen and the milking area. She was unable to move and told her husband the bull in the holding pen had struck her from behind. The husband moved her into the milking area, secured the cattle in the holding pen, and called 911. First responders arrived and transported the woman to the hospital. The woman was awake and oriented upon arrival but in critical condition with multiple blunt-force injuries and a near-severed spinal cord. Her condition deteriorated, and she died three days later.

Case Studies and Real-Life Examples - Case Study 1: Animal Handling Injury

Analysis and Lessons Learned

The factors contributing to this fatal injury include working alone, and working in an enclosed area where a bull was in the presence of one or more cows likely in estrus.



Case Studies and Real-Life Examples - Case Study 2: Facility Design

Incident description

On July 6th, 2003, a 48-year-old dairy farmer was helping load cattle onto a trailer when he was fatally crushed between the end of a gate and a steel fence. At the time of the incident, the farmer and two other workers were attempting to load cows onto a trailer using a chute created by fencing and some portable gates. One of the cows turned and rushed back through the gate into the barn area. The workers were able to turn the cow so that it was once again going toward the trailer and had passed through a makeshift gate. Once again, the cow turned, and tried to push through the gate while the victim was standing by the side wall at the open end of the gate. The victim was crushed by the gate and his heart punctured by a metal protrusion on the end of the gate. Workers on the scene called for help and initiated resuscitation efforts. Upon arrival, the emergency squad continued these efforts, and a helicopter transport was called in. The victim was pronounced dead on arrival at a nearby major trauma hospital.

Case Studies and Real-Life Examples - Case Study 2: Facility Design

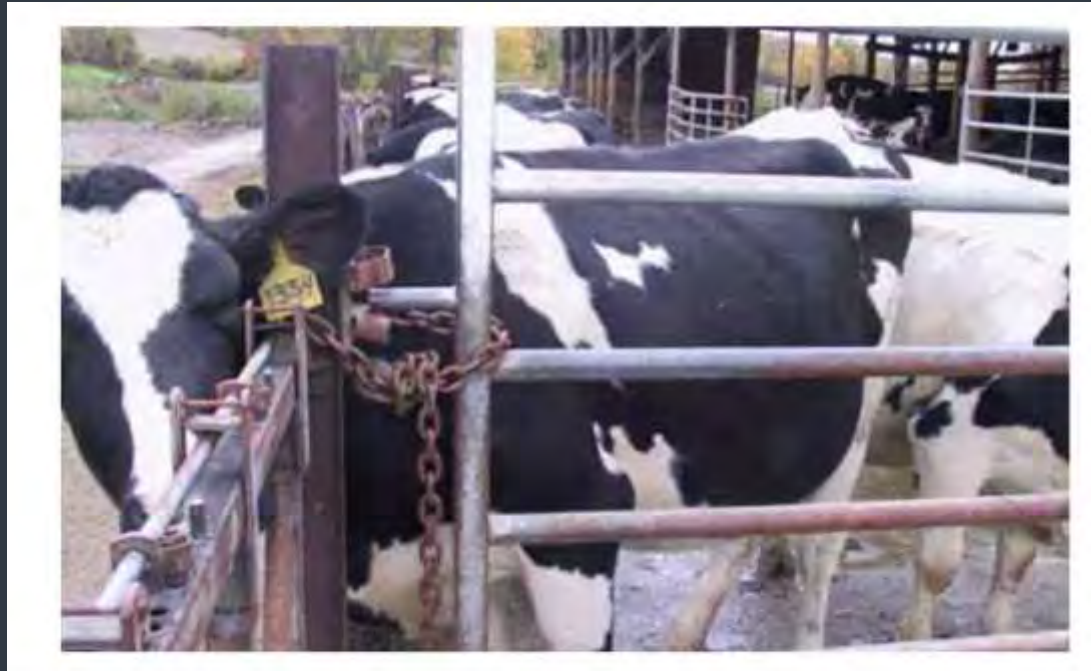


Figure 1. Gate involved in incident, featuring protrusion

Case Studies and Real-Life Examples - Case Study 2: Facility Design



Case Studies and Real-Life Examples - Case Study 2: Facility Design

Analysis and Lessons Learned

- Cattle handling facilities should be equipped with properly constructed animal loading structures to minimize hazards associated with animal transport;
- Workers should avoid positioning themselves in areas of entrapment when working around large animals;
- Dairy cows should be monitored for signs of unusual aggression. Dangerous animals should be promptly removed from farms to prevent worker injury;
- Work areas should be designed or modified to eliminate potentially hazardous protrusions

Case Studies and Real-Life Examples - Discussion on Preventive Measures



Summary of Key Points

Importance of identifying and mitigating hazards



Summary of Key Points

Role of safety culture in prevention



Additional Resources

NIOSH Centers

- Training Program
- Research Results
- Injury Data
- YouTube Channel



<https://www.cdc.gov/niosh/extramural-programs/php/about/ag-centers.html>

Additional Resources

Professional Organizations

ISASH – <https://isash.org>

ASHCA – <http://ashca.org>

ASABE – <https://www.asabe.org>

AgriSafe – <https://www.agrisafe.org>

Ag Safety and Health Alliance – <https://aghealthandsafety.com>

Reach out for more information...

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