Protecting the People who Feed the World®

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AgriSafe Network
Protecting the People Who Feed the World
Adaptation of Total Worker Health® to Agriculture
## Issues Relevant to Advancing Worker Well-being Through Total Worker Health®

### Control of Hazards and Exposures
- Chemicals
- Physical Agents
- Biological Agents
- Psychosocial Factors
- Human Factors
- Risk Assessment and Risk Management

### Organization of Work
- Fatigue and Stress Prevention
- Work Intensification Prevention
- Safe Staffing
- Overtime Management
- Healthier Shift Work
- Reduction of Risks from Long Work Hours
- Flexible Work Arrangements
- Adequate Meal and Rest Breaks

### Built Environment Supports
- Healthy Air Quality
- Access to Healthy, Affordable Food Options
- Safe and Clean Restroom Facilities
- Safe, Clean and Equipped Eating Facilities
- Safe Access to the Workplace
- Environments Designed to Accommodate Worker Diversity

### Leadership
- Shared Commitment to Safety, Health, and Well-Being
- Supportive Managers, Supervisors, and Executives
- Responsible Business Decision-Making
- Meaningful Work and Engagement
- Worker Recognition and Respect

### Compensation and Benefits
- Adequate Wages and Prevention of Wage Theft
- Equitable Performance Appraisals and Promotion
- Work-Life Programs
- Paid Time Off (Sick, Vacation, Caregiving)
- Disability Insurance (Short- & Long-Term)
- Workers’ Compensation Benefits
- Affordable, Comprehensive Healthcare and Life Insurance
- Prevention of Cost Shifting between Payers (Workers’ Compensation, Health Insurance)
- Retirement Planning and Benefits
- Chronic Disease Prevention and Disease Management
- Access to Confidential, Quality Healthcare Services
- Career and Skills Development

### Changing Workforce Demographics
- Multigenerational and Diverse Workforce
- Aging Workforce and Older Workers
- Vulnerable Worker Populations
- Workers with Disabilities
- Occupational Health Disparities
- Increasing Number of Small Employers
- Global and Multinational Workforce

### Policy Issues
- Health Information Privacy
- Reasonable Accommodations
- Return-to-Work
- Equal Employment Opportunity
- Family and Medical Leave
- Elimination of Bullying, Violence, Harassment, and Discrimination
- Prevention of Stressful Job Monitoring Practices
- Worker-Centered Organizational Policies
- Promoting Productive Aging

### Community Supports
- Healthy Community Design
- Safe, Healthy and Affordable Housing Options
- Safe and Clean Environment (Air and Water Quality, Noise Levels, Tobacco-Free Policies)
- Access to Safe Green Spaces and Non-Motorized Pathways
- Access to Affordable, Quality Healthcare and Well-Being Resources

### New Employment Patterns
- Contracting and Subcontracting
- Precarious and Contingent Employment
- Multi-Employer Worksites
- Organizational Restructuring, Downsizing and Mergers
- Financial and Job Security

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**Total Worker Health® is a registered trademark of the US Department of Health and Human Services**
Farmworkers are at high risk for fatal and nonfatal injuries, work-related lung diseases, noise-induced hearing loss, skin diseases, and certain cancers associated with chemical use and prolonged sun exposure. Variety of exposures in agriculture result in multiple hazards:

- Dusts (organic: bacteria, endotoxin, fungal spores; pesticide residues)
- Pesticides and chemicals
- Gases (Anhydrous ammonia, hydrogen sulfide, welding)
- Vapors (fumigants, gasoline, diesel)
- Confined space (oxygen deficient atmosphere)
- Flying objects (cutting, grinding, sawing, drilling, mowing)
- Noise (machinery, livestock, tools)
- Hazardous equipment and machinery
- Livestock
- Off Road Vehicles
Sleep plays a critical role in immune function, metabolism, memory, learning, and other vital functions. It is more difficult to take in new information following a night of inadequate or disturbed sleep.

It is just as important to get a good night’s sleep after learning something new in order to process and retain the information that has been learned.
Financial health is a term used to describe the state of one's personal financial situation. There are many dimensions to financial health, including the amount of savings you have, how much you are setting away for retirement and how much of your income you are spending on fixed or non-discretionary expenses.

In farming, your financial health is impacted greatly by your business— the two are inherently connected.
Health insurance coverage places a significant financial burden on farm families.

Farmers are more likely than their rural counterparts to purchase in the individual insurance market which had limitations in care benefits.

Farmers are at high risk to be underinsured.
Agricultural Health and Safety Impact

**Goal:** develop and implement programs for each age group in the continuum of life.

- Identify Risks
- Identify Needs
- Develop programs
- Collaborate
- Partner
- Implement
- Evaluate

Continuum of Life
Safety Considerations - What Can We Do?  
TWH Hierarchy of Control

Engineer dangers out of environment if at all possible!

Personal protective equipment - **may be only feasible solution**  
The last line of defense!

- **Eliminate**: Eliminate working conditions that threaten safety, health, and well-being
- **Substitute**: Substitute health-enhancing policies, programs, and practices
- **Redesign**: Redesign the work environment for safety, health and well-being
- **Educate**: Educate for safety and health
- **Encourage**: Encourage personal change
FARM FLOOD HEALTH THREATS
RISK FACTORS DURING RECOVERY

- Water may not be safe to drink, cook, bath or disinfect.
- Transmission of disease can occur between humans and animals.
- Intense exposure to hot temperatures and high humidity can cause heat related illnesses.
- Microbial (e.g. mold) growth rapidly increases and spreads due to flooding waters.
- Flooded storage of pesticides and petrochemicals (e.g. oil, hydraulic fluid) can pose threats to human health.
- A flood can cause both emotional and physical stress.

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**RISK FACTORS**

<table>
<thead>
<tr>
<th>HUMAN &amp; ANIMAL</th>
<th>WELL WATER</th>
<th>CHEMICALS</th>
<th>MOLD</th>
<th>STRESS</th>
<th>HEAT ILLNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floods can potentially increase the transmission of communicable diseases: Water-Borne (Hepatitis A); Vector-Borne (West Nile Virus); Bacterial (Tetanus) spores and Fungal (Histoplasmosis) spores found in dust, dirt, animal droppings and animal carcasses.</td>
<td>Water may not be safe to drink, cook or clean with after a flood. Water can become contaminated with microorganisms such as bacteria, sewage, heating oil, agricultural or industrial waste, chemicals and other substances that can cause serious illness.</td>
<td>If a chemical, pesticide or hazardous waste spill occurs, chemicals might be released from barns, homes, and other sources into the environment. Chemical spills could release vapors or chemical fumes. Local and state authorities will provide further guidance.</td>
<td>Mold is part of the natural environment. Higher concentrations of mold and bacteria can be found after a flood. This causes the production of Microbial Volatile Organic Compounds (mVOCs), which emit chemical like odors and can become noxious respiratory irritants.</td>
<td>After a natural disaster, you’re dealing with the extra stress of current conditions, along with the daily stress of farm operations. Natural disasters create a tremendous amount of additional stress and anxiety. You may develop major depression, generalized anxiety, and posttraumatic stress disorder.</td>
<td>Disaster recovery is physically strenuous, especially in hot temperatures. High humidity can boost the temperature by 15-20 degrees or more. Intense heat exposure can cause heat related illnesses. Signs include excessive thirst, weakness, headache, loss of consciousness, nausea and vomiting, muscle cramps, and dizziness.</td>
</tr>
</tbody>
</table>

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**PREVENTION TIPS**

- Remove standing water
- Use only NIOSH approved N95 (or greater) respirators fitted to your face
- Use watertight, steel toe boots or waders, waterproof, cut resistant gloves
- Follow state guidance on carcass removal
- Sample and test the well water
- Conduct well and pump inspection
- Perform emergency disinfection of wells that have been flooded
- Follow health department drinking and bathing advisories
- Wear appropriate clothing including cover-alls, liquid and chemical resistant boots or waders, gloves and safety glasses
- Use only NIOSH approved respirators, such as chemical cartridge respirator for organic vapors with added pre-filter
- Wear safety goggles
- Use only NIOSH approved N95 (or greater) respirators fitted to your face
- Use water-proof, cut resistant gloves
- Properly ventilate area
- Be pro-active, recognize potential signs of stress, anxiety, or depression
- Know your local resources, where you can go for help
- Adequate sleep (7-8 hours) is critical to the recovery process
- Take frequent rest/water breaks
- Wear light colored clothing
- Use the buddy system to identify heat related symptoms
- Use water resistant SPF 30 or higher sunscreen
- Understand signs and symptoms

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**FACT SHEETS**

- Zoonotic Disease
- EPA Well Disinfection
- Respiratory Selection Guide
- Mental Health
- Heat Illness

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*This list of risk factors is not exhaustive. For example, other risks may include electric shock, drowning, falls and structural hazards.*

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FOR MORE INFORMATION VISIT AGRISAFE.ORG/FLOODCLEANUP
Protect your Lungs from Wildfire Smoke

Agricultural producers, ranchers and farmworkers need to protect their lungs from wildfire smoke during wildfires. Two strap NIOSH approved N95 respirators are the best defense!

www.agrisafe.org
Which Respirator is Right for the Farm Work You Do?

Do you have any respiratory exposures?
Examples: hogs, cattle dairy, poultry, grain, tobacco, cotton, pesticides, chemicals, silos and welding

Consider Your Exposures
Most farm activities put you at risk for some type of respiratory exposure causing a need for respiratory protection.

Are you exposed to dust/aerosols?
Grain, Hay, Hogs, Pesticides (solids) Poultry, Mold, Grain Dust

Use one of the following:
- Two Strap Respirator
- Canister with P100 Filters
- Powered Air Purifying Respirator (PAPR)

Are you exposed to chemicals/fumes?
Pesticides or Paint (Organic Vapors), Ammonia, Disinfectants, Bleach (Acid Gas)

Use one of the following:
- Half Mask Canister Respirator
- Powered Air Purifying Respirator (PAPR)

Do you work in an oxygen limiting environment*?
Livestock and Poultry Confinement
Grain Handling, Fumigation, Manure Pits, Hydrogen Sulfide, Silo

Use one of the following:
- Self Contained Breathing Apparatus (SCBA)
- Supplied Air Respirators

*An oxygen limiting environment would be considered a confined space where there would not be enough oxygen to support life.

Recommendations and Resources
Fit Testing - choosing the right respirator with the right fit is essential to having adequate protection. Canister respirators should be fit tested and fit checked with each use. To find out more information about proper fit contact AgriSafe Network. www.agrisafe.org

If you have a medical condition that would prohibit you from wearing a respirator consult a healthcare provider.
Example: heart conditions, lung conditions such as asthma or emphysema, uncontrolled hypertension or claustrophobia

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Head to Toe Protection

Swine

Exposures

- Flying objects
- Noise
- Grain Dust
- Sun

Head

When exposed to impact and penetration hazards wear a safety helmet or hard hat that fits appropriately and meets the ANSI Standard Z89.1-1986.

Ears

Hearing protection plugs or muff when exposed to noise above 85 decibels (dB).

Lungs

NIOSH approved air purifying 2-strap N95 or N100 respirator or cartrig respirator with N100 filter. Add ammonia filters for exposure to ammonia. With exposure to disinfectants – read the label for information on which cartrig to use.

Body

Sun safe clothing with UPF of at least 30 or use a broad spectrum (UVA/UVB) sunscreen with SPF of 30 or higher.

Feet

Choose work shoes for the job and hazard that meet the ASTM F-2412-2005 and ASTM F-2413-2005 standard.

Grain

Exposures

- Flying objects
- Noise
- Grain Dust
- Mold

Head

When exposed to impact and penetration hazards wear a safety helmet or hard hat that fits appropriately and meets the (ANSI) Z89.1-2009 standard. For sun exposure wear sun safe hat or sunscreen.

Ears

Hearing protection plugs or muff when exposed to noise above 85 decibels (dB).

Lungs

NIOSH approved air purifying 2-strap N95 or N100 respirator or cartrig respirator with N100 filter.

Body

Sun safe clothing with UPF of at least 30 or use a broad spectrum (UVA/UVB) sunscreen with SPF of 30 or higher.

Eyes

Safety glasses that meet ANSI Z87.1 NIOSH Standard.

Feet

Choose work shoes for the job and hazard that meet the ASTM F-2412-2005 and ASTM F-2413-2005 standard.
Thank you for taking the time to complete this health risk assessment. Please continue to the next screen to see the recommendations based on your anonymous answers to the Health Risk Assessment.

Connect with AgriSafe Network, Inc.: For information and resources on many of the important health & safety issues related to agriculture, access the AgriSafe website, www.agrisafe.org. Look for the AgriSafe in Action pages and archived webinar presentations. Webinars are free and available to anyone for one year following presentation. Older webinars are available to AgriSafe members. Please... consider becoming a member today for as little as $50/year.

Continue to see Suggestions for my health! (nobody will be able to identify you or contact you)*

☐ Continue
### Women’s Health Resource

**Take Charge of Your Health**

**Women Working in Agriculture**

Across centuries, women have worked in agriculture providing food for their families and communities. The number of women working as principle farmers has tripled over the past thirty years and their work tasks have also changed. Women contribute to our strong farm economy and will continue to live, work and raise families on farms.

This fact sheet is designed to highlight the unique risk factors for women working in agriculture. Practical solutions are offered to assist farm women in maintaining a healthy and productive farming future.

#### Gender Differences and Work-Related Injury Risk

<table>
<thead>
<tr>
<th>Gender Differences</th>
<th>Description</th>
<th>Exposure/Risks</th>
<th>Possible Health and Safety Issues for Women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size and Shape</strong></td>
<td>On average, women are shorter than men so they’re at risk for lower back pain, shorter arms and legs.</td>
<td>Use of equipment that is too heavy, use of equipment not designed for women, personal protective equipment that doesn’t fit well</td>
<td>Increased risk for strains of the back and hips, dizziness from the weight, musculoskeletal pain, other health issues</td>
</tr>
<tr>
<td><strong>Strength</strong></td>
<td>Upper body strength is 70% less and lower body strength is 30% less than for males.</td>
<td>Use of equipment in tools not designed for women, moving heavy objects</td>
<td>Increased risk for low back discomfort, increased risk of injury, potential injury to wrists and hands</td>
</tr>
<tr>
<td><strong>Reproductive Factors</strong></td>
<td>Pregnancy and/ or menopause can increase risk of injury</td>
<td>Increased risk for injury, hot flashes, anxiety</td>
<td>Potential for complications, potential impact on vision, potential impact on bone density</td>
</tr>
<tr>
<td><strong>Stress Factors</strong></td>
<td>Work on the farm and off farm can be a source of stress.</td>
<td>Lack of time and support</td>
<td>Increased risk for injury, stress-related disorders, depression</td>
</tr>
</tbody>
</table>

**Notes for Talking to Your Healthcare Provider**

- Discuss your farm-related risks.
- Ask questions relative to pesticide exposure and appropriate PPE.
- Review chemical safety.
- Discuss stress issues.
- Discuss changes in diet for early signs of heart disease, breast, uterine, and ovarian cancers and diabetes.

#### Identify Prevention Strategies to Eliminate or Reduce Ag Related Risks

<table>
<thead>
<tr>
<th>Gender Differences</th>
<th>Prevention Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size and Shape</strong></td>
<td>Use of equipment designed for women, use of equipment that fits well, use of equipment that is lighter.</td>
</tr>
<tr>
<td><strong>Strength</strong></td>
<td>Wear sturdy footwear, avoid slipping, tripping, and falling, avoid repetitive motion work or modify work to reduce strain on joints, maintain strong bone density by appropriate calcium intake and exercise.</td>
</tr>
<tr>
<td><strong>Reproductive Factors</strong></td>
<td>Read and understand information in safety and health instructions associated with pesticides, use appropriate personal protective equipment based on the product label or when working around animals, reduce exposure to pesticides.</td>
</tr>
<tr>
<td><strong>Stress Factors</strong></td>
<td>Establish a support system which may include family, friends, online groups, seek assistance from health care professionals for symptoms that indicate anxiety or other mental health issues.</td>
</tr>
</tbody>
</table>

**Genetics**

<table>
<thead>
<tr>
<th>Exposed to heat and sun</th>
<th>Prevention Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use sunscreen of SPF 30 or higher, wear a hat or cap, wear long sleeves, wear pants, limit time spent outside in the sun.</td>
<td></td>
</tr>
</tbody>
</table>

**Personal Protective Equipment (PPE)**

- Wear NIOSH approved 2 strap or respirator in appropriate area to fit your facial structure.
- Wear appropriate personal protective equipment based on the product label when working around animals.
- Wear proper hearing protection and use noise-cancelling headphones.
- Use appropriate personal protective clothing based on the product label when working around animals.

**Environmental Hazards**

- Use sunscreen with SPF 30 or higher, wear a hat or cap, wear long sleeves, wear pants, limit time spent outside in the sun.
- Use NIOSH approved 2 strap or respirator in appropriate area to fit your facial structure.
- Wear appropriate personal protective clothing based on the product label when working around animals.
Mental Health and Wellness

Mental Health and the Impact on Wellness
For Farm Families

Many of the factors that affect agricultural production are largely beyond the control of the producer. Good health, including mental health, is a key factor that contributes to one’s ability to keep farming.

Twenty percent of any population has mental health complications, including farmers and ranchers. Stigma and privacy concerns associated with mental health issues may mean that many people do not seek out available behavioral health services.

SYMPTOMS OF POOR MENTAL HEALTH
- Persistent worry and fear
- Apprehension and uneasiness
- Avoidance of others
- Feeling sad
- Lack of interest or pleasure in activities
- Significant weight change or changes in appetite
- Problems sleeping
- Slow or fidgety body movements
- Low energy
- Difficulty concentrating
- Frequent thoughts of death or suicide
- Substance misuse
- Unexplained changes in physical appearance or behavior

EXPERIENCING ANY OF THESE SYMPTOMS?
Take the Two Question Self-Assessment Tool:
1. During the past two weeks, have you often been bothered by feeling down, depressed, or hopeless?
   - Yes
   - No
2. During the past two weeks, have you often been bothered by little interest or pleasure in doing things?
   - Yes
   - No

*If you have a positive response to either of these questions, consider talking to your health care provider about further assessment. You can also access self-screening tools by visiting http://www.mentalhealthamerica.net/mental-health-screening-tools

WHEN YOU TALK TO YOUR HEALTH CARE PROVIDER:
- Be pro-active; ask about potential signs of stress, anxiety, or depression
- Speak openly about stressful issues in your work and home life
- Be familiar with your family medical history related to depression or other contributing behavioral issues
- List any prescribed and over-the-counter medications you take
- Be aware of smoking habits and alcohol intake
- Inquire about a referral to a mental health specialist
- Know what your insurance coverage may (or may not) be for evaluation of mental health care

www.agrisafe.org | 1-866-312-3002 | info@agrisafe.org
Avian Influenza
Personal Protective Equipment (PPE) Guidelines

Avian Influenza Outbreak
The USDA Animal and Plant Health Inspection Service (APHIS) reported that between December 2014 and June 2015 the avian influenza (HPAI) H5 outbreak affected over 47 million birds in the US. The virus is spread through contact with fecal droppings, saliva and nasal discharges of infected birds. More information on avian influenza can be found on the USDA website. The Centers for Disease Control and Prevention (CDC) has stated that “Although these viruses are not known to have caused disease in humans, their appearance might increase the likelihood of human infection in the United States.” Anyone exposed to infected poultry should wear personal protective equipment (PPE). Anyone anticipating contact with infected birds or affected operations should consult the USDA and CDC websites. Sick birds or unusual bird deaths should be reported to State/Federal officials either through the state veterinarian or through USDA's toll-free number at 1-866-536-7593.

Information provided is intended as general guidelines for exposures.

Respiratory Exposures

**Working in affected poultry facilities involves exposures to dust, toxic gases and disinfecting chemicals, in addition to avian influenza virus. It is important to select respiratory protection for all of these exposures.**

**Avian influenza and particulates (dusts)** Appropriate protection for avian influenza and dusts is a NIOSH-approved particulate filtering respirator. Wear a particulate filtering respirator with an N95 or P100 filter or filter cartridge when working in poultry barns and when working with infected poultry and virus-contaminated materials or environments. Disposable 2-strap filtering face piece respirator masks (figure 1), half masks (figure 2) or full facepiece respirators with P100 filters.

**Hazardous gases and vapors** are commonly found in poultry buildings. Ammonia levels may be high during manure and litter removal, building clean-out, and composting of carcasses and litter. Respiratory protection should include ammonia or multi gas cartridges approved for ammonia (shown in figures 1 and 4).

**Cleaning and disinfecting compounds** contain ingredients that can be harmful to breathe. These may include aldehydes, ammonia compounds, acids, alcohols and other ingredients. Read and follow product label guidelines regarding selection of the appropriate gas cartridges. Particulate filters should be used with these cartridges (shown in figures 3 and 4).

**CAUTION:** Effective ventilation and use of respirators with multi gas cartridges and P100 filters are recommended when any of these gases and dusts may be present. A particulate filtering respirator with only an N95 or P100 filter or cartridge is effective for dust and viruses, but it does not protect against hazardous gases.

**WARNING:** Use cleaning and disinfecting products only as directed. Some cleaning or disinfecting compounds may react with ammonia in litter to produce hazardous gases. Mixing cleaning or disinfecting products together can produce toxic gases. Consult the product label or manufacturer for additional information.

Important Respirator Use Information

- Consult a health care provider before wearing a respirator if you have a history of heart or lung disease.
- Respirators reduce exposure to airborne contaminants, but do not completely eliminate the risk of exposure, infection, illness, or death. Use respirators in accordance with manufacturer instructions.
- Information on respirator programs is available at Small Entity Compliance Guide for the Respiratory Protection Standard.
- Improperly fitted respirators do not provide the intended protection. Respirators should be fit tested when possible. A user seal check (fit test) should be performed each time a respirator is worn. [Watch to fit testing video.]
- Maintain a clean shaven face to obtain the best fit and protection. A powered air purifying respirator (PAPR) with loose fitting face piece, hood or helmet can be worn by individuals with facial hair.
- See your health care provider for diagnosis and treatment if you experience respiratory symptoms (examples: shortness of breath, wheezing, cough, chest tightness) during or after working with poultry.
- For more information on respirator use in poultry facilities click - Respiratory Health on Poultry Farms.

Availability of Personal Protective Equipment

Many stores and online vendors sell PPE. Prior to purchase, ensure that respirators are NIOSH approved and the correct type of PPE is used for the specific exposure. Further information can be found on the AgriSafe Network website www.agrisafe.org. An online search for “PPE Safety Solutions” will list vendors of NIOSH approved respirators and other PPE.

Updated July 30, 2015
PPE - Monitoring Bird Health

PPE should be worn when working in poultry facilities and while monitoring for avian influenza.

- Gloves: disposable nitrile or neoprene gloves that can be disinfected
- Respirators: minimum respiratory protection is a NIOSH-approved N95 disposable particulate respirator
- Foot protection: disposable coverings or boots that can be disinfected
- Protective clothing: disposable coveralls or coveralls that can be disinfected

PPE - Depopulation, Removal and Composting

These tasks may involve increased exposure to ammonia, resulting in the need for increased respiratory and eye protection.

- Gloves: disposable nitrile or neoprene gloves that can be disinfected
- Respirators: half mask or full facepiece respirator with P100 filters and ammonia or multi gas cartridges (see page 1 for information on hazardous gases)
- Eye protection: avented or indirect vent goggles, or full facepiece respirator
- Foot protection: disposable coverings or boots that can be disinfected
- Protective clothing: disposable coveralls or coveralls that can be disinfected

PPE - Cleaning and Disinfecting

These tasks involve exposure to chemicals. Check product label for recommendations.

- Gloves: disposable nitrile or neoprene gloves that can be disinfected
- Respirators: half mask or full facepiece respirator with P100 filters and multi gas cartridges are appropriate for many disinfectants, but check the label
- Eye protection: avented or indirect vent goggles, or full facepiece respirator
- Foot protection: disposable coverings or boots that can be disinfected
- Protective clothing: disposable coveralls or coveralls that can be disinfected

ATTENTION

Proper removal of PPE and good personal hygiene reduce the potential of exposure to the avian influenza virus.

http://www.cdc.gov/flu/avianflu/Avian flu worker-protectiveness.htm

Use of full body PPE can increase risk for heat related illness. Understand the signs, symptoms and prevention strategies.

http://www.cdc.gov/niosh/topics/heatstress/

Instructional Videos

Respirator fit testing instruction:
http://www.cdc.gov/niosh/topics/respirators.html

Choosing a Respirator:
https://www.youtube.com/watch?v=GBXy3S5QeKo

Caring for your Respirator:
https://www.youtube.com/watch?v=8NoHtug4sl

Avian Influenza Informational Resources

USDA: www.usda.gov

CDC: www.cdc.gov/flu/avianflu/index.htm

APHIS: www.aphis.usda.gov/wps/portal/aphis/home

NIOSH: www.cdc.gov/niosh/topics/avianflu


Updated July 30, 2015
<table>
<thead>
<tr>
<th><strong>DISEASE</strong></th>
<th><strong>HOST/ CARRIER</strong></th>
<th><strong>CHARACTERISTICS &amp; PRIMARY TRANSMISSION</strong></th>
<th><strong>INCUBATION</strong></th>
<th><strong>HUMAN SYMPTOMS</strong></th>
<th><strong>PRECAUTIONS/ CARE / TREATMENT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabies</td>
<td>mammals bats wild animals pets</td>
<td>· animal bites · contact with infected tissue</td>
<td>2 – 21 days (usually 5 – 12) may be up to 3 months</td>
<td>· headache - malaise · fever · salivation · difficult swallowing · seizures</td>
<td>· PPE · immune globulin · vaccine</td>
</tr>
<tr>
<td>Hanta Virus</td>
<td>infected rodents</td>
<td>· inhalation of rodent feces or urine</td>
<td>7 – 39 days</td>
<td>· fever · dizziness · nausea - vomiting · pulmonary edema</td>
<td>· PPE · intense medical treatment and support of cardiac and pulmonary symptoms</td>
</tr>
<tr>
<td>Encephalitis</td>
<td>various animals mosquitos ticks rodents</td>
<td>· bites</td>
<td>4 – 14 days</td>
<td>· headache · flu-like symptoms · restless · agitation</td>
<td>· PPE · anti-inflammatories · antivirals · steroids · rest</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>hepatitis E swine</td>
<td>· consumption of fecally contaminated drinking water · from infected animals · consumption of uncooked/under cooked pork or deer meat</td>
<td>3 – 6 weeks</td>
<td>· fever · anorexia · nausea · abdominal pain · jaundice</td>
<td>· PPE · treat symptoms · immunoglobulin · vaccine</td>
</tr>
<tr>
<td>New Castle Disease</td>
<td>poultry</td>
<td>· contact with secretions of infected birds</td>
<td>2 – 15 days</td>
<td>· conjunctivitis · rarely flu-like symptoms</td>
<td>· PPE · eye drops · avoid sunlight</td>
</tr>
<tr>
<td>Poxvirus</td>
<td>dairy cows cattle</td>
<td>· direct animal contact – teats or muzzle</td>
<td>5 – 14 days</td>
<td>· reddened · nodules · wart like nodules · swelling around affected area</td>
<td>· PPE · keep area dry · topical antiviral ointments</td>
</tr>
<tr>
<td>Animal Influenza</td>
<td>Avian (bird) flu H5N1, H7N9 &amp; H9N2 Swine H1N1 &amp; H3N2</td>
<td>· direct or indirect exposure to infected live or dead animals or contaminated environments</td>
<td>Avian: 2 - 8 days Swine: 1 - 7 days</td>
<td>· fever · cough - sore throat · chest pain · abdominal pain - diarrhea · vomiting · bleeding from nose or gums</td>
<td>· rest · fluids · prescribed anti-viral drugs in some instances</td>
</tr>
</tbody>
</table>
Heat Related Illnesses

Farmers and agricultural workers perform work in a wide range of environmental conditions. The severity of symptoms will vary, but knowing the warning signs of heat related illness can save lives. According to a 2008 Centers for Disease Control (CDC) study, during 1992-2006, a total of 68 crop workers died from heat stroke. This represents a rate nearly 20 times greater than all U.S. civilian workers.

Special populations within the agricultural community may have elevated risk for complications from the heat. Older workers may have more difficulty regulating body temperature. Young children sweat less and quickly produce more heat than adults. Farmworkers may be working far from water or shade, may be compensated in a way that discourages taking a break, and may be fearful of reporting any symptoms of heat related illnesses to their supervisors.

Prevention

To prevent heat related illness and fatalities:
- Drink water every 15 minutes, even if you are not thirsty.
- Rest in the shade to cool down.
- Wear a hat and light-colored clothing.
- Learn the signs of heat illness and what to do in an emergency.
- Keep an eye on fellow workers.
- “Easy does it” on your first day of work in the heat. You need to get used to it.

(Source: OSHA’s Water, Rest, Shade campaign)

Heat Index Risk Level Protective Measures
Less than 91°F Lower (Caution) Basic heat safety and planning
91°F to 103°F Moderate Implement protection and heighten awareness
103°F to 115°F High Additional protective measures for workers
Greater than 115°F Very High to Extreme Triggers even more aggressive protective measures

Resource: https://www.osha.gov/SLTC/heatillness/heatresources.html

Hearing Loss Prevention

Adapting the Hearing Conservation Program for Agriculture

Decibel Levels of Everyday Sounds

<table>
<thead>
<tr>
<th>Decibel (dB)</th>
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</thead>
<tbody>
<tr>
<td>0 - 25</td>
</tr>
<tr>
<td>26 - 40</td>
</tr>
<tr>
<td>41 - 60</td>
</tr>
<tr>
<td>61 - 85</td>
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<tr>
<td>86 - 105</td>
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</tbody>
</table>

Noise exposure in agriculture impacts all age groups from youth to older adults - not just the typical workforce age population. The agricultural workforce may also be a home, exposing non-working family members to noise that is loud enough to cause hearing loss.

Noise Induced Hearing Loss (NIHL): permanent impairment resulting from exposure to high levels of noise. NIHL can result from either a one-time exposure to noise (burst) or from repeated exposure to loud noises over time.

According to the American Hearing Resource Foundation, one in ten Americans has hearing loss that affects their ability to understand normal speech. Hearing loss can be caused by illness or biological issues, but can also result from exposure to noise that is too loud.

Terms to Know:
- A decibel is the measurement used to describe the loudness of a sound.
- Sounds above the 85 decibel level, or permissible exposure limit, will cause hearing loss over time. The OSHA Action Level is 85 decibels - the level that requires initiation of a Hearing Conservation Program.
- A hertz is the frequency or number of sound vibrations per second.
- NRR or Noise Reduction Rating is a measurement of how effective hearing protection devices (like ear plugs or muffs) are at reducing noise exposure.
- TWA or Time Weighted Average is the decibel or sound level over a given period of time, usually 8 hours.
- A Hearing Conservation Program (TCP) is a designated intervention program to prevent hearing loss. An TCP is required when noise levels measure at 85 dB or higher (OSHA’s Action Level).

OSHA Hearing Conservation Program

OSHA Hearing Conservation Program requirements do not apply to all of the agricultural workforce, but can be used to guide best practice. If you work in the agricultural industry and have 1 or more employees, you could be cited under the General Duty Clause, with the General Industry standard. 29 CFR 1910.95 used as a reference. The rule states an employer must administer a continuing and effective hearing conservation program and make hearing protection available whenever employee noise exposures are at or above the action level. Reference: 29 CFR1910.95(e)(23)

Worker resting in the shade wearing sun safe clothing.

www.agrisafe.org 1.866.312.3002 info@agrisafe.org
AgriSafe Key for Hazard Icons

<table>
<thead>
<tr>
<th></th>
<th>Low Hazard</th>
<th>Med Hazard</th>
<th>High Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock</td>
<td>![Low Hazard Livestock Icon]</td>
<td>![Med Hazard Livestock Icon]</td>
<td>![High Hazard Livestock Icon]</td>
</tr>
<tr>
<td>Chemical</td>
<td>![Low Hazard Chemical Icon]</td>
<td>![Med Hazard Chemical Icon]</td>
<td>![High Hazard Chemical Icon]</td>
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</tbody>
</table>
Agrisafe in Action - September 2017

Agrisafe Hosts Webinar on Farm Flood Health Threats

In the wake of recent flooding in Texas and Louisiana, Agrisafe has a webinar on “Safe and Healthy Recovery: After a Farm Flood.” Due to the support of CHS Foundation, Agrisafe will continue to allow free access to this webinar for those in need. Please continue to share this resource so we keep those in recovery in our thoughts.

Click here to visit our flood clean up resource page for webinar registration and resources.

Agrisafe Farm Flood Resource

Floods can heighten the risk of health threats such as mold, tetanus bacteria, contaminated well water, heat illness and high stress. This is especially true on farms and ranches where invertebrate farm hazards such as machinery and equipment, livestock, and agriculture chemicals are displaced and co-mingle, putting all emergency response personnel, farm workers and family members in danger.

Click here to view our Farm Flood Health Threats resource.

September 5th is N95 Day & Beyond!

Agrisafe in Action - October 2017

Agrisafe named Susan Harwood Training Grant Program FY 2017 Target Topic Training Grant Recipient.

Agrisafe is among 80 nonprofit organizations who received training grants from the U.S. Department of Labor’s Occupational Safety and Health Administration (OSHA). Agrisafe in partnership with the National Education Center for Agricultural Safety (NECAS) shall provide health and safety training to grain handling workers through webinars and workshops. Target audience includes agricultural producers handling high-hazard grain operations and English and non-English speaking grain workers. Training topics will include confined space grain bin entry, respiratory protection program and prevention strategies.

See the full announcement here. For questions and/or training inquiries, please contact, Keneha Rose-Davis, Health Communications Coordinator.

Agrisafe Invest in Your Health Canadian Expansion

Agrisafe Network collaborates with agricultural colleges to provide occupational health and safety programs. Our goal is to empower students to recognize agricultural health and safety risks and become their own health advocates. During the 2016-2017 year AgriSafe expanded in Nova Scotia, Alberta and Saskatchewan. Thanks to our funders, partners and staff. To read our report click here. To find out more about the Invest in Your Health Program, click here.

Free Training Options for Youth
Enhancing Rural Nursing Practice through Distance Learning
Web-Based Learning

AgriSafe is the leading expert in the delivery of web-based training in the field of agricultural health and safety.

Our archived library includes over sixty trainings spanning over seven years.

Accessing AgriSafe trainings can enhance workforce safety standards while minimizing cost.
INDIVIDUAL MEMBERSHIP

ORGANIZATIONAL MEMBERSHIP

BUSINESS MEMBERSHIP

STUDENT MEMBERSHIP

ALL INCLUSIVE ACCESS
Membership includes access to a wide range of agricultural health and safety resources and trainings.

MEMBER BENEFITS INCLUDE

- On-Demand Webinars (over 50 trainings)
- Member Only Webinars
- Technical Support
- Networking Opportunities
- Resources
- Screening Protocols

866-312-3002  www.agrisafe.org  info@agrison.org
Visit our New Website!

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Partnerships a cornerstone of AgriSafe’s outreach
AgriSafe Team

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Knesha