Safety in Agriculture Meeting Kit

Agriculture is the most hazardous industry in the United States. You can prevent injuries on farms by establishing a safe operation. This is accomplished by performing a hazard assessment. The hazard assessment means to search out and eliminate or reduce the hazards on your farm.

COMMON AGRICULTURAL HAZARDS

The common illnesses seem to be musculoskeletal disorders, pesticide poisoning, and respiratory diseases.

Musculoskeletal Disorders. Musculoskeletal disorders can arise from a number of factors, but the main causes seem to be from livestock and large machinery/equipment. Machinery is usually devoid of safety measures and pose a greater threat, since agricultural workers fix and operate these machines themselves for utilization in the fields. These machines may also be run while repairs are under way, causing even more instances of potential injuries Bending, twisting, and stretching motions that are apparent when operating these equipment causes much back and neck strain, leading to more exacerbated conditions over time.

Handling livestock involves a risk of injury. Large livestock, especially, have the ability to crush the handler, and without proper training and competent workers, unrestrained cattle can seriously injure workers, visitors.

RESPIRATORY HAZARDS COMMON TO AGRICULTURE

Pesticides. Chemicals and pesticides used to control and/or kill insects, vegetation, fungi, and small animals can also be harmful to humans. Human toxicity of pesticides varies based on the type of chemical, route of exposure, the dose of the chemical, and duration of exposure.

There are two types of toxicity: acute toxicity and chronic toxicity. Acute toxicity describes the effects which appear shortly after exposure, generally within 24 hours. Chronic toxicity describes the delayed effects of a substance after exposure.

Symptoms. Individual symptoms may vary based on pesticide and route of exposure, however general symptoms of pesticide poisoning include headache, fatigue, weakness, dizziness, restlessness, nervousness, perspiration, nausea, diarrhea, loss of appetite, loss of weight, thirst, moodiness, soreness of joints, skin irritation, eye irritation, and irritation of the nose and throat.

Organic Dust Toxicity Syndrome. To reduce your risk of contracting ODTS, apply the same recommendations for the prevention of Farmer’s Lungs.

Zoonotic Disease. Zoonosis are diseases that are transmitted from infected animals to humans. Most zoonotic diseases are caused by organisms such as parasites, bacteria, prions, fungi, protozoa, and viruses, which reside within the animal but can be pathogens to humans.

MUSCULOSKELETAL CONTROL GUIDELINES

- Avoid placing needed tools or other items above shoulder height.
- When movements are repeated over and over, as in picking or weeding, allow enough time in between for adequate recovery, by having the worker alternate with a low-repetition task.
- Provide seated jobs. Sitting down while working reduces the strain on the lower back and legs. Standing causes legs to swell (more than walking does). The best jobs are ones that allow workers to do different types of work, changing from sitting to standing to walking and back again.
- Allow foot and knee clearances for both standing and sitting workers, so they can get close to the work.
- Provide floor mats for standing workstations, to reduce fatigue.
- For standing work, use the proper workstation height.

Farmer's Lung

- Identifying and reducing the contaminants in your work area.
- Decreasing exposure to contaminants (e.g., mould spores).
- Reducing mould spores by using commercially available mould inhibitors.
- Harvest, bale, store, and ensile grains at the recommended moisture level to reduce mould growth.
- Examine feeding system to identify ways to automate feeding to decrease the release of airborne mould spores.
- Avoid working in dusty places in confined space areas.
- Ventilate (e.g., fans, exhaust blowers, etc.) to mechanically remove air contaminants.
- Wear a double strap dust mask or organic dust filter equipped respirator rated at least N95 to reduce your exposure to contaminants.

Silo Filler's Disease

- Never enter the silo during the first 2 – 3 days after filling.
- If entry is required after day 3, ventilate the silo and all adjacent areas by running the silo blower for 15 to 20 minutes before and during entry.
- Use a portable gas monitor to monitor the gas and oxygen levels in the silo.
- Always have at least two people outside of the silo that you can visually communicate with at all times.
- Wear a N95 rated dust mask if entering the silo after the three-week post-filling period.
- If entry is unavoidable during a three-week period, wear a self-contained breathing apparatus.

Asthma

- Store grain at recommended moisture content levels to reduce the growth of mold spores.
- Ventilate animal housing areas to decrease the accumulation of ammonia and other gases.
- Frequently remove animal waste from the barn to decrease ammonia build-up and reduce exposure to urine.
- Identify high dust hazards around the farmstead and reduce dust exposure by

cleaning these areas.
- When cleaning a barn or stable, lightly water areas to reduce the risk for airborne dust.
- Wear a NIOSH approved and properly fitted N-95 or N-100 disposable particulate respirator when completing tasks to protect yourself from dust, bacteria, fungi, insects, and animal products.

FINAL WORD

It is clear that by implementing and establishing a safe operation on a farm, workers can be protected from suffering injuries. But this can be only accomplished by conducting a thorough and complete hazard assessment.