



# INdiana Labor

IN Focus—Fall 2010

Advancing the safety, health and prosperity of Hoosiers in the workplace

Insider

Mitchell E. Daniels Jr., Governor

Lori A. Torres, Commissioner of Labor

## Agriculture Safety and Health Focus in Harvest Season

**When** we last communicated, the planting season had just begun. Now we're coming to the end of growing season, and harvest is upon us. While planting and harvesting both pose similar hazards to agriculture workers, harvest season poses a new set of risks, including ergonomic hazards and additional long hours in the outside elements.



Lori A. Torres  
Commissioner of Labor

In addition to planting and harvesting crops, animals are an integral part of farm work. Animals pose risks to workers, and often times these risks are more difficult to control than others, because animals really do have a mind of their own! Simply being self-aware when around animals can reduce these risks tremendously. Working with grain presents many occupational health and safety risks such as falls, engulfment, fires and electrocutions, so while much of the grain has been harvested this season, grain handling and silo safety will continue to be an

issue because of the hazards associated with this type of work.

Indiana agriculture fatalities and injuries nearly triple during the months of April through October. Therefore, as we end this year's agriculture season, I ask you to take extra caution to ensure that your agriculture workers remain safe and healthy. We are hopeful that the tips and information offered in the following pages will help you and your workers to remain safe during the following months. The IDOL, along with other state and federal agencies and organizations are dedicated to helping Hoosier agriculture workers remain safe while providing a vital service to our economy and our lives.

To a safe and healthy harvest season,

Lori A. Torres  
Commissioner

## Harvest Season Increases the Likelihood of Worker Injury

**Harvest** season is often described by workers in the agriculture industry as one of the busiest and most hectic times in their work year, because crops ripen on their own time schedule. Additional workers, machinery and equipment, and a short time frame, increase the risk of serious accidents and injuries. According to the Bureau of Labor Statistics' Survey of Occupational Injuries and Illnesses (SOII), Indiana's agriculture industry non-fatal occupational injury and illness rate (7.6 per 100 workers) is more than 1.5 times the national rate. Safe and healthy work practices in this industry are especially important.

To adequately prepare for a safe and healthy harvest season, family farm workers, employers



and employees in this industry should conduct worksite inspections of all areas including maintenance sheds, fields, silos, etc. Hazards identified during the worksite inspections should be eliminated. These inspections will provide insight into what training and personal protective equipment (PPE) are needed to best safeguard employees from injury and illness.

In addition to worksite inspections, equipment and machinery must also be inspected to ensure it is in top-notch, working order. Any preventative or routine maintenance on equipment and machinery should be in adherence to the manufacturer's recommendations and should be performed prior to its operation.

For additional information on agriculture industry worker injuries and illnesses, please click [here](#).

For additional tips and resources, visit our [Agriculture Safety webpage](#).

# Indiana FFA Breeds Passion and Safety Awareness in Young Agriculturalists

Contributed by: Nellie Bell, Vice President  
Indiana FFA

It is no secret that agriculture is the industry that sustains the world's population. That being said, the **National Safety Council** consistently ranks agriculture as one of the **three most hazardous occupations** in the United States. Even though agriculture work can be dangerous, Hoosiers must continue to farm to meet the demands of a growing population. A survey by the **United States Department of Agriculture's (USDA) National Agricultural Statistics Service** showed 200,000 work-related injuries occurred on U.S. farms in 1993. Family members on family owned farms accounted for 65% of those injuries. However, as agriculturalists we are constantly striving to increase safety precautions and reduce risks.

Growing up as a farm kid and watching my dad farm with a disability, I have learned the importance of farm safety.

I have learned that farming can be very dangerous, and the scary part is that sometimes farm accidents happen even if you do everything right. I can recall multiple stories about neighbors and friends that have been injured or killed in farm related accidents. This, to me, highlights the importance of not only being constantly aware and doing things correctly, but also taking preventative measures to help avoid dangerous situations. Through training and awareness, the agriculture industry death rate has declined 28% during the last three decades.

Being involved in the **FFA** has

developed my passion for agriculture, and inspired me to pursue a career in the agriculture industry. The **FFA** is helping to mold the next generation of agricultural leaders, through agricultural education, leadership training and hands-on learning via supervised agricultural experiences.

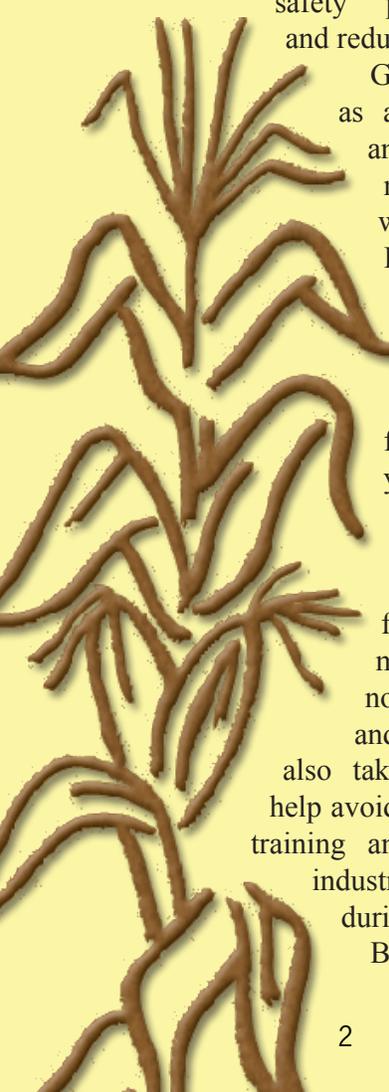
As the **FFA** is helping to form the next generation of agriculturalists, they are also preparing these future industry leaders with the safety skills that are so vital to our industry. The **Indiana FFA** is currently in the process of developing a safety program for the nearly 10,000 **Indiana FFA** members. This program is new and details are still being contemplated, however, the initiative will help to create an awareness of agriculture safety as well as provide training to develop safety skills in the industries future workers.

Serving as State Vice President this year is an amazing opportunity to educate others, and myself, about agricultural safety. My teammates

and I are very excited about the opportunity and looking forward to the development of the safety program.

Maintaining safety in agriculture plays a key role in the efficiency and productivity of the agricultural industry. As a young person beginning my journey into agriculture, I am aware of the fact that not all risks can be fully eliminated. However, through programs such as the **Indiana FFA** safety program, we will help to increase awareness of agricultural safety and prepare the next generation of agriculturalists.

**FFA** works to make a positive difference in the lives of young people by developing their potential for premier leadership, personal growth and career success through agriculture education. To learn more about **Indiana FFA**, please visit [www.indianaffa.org](http://www.indianaffa.org).



# Indiana Farm Bureau Reaches Out to Hoosier Farmers

Contributed By: Jim Rink, Farm/Crop/Commercial Director  
Indiana Farm Bureau Insurance

As part of **Indiana Farm Bureau's** commitment to Hoosier farmers, we provide tools, resources and information necessary to ensure a safe working environment for farmers and their families. Agriculture, mining and construction are the three most hazardous occupations in the United States. In 1993, the USDA's National Agricultural Statistics Service showed 200,000 work-related injuries occurred on U.S. farms. Family members of farm owners accounted for 65% of those injuries.

Agriculture has always been dangerous. Nearly all farmers can expect to experience a serious injury or near-miss incident sometime during their farming career. For every serious agricultural injury, the victim will have experienced ten close-calls and 30 cases of personal property damage. The success of all types of agriculture directly correlates to the level of safety on the farm. Farm safety is one of the few things that can ensure a sustainable future for Indiana agriculture.

To help Indiana farmers develop a good measure of safety on their farm, **Indiana Farm Bureau** recently implemented a **Farm Safety–Fire Extinguisher Program**. Since June 1, 2010, our field specialists have **distributed over 300 fire extinguishers** to Farm Bureau members during Farm Risk Management inspections. We are tracking the clients that use their fire extinguishers to avoid or reduce fire claims, and are pleased to report that Hoosier farmers used their Farm Bureau fire extinguishers to extinguish a combine fire in **Knox County** and a farm shop fire in **Putnam County**. During the first three months, the Fire Extinguisher Program has saved \$1.3 million in farm building and equipment damage.

In addition to the Farm Safety–Fire Extinguisher Program, **Indiana Farm Bureau Insurance** also participated in a **Farm Safety – Grain Bin Safety**

**Program**. Approximately 100 farmers are trapped in grain silos every year in the U.S. and often these entrapments prove deadly. It's a tragic accident that plays out several times a year across the country: **Farm Worker Accidentally Falls into a Grain Bin and Dies**.

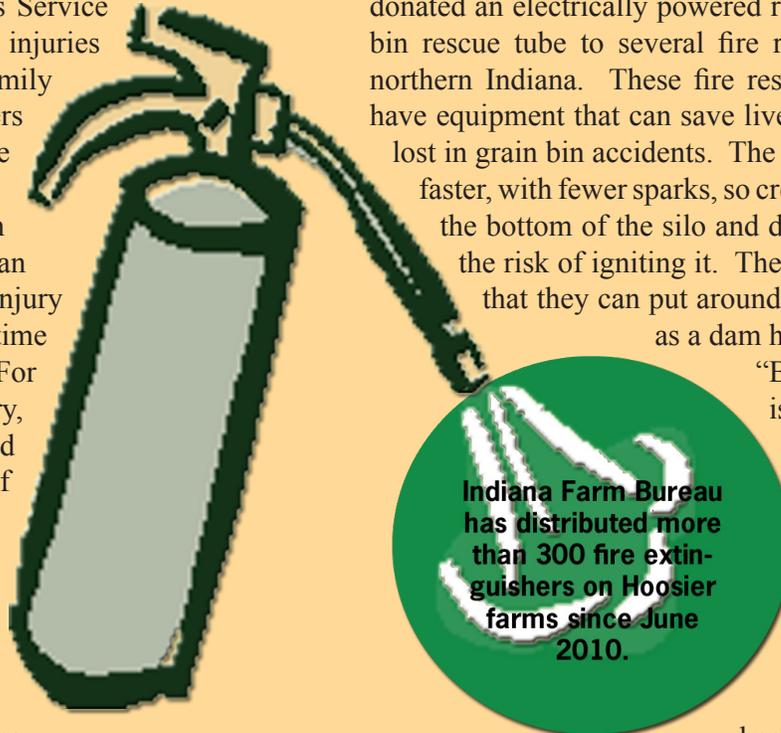
**Indiana Farm Bureau** and **Michigan Farm Bureau** donated an electrically powered rescue saw and a grain bin rescue tube to several fire rescue departments in northern Indiana. These fire rescue departments now have equipment that can save lives that may have been lost in grain bin accidents. The saw is designed to cut faster, with fewer sparks, so crews can essentially cut the bottom of the silo and drain the grain without the risk of igniting it. There's also a rescue tube that they can put around the victim that works as a dam holding back the grain.

"Being trapped in grain is like being trapped in quicksand. So it just keeps drawing you down further and further into the grain, to where eventually it's over your head and you can't breathe and you become unconscious and basically drown in grain,"

**Brian Kazmierzak from Clay Fire Territory** said. "The grain bin tube is in pieces, so we can pass the pieces in and assemble it around the victim. Then we have a slide hammer to where we can pound the tube down into the grain and protect the victim and then we would come in with a vacuum and vacuum the grain out around him, and lift the victim out of the grain."

Both pieces of equipment will be used by a specialized rescue team, which is made up of specialists from six fire departments in **Michigan** and **Indiana**.

For more information on **Indiana Farm Bureau's** farm safety initiatives, please visit [www.infarmbureau.org/Programs.aspx?id=4272](http://www.infarmbureau.org/Programs.aspx?id=4272).



# SAFETY ALERT:

## Preventing Heat-related Injuries and Illnesses During Harvest Season

**Although** the summer season technically ended on September 23, Hoosiers know that Indiana weather can be unpredictable. During the months of September and October, summer weather can sneak back up on us, and it is important to remember safe work practices for working in the sun and heat.

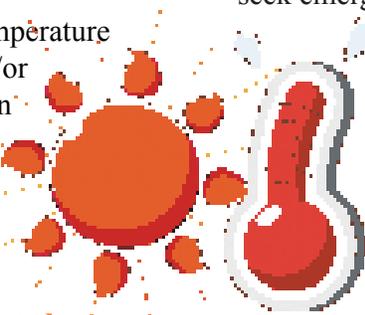
**Heat stress** is an increase in body temperature which results from muscle use and/or environmental factors. Heat stress can affect anyone who spends long periods of time in hot weather, and it often affects Agriculture Industry workers. According to the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI), **27 Americans died of heat related injuries and illnesses**. One-third of these fatalities occurred in the agriculture industry. According to Ohio State University, worker's compensation claims for heat illness are the **highest among agriculture workers**.

**Heat stress** can manifest in multiple forms. The least dangerous form of heat stress is **heat cramps**. When the body is exposed to high temperatures and performs

strenuous work, it sweats. Sweating causes the body's salt levels to decrease. This salt loss can cause cramps in the arms, legs and stomach. If someone begins to experience heat cramps, they should move to a cool area, loosen their clothing and drink cool, lightly salted water. If cramps do not subside, the individual should seek emergency medical assistance.

More severe than heat cramps is **heat exhaustion**. Indicators of heat exhaustion include: heavy sweating, cool/moist skin and normal or below average body temperature. Heat exhaustion can also cause the victim to be tired, weak, clumsy and confused. While heat exhaustion in itself is not deadly, it can lead to heat stroke. Therefore, if someone begins to show symptoms of heat exhaustion, they should move to a cool place and lie down with their legs elevated. They should drink lightly salted water and apply ice packs and/or wet towels or cloths. If the symptoms of heat exhaustion persist for longer than 30 minutes, the individual should seek medical attention.

The most severe, and deadly, form of heat stress



## Preventing Heat-Related Injuries and Illnesses Among Ag Industry Workers

### Tips for Employees

- **Drink** at least one glass of water for every 15-30 minutes worked.
- **Replace** salt lost through sweating, either in meals or salt water for severe dehydration.
- **Know** how medications react to heat and sun.
- **Avoid** drinking alcohol and taking drugs.
- **Take** one 10-15 minute break for every two hours of work.
- **Gauging** work levels against weather conditions.
- **Conditioning** the body for hot working conditions, by limiting exposure to no more than 2 hours a day for the first week, and then gradually increasing work-time.
- **Wearing** light, loose fitting clothing, with long sleeves and pants to protect skin from the sun.

### Tips for Employers

- **Provide** heat stress training and information on First-Aid methods.
- **Assign** tasks to employees who are physically able to perform the job.
- **Provide** cooling garments/vests to employees who are required to wear chemical resistant body suits, or other non-breathable garments.
- **Schedule** heavy tasks during the morning and evening-time, and lighter tasks during the hottest hours of the day.

For more information on how to protect yourself and others from heat stress and other heat-induced illnesses, please click [here](#).

is **heat stroke**. Heat stroke results when the body is entirely drained of salt and water. The absence of salt and water causes sweating to stop, and the individual will develop dry, hot skin and a very high body temperature. According to Farm Safety Association, Inc., victims may also display a **rapid pulse, headache, dizziness, confusion, convulsions** or **irrational behavior**. Someone experiencing heat stroke should move to a cool place, remove all heavy clothing and be cooled by any means available. Their head and shoulders should also be elevated. According to experts at Ohio State

University, heat stroke victims should immediately see a doctor.

Heat related illnesses exude similar symptoms, and are treated in similar ways. However, the best form of treatment is to prevent the illnesses from occurring. Review the information found on the previous page, for tips that both employers and employees can use to help reduce the likelihood of heat-related injuries and illnesses. For more information on heat related illnesses, visit the [National Agriculture Safety Database](#).

## IOSHA Adopts Enforcement Program to Inspect Grain Handling Facilities

**The** state's fertile lands, flat terrain and favorable weather conditions make it possible to be among one of the United States' top grain producing states. According to the Indiana State Department of Agriculture, Indiana ranks fifth in the U.S. in the production of corn for grain.

Grain and silage harvesting, transportation, and storage involve machinery, bins, and silos and a wide variety of work conditions that also result in many other hazards. Grain producing and harvesting hazards have led to worker deaths as a result of **suffocation, crushed by, electrocution** and **falls**.

In late July 2010, two Illinois teen workers (ages 14 and 19) were killed and a third worker was critically injured while clearing a grain bin. The two teens suffocated after being engulfed in the grain bin. Employers must develop and employees must adhere to safe work procedures when working in or near grain silos. For information on precautions for safe entry of grain bins, please see the informational tips on this page.

Effective September 1, 2010, the Indiana Department of Labor's Indiana Occupational Safety and Health Administration (IOSHA) will begin an **enforcement program**, issued by federal OSHA's Regional Office in Chicago, to inspect grain handling facilities. Letters were mailed to more than 100 grain handling and storage companies located in Indiana advising them of the enforcement program.

IOSHA's **grain handling**

**enforcement program** will remain in effect through September 2012. To view the enforcement program, please click [here](#). The OSHA standard for grain handling facilities may be found online by clicking [here](#). In addition to the standard for grain handling and storage facilities, OSHA has also developed a guidance page to assist employers. The guidance page may be found online at [www.osha.gov/SLTC/grainhandling/evaluation.html](http://www.osha.gov/SLTC/grainhandling/evaluation.html).

### Grain Bin Safety Precautions\*

- 1.) Apply control of hazardous energy (lockout/tagout) procedures before any entry into grain bins.
- 2.) Prohibit walking-down grain or similar practices used by employees to make grain flow.
- 3.) Provide all employees a body harness with a lifeline, or a boatswains chair, and ensure it is secured prior to any bin entry.
- 4.) Provide an observer outside the bin, equipped to provide assistance if necessary. The observer's only task should be to continuously track the employee that entered the bin.
- 5.) Prohibit entry into bins or silos underneath a bridging condition, or where there is a build-up of grain products on side walls that could fall and bury the employee.
- 6.) Test the air within a bin or silo, prior to any entry, for the presence of combustible and toxic gases, and to determine if there is sufficient oxygen.

\*This is not an all-inclusive list of safety precautions and procedures. For more information on OSHA's Grain Handling standard, please visit [www.osha.gov](http://www.osha.gov).

# Reducing the Likelihood of Suffering from Repetitive Motion Injuries

**Farming** is arduous work, and there is no doubt that workers in this industry feel the results. Over the years, some farm work hasn't changed very much, as work done in the field is still performed by the worker in a stooped position and workers are often required to carry heavy loads in awkward positions. Workers frequently perform tasks that require them to work with their arms above shoulder level and move their wrists repetitively. Matching the physical capabilities and limitations of the human body with the work tasks, tools and equipment used and the work environment is especially critical.

Work-related ergonomic injuries such as strains and sprains are caused by excessive **reaching, bending, lifting, gripping, squatting or twisting of the hands, shoulders or body**. Many workers believe that injuries are merely an unavoidable part of farm work. However, injuries of these types are potentially disabling and can affect the worker's earnings and grower's profits.

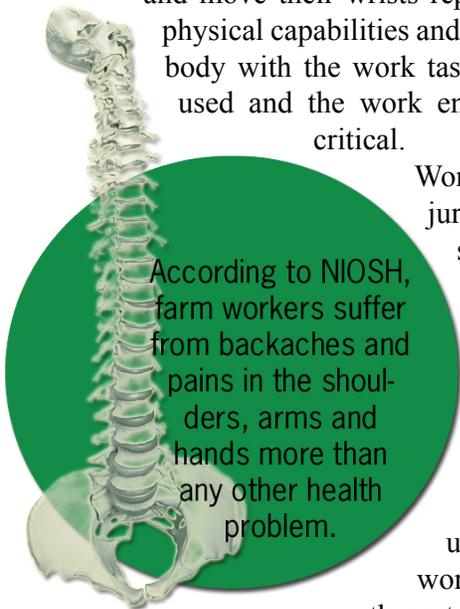
Generally speaking, even motions that seem harmless, such as stretching the arm to grasp an object or squeezing a tool, may put the worker at risk of injury if the motion is repeated multiple times. In Indiana in 2008, the most common types of injury suffered by agriculture workers were ergonomic-related and included **sprains, strains and tears**, as well as **soreness and pain**. **Worker motion or position** attributed to 17% of all non-fatal work-related injuries in the agriculture industry resulting in days away from work. On average, injured workers spent nine days away from work to recuperate from their injuries.

A goal for employers to strive towards is designing tasks that ensure workers remain uninjured, safe and comfortable, as well as productive while at work. According to the **National Institute for Occupational Safety and Health (NIOSH)**, work-related musculoskeletal disorders are the leading cause of disability among individuals in their working years. The best way to reduce the likelihood that an employee will suffer from a

work-related musculoskeletal disorder or ergonomic injury is to make simple changes in job tasks. By redesigning tools, processes or work procedures, employees will be less likely to suffer an ergonomics-related injury.

For example, harvesting apples is an extremely physical task. Frequent activities of apple harvesters, among others include walking, carrying awkward and heavy loads and picking. Because apple harvest workers tend to work for extended periods of time with their arms raised and often deal with the pressure on their shoulders from the straps of the fruit bags. Common injuries of apple harvest workers include back, neck and shoulder strains. To reduce the likelihood of these types of injuries, workers should get as close to the fruit as possible when picking. Workers should also empty fruit bags as often as necessary to avoid carrying heavy loads. By providing dollies, pallet trucks or utility carts to these workers, this will limit the need to carry unmanageable loads for long periods of time.

Additional tips to prevent ergonomic-related injuries are displayed in the suggestion box on this page. Information on redesigning job-specific tasks in the agriculture industry may be found by reviewing NIOSH's publication, *Simple Solutions: Ergonomics for Farm Workers*, available online at [www.cdc.gov/niosh/docs/2001-111](http://www.cdc.gov/niosh/docs/2001-111). More information about work-related injuries and illnesses in the agriculture industry is available online by clicking [here](#).



According to NIOSH, farm workers suffer from backaches and pains in the shoulders, arms and hands more than any other health problem.

## Preventing Ergonomic-related Injuries

- **Maintain** a good back posture while working.
- **Shift** your weight from foot to foot, when standing and bending for long periods of time.
- **Stand** with your feet shoulder-width apart, with one foot slightly in front of the other.
- **Keep** your back straight and move up and down to a squatting position using your leg muscles.
- **Turn** your feet and arms to reach for objects instead of twisting your back.
- **Take** frequent stretch breaks to avoid overusing your muscles.
- **Rotate** to other tasks as often as needed.
- **Ask** for assistance in lifting heavy items.

## Safely Working with Farm Livestock

**Unless** handled appropriately, and with caution, farm animals can injure and even kill their caretakers. In the U.S. in 2008, 25 workers were killed by an animal attack while working, and 17 of these fatalities occurred in the agriculture industry. During the same time frame, **910 farm workers spent days away from work as the result of an animal-related injury**. Simple measures can be taken to reduce the likelihood of becoming one of these statistics.

Animals respond to routines. It is important for animal caretakers to understand this in order to avoid injury. Workers should avoid quick movements and loud noises when working with animals. Cattle, for example, can see nearly 360° without moving their head, so quick movements may startle them, even when a worker doesn't think they are in the animal's line of sight. In addition, according to the University of Missouri Extension, when handling animals, workers should touch animals gently; shoving will not end well for either party.

While it is essential not to fear the animals you are working with, animal handlers should respect them. The sheer size and power of farm animals make them dangerous, even if they generally have a calm temperament and would never intentionally hurt their caretakers. For this reason, you should **always have an "escape" route** when working in close quarters with an animal. Those working with farm animals would not want to unintentionally trap themselves with an animal that could harm them.

Farm animal workers must be cautious when approaching animals with their young, as they view outsiders as the enemy. Workers should avoid frightened, hurt or sick animals, because just like humans, they will react in accordance with their states of mind. It is vital to always be aware of your proximity to the animals you are working with, as animals can kick and bite without warning. According to the University of Missouri Extension, agriculture workers should ensure the rou-

### Common sources of injury or fatality associated with animals on farms include:

- Worker stepped on;
- Worker fallen on;
- Worker pinned or squeezed against a barrier; and
- Worker kicked by animal.

tine maintenance of all facilities, including chutes, stalls, fences and ramps. Cornell University's Agriculture Safety and Health Program cites that animal handlers should also wear sturdy, steel-toed shoes with non-skid soles.

Employers have responsibilities as well when it comes to animal handling safety. Livestock handling jobs should only be given to people who have experience and adequate strength for the tasks at hand. Depending on the task, multiple workers should be designated, and the appropriate personal protective equipment should be provided to each worker. If animal handling positions are given to young or inexperienced workers, training should be provided prior to these workers performing any tasks. Harnesses and restraints should be provided, and utilized when working with animals that are known to kick or bite. While important to use these harnesses and restraints, workers should **never tie an animal lead to their body**.

Livestock is an important part to the agriculture industry, and the nation as a whole. However, work with animals can be dangerous. Animal handlers should exercise caution when working with farm animals, and be observant to the behaviors and temperaments of each animal, being careful to move slowly, and with caution. If workers understand the animals and protect both themselves and the animals, productive and injury free work can result.

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