



Esta presentación es parte de un programa de educación modular diseñado para proveer información relevante a granjeros y ganaderos principiantes para que inicien, mejoren y desarrollen sus operaciones agrícolas

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United States Department of Agriculture
National Institute of Food and Agriculture



Seguridad en la granja



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Seguridad en la granja

Debido a la gran cantidad de material que puede incluirse en este tema, hemos incluido solo una introducción básica sobre múltiples temas de importancia referentes a la seguridad en la granja

- **Para cada uno de los temas incluidos hay muchas fuentes de información relevante que cubren los temas a mas detalle**
- **Al final de la presentación, hemos incluido una lista de sitios de internet relevantes a este tema**

Seguridad en la granja

Hemos dividido el tema de seguridad en la granja en cuatro (4) presentaciones distintas

Seguridad en la granja 1: Tractores, equipo, herramientas, electricidad y levantar cosas pesadas

Seguridad en la granja 2: Animales, químicos, gases tóxicos y polvo

Seguridad en la granja 3: Clima y fuego

Seguridad en la granja 4: Caídas, tráfico en carreteras, ruido, lugares cerrados, lagunas y pozas de fermentación y almacenamiento de excretas, estanques y fuentes de agua, pozos.

Puede ver las presentaciones en el orden que desee,
pero sugerimos que se lean todas



SEGURIDAD EN LA GRANJA 1

Tractores, maquinaria y equipo
Herramientas
Electricidad
Levantamiento de objetos pesados



SEGURIDAD EN LA GRANJA 2

Animales
Químicos
Gases tóxicos
Polvo



SEGURIDAD EN LA GRANJA 3

Clima
Fuego



SEGURIDAD EN LA GRANJA 4

Caídas
Tráfico en la carretera
Ruido
Lugares cerrados
Pozas de fermentación y almacenamiento de excretas
Estanques, pozos y fuentes de agua

¿Por qué es importante hablar de Seguridad en la granja?



Todos hemos escuchado historias sobre:

- El jubilado que quiere empezar una granja porque quiere descansar
- O el empleado de oficina que piensa que el trabajo en la granja es fácil y libre de estrés
- La familia que quiere comprar una granja porque quieren tener mas tiempo libre

**Pero la
realidad es
muy distinta**



El trabajo en la granja no es un pasatiempo

- Es una profesión peligrosa y muy demandante
- Tiene una tasa de accidentes muy alta
- La mayoría de las lesiones causan problemas permanentes
- La tasa de mortalidad es de 25.1 en cada 100,000



Lista de los trabajos más peligrosos

(2009)



1. Pescadores y trabajos asociados a la pesca



2. Trabajadores de la industria maderera



3. Granjeros y rancheros



4. Trabajadores de la industria de la construcción y acerera



5. Pilotos aéreos e ingenieros de aviación

Trabajar en una granja es más peligroso que:



- Otras profesiones requieren educación técnica o universitaria
- Sin embargo, para ser granjero o ganadero no hay ningún programa educativo establecido para aprender el negocio
- La mayoría de los granjeros o ganaderos aprendieron el negocio en la granja familiar o trabajando como interno en alguna granja

Siendo que la industria agrícola es un elemento esencial en la sociedad y siendo un trabajo tan peligroso, deberían existir más programas de capacitación para apoyar a los granjeros y ganaderos principiantes



Es especialmente importante el considerar que en la industria agrícola es común que toda la familia participe en las labores y por tanto que toda la familia esté expuesta a sufrir heridas permanentes o mortales



<http://www.chaffinfamilyorchards.com/about.php>



<http://www.ediblesadvocatealliance.org/sustainable-learning-journey-blog/>

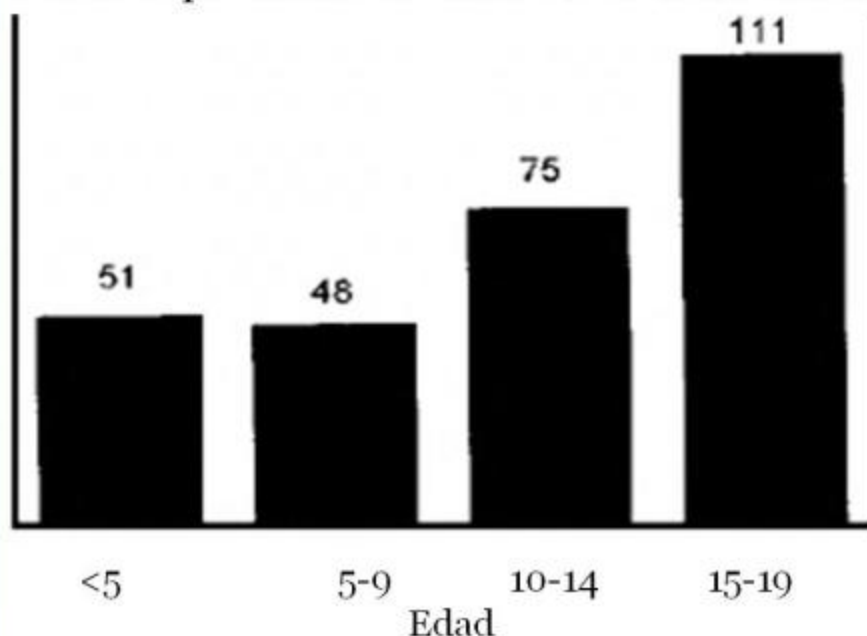
Seguridad de los niños en la granja

Heridas y accidentes en la granja son particularmente comunes en niños

- Cada año mueren entre 100 y 300 niños en accidentes en granjas
- Los niños generalmente están presentes en la mayoría de los trabajos en la granja o juegan cerca o en el equipo



Numero promedio de muertes en niños al año



Un buen sitio para obtener información y detalles sobre seguridad en la granja es:

OSHA

Administración de Seguridad y Salud Ocupacional

<http://www.osha.gov/as/opa/spanish/index.html>

El sitio web de OSHA tiene información y vínculos importantes, diccionarios, folletos, documentos de orientación y datos rápidos, videos de adiestramiento y muchas cosas mas y todo en español



Seguridad en la granja

Llame al 911 si hay una emergencia

Es importante que todos los operadores de las granjas tomen un curso mínimo sobre primeros auxilios incluyendo resucitación cardiopulmonar (CPR por sus siglas en inglés)





Caídas



Escaleras

Según estudios hay aproximadamente 300 muertos al año en accidentes con escaleras (o sea casi una personal al día)



- Antes de usar la escalera, asegúrese que esté en buen estado
- Asegúrese que la escalera puede soportar el peso de la persona que la va a usar (peso de la persona, mas equipo y/o herramientas)
- Si esta usando una escalera de tijera asegúrese que los seguros estén puestos

La escalera debe sobresalir por lo menos 1 metro (3 ft) del techo

Asegure la escalera al techo

Revise que la escalera este en buenas condiciones

Por cada 4 pies de altura, la escalera debe estar 1 pie alejada de la pared

Siempre use la escalera con soportes o una base que evite resbalones, según el terreno

Revise que haya suficiente espacio alrededor de la escalera para subir y bajar con el equipo necesario

Asegúrese que la escalera este segura y a nivel para evitar que se resbale

Escaleras

La escalera tiene que estar perfectamente asegurada antes de subir

Siempre suba de frente a la escalera

Mantenga 3 puntos de contacto al subir o bajar (dos pies y una mano o dos manos y un pie)

- Mueva solamente un pie o mano a la vez
- Mantenga los dos pies en la escalera, no ponga un pie en otro apoyo porque puede desequilibrar la escalera

Ladders

If using a ladder to climb to another surface,
make sure that it extends at least 3 feet
beyond that surface



- ◆ Make sure that clothing especially belt buckles do not catch on ladders
- ◆ Don't stand on the top rung or the paint shelf of a stepladder (A-frame)
- ◆ For straight and extension ladders do not climb past the third rung from the top
- ◆ If you have to place a ladder in front of a door way, lock the door to prevent someone entering and knocking the ladder over

Ladders

- Always place the ladder on a flat even surface that is stable
Never place a ladder on top of another object
- If working with electricity remember that aluminum ladders conduct electricity so use a wood or fiberglass ladder
- Watch out for electrical lines when raising, lowering or carrying ladders
- Lastly, ladders are not toys, so keep kids away from them
Never leave them where children can climb them
(they love to play on them)



Slips/Trips/Falls

- Farm work often involves working on or crossing uneven ground
- Other possible hazards include:
 - Holes made by animals (sometimes they fill with water and appear as a puddle)
 - Branches, stumps and rocks
 - Ice
- Crossing creeks and ditches can be hazardous as moss can make rocks and logs slippery

It is better to pass through a gate than to climb over fences



[Click to go back](#)



Highway traffic

Highway traffic

A major cause of tractor accidents on public roads is the difference in speed between cars and tractors



Stay as far to the side of the road as you can so that others can pass by

Farm tractors and equipment require hazard-warning lights (flashers) when operating on public roads (amber or white lights on the front and amber or red lights on the rear)

Make sure the lights are working and clear of mud

Highway traffic

When moving farm equipment on a roadway always use a slow moving vehicle sign



Use caution on narrow roads

Farm equipment can stick out past the side of the tractor

Watch for low bridges and branches and narrow lanes

ALWAYS make sure all farm implements or load is securely fastened



Be careful entering the roadway, farm equipment or animals do not accelerate quickly



Cut back the vegetation
and add a permanent
warning sign around the
farm entrances





Noise

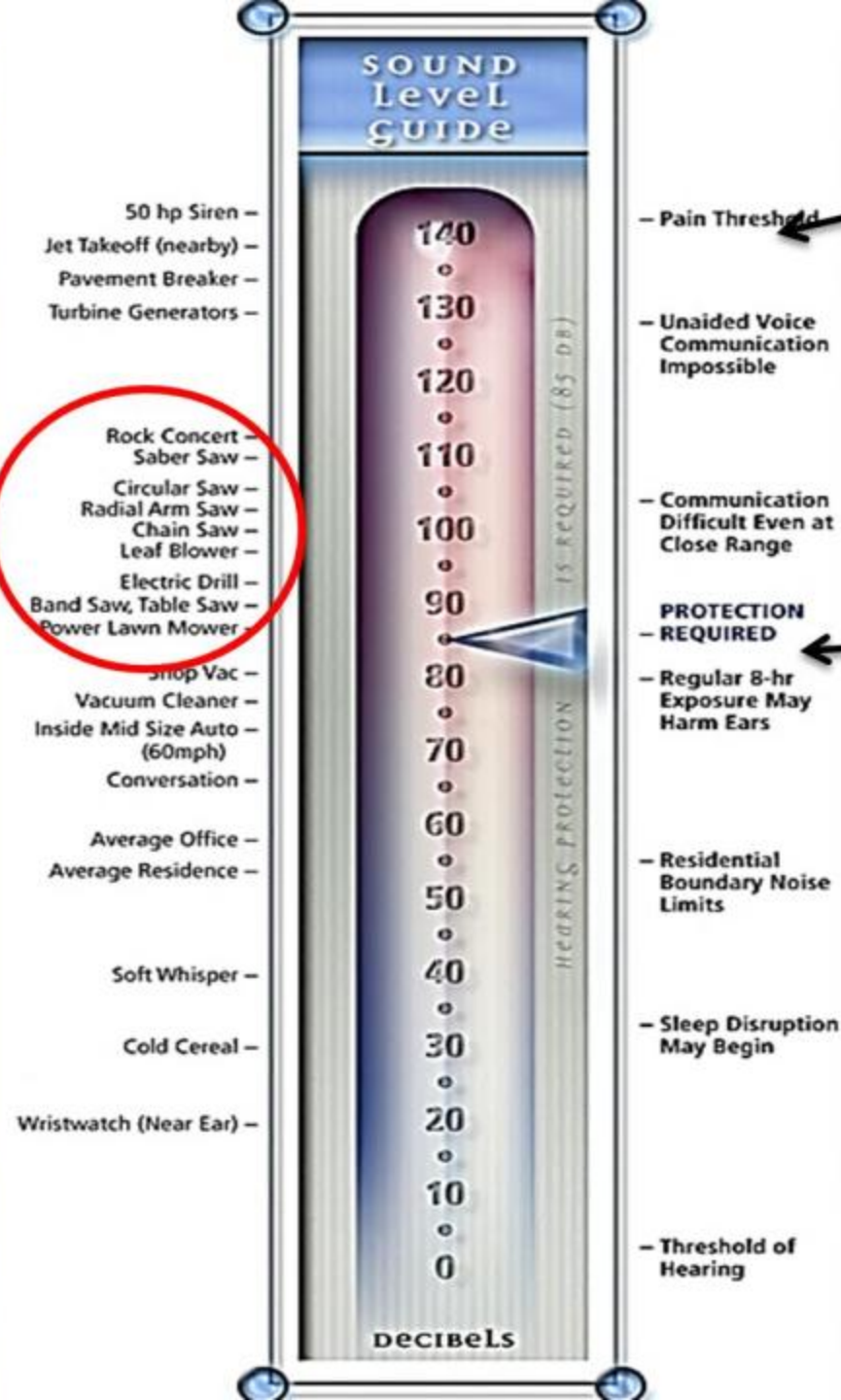
Noise

Exposure to noise can lead to fatigue, headaches and hearing loss

Sources of farm noise include:

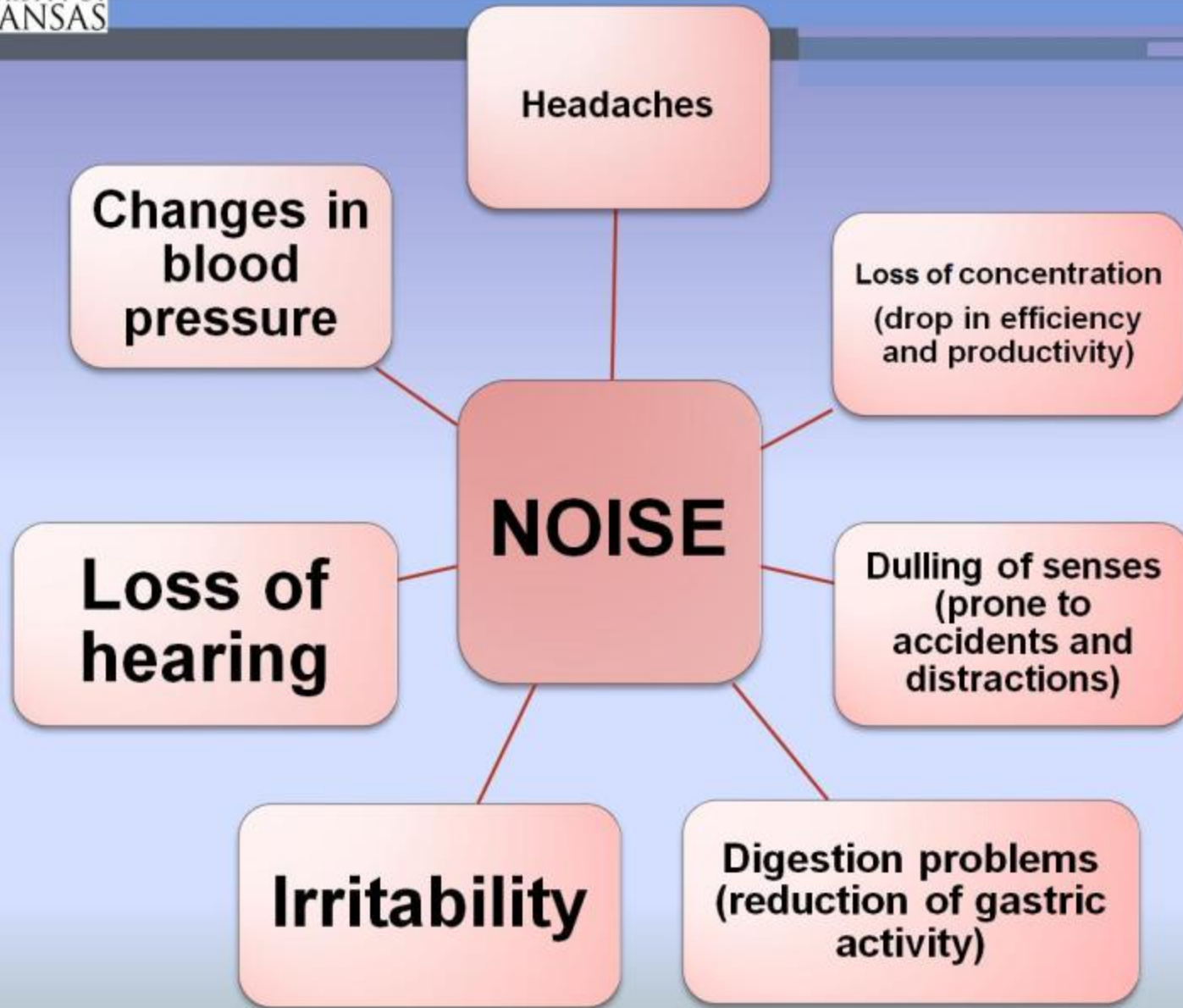
- Chainsaws
- Tractors (without cabs)
- Tools (angle grinder, table saw, etc.)
- Heavy machinery or other equipment
- Firearms
- Lawn mowers





Instant ear damage occurs at about 140 decibels

Earplugs are recommended for volumes 85 decibels or above



The warning signs of hearing loss include:

- Ringing or buzzing in one or both ears
- Turning up the volume on the radio or TV so that others think it is too loud
- Difficulty understanding children
- Difficulty understanding voices in a crowded room

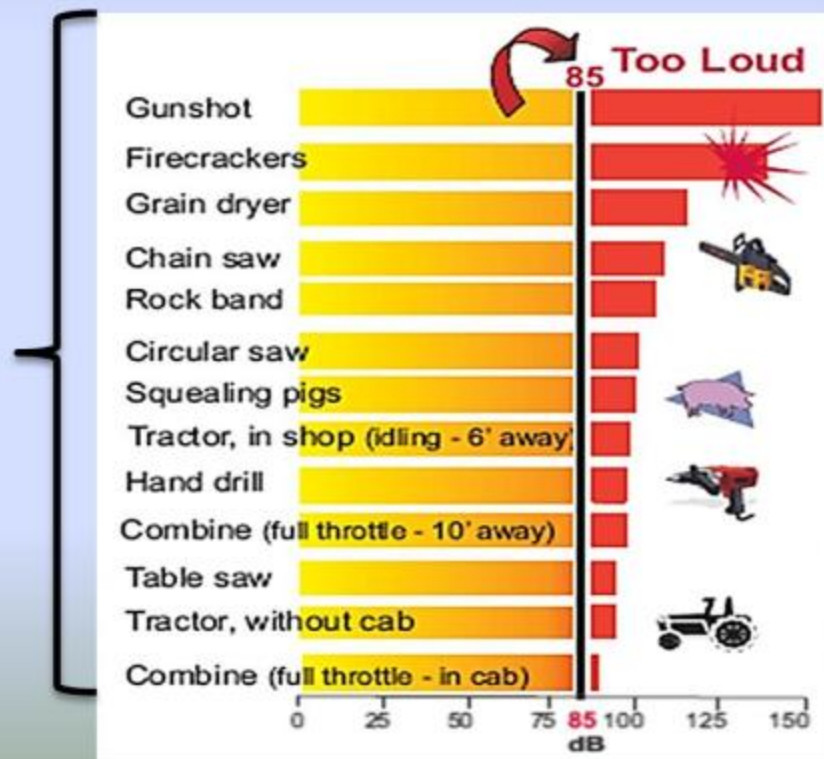
Noise induced hearing loss is 100% preventable, but once it happens it is permanent and irreversible



Prevent hearing loss by:

- ◆ Use hearing protection (ear plugs, ear muffs)
- ◆ Use sound barriers to isolate noise
- ◆ Limiting time spent in noisy situations

You need hearing protection for all of these activities!!!
(all over 85 db)



In some working environments too much protection can be dangerous



Enclosed spaces

Grain bins and Silos

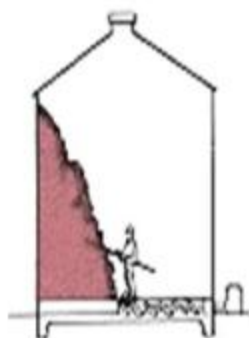
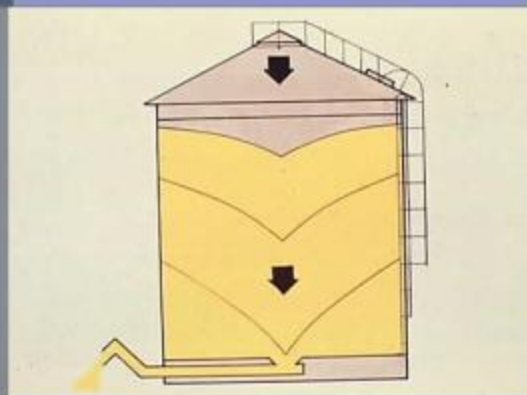


Grain bins/Silos

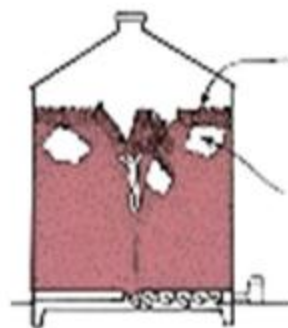
- ◆ Grain bins and silos are used to hold harvested crops
- ◆ They can have a build up of toxic gasses if they are not ventilated correctly
- ◆ The highly corrosive environment of silos makes annual inspections of your systems essential to check for deterioration or physical damage
- ◆ It is always dangerous to enter bins and they should be maintained so that children can not get in them



Grain being stored is removed through an opening in the center of the bin.
As you can see, this process pulls the grain down and toward the center of the bin.
This will cause a depression and a void in the middle of the grain



Vertically crusted grain can collapse on a farmer attempting to break up the crust



Crusted grain surface can seem even and stable but there can be voids underneath

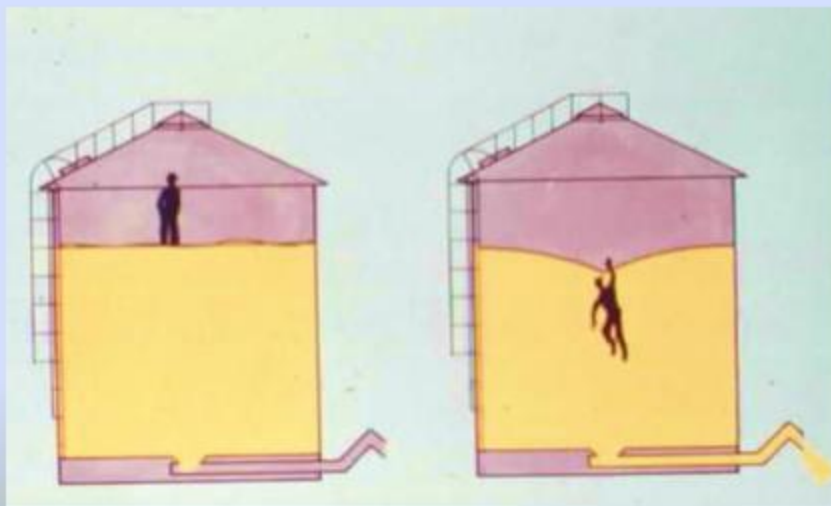


Grain wagons can be a hazard, particularly to youngsters. The grain in a grain wagon acts just like the grain in a bin when moving. As the grain settles it will create a void and pull the child down, and most children (or adults) are not strong enough to pull themselves out of the moving grain.

Grain bin safety

This person has been pulled down into the grain and pulled toward the center of the bin.

Once a person has been pulled into the grain above their knees, they cannot get out of it by themselves. The pressure of the grain on their legs and the grain flowing down will hold a very strong grasp.



A person can get covered with grain in a matter of seconds

Grain bins/Silos

If you must enter a bin then use the following safety tips:

- Make sure all augers are off (lock them off) before going in
- Break up the crust on the surface of the grain with a long pole before entering
- Wear a safety harness attached to a rope and have at least 2 other people there to help. **NEVER GO ALONE!!**
- Stay near the outer edge and keep walking if the grain starts to flow
- If possible install ladders inside the grain bins (painted in bright colors for easy location)
- Wear breathing protection (dust can cause difficulty in breathing)
- **Never attempt to rescue someone by going into the grain yourself**
Call 911



Manure pits

Manure pit



**Manure
pile**



Slurry tank

Many farmers have died after entering manure pits

Inside the pit, the manure undergoes anaerobic digestive fermentation. This process can generate potentially dangerous gases:

- Methane
- Hydrogen sulfide
- Carbon dioxide
- Ammonia

Manure pits should be treated like any other type of confined space. As such:

- All manure pits should be ventilated
 - Some of these gases are heavier than oxygen and tend to stay near the bottom of the manure pit
- The atmosphere within the pit should be tested before entry
- A standby person should be in constant contact and ready to lift the worker to safety with mechanical lifting equipment (winch, hoist, or pulley)
- Anyone entering a manure pit should wear a safety belt or harness with a lifeline tied to the mechanical lifting device



Report of two fatalities

On June 26, 1989, a 31-year-old male dairy farmer and his 33-year-old brother died after entering a 25-foot-square, 4-1/2-foot-deep manure pit inside a building on their farm. A pump intake pipe in the pit had clogged, and the farmer descended into the pit to clear the obstruction. While in the pit, he was overcome and collapsed. The victim's brother was standing at the entrance of the pit and apparently saw the victim collapse. He entered the pit an attempt to rescue him. The brother was overcome and collapsed inside the pit. Four hours later, another family member discovered the two victims inside the pit and called the local fire department to rescue them. The victims were pronounced dead at the scene by the coroner. The coroner's report attributed the cause of death in both cases to methane asphyxiation [NIOSH 1989b].

Manure pits

- Another important danger in manure pits is that a “solid looking” crust may form on the top.
 - However, it is extremely dangerous as they will not support the weight of a person
- Manure pits need to be fenced so that animals, kids and visitors can not access them
- Warning signs should also be placed around the pit to warn of the dangers



Ponds/ Lagoons/Water



Ponds/Water

- ◆ Ponds are an important part of the farm
- ◆ They are used to water livestock, conserve water and soil, store water for irrigation, fire protection and serve as a source of recreation
- ◆ Along with these benefits ponds also represent a hazard to those who live and work on the farm
 - ◆ Small children can fall in or wander away for adult supervision and drown
 - ◆ Workers can roll equipment into the pond and possibly drown
 - ◆ Pond maintenance also poses a risk to workers
 - ◆ Falling through thin ice in winter can result in hypothermia and death



**Everyone with access to a farm pond should
know how to swim and how to give CPR**

**Most accidents
involve children and
visitors to the farm**



Things that you can do to make ponds safer

- NEVER swim alone
- Make sure children are supervised at all times
- Teach children to swim
- Remove underwater hazards such as rock, stumps, branches, and broken bottles
- Put a fence around the pond
 - These can help lower your legal liability
 - Put up warning signs
- Lock boats to trees or other structures to prevent use by untrained, unsupervised people



Posting pond rules is a reminder for all visitors to practice safety

Thin 12-14 foot
pole (floats)

Warning
Emergency sign

Place a rescue pole near the edge of the pond

- Post should be painted yellow and be equipped with a buoy and reaching pole
 - Buoy should be attached to a piece of nylon rope long enough to reach across the pond
 - If a swimmer is in trouble: use the reaching pole first
 - Throw the buoy as a second attempt
 - A rescuer should only enter the water as a last resort
-
- Place warning signs to let people know about deep water and sudden drop offs etc.
 - Control access to the pond
 - Don't let children near the pond without supervision

**IN CASE OF
EMERGENCY
CALL 911**

Life ring
(tied to rope)

Nylon rope



Abandoned wells and other surprises around the farm



Wells

- Old abandoned wells are occasionally located on farms
- These wells pose a safety risk to animals, visitors and children
- Wells can damage farm equipment (that may roll over a hidden well)
- They threaten groundwater supplies by allowing toxins to flow directly into water supplies



Wells

- Injuries or death from falling or drowning in a well can be lowered by:
 - Locating and marking each well
 - They are often hidden by grass, brush or collapsed buildings
 - Fitting the well with a cover that is difficult to remove and check it regularly
 - Wood can rot over time so it is not the best cover for a well
 - Fence off the area around the well
 - The best way to prevent accidents is to fill the well with concrete or other fill material



Animals can also get trapped in abandoned unprotected wells



Old and abandoned buildings

- Abandoned places can be quite irresistible and tempting to children and passersby
- Yet abandoned places are generally unsafe, either in their structure or environment
 - Old buildings are usually vulnerable to collapse, broken windows can cause injuries
- They are usually considered fire hazards (and are an arson risk)
- They are prime location for vagrants or wild animals to hide





Piles of trash around the farm can be a fire hazard, arson hazard and a risk to people or children playing around them

Plus it can invite wildlife to settle there (snakes, skunks, foxes)

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Este proyecto es el resultado de la colaboración de las siguientes instituciones:



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¿Necesita más información?

El Servicio Nacional de Información de la Agricultura Sustentable (ATTRA) Página de internet, publicaciones y enlaces en español	https://attra.ncat.org/espanol/
National Education Center for Agricultural Safety	www.necasag.org
Northeast Iowa Community College	www.nicc.edu
National Safety Council	www.nsc.org
Dubuque County Emergency Responder Training Facility	www.dubuquecountyfire.org
Progressive Ag Foundation	www.progressiveag.org
Agricultural Safety & Health Council of America (ASHCA)	www.ashca.org
National Institute for Farm Safety (NIFS)	www.nifsagsafety.org
AgriSafe	www.agrisafe.org
Farm Safety 4 Just Kids	www.fs4jk.org
Children's Ag Safety Network (CASN)	www.childagsafety.org
North American Guidelines for Children's Agricultural Tasks	www.nagcat.org
National Farm Medicine Center	www.marshfieldclinic.org/nfmc
National Children's Center for Rural & Agricultural Health & Safety	www.marshfieldclinic.org/nccrahs
Iowa Center for Agricultural Safety & Health (I-CASH)	www.public-health.uiowa.edu/ICASH
Great Plains Center for Agricultural Health	www.public-health.uiowa.edu/gpcah
National Institute for Occupational Safety & Health (NIOSH)	www.cdc.gov/NIOSH
National Ag Safety Database (NASD)	www.nasdonline.org
North American Agromedicine Consortium (NAAC)	www.agromedicine.org
American Society of Agricultural and Biological Engineers	www.asabe.org
Canadian Agricultural Safety Association (CASA)	www.casa-acsa.ca
Farm Safety Association – Canada (FSA)	www.farmsafety.ca
Farm and Ranch Safety & Health Association (FARSHA)	www.farsha.bc.ca
Iowa Fire Service Training Bureau	www.dps.state.ia.us/fm/fstb