

Respiratory Hazards in Agriculture

WHAT'S AT STAKE?

Farmworkers are exposed to many harmful particles and gases that, overtime, cause permanent damage to the respiratory tract. The hazardous elements are invisible, and most often go unnoticed. Workers must be made aware of what these hazards are, and how they can avoid the many irreversible, long-term effects.

WHAT'S THE DANGER?

Agricultural settings host a multitude of sources of exposure to irritants and allergens: dust, mould, gases, pesticides, and chemicals all contribute to an increased risk of respiratory disease. Farmer's lung, Toxic Organic Dust Syndrome, Extrinsic Allergic Alveolitis, Asthma, Rhinitis, Chronic Obstructive Pulmonary Disease (COPD), and significant lung-function decline are results of exposure to dangerous particles and gases generated by agricultural work. Without using the proper PPE, and implementing preventative measures, damage to the respiratory system is inevitable.

EXAMPLE

An 80-year-old farmer spent the last forty years of his life suffering from asthma, an illness triggered by working with pesticides most of his life. As a child he worked alongside his parents on their farm and continued the work into adulthood. The use of herbicides and fungicides over several years exposed him to such a high amount of toxicity, causing a rapid decline in respiratory function, triggering asthma in his early forties. Quality of life was significantly and negatively affected.

HOW TO PROTECT YOURSELF

All equipment, containers and workspaces should be visibly labeled with clear warnings.

Understand the different sources of respiratory failure in agriculture, and the methods used to eliminate them:

Dusts and mould spores

- Be sure conveyor systems for grains and feeds are enclosed and have leak proof ducts.
- Areas with airborne particulates and that are frequented by workers (e.g. spaces where bales are being opened, etc.) should have ventilation systems. Open bales with a fork rather than doing it manually.
- Harvested crops should be stored dry (14% moisture content).
- Self-propelled equipment should have enclosed cabs with filtered air.
- Enclose areas that produce airborne materials.
- Use pellet feed rather than chopped feed, and substitute silage for hay to eliminate dust and fungi.
- Use a wet process when cleaning.
- Keep yourself upwind from equipment or workspaces.
- Slow down. This includes decreasing the speed of equipment in fields and dumping material, which reduces the generation of fine particles.
- Pressure washing with cold water, water with additives and sprinkling with vegetable oil minimizes indoor dust.
- Feed animals just before leaving the room.

Gases

Nitrogen oxides (Mainly in silos) – Post warning signs outside silos, avoid entering a silo for 2-3 weeks after filling and run the blowers for at least 30 minutes before entering.

Carbon monoxide – Properly ventilate all buildings where internal combustion engines are running, and ensure all equipment is functioning properly.

Ammonia – Avoid entering manure pits during agitation. Use peat for litter in poultry barns and be sure to keep dry. Ensure to exhaust as much air as possible through manure channels, and use tight fitting hatches, water traps or evacuation fans.

Hydrogen Sulfide (H₂S) – Considered the deadliest by-product of manure decomposition, this gas is heavier than air with a distinct smell of rotten eggs. Ensure there is a gas trap between the confinement building and outside storage and direct airflow towards the floor, keeping dust and gases out of the worker's breathing zone.

Carbon Dioxide (CO₂) – Like H₂S, it is another by-product of manure decomposition and fermentation and is heavier than air but is difficult to detect. It causes shortness of breath and dizziness and, at higher concentrations, death.

Methane (CH₄) – An odorless gas that collects at higher elevations, as it is lighter than air. Like CO₂, it acts as an asphyxiant, but is also highly explosive.

Farm Chemicals

- These include pesticides, fertilizers, and sanitizers.
- Be sure to follow label directions.
- Regularly inspect and maintain spraying equipment to prevent ruptured/leaking valves.

Always use PPE that is appropriate to the job. There are two types of air-purifying respirators, which can be used in environments with a high concentration of dust and pesticides, but should not be used in oxygen-deficient settings:

1. **Chemical cartridge** – Protect against some gases and vapours. When spray painting or applying pesticide, a chemical cartridge should be used with an appropriate mechanical filter.
2. **Mechanical filter** – Should be used with toxic dust approval to protect against grain dust and moulds.

Use **air-supplied respirators** (either a hose mask with blower and

emergency air supply or a self-contained breathing apparatus) in oxygen limited environments.

FINAL WORD

The condition and treatment of our oxygen supply is something that cannot be overlooked and abused. Long-term exposure to various dusts, moulds, gases, and chemicals can cause detrimental effects to our respiratory tract, resulting in a lifetime fighting to breathe. Educating yourself on the dangers and taking the appropriate steps to prevent them is crucial in all agricultural environments.

By the Numbers Heat Stress – Spanish

Ya sea que se genere en un ambiente interior como un almacén o una fundición sin aire acondicionado o en lugares de trabajo al aire libre como obras de construcción o granjas, el exceso de calor puede ser mortal.

- **Tres** etapas progresivas de las enfermedades por calor son los calambres por calor, el agotamiento por calor y la insolación. Los calambres por calor, el primer signo de enfermedad por calor, son los calambres musculares. El agotamiento por calor es un estado de mareo, debilidad y náuseas debido a la deshidratación y a la pérdida de minerales del cuerpo a través del sudor. El agotamiento por calor se produce cuando el cuerpo ya no puede enfriarse a sí mismo. Esta condición puede convertirse rápidamente en mortal a medida que la temperatura corporal aumenta.
- **Un** factor que puede provocar enfermedades por calor más rápidamente es la alta humedad. La humedad reduce la

velocidad a la que el sudor se evapora del cuerpo, manteniendo el calor corporal en la piel y por lo tanto causando que la temperatura del cuerpo aumente.

- El cuerpo humano tarda entre **siete y diez días en adaptarse** a trabajar en condiciones de clima cálido. (MedicineNet.com)
 - **Cinco** síntomas de insolación son: piel roja, caliente y seca; temperatura corporal alta; confusión; desmayos; y convulsiones.
 - Si hace ejercicio o realiza un trabajo físicamente exigente en condiciones de calor, debe beber hasta **10 onzas** (unos 300 mL) de agua o bebida deportiva cada **10 a 20 minutos**. (Presencia Salud)
 - **Los seis** elementos de la capacitación sobre el estrés térmico que debe impartir a sus trabajadores son los factores de riesgo de las enfermedades causadas por el calor; los síntomas de las enfermedades relacionadas con el calor; las medidas preventivas que pueden adoptar; la importancia de vigilar a los trabajadores y a sus compañeros para detectar los síntomas de las enfermedades causadas por el calor; el tratamiento; y la forma en que su equipo de protección personal podría aumentar su riesgo de padecer una enfermedad relacionada con el calor.
 - Agotamiento por calor – **Tres** cosas para los primeros auxilios en caso de agotamiento por calor: trasladar a la víctima a un área fresca y sombreada o a un espacio con aire acondicionado; hacer que beba mucha agua o bebida deportiva, y hacer que se dé una ducha fresca, un baño o un baño de esponja.
 - Insolación – **Tres** cosas para las víctimas de insolación: llamar inmediatamente al 911; trasladarlas a un área fresca y sombreada; y enfriarlas empapando sus ropas con agua, esponjando su piel con agua fría, duchando los cuerpos con agua o abanicándolas.
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By the Numbers Hand and Power Tools – Spanish

1. Las encuestas estiman que las herramientas de trabajo y las herramientas eléctricas causan un promedio de casi 400.000 visitas a la sala de emergencias cada año. De los heridos, más de 200 mueren.
2. Un estudio del Consejo Nacional de Seguridad informa que el costo de una sola lesión de mano o dedo incapacitante varía de 540 a 26.000 dólares por paciente. Con un grave traumatismo de extremidades ascendentes que promedia los 730.000 dólares por incidente.
3. Según un reciente estudio de la Administración de Seguridad y Salud Ocupacional (OSHA), el 70,9% de las lesiones en manos y brazos se podrían haber prevenido con equipo de protección personal (EPP), específicamente guantes de seguridad.
4. 000 lesiones de manos perdidas anualmente.
5. Las lesiones en las manos envían a más de un millón de trabajadores a la sala de emergencias cada año.
6. El 70 por ciento de los trabajadores que sufrieron lesiones en las manos no llevaban guantes. El 30 por ciento restante de los trabajadores lesionados sí usaba guantes, pero los guantes eran inadecuados, estaban dañados o eran del tipo equivocado para el tipo de peligro presente.

Puede leer más sobre los hechos y cifras de las herramientas manuales y eléctricas [aquí](#):

By the Numbers First Aid Matter

– When Minutes Matter – Spanish

- Un corazón humano puede dejar de latir en **4 minutos** después de que la respiración se detenga.
- El daño cerebral permanente puede ocurrir dentro de los **4 a 6 minutos** después de que la respiración se detiene.
- El tiempo medio de respuesta de la ambulancia es **de 8 a 12**.
- Más de **un tercio** de las muertes que se producen cada año en Canadá se atribuyen a la enfermedad coronaria, lo que la convierte en la principal causa de muerte en el país.
- Cada año, más de **000** personas en los Estados Unidos, cada 90 segundos, experimentan un paro cardíaco. Aquellos que reciben RCP de un transeúnte tienen hasta **3** veces más probabilidades de sobrevivir que alguien que no recibe tal asistencia.
- Los índices de supervivencia de los individuos que sufren un paro cardíaco disminuyen aproximadamente entre el **7 y el 10%** cada minuto que se retrasa la desfibrilación.
- El uso de un Desfibrilador Externo Automático (DEA) puede salvar la vida del **30% o más** de los que sufren un paro cardíaco.
- Cuando la desfibrilación se retrasa, las tasas de supervivencia disminuyen a aproximadamente el **50%** a **5** Cuanto antes se produce la desfibrilación, mejor es el pronóstico.
- Las investigaciones muestran que las personas que tienen entrenamiento en primeros auxilios pueden reducir sus lesiones personales hasta en un **30%**.

By the Numbers Falls in the Workplace – Spanish

Caídas en el lugar de trabajo

Las caídas involuntarias son la forma más común de lesión en todo el país: cada día del año pasado, las caídas dieron lugar a casi 1.800 visitas a la sala de emergencias y 417 admisiones hospitalarias, según un [nuevo informe](#) del Instituto Canadiense de Información sobre la Salud (CIHI).

En los Estados Unidos en 2017, las caídas fatales alcanzaron su nivel más alto en los 26 años de historia del Censo de Lesiones Ocupacionales Fatales (CF0I), lo que representa 887 (17 por ciento) muertes de trabajadores.

- El 65% de las lesiones relacionadas con caídas se producen como resultado de caídas desde superficies de andar del mismo nivel.
 - Las industrias de servicios, comercio al por mayor y al por menor, en conjunto, representaron más del 60% de las lesiones que resultaron de caídas del mismo nivel.
 - Se estima que entre el 20 y el 30% de las personas que experimentan un resbalón y una caída sufrirán lesiones de moderadas a graves, como moretones, fracturas de cadera o lesiones en la cabeza.
 - Las fracturas más comunes que ocurren por accidentes de resbalones y caídas son las de la columna vertebral, cadera, antebrazo, pierna, tobillo, pelvis, brazo y mano.
 - 1 de cada 6 de las lesiones laborales pérdidas son el resultado de resbalones, tropiezos y caídas.
 - Los resbalones, tropezones y caídas constituyen casi el 20 por ciento de todas las lesiones relacionadas con el trabajo.
 - Se estima que estas lesiones dan lugar a un promedio de 11 días de ausencia del trabajo.
 - Los resbalones, tropiezos y caídas cuestan a los empleadores aproximadamente 40.000 dólares por incidente.
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By the Numbers Fall Protection – Spanish

¿LO SABÍAS?

Según el **Centro de Investigación** y Capacitación en Construcción (CPWR), en un período de 33 años, de 1982 a 2015, las caídas fueron responsables de casi la mitad de las muertes de los trabajadores de la construcción. Más de la mitad de los trabajadores muertos no tenían acceso a la protección contra caídas.

Las investigaciones del programa de evaluación de muertes y control del NIOSH encontraron informes de 768 muertes en la industria de la construcción.

Los investigadores después de analizar los incidentes concluyeron que entre 1982 y 2015:

- El 42 por ciento (325) de las fatalidades involucraron caídas.
- El 54 por ciento de los trabajadores asesinados no tenían acceso a un sistema personal de detención de caídas y el 23 por ciento tenían acceso a un PFAS pero no lo usaban.
- La mayoría de los trabajadores que no tenían acceso al SAFE trabajaban para contratistas de edificios residenciales y contratistas de los sectores de techado, revestimientos y chapas metálicas.
- 107 de las 325 caídas fueron desde 30 pies o más.
- El 20 por ciento de las 768 muertes ocurrieron en las víctimas en los primeros dos meses de trabajo.

TENGA EN CUENTA

Los sistemas personales de detención de caídas (PFAS) están diseñados para proteger a los trabajadores de la caída de las torres de comunicación, los andamios en las obras de construcción de gran altura, o el techo de una casa.

Pero desafortunadamente, muchos trabajadores reciben poca o ninguna capacitación en protección contra caídas, usan el equipo de protección contra caídas equivocado o usan el equipo de manera inapropiada y, a veces, no usan protección contra caídas en absoluto.

OSHA requiere que los empleadores provean a los empleados de protección contra caídas de acuerdo a los peligros de caídas que existen en el trabajo.

Todos los peligros se abordarán utilizando la siguiente jerarquía de controles:

- Eliminar el peligro
- Sustituciones
- Controles de ingeniería
- Los controles de la administración, y
- Equipo de protección personal

Esto, si los primeros (1) a (4) controles no son adecuados para protegerse contra el peligro de caída, entonces se debe utilizar PEAS.

Si se ha determinado que el empleado debe llevar un arnés y un cordón, **primero** debe **ser entrenado en los peligros presentes** cuando trabaja en alturas y en qué alturas se requiere protección contra caídas. **Luego el empleado debe ser entrenado para usar e inspeccionar** esta pieza crítica de equipo de seguridad personal.

Safe Handling of Farm Animals

WHAT'S AT STAKE?

Animals are unpredictable, so handling them should be done with care, preparation, and respect. Many workers become complacent

when dealing with animals, forgetting that they pose as much a hazard as any piece of machinery or equipment. Learning what these hazards are and developing a great deal of respect will go a long way in keeping you and livestock safe.

WHAT'S THE DANGER?

Handlers must be made aware that the potential risks each task poses are many. If handlers are too comfortable and do not consider the possible risks of the jobs they are carrying out, they may find themselves trampled, crushed, pinned, stepped on, bit, rammed or thrown off. The dangers happen quickly, as animals can injure their handlers both deliberately and accidentally. These accidents are more than likely due to a worker who failed to follow safe animal-handling practices.

EXAMPLE

Jenny, a dairy farmer, had been attempting to wean a calf from its mother for quite some time. One day, she entered the pen where the mother and her calf were, to clean the water trough. The mother lunged at her, crushing her against the boards of the pen. Once Jenny hit the ground, injured from the initial blow, the cow continued to charge her. Attempts to crawl out of the pen only seemed to provoke the calf's mother. Eventually, Jenny's husband managed to get his wife out and called emergency services.

HOW TO PROTECT YOURSELF

There are four important factors to understand and incorporate in your animal-handling routines:

Heed the Warnings Signs of Animals

Many animals exhibit clear characteristics that will assist the handler in their decision to proceed or back away. The following signs are a clear warning that you should avoid approaching the animal:

- Raised or pinned ears

- Raised tail
- Raised back hair
- Bared teeth
- Pawing the ground and/or snorting

Handling Methods

- Move calmly, slowly, and deliberately, and announce your approach with a soft touch to their front end where you are in full view.
- Avoid loud noises.
- Give new animals time and space to adjust to the surroundings.
- Never prod an animal if it has no place to go.
- Most animals fiercely protect their young. Avoid getting between a cow and her calf. If work must be done on the calf, be sure it is done in an area separated from the cow.
- Be wary of male animals, as they tend to be more aggressive.
- Do not work in close quarters with no escape route, when you are working with animals who are sick or injured, or there are outside elements, like a storm, that may spook them.
- When working in an enclosed space with large animals, ensure there is a man gate you can easily access.
- When working with new animals or if strangers must be in the space, exercise extreme caution.
- Cattles and horses have a blind spot. When you approach a horse, approach from the left, and from the front. If approaching from behind, speak softly and gently stroke their shoulder or rump before moving toward the head. When working with cattle, work from their hip, do not stand directly behind, and try to keep out of view. Sudden movements from behind may spook them.
- Be patient.

Animal Facilities

Flooring

- Exercise caution when working in areas with tripping hazards (e.g. high door sills, narrow, cluttered alleyways, and

uneven walking surfaces).

- Use concrete floors for livestock.
- Floor ramp and step finishes should be roughened to prevent slips.
- High traffic areas should be grooved.
- Ensure water drains quickly with appropriately constructed floors.
- Use slatted floors for animals in a confined space to keep them dry.

Fencing and Gates

- Must be strong and durable.
- Alleys should be wide enough to allow passage but narrow enough to keep them from turning around.
- Animals will be more cooperative in chutes made with solid walls.

Lighting

- Keep lighting even to ensure the animals remain calm. Shadows can spook animals and they will be less likely to move smoothly if the area is dotted with light and shadows.
- Ensure facilities are structured in such a way that prevents sun from shining directly into their eyes.

Equipment

- Poor quality equipment affects animal's safety and sense of security, which in turn affects yours.
- If your equipment is not in the best condition possible, you will likely find time and labour are negatively affected.

Having a good housekeeping system in place will ensure cleanliness, order and lighting is in safe condition and that equipment, fences, chutes, and gates are in good working order.

Personal Protective Equipment

- Handlers must always wear steel-toed boots, gloves, and other protective clothing.
- A dust filter should be used when working with grains and in

other situations where fine particles enter your breathing zone. This will prevent respiratory hazards down the road.

FINAL WORD

Handling animals must be done with respect for the appropriate methods and the animals themselves. Understanding how to read the warning signs of animals in a state of fear or aggression, keeping the spaces where animals are held and directed through in good working order, and wearing the proper protective gear are all ways to maintain a safe working environment with very unpredictable animals.

Agriculture: Safe Lifting and Carrying Techniques

Safety Talk

WHAT'S AT STAKE?

When lifting or carrying heavy objects, you must use the proper techniques to avoid injury. Many workers are in a hurry, and do not take the time to pay attention to their form or consider the weight of what it is they are handling. In addition, a lot of workers do not ask for help to reduce the load, thus decreasing the weight they are attempting to lift and avoiding injury.

WHAT'S THE DANGER?

Back injury is a common occurrence in agriculture. Lifting and throwing hay bales, lifting and moving equipment, and working on animal hooves are some tasks that put constant strain on the back. This overexertion can cause severe discomfort or injury, causing

lost work and, in time, permanent disability.

EXAMPLE

A sheep farmer spent over two decades of shearing and lifting his herd. He felt the discomfort and spasms at the end of the day, but applied cold and hot compresses, took over the counter painkillers, and proceeded to handle the sheep as normal the next day. He did not heed the warning signs his back was giving him and continued to overexert his back by using improper form when lifting and shearing. One day, while lifting a large, injured ewe, he felt a pop in his lower back and the immediate sharp, intolerable pain that followed. He had ruptured two discs and spent months in recovery.

HOW TO PROTECT YOURSELF

Follow these guidelines to avoid damage to your back.

Before You Lift

- **Prepare** your back. After sitting for long periods of time, try to avoid heavy lifting immediately after. Stand, walk around and stretch.
- **Plan** your route by clearing the way of potential obstacles, ensure the area you are moving the load is decided and cleared for placing and, if possible, avoid placing on the floor.
- **Get assistance** for loads that are awkward or too heavy for you to manage alone.

Proper Lifting Techniques

- Establish a wide base of support by standing with your feet shoulder width apart and keep the load as close to your body as possible. Keep your elbows slightly bent and your upper arms straight.
- Bend your knees and keep a slight inward curve in your lower back. Do not lift with a rounded back.
- Lift one end of the load to gauge its weight and determine if it is safe to move alone.

- Hold onto the load with your whole hand, not just your fingers, and keep the load balanced.
- Lift with your legs, not your back. Lift smoothly and slowly without sudden movements.
- Face in the direction of where you are taking the load. Turn with your feet and avoid twisting your body.

Team Lifting

- If possible, the people assisting you should be the same size.
- Enlist one person to coordinate and direct the move.
- Ensure workers know not to lift the load too soon or shift suddenly. Everyone should be aware of and practice safe lifting and carrying techniques in the workplace.

FINAL WORD

Safe carrying and lifting methods are simple and will make all the difference. Using improper form, lifting, and moving loads quickly, neglecting to plan and prepare your route to transport the load and trying to lift heavy, awkward loads without help will all contribute to gradual and/or sudden back injury. Be sure to follow these guidelines to keep your back in check.

By the Numbers Eye Injuries – Spanish

1. Más de 2.000 lesiones oculares relacionadas con el trabajo ocurren cada año en América del Norte.
2. El 60% de los trabajadores que sufrieron una lesión ocular no llevaban protección ocular o la llevaban de forma incorrecta en el momento del accidente.
3. El 90% de las lesiones oculares relacionadas con el trabajo

podrían evitarse si los trabajadores usaran protección ocular. (*Academia Americana de Oftalmología*)

4. Los hombres entre 25 y 44 años constituyen el 80% de las víctimas de lesiones oculares en el lugar de trabajo.
 5. Las lesiones oculares representan casi el 45% de todas las lesiones en la cabeza que conducen a días de trabajo perdidos.
 6. El 61% de las lesiones oculares se producen en trabajos de fabricación, construcción o comercio.
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By the Numbers Employee Wellness Programs – Spanish

5 conductas de estilo de vida (inactividad física, mala nutrición, tabaquismo, consumo de alcohol y no adherencia a los medicamentos) y cinco condiciones médicas crónicas (diabetes, enfermedades cardíacas, enfermedades pulmonares, enfermedades mentales y cáncer) provocan el 75% de todas las muertes en el mundo.
https://www.uschamber.com/sites/default/files/022436_labr_wellness_report_opt.pdf

Más del **60%** de los encuestados en un informe de RAND, informaron que los programas de bienestar en el lugar de trabajo redujeron los costos de salud de sus organizaciones. *Soeren Mattke y otros, RAND Inc. Estudio sobre programas de bienestar en el lugar de trabajo: Informe final (Santa Mónica, CA: RAND Health, 2013).*

El Dr. Michael Roizen, presidente del Instituto de Bienestar de la Clínica Cleveland, ha determinado que hay **cinco comportamientos** que mitigan las enfermedades crónicas:

- Caminar **30** minutos al día
- Comer sano
- No fumar
- Tener un tamaño de cintura que es menos de la **mitad** de su

altura

- Beber alcohol sólo con moderación.

Si un individuo se involucra en estos **cinco comportamientos**, normalmente gasta entre **un 33%** y un **50%** menos en gastos de salud en comparación con las personas que tienen riesgos de salud.

Múltiples autores publicaron un artículo en el Journal of Occupational and Environmental Medicine que hacía la pregunta, “¿Funcionan los programas de promoción de la salud (bienestar) en el lugar de trabajo?” Los autores concluyeron que los programas que utilizan estrategias basadas en la evidencia produjeron un retorno de la inversión de entre **2 y 3,60 dólares**. Los empleados adoptaron hábitos saludables, menos tiempo fuera del trabajo y menores costos médicos y de farmacia. *Goetzel y otros, “¿Funcionan los programas de promoción de la salud (bienestar) en el lugar de trabajo?”*

By the Numbers Drug and Alcohol – Spanish

¿LO SABÍAS?

El abuso de las drogas y el alcohol conduce a accidentes en el lugar de trabajo. Según OSHA, “De los 17,2 millones de consumidores de drogas ilícitas de 18 años o más en 2005, 12,9 millones (74,8 por ciento) estaban empleados a tiempo completo o parcial. “Además, encontraron que entre el 10 y el 20 por ciento de los accidentes mortales relacionados con el trabajo dan positivo en las pruebas de drogas o alcohol.

A pesar de los numerosos protocolos de seguridad en el lugar de trabajo, el 40% de todas las muertes en el lugar de trabajo industrial son causadas por drogadictos. Y los individuos que

están ebrios o con resaca han disminuido su productividad y su atención. Esto significa que es más probable que ocurran accidentes en el lugar de trabajo. Los accidentes laborales causados por la embriaguez o la resaca tienen cinco veces más probabilidades de lesionar a alguien. Los drogadictos tienen diez veces más probabilidades de faltar al trabajo, lo que les afecta negativamente a ellos mismos y a otros, poniendo en peligro su trabajo, su salud y su seguridad, así como a sus compañeros de trabajo.

La tasa de pruebas de drogas positivas aumentó en dos dígitos en cinco de los 16 principales sectores de la industria de la fuerza laboral de EE.UU. del 2015 al 2017, según un reciente análisis realizado por investigadores de Quest Diagnostics.

Los investigadores de Quest descubrieron que, a partir de un examen de los datos de más de 10 millones de pruebas de drogas en orina realizadas durante el período de tres años, se observó que el transporte y el almacenamiento tuvieron el mayor aumento, con un 21,4%, seguidos de otros servicios, excepto la Administración Pública (15,4%), Finanzas y Seguros (13), Comercio de Cola (12,8) y Comercio al por mayor (11,8).

Quest descubrió que las tasas de positividad más altas en el 2017 se registraron en las industrias orientadas al consumidor, encabezadas por el comercio minorista (5,3 por ciento), la atención sanitaria y la asistencia social (4,7) y el alquiler y arrendamiento de inmuebles (4,6). En general, las tasas más bajas se registraron en los sectores de servicios públicos (2,8%) y finanzas y seguros (2,6).

Otros hallazgos:

- La industria de la construcción experimentó la mayor tasa de positividad de la metanfetamina en cada año del estudio, y tuvo un aumento del 15% en general.
- La positividad de la cocaína aumentó en la mayoría de los sectores en 2017. Los que experimentaron los mayores saltos en el curso del estudio fueron el comercio al por menor (42,9 por ciento); el apoyo administrativo, la gestión de

residuos y los servicios de rehabilitación (35,3); y el transporte y el almacenamiento (22,7).

- La positividad de la anfetamina en el sector de la información aumentó más del 20% durante el período de estudio. Sin embargo, el sector fue el único que mostró un descenso en la positividad de la marihuana (más del 8 por ciento) durante el mismo período de tiempo.
- La atención de la salud y la asistencia social (casi el 16%) y los servicios de educación (casi el 14%) también registraron aumentos de dos dígitos en el nivel de consumo de anfetamina entre 2015 y 2017.
- La marihuana fue la sustancia más comúnmente detectada, con la tasa de positividad más alta (3,5%) encontrada en los servicios de alojamiento y alimentación. Esa tasa es casi un 35 por ciento que el promedio nacional (2,6)

TENGA EN CUENTA

La conducción bajo los efectos de las drogas va en aumento, casi igualando la conducción bajo los efectos del alcohol en el número de accidentes mortales, según un estudio realizado en el 2015 por la Governors Highway Safety Association y la Foundation for Advancing Alcohol Responsibility.

El estudio reveló que el 40 por ciento de los conductores que murieron en un accidente en el 2013 dieron positivo en la prueba de drogas ilegales, con o sin receta. La cifra era casi igual al porcentaje de conductores muertos en accidentes el mismo año que dieron positivo en las pruebas de alcoholemia en el torrente sanguíneo.

Los investigadores descubrieron algunos hechos reveladores la mayoría de las drogas que incluyen medicamentos de prescripción:

- Afecta a las funciones cognitivas relacionadas con la conducción como el tiempo de reacción, la percepción de la distancia, las habilidades motoras.
- El consumo de drogas combinado con el alcohol aumenta el riesgo de un accidente.

By the Numbers Confined Spaces – Spanish

¿LO SABÍAS?

Cerca de 2,1 millones de trabajadores entran en los espacios confinados de los permisos anualmente. Según el Instituto Nacional de Seguridad y Salud Ocupacional (**NIOSH**), aproximadamente el 60 por ciento de las muertes en espacios confinados son rescatadores. La Administración de Seguridad y Salud Ocupacional informó que cuando se producen múltiples muertes durante un rescate, la mayoría de las víctimas son “aspirantes” a rescatistas.

Informes de **NIOSH**:

- De las 100 muertes que se investigaron, las principales razones por las que los trabajadores entraron en el espacio confinado fueron para realizar sus funciones de trabajo de mantenimiento rutinario, reparaciones e inspecciones del espacio confinado.
- De las 670 muertes en el espacio confinado, los tipos de peligros más comunes fueron los atmosféricos y los materiales sueltos.
- De las 217 muertes en espacios confinados que se investigaron, los dos tipos de gases más comunes en los espacios confinados fueron el sulfuro de hidrógeno y el monóxido de carbono.

TENGA EN CUENTA

Un espacio confinado puede ser una alcantarilla en la calle, o un silo en el campo. Si no está seguro de que puede salir con seguridad de un espacio confinado, su seguridad está en peligro si entra.

Nunca debe entrar a un espacio confinado sin entrenamiento. Los procedimientos escritos y un sistema de permiso de entrada son esenciales.

- Tome las precauciones atmosféricas. La atmósfera debe ser probada antes de entrar... por personas entrenadas. El espacio confinado debe ser ventilado hasta que sea seguro. Si esto no es posible, se debe usar la protección respiratoria adecuada.
- Bloquee las fuentes de energía. Las líneas que transportan gases, líquidos o sólidos deben ser desconectadas o bloqueadas antes de entrar. Las válvulas y los circuitos eléctricos deben ser bloqueados y etiquetados.
- Elimine las posibles fuentes de ignición. Utilice herramientas y dispositivos de iluminación que no produzcan chispas en una atmósfera potencialmente inflamable.
- Prepárese completamente antes de entrar. Asegúrese de llevar el equipo de protección personal (EPP) necesario, incluyendo un casco, calzado de seguridad, guantes y su equipo de respiración.
- Use un salvavidas. La cuerda de salvamento debe estar conectada desde su cuerpo a un cabestrante fuera de la entrada confinada para que pueda ser sacado en caso de emergencia.
- Disponga de personal entrenado y equipado que permanezca a la espera fuera del espacio confinado, para la comunicación y el rescate si es necesario.

By the Numbers Confined Space Injuries and Deaths – Spanish

Los espacios confinados con permiso han sido durante mucho tiempo, y siguen siendo, la principal causa de múltiples muertes en el lugar de trabajo. De acuerdo con las investigaciones de incidentes

en espacios confinados del Instituto Nacional de Seguridad y Salud Ocupacional (NIOSH):

- El 60% de las muertes en espacios confinados son posibles rescatadores.
 - El 85% del tiempo un SUPERVISOR estaba presente.
 - El 29% de los muertos eran SUPERVISORES.
 - El 31% tenía PROCEDIMIENTOS ESCRITOS DE ENTRADA EN ESPACIOS CONFINADOS.
 - El 0% usó los PROCEDIMIENTOS ESCRITOS.
 - El 15% tenía entrenamiento en espacios confinados.
 - El 0% tenía un PLAN DE RESCATE.
 - El 60% de los rescatadores de “WOULD-BE” murieron.
 - El 95% fueron AUTORIZADOS por la supervisión.
 - El 0% de los espacios fueron probados antes de la entrada.
 - El 0% fueron VENTILADOS.
-

By the Numbers 12 Tips for Safe Trenching and Excavation – Spanish

Una yarda cúbica de suelo puede pesar tanto como un coche. La presión en el pecho de una víctima puede hacer imposible que respire, incluso si su cabeza está por encima del nivel del suelo colapsado.

- Un trabajador de Westmount, Quebec, fue enterrado en una zanja junto a una casa cuando el muro de contención de madera se derrumbó sobre él, al igual que la tierra y la piedra de pavimentación.
- Sus colegas lo sacaron en 90 segundos, pero sucumbió a sus heridas poco después.

<https://www.ohscanada.com/features/going-underground-2/>

Paul Villeneuve tenía 20 años, fue enterrado hasta la cintura en el suelo después de que la maquinaria pesada cercana causara el colapso de la zanja en la que estaba trabajando. Afortunadamente, salió vivo después de que sus hermanos, que estaban trabajando en el trabajo, lo desenterraran con palas.

- **“Cuando estás enterrado hasta el pecho, estás muerto. Hay demasiada presión”, dice Villeneuve.**
<https://www.ohscanada.com/features/going-underground-2/>

Estos son sólo dos de los cientos de ejemplos de muertes en excavaciones y muertes cercanas que ocurren cada año en el Canadá y los Estados Unidos.

Aquí hay 12 consejos para mantener a sus equipos seguros durante el trabajo de excavación.

1. Sin excepciones – Sin excusas

- Usen sistemas de protección para cada excavación de más de 1,2 metros de profundidad.
 - Inclinación
 - Apuntalamiento
 - Cajas de zanja

2. Inspeccionar los sistemas de protección

- Apuntalamiento hidráulico: compruebe las fugas de mangueras y cilindros, bases dobladas, grietas y otros daños.
- Apuntalamiento de tiempo – compruebe la preinstalación y retire la madera dañada; después de la instalación, busque señales de aplastamiento.
- Cajas de zanja – inspecciona si hay daños estructurales y grietas en las soldaduras.

3. Salida segura – Acceso seguro

- Las escaleras deben ser colocadas dentro del área protegida, nunca a más de 7.5 metros/25 pies de distancia.
- Las escaleras deben atarse en la parte superior y se

extienden sobre el apuntalamiento o caja por lo menos 1 metro/3 pies.

4. Tipo de suelo

- La persona competente debe evaluar el tipo de suelo.
- Las condiciones del suelo cambian rápidamente y deben ser revisadas regularmente, especialmente después del cambio de clima.

5. Vibración

- La vibración de la máquina, incluso a 500 pies de distancia, puede impactar en la integridad de la zanja.
- Suelos de tipo 4/Tipo C – especialmente sensibles.

6. Trabajador solitario

- No permitas a un trabajador solitario en una trinchera, ni siquiera con un sistema de protección.
- Las posibilidades de rescate ya son bajas, las posibilidades de rescate cuando están solas son cero.

7. STF

- Mantenga sólo el equipo y los materiales necesarios en la excavación.
- Poner barricadas y advertencias para mantener a los trabajadores y al público alejados de los bordes de las zanjas y excavaciones.

8. Objetos que caen

- Hacer cumplir los requisitos de distancia segura y los procedimientos de estacionamiento seguro para las inclinaciones y los bordes (o prohibir esta práctica cuando sea posible).
- Instruye a los trabajadores para que informen sobre los materiales o equipos y las rocas u otros escombros que estén demasiado cerca de la excavación.

9. Peligros aéreos y subterráneos

- Localizar los servicios subterráneos antes de empezar el trabajo – cavar a mano cuando sea posible.
- Seguir y hacer cumplir los requisitos de distancia para los equipos cerca de las líneas eléctricas aéreas.
- La tensión de la línea eléctrica es de...:
 - 750 a 150.000 voltios – el equipo debe estar a una distancia mínima de 3 metros (10 pies)
 - 000 a 250.000 voltios – el equipo debe tener una distancia mínima segura de 4,5 metros (15 pies)
 - 000 voltios – distancia mínima segura de 6 metros (20 pies)

10. EPP y más

- Requerir EPP estándar – cascos, gafas de seguridad, botas de seguridad, botas de goma cuando está mojado/barrido.
- Protección extra cuando los peligros lo requieren: arnés de seguridad y cuerda de salvamento.

11. Tengo un plan...

- Planificar el trabajo de excavación: determinar los peligros, el equipo necesario, la capacitación requerida, los permisos necesarios.
- Un plan de emergencia es imprescindible. Las probabilidades de rescatar a una víctima de un colapso son escasas y el tiempo es muy corto.
 - El peso del colapso de la tierra es de varios miles de libras – sólo toma alrededor de 18 kg/40 libras de presión en el pecho para evitar que alguien respire.
 - El peso del suelo empuja el aire fuera de los pulmones y con cada intento de inhalar el suelo se aprieta alrededor de la víctima, haciendo imposible empujar el aire hacia fuera y tomar el aire hacia dentro.
 - El peso del colapso también puede causar lesiones internas masivas.

12. Entrenamiento

- Capacitar a todos los trabajadores que participan en las actividades de excavación.
 - Entrénelos sobre sus derechos de rechazar el trabajo que sienten o saben que es peligroso.
 - Capacitar a los supervisores sobre los procedimientos de excavación y educarlos sobre las consecuencias de no seguir los procedimientos de seguridad; poner vidas en peligro; tomar represalias contra los trabajadores que se niegan a trabajar en condiciones peligrosas.
-

Agriculture: Slips, Trips, and Falls

WHAT'S AT STAKE?

The number of injuries and fatalities caused by slips and trips on the farm is significant, most of which could be prevented with simple housekeeping techniques and a watchful eye. It takes only a moment for a seemingly simple spill to result in a dangerous fall.

WHAT'S THE DANGER?

If workplace conditions are not cleared of slip and trip hazards, workers are subject to countless situations that could lead to serious injury and even death. Broken bones, falling into rotating parts of machinery, brain injuries and broken necks are just a few potential risks when working in the unsafe conditions that can go unnoticed at your feet. Neglecting to clean a tractor step of mud, ice, grease, or other built-up debris could lead to disaster. Yet,

oftentimes, hazards such as these are completely overlooked.

EXAMPLE

Joe, a twenty-year-old farmer, is in a hayloft throwing square bales to the ground below. The floor of the loft has not been swept clean of debris, and Joe does not see the twine that has collected beneath the loose hay. His foot catches on some twine held taut by a raised screw, and he falls through the open trap door and onto the ground below, shattering ribs and a collarbone.

HOW TO PROTECT YOURSELF

Most falls are preventable and can be avoided by a few simple habits. Having a keen eye for potential hazards and clearing or repairing the dangers is key. Thinking about your actions by planning your course of action before carrying it out, will allow you to spot the hazards, thus preventing potentially disastrous consequences.

There are many things that can be done to eliminate the hazards of slips, trips, and falls. Adopting general housekeeping practices will save you from injury. Here are a few:

- Clear aisles, walkways, steps and platforms of objects and debris, and make it a habit of putting tools back when you are finished with them. This will keep the work area clean, organized, and free of tripping hazards.
- Ensure all spills are cleaned immediately.
- Keep openings, such as throwdown holes, closed when not in use and install guard rails around any area a worker could fall through.
- If the work area is particularly icy due to weather and the job cannot be held off until conditions improve, spread sand and/or salt to provide traction and avoid slips.
- Wear slip-resistant footwear.

Working with machinery presents many dangers: Be sure to use these methods and watch out for the following risks:

- Never jump from machinery or other raised platforms. Your clothes could catch on objects that protrude from ledges or walls, or you could land on uneven ground.
- Use the **3-point system** when stepping up or down from self-propelled machinery:
 - Always use the handrails, handholds, and footholds.
 - Ensure that either ***one hand and two feet***, or ***two hands and one foot*** are on the machine.
- Operate machinery only when you are safely secured in the seat.
- Never allow passengers.
- Drive slowly and avoid driving if you are tired.
- Use caution when around stationary equipment (e.g. grain augers, grind mixers) by maintaining good footing and staying clear of them while they are running.
- Ensure equipment is shut-off and the key is removed when making repairs or adjustments. This will avoid entanglement in any moving parts if you or someone else were to fall onto the equipment.

FINAL WORD

Diligence and an observant eye in your workplace can help avoid the risks of slips, trips and falls. It will ensure that hazards have been noted and removed. Astute workers pay attention to the small details that may otherwise be overlooked, thus saving themselves and other workers from harm. Be sure you spot the potential risks before they happen and address them immediately.

By the Numbers Cold Stress –

Spanish

¿LO SABÍAS?

Cuando se trabaja al aire libre en climas fríos o se trabaja en ambientes artificialmente fríos, como las zonas refrigeradas, pueden producirse graves lesiones y enfermedades relacionadas con el frío. Los peligros relacionados con el frío pueden causar daños permanentes en los tejidos o incluso la muerte.

Cuando el cuerpo es incapaz de calentarse, puede producirse un estrés relacionado con el frío.

Cuatro factores contribuyentes:

- Temperaturas del aire frío
- Movimiento aéreo de alta velocidad
- La humedad del aire
- El contacto con el agua fría o las superficies

La sensación térmica es la combinación de la temperatura del aire y la velocidad del viento. Por ejemplo, cuando la temperatura del aire es de 40º F. y la velocidad del viento es de 35 millas por hora, la piel expuesta recibe condiciones equivalentes a que la temperatura del aire sea de 11º F. Si bien es obvio que las condiciones de frío por debajo de la congelación, combinadas con ropa inadecuada, podrían provocar estrés por frío, también es importante comprender que también puede ser provocado por las temperaturas de los años 50, junto con algo de lluvia y viento.

¿Cuáles son los problemas más comunes inducidos por el frío?

Hipotermia

La hipotermia se produce cuando el calor del cuerpo se pierde más rápido de lo que puede ser reemplazado. Cuando la temperatura central del cuerpo cae por debajo de la normal de 98.6ºF a alrededor de 95ºF, los trabajadores experimentan un inicio de síntomas.

A continuación se exponen las etapas de la hipotermia en las personas a medida que su temperatura desciende de lo normal.

Suave

98º – 86º F

- Temblando
- Falta de coordinación
- Tropezando
- Titubeando
- Manos temblorosas
- Lenguaje mal pronunciado...
- Piel pálida y fría

Moderado

90º – 86º F

- Temblando
- Reducir la respiración
- Incapaz de caminar/estarse de pie
- Confusión
- Irracionalidad

Severo

86º – 78º F

- Rigidez muscular
- Muy somnoliento
- Inconsciente
- Piel extremadamente fría
- Pulso irregular
- Es difícil encontrar el pulso

MANTENGA EN CUENTA

La hipotermia es la lesión por frío más grave. La pérdida excesiva de calor corporal podría ser fatal. Las señales de advertencia pueden incluir náuseas, fatiga, mareos, irritabilidad o euforia,

dolor en las extremidades y escalofríos severos.

Los dedos **de los pies, los dedos de las manos, las orejas y la nariz corren** el mayor riesgo porque no tienen músculos importantes para producir calor. **El estado de alerta mental** también se reduce.

- **sabañón** – enrojecimiento, hinchazón, hormigueo y dolor.
- **Congelamiento profundo** – causado cuando las capas superiores de la piel se congelan, se vuelven blancas, entumecidas y duras, pero el tejido más profundo se siente normal.
- **Congelación:** se produce cuando la temperatura de los tejidos cae por debajo del punto de congelación o cuando se obstruye el flujo sanguíneo; los síntomas incluyen la inflamación de la piel en parches y un ligero dolor.
- **Pie de inmersión/pie de trinchera:** causado por pies húmedos o fríos prolongados; los síntomas incluyen hormigueo, entumecimiento, picazón, dolor, hinchazón y ampollas.

Los trabajadores necesitan mantener una temperatura corporal central de +37 °C (+98,6 °F) para el funcionamiento normal del cuerpo, así como para proporcionar energía para la actividad.

Los empleadores deberían:

- Elija un equipo con materiales de aislamiento térmico y herramientas que puedan ser operadas con guantes.
- Estudia y monitoriza la temperatura.
- Capacitar a los gerentes, supervisores y trabajadores sobre los síntomas, las prácticas de trabajo seguras, los procedimientos de recalentamiento, las prácticas de vestimenta adecuadas y qué hacer en caso de una lesión por frío.
- Esbozar claramente los procedimientos de emergencia, con al menos una persona capacitada disponible en todo momento.
- Use un sistema de compañeros para vigilar los síntomas en los demás.
- Ajustar el ritmo o la velocidad de trabajo (no a bajo que una persona se enfríe, ni a alto que cause sudoración abundante o ropa mojada).
- Deje tiempo para que los nuevos trabajadores se acostumbren

a las condiciones.

- Proporcionar o asegurarse de que se use ropa de protección a 4°C o menos, incluyendo capas de ropa de abrigo, con una capa exterior resistente al viento, un sombrero, guantes o guantes aislantes, una bufanda, un tubo para el cuello o una máscara facial, y calzado aislado e impermeable.

By the Numbers 6,098 Reasons to do Workplace Inspections – Spanish

Aquí hay **6.098** razones por las que las inspecciones en el lugar de trabajo son importantes. **6.098** trabajadores canadienses y estadounidenses murieron en 2017 por lesiones o enfermedades relacionadas con el trabajo.

- Según la Asociación de Juntas de Compensación de Trabajadores del Canadá, AWCBC, **un** trabajador muere en el trabajo, en promedio, casi todos los días en el Canadá. Si se suman los cánceres y las enfermedades de larga duración por exposición laboral, el número asciende a casi **000**.
- **951** trabajadores murieron en Canadá en 2017 – [AWCBC](#)
 - **217** en la construcción
 - **160** en la fabricación
 - **70** en transporte y almacenamiento
- Cada **7** segundos un trabajador en los EE.UU. se lesiona en el trabajo – [NSC](#), Oficina de Estadísticas Laborales
 - **510** por hora
 - **300** al día
 - **500** a la semana
 - **5** millones al año

- **147** trabajadores murieron en el trabajo en el [2017](#) en los EE.UU. – Oficina de Estadísticas Laborales
 - Más de **99** a la semana
 - Más de **14** muertes al día
 - **077 muertes** relacionadas con el transporte
 - **887** caídas fatales
 - **272** sobredosis involuntarias por uso no médico de drogas o alcohol en el trabajo – **5 años consecutivos** este número ha aumentado por lo menos **un 25%**.
-

California Food Handler Safety Topic

CALIFORNIA FOOD HANDLER CARD LAW

SB 602 requires workers to receive food safety training

Gov. Arnold Schwarzenegger signed the California Food Handler Card bill into law on Sept. 25. The California Food Handler Card law is designed to ensure that restaurant employees receive a reasonable level of training in food safety practices to reduce the potential for foodborne illness.

Food handlers must have a California Food Handler Card on or before July 1, 2011. Employees hired after June 1, 2011 will have 30 days from the date of hire to acquire a food handler card.

To obtain a California Food Handler Card, food handlers will need to successfully pass a food handler test with a minimum score of 70 percent. The course and test may be online or through a trainer-led program. Food handlers must maintain a valid food handler card for the duration of his or her employment.

The cards are valid throughout most of the state and are valid for

three years from issuance. Riverside, San Bernardino and San Diego counties have pre-existing food handler card programs and are exempted from the state mandate. Each food facility must maintain records documenting that each employee possesses a valid California Food Handler Card that can be provided to local enforcement officials upon request.

WHO IS A FOOD HANDLER?

A food handler is defined by the law as a person who is involved in the preparation, storage or service of food in a food facility.

How much will it cost?

The law stipulates that one training course must be available at no more than \$15 to ensure affordability and prevent hardship on the food handler.

Employers are not responsible by this law to pay for an employee's time and expense to take the training and test unless a food facility provides in-house food safety training during normal working hours, and the training course must be approved for use in another state that has adopted requirements described in Subpart 2-103.11 of the 2001 edition of the model Food Code to comply with the California Food Handler Card law.

How will it be enforced?

Local health department enforcement officials are responsible for ensuring food facilities meet their obligations under the law, including ensuring food handlers possess a valid food handler card, and keeping records that can be provided to local enforcement officers upon request.

Timeline

Food handlers hired before June 1, 2011 must obtain a food handler card on or before July 1, 2011. Food handlers hired on or after

June 1, 2011 must obtain a food handler card within 30 days of the date of hire.

Examples:

- Food handler hired Feb. 1, 1987 must obtain a card on or before July 1, 2011
- Food handler hired May 31, 2011 must obtain a card by July 1, 2011
- Food handler hired June 1, 2011 must obtain a card within 30 days of hire Food handler hired Jan. 15, 2015 must obtain a card within 30 days of

Exemptions

Some foodservice employees are exempt from the California Food Handler Card law requirement, including individuals holding a valid manager's food safety certification such as ServSafe Food Protection Manager Certification pursuant to current law; food handlers in temporary facilities; food handlers subject to an existing local food handler card program, such as Riverside, San Bernardino and San Diego counties; food facilities that are subject to a collective bargaining agreement with its food handlers; as well as food handlers who are employed by any of the following:

- certified farmers market
- commissaries
- grocery stores, except for separately owned food facilities
- licensed health care facilities
- mobile support units
- public and private school cafeterias
- restricted food service facilities
- retail stores where a majority of sales are from a

A food facility that provides in-house food safety training to all employees involved in the preparation, storage or service of food if all of the following conditions are met:

1. The food facility uses a training course that has been approved for use by the food facility in another state that has adopted the requirements described in Subpart 2-103.11 of the 2001 edition of the model Food Code, not including the April 2004 update, published by the federal Food and Drug Administration.
2. Upon request, the food facility provides evidence satisfactory to the local enforcement officer demonstrating that the food facility training program has been approved for use in another state pursuant to above provision;
3. The training is provided during normal work hours, and at no cost to the

Under the law, employees must secure training and obtain the food-handler card. Employers aren't required to provide the training.

To obtain California food handler card, employees must score at least 70 percent on a test from an accredited food protection manager certification organization, such as the [National Restaurant Association's ServSafe Starters online course and assessment](#). Food handlers can take the course and test online or through a trainer-led program. Food handlers must maintain valid cards throughout their employment.

The cards are valid throughout most of the state for three years. Employers must maintain records documenting that employees possess valid California food handler cards. Employees must provide the cards to enforcement officials upon request.

The NRA's ServSafe Starters course covers basic food safety, personal hygiene, cross-contamination and allergens, time and temperature controls, and cleaning and sanitation. The course takes about 60 to 90 minutes to complete and is followed by a 40-question, non-proctored test.

The course follows the same principles and instructional design as the [NRA's ServSafe Manager program](#) and is based on the most recent FDA Food Code. It uses common workplace terms and real-life examples. That makes the information easy to understand and retain, and relevant to work situations. The online course and

printed employee guide are available in English and Spanish. The online course is \$15, and the employee guide is \$5.

Carbon Monoxide Safety Topic

This section addresses the highly toxic and poisonous gas carbon monoxide (Carbonous Oxide) in the workplace.

Overview

Carbon Monoxide is an invisible, tasteless and odorless gas that can be lethal to human beings. Due to its difficult detection, carbon monoxide is a serious concern in the work place, more notable in the industrial and automobile industry. Most commonly seen as a by product of motor vehicles/forklifts, OSHA has an exposure limit set at 50 parts per million (ppm).

Symptoms of Carbon Monoxide Poisoning

- Headache
- Nausea/vomiting
- Dizziness
- Fatigue and overall weakness
- Confusion/disorientation

If an individual shows symptoms of carbon monoxide poisoning seek fresh air immediately

Safety Steps

Identify and regularly inspect equipment that pose carbon monoxide issues (motor vehicles, furnaces etc). If working in an enclosed area (i.e. indoors) that is subject to exhaust from any type of motor vehicle, ensure that the area is properly ventilated and in some situations wear supplied-air respirators. Install carbon monoxide detection systems for employee safety.

For further information please contact OSHA at 800-321-6742 or visit [OSHA.gov](https://www.osha.gov)

Hospitality Training Calendar

Our hospitality and service safety training aims to reduce injuries for employees in the hospitality industry. We offer hotel safety training for housekeepers, restaurant workers, golf course employees, and much more. Keeping your guests happy and your employees safe are the hallmarks of the hospitality industry and our training will help you reduce accidents and injuries among your staff.

Training topics also include those relevant to all industries that ensure safe work environments and healthy workers such as anti-harassment training and emergency response.

These materials educate, inform and inspire better workplaces for all companies. Download our OHS training calendar as selected by ASSE certified trainers. You can use this calendar to access both online and instructor-led safety training for each month.

Farm Machinery Safety on Public Roads

Safety Talk

WHAT'S AT STAKE?

Occasionally, farm machinery must travel on public roads to transport loads or move from property to property. If the proper measures are taken to ensure safety, this can be done smoothly and safely. However, due to highway motorists neglecting to pay attention or getting impatient behind the slower moving vehicles, accidents can happen quicker than expected.

WHAT'S THE DANGER?

One of the biggest reasons for accidents involving traveling farm equipment is because of the unexpected and miscalculated speed of this machinery. Oftentimes, highway drivers come across farm machinery at fast speeds, and their reaction time must be quick. If not, a collision is most certainly bound to happen.

EXAMPLE

A farmer was traveling along a main highway one afternoon. She did not have the proper signs and was not attentive. A long day ploughing her field left her exhausted, she just wanted to get home. A lineup of cars had collected behind her, passing her when safe, when a transport truck became impatient and tried to cut the corner to miss her. The backend of his truck knocked her and her machine into a low ravine. She was paralyzed from the neck down after months in a coma.

HOW TO PROTECT YOURSELF

Accidents like these can be avoided with defensive driving, proper signage and an overall awareness of other drivers (i.e. being considerate of drivers wanting to get around you, watching for

potential hazards in other drivers), ensuring you have done a complete check of the tractor and equipment prior to heading out. Here is a checklist you can apply in preparation:

- Make sure safety-type hitch pins are securely fastened.
- Use a safety chain between the tractor to the frame of the towed equipment.
- Check **all** tires for proper air pressure.
- Ensure you have locked brake pedals together before hitting the road.
- Make sure you are equipped with rear-view mirrors, flares, and fire extinguishers.
- Check that all your lights are in good working order.
- Affix a slow-moving vehicle (SMV) sign on the center-rear of your machine. Keep it clean and new, and clearly visible from 150 metres (500 feet).
- If you have towed equipment, make sure it is perfectly balanced, secured and light enough to be pulled safely with your machine.

Here are some overall, safe driving tips:

- If possible, avoid busy roads.
- Keep the speed slow and steady, and slower still when rounding corners.
- Keep the machine in a lower gear when ascending or descending a hill, as some machines free-wheel in higher gears. Check your manual.
- Keep as far into the shoulder of the road as is safely possible but avoid driving with one half on the pavement and the other on the shoulder.
- Keep watch for hazards (i.e. narrow bridges, loose gravel, potholes), anything that could cause an accident.
- Have courtesy for highway travellers. To avoid impatience and any hasty, dangerous passes, pull over and allow people to go around whenever possible.
- Try to travel during the day as often as you can. If you must travel at night, ensure you have the proper lighting: headlights, red taillights, reflectors and, if possible,

flashing amber lights.

- Take your time when crossing a road or pulling onto one.
- Obey all traffic signs and lights.

FINAL WORD

Agricultural work has its many dangers, taking a slow-moving machine onto a public road may be one of the bigger ones. So, slow down and be exceptionally aware, considering any potential hazard and making yourself as visible as possible.

Agricultural/Industrial Mower Safety

Safety Talk

WHAT'S AT STAKE?

Neglecting to ensure all elements of mower safety are considered and that each job has been thoroughly planned out beforehand, could lead to the injury or fatality of yourself or a bystander. Many operators do not understand the dangers or fail to respect the risks to save time and/or extra work. It is important to avoid cutting corners by adhering to the proper safety measures and ensuring the necessary maintenance of equipment.

WHAT'S THE DANGER?

Agricultural mower safety is a multi-faceted system. Without familiarizing yourself with a mower's operating characteristics (i.e. its mowing capacity, the purpose of its control features and correct operating procedures, and its safety features), you risk the many hazards caused by machine failure. Neglecting to prepare the work area by removing objects or being aware of obstacles,

could cause the hazards of thrown objects or tractor roll-over. Failing to wear the proper protective gear increases the chances of suffering serious injury. On the other hand, allowing bystanders or passengers puts someone else at risk of falling beneath the running mower or being struck by an object hurled by the mower blades.

EXAMPLE

An experienced operator fails to check the work area for objects. He is in a hurry, the weather is prime for getting the job done, and he does not want to risk losing the day to finding potential hazards. He hits a stump and falls from the seat and is fatally run over by the mower.

HOW TO PROTECT YOURSELF

Before beginning the job, it is necessary to ensure all safety measures are in place. Establishing an accident prevention strategy will set you on the right path to making a habit out of safe mowing practices. Here are a few you can implement:

- Understand what each piece of machinery is equipped to handle.
- Develop a thorough understanding of the controls, gauges, and dials of your machine, as well as the safe speed, slope capabilities, braking and steering characteristics, turning radius, and operating clearances.
- Ensure all guards, shields and safety signs are in place and that you have studied all danger, warning, and caution decals on your machine.
- Seek out any potential hazards (i.e. ditches, potholes, drop-offs, steep slopes, etc.) that could cause your fall or mower over-turn.
- Remove all objects that could be thrown by the mower.
- Map out the safest route, considering terrain and the type of material you are mowing, and make sure you choose a pattern that allows you to travel as straightforward as you possibly can.
- Wear the proper PPE: safety glasses, steel-toed boots,

close-fitting clothes, hat, hearing protection and gloves.

- Do not allow passengers.

Follow these steps from starting up and shutting down the machine:

- Before starting the engine, ensure the transmission is out of gear and the mower blade clutch is disengaged.
- Start the mower drive at a low RPM and keep at a maximum cutting height.
- Listen for suspicious sounds, if you suspect an issue, shut the machine down, wait for the blades to stop completely, and block the raised mower before inspection.
- Proceed by raising speed to a rated RPM and lower the mower to an appropriate height.
- Go at a speed appropriate for the height and material you are cutting, and the condition of the terrain.
- Proceed slowly and with caution when operating on slopes, on uneven terrain and in ditches, and always keep an eye out for hidden dangers.
- Try to mow down slopes, never up or across the face, when operating under mount, rear mount, pull-type, and wing mowers.
- When operating side mount, offset and sicklebar mowers, avoid mowing downhill or turning quickly. Ensure the mower is on the uphill side.
- Unless the operator's manual recommends it, avoid mowing in reverse.
- The mower should only be running if the operator is in the seat.

Follow recommended shutdown procedures on a flat surface. Avoid leaving the machine on any kind of slope.

FINAL WORD

There are many hidden dangers to operating agricultural mowers. It is strongly advised to get to know your machine inside and out and ensure your working area is in the safest condition possible. It may mean a little more time, but not taking that time could result in life-threatening consequences.

Agriculture: Dangers of Heat Stress

WHAT'S AT STAKE?

When work is underway, it is quite easy to ignore the warning signs of heat stress. We are busy, we have a deadline, stopping to take care of ourselves seems like something we can put off a little longer. However, the heat of the day combined with physical labour, loss of fluids or fatigue can push your body to the point of severe distress. It must work extremely hard to keep your temperature down. If you do not take the proper steps to assist your body in this process, it could lead to heat-related illness, disability and possibly death.

WHAT'S THE DANGER?

As your body's temperature rises, it releases heat in several ways: transfer from skin to air, evaporation by perspiration, exhaling hot air or touching a cool object. Drinking water, taking occasional breaks out of the heat, and slowing down are all necessary steps to preventing heat-stress. However, failing to see the signs and taking preventative measures could put you at risk to many hazards.

EXAMPLE

A hay farmer had been raking all day. Temperatures had reached 30 degrees Celsius, and he failed to keep hydrated. Ignoring the early warning signs of heavy sweating, weakness and rapid breathing, his heart raced, sweating ceased, and he fell off the seat and onto the ground in convulsions.

HOW TO PROTECT YOURSELF

Sometimes, the signs of heat stress go overlooked, or simply ignored, leading to an emergency. Here is what to look out for and the actions you should take in the three stages of heat stress:

- **Body cramps** are a sure sign that you or a coworker need attention. Seek medical aid and move yourself or the coworker to a cooler area, loosen clothing and hydrate with water or nutrient replenishing fluids.
- **Heat exhaustion** can cause heavy sweating, cool, moist skin, body temperature over 38 degrees Celsius (100 degrees Fahrenheit), weak pulse, normal or low blood pressure, lethargy, clumsiness, confusion, extreme thirst, rapid breathing, and blurred vision. Seek immediate medical help. Move yourself or the coworker to a cooler area, loosen clothing, hydrate and fan and spray cool water on the victim.
- **Heat stroke** occurs when the body reaches a temperature of 41 degrees Celsius (102 degrees Fahrenheit). Signs include weakness, confusion, distress, strange behaviour, skin becomes hot, red, and dry, rapid pulse, headache or dizziness and sweating ceases. If these warning signs are not attended to, the victim could suffer unconsciousness, seizures, or death. If heat stroke is suspected, call an ambulance immediately. While waiting for help to arrive, move yourself or your coworker to a cool area and remove excess clothing, fan and spray cool water over the body and hydrate.

It is important to avoid these conditions. Taking the following measures will prevent heat-related dangers:

- **Drink plenty of water!**
- When temperature and humidity is high, your body must work much harder to keep your body temperature at a safe level. Work with your body by slowing down. This will reduce its workload, allowing it to keep your internal cooling system regulated.

- Watch for headaches, heavy perspiration, high pulse rate and shallow breathing. Move to a cooler location to curb these symptoms.
- Keep an eye on your coworkers, watching for any signs of heat stress.
- Dress appropriately. Wear lightweight, light-coloured and loose-fitting clothing.
- Unless you are on a salt-restricted diet, increase your salt intake to ensure your body has adequate levels.
- Do not shock your body by pushing yourself into long days in the heat. Ease into it with a gradual approach over two or three days.
- Take occasional breaks from the heat by seeking out shade. This will give you a cool space to decrease your body temperature as well as avoid excessive physical stress.
- Protect your skin by covering it with long-sleeved clothing, pants, and a hat.

FINAL WORD

Being mindful of the dangers and the signs of heat stress will keep you and your coworkers safe from its many risks. Try practicing the preventative methods and being an example, share what you know with your coworkers and respect the often-overlooked dangers of working in the heat.

Agriculture: Eye Protection

WHAT'S AT STAKE?

Our vision is one of the most important senses we have. Unfortunately, there is a long list of hazards that can easily

affect our sensitive eyes. Many duties put us at risk for eye-damage: grinding, drilling, sawing, spray-painting, working in a fine-particle filled environment, working with hand or power tools, or handling chemicals, to name a few. Without the proper protection, you could suffer irreparable damage from mild vision impairment to complete blindness.

WHAT'S THE DANGER?

It only takes a split second for our eyes to suffer the damage of outside elements. Many hidden threats can put you at risk if you neglect to wear the appropriate protection, this includes bystanders. There is the danger of exposing your eyes to projectiles such as dust, wood, metal, concrete and several other flying particles can strike, abrade, or even penetrate the eye. When working with chemicals, you risk severe burns. The light of a welding arc and even exposure to the sun can cause permanent damage to your eyes.

EXAMPLE

A farmer was attempting a quick job removing a worn-out bolt with a cutting wheel. The bolt is extremely worn and rusted, so he proceeds to cut it down the center. A piece of the weak bolt breaks off and flies into his unprotected eye, causing permanent blindness.

HOW TO PROTECT YOURSELF

The five different types of eye protection and their purposes:

1. **Safety Glasses** – The heavy lenses of safety glasses offer protection from flying particles, as they can withstand the shock of impact. However, these do not protect debris from accessing the eye around and behind the lens. If you require prescription glasses, it is advised to wear impact resistant lenses.
2. **Safety Goggles** – Fitted with the same heavy lens, these offer more protection from side impact. It is recommended

you wear safety goggles when working with chemicals, striking hardened metal tools and surfaces, and working with wood.

3. **Face Shields** – These can be found with impact resistant shields, but they are most often used to protect the face against splashing, dust, and chaff. Wear a pair of safety glasses or goggles underneath the shield if you suspect the risk of flying particles.
4. **Sunglasses** – Wear sunglasses when working in the sun. It is not just chemicals or flying debris that causes damage to the eyes. The dangers of UV rays can be just as severe as those caused by working with tools and chemicals.

When welding, there are a few things to know:

5. **Welding Helmets** – These are made specifically to protect the individual from the multiple dangers of welding. Welders must be protected from not only the splatter of molten metal and slag, but the damaging rays of the welding arc. The helmets are equipped with a coloured lens to ensure protection from the light. It is important to consult your welder's instruction manual, as there are specific shades for the different levels of currents used. For example, a No. 10 shade is necessary when working with 200 amperes or less. For oxyacetylene welders, be sure you are wearing No. 5 or 6 lenses for welding and cutting, and a No. 3 or 4 for brazing.

FINAL WORD

The loss of vision will rob you of enjoying the beauty and memories created by a lifetime of vision. Do not jeopardize yours or another's sight by neglecting to be diligent. It only takes a second to throw on the eye protection necessary for the task at hand, be sure not to skip it.

How Instructor-Led Training Helped Companies Save Thousands in Accident Prevention

In the past, your organization expressed interest, or even utilized our safety training products. I'd like to show you our next iteration and help you really change your safety culture for the better!!

Safe workers are more productive and more efficient. Plus, every dollar spent on safety and safety training yields a minimum 3x return in the first year (OSHA, 2016).

Find out how instructor-led safety training helped these companies save thousands in accident prevention in their first year!

There are a variety of solutions to help you create a compliant safety culture. Some are great, and some "check a box." **I don't want you to have an Instructor-Led Training Solution that "checks the box."** I wanted to build a resource that helped safety managers, front-line managers, directors, and presidents deliver compliant and leading-edge safety training. It had to be simple to use, put *powerful* training at your finger-tips, work on *any* device, and be proven to deliver results. For the past year, we have invested time, money and resources to create a better ILT solution.

- Did you know that 65% of organizations do not have a safety training plan? (*Workplace Safety Institute, 2016*)
- Did you know that 85% of organizations use instructor-led safety training as their primary delivery model? (*Workplace Safety Institute, 2016*)
- Did you know that over 90% of organizations do not know if their training is compliant or effective? (*NSC, 2015*)
- Did you know that the average 500 employee organization

spends \$420k/year in direct and indirect costs on safety training? (*Workplace Safety Institute, 2016*)

You can get better results!

We've torn down our old Safety Training Solution, and rebuilt SafetyNow ILT from the ground up.

We loaded it up with compliant safety meeting kits you can download and deliver in seconds (no more time wasted looking for the right talk). We've included compliant safety videos you can stream on any device.

We've added features like "ask the expert" where you can tap into certified safety trainers, OHS lawyers, and consultants to get direct answers to your direct questions.

We've built an ILT solution that is helping big and small organizations deliver better safety training and get better results!

- A large hardware retailer has an 80% reduction in near misses; 45% reduction in accidents & incidents; reduced employee turnover.
- A commercial real estate management company has a 27% reduction in accidents & incidents; a 46% reduction in direct training costs.
- An international logistics company has a 40% reduction in accidents & incidents; reduced its direct training costs by 67%; saved \$1M in insurance premiums from its reduced risk and accident rates.

There are a lot more success stories to share; you could be one too – find out how instructor-led safety training helped these companies save thousands in accident prevention in their first year!