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Iowa Farmer Today

‘Silent Killer’ poses risks on the farm

By Tabitha Kuehn Dec 17, 2024

Carbon monoxide can be a risk on various parts of the farm, including when running equipment inside enclosed spaces.

Photo courtesy CS-CASH

A little while ago, I came home from work and was greeted by the persistent beeping of a carbon monoxide detector that had reached the end of its lifetime.

Although the sound was annoying at that moment, I was grateful for the reminder to replace the detector.

The process of replacing that detector started me down a whole spiral of carbon monoxide safety, which, as you can tell, followed me to work.

Carbon monoxide gas is hazardous and can present itself not only in the home but all over the farm.

Widely known as the “silent killer,” carbon monoxide has a rightfully bad reputation. It is an invisible, tasteless, odorless gas that is created by incomplete oxidation of carbon in combustion.

Due to the undetectable characteristics of carbon monoxide, people can be exposed to and breathe in dangerous gas without realizing it.

When carbon monoxide is inhaled, it quickly enters a person’s bloodstream through their lungs. This causes sudden illness and, at high concentrations, can be fatal.

Symptoms of carbon monoxide poisoning may include fatigue and chest pain at low concentrations, and headaches, dizziness, impaired vision, nausea, confusion or death at higher concentrations.

Carbon monoxide poisoning can also cause long-term effects, including neurological problems.

Working and living on a farm can present high-risk areas for carbon monoxide poisoning.

I hope that most people who grew up in an area with cold winters were taught the importance of opening the garage door or moving their car outside before starting it and letting it sit to warm up.

Similarly, tractors and farm machinery should not be left running inside enclosed farm buildings or structures.

Garage and shop doors need to be open before starting and running equipment, or equipment should be moved outside to idle.

All gas-powered equipment, not just vehicles and tractors, should ideally only be operated outside, and if used within a structure there needs to be adequate ventilation.

This includes equipment such as pressure washers, generators and other small combustion engines.

In 2021, Victoria Marie Parra-Lerdo, a 17-year-old girl, died of carbon monoxide poisoning while cleaning a hog confinement building in Swea City, Iowa.

Alongside engines, grain storage can also present a risk. Spoiled and decomposing grain can create carbon monoxide, and grain bins quickly accumulate the gas, producing dangerously high concentrations rapidly.

Proper grain storage is important to help prevent damage that can create carbon monoxide and reduce the need for grain bin entry, which is dangerous even when carbon monoxide poisoning is not a risk.

Always test air quality and oxygen levels before entering a grain bin.

Carbon monoxide detectors installed in high-risk farm areas can be a lifesaver for farm families and employees.

Since humans cannot detect carbon monoxide with our senses, these tools are essential for the detection of this dangerous gas before negative health impacts set in.

Barns, shops and all enclosed work areas would benefit from the installation of carbon monoxide detectors. Install detectors at all building levels. When installing the detectors, follow the manufacturer instructions regarding placement.

Ventilation is also a key piece to protecting yourself and others from carbon monoxide poisoning.

Open doors and windows and utilize exhaust fans when running gas or diesel-powered equipment.

Equipment maintenance can also reduce carbon monoxide poisoning risk.

Check machinery for holes in exhaust systems and repair immediately. Also, ensure that all pieces are attached and fit properly. Turn off engines that are not in use.

Make sure employees and family members on the farm are aware of risks and protective measures relating to carbon monoxide poisoning.

Stay vigilant for symptoms in others. If carbon monoxide poisoning occurs, immediately remove the person from the exposure area and take them outside to get fresh air.

Call 911 and get the affected person medical care as soon as possible. Acting quickly can help prevent death and serious complications.

Taking steps such as warming up the engine of a tractor outside, installing CO alarms and maintaining grain storage can all make a difference in the safety of the people who spend time on your farm.

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