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Take safety precautions when dealing with grain

AMES, Iowa — Farmers across Iowa are rushing to harvest their crops this time of year. However, it is important to take the time to perform grain handling and storage work properly and take appropriate safety precautions to prevent job-related injuries or even death.

Grain handling entrapments can happen quickly. Flowing grain can make a person helpless within five seconds. Although a grain surface may look solid, it isn't. A small opening in the unloading gate causes the entire surface to have the quality of quicksand, trapping the victim.

Even when the grain has stopped flowing, it is difficult to help a submerged victim escape. Even those with great upper body strength can't pull themselves out if they are buried to the chest. The force required to remove someone buried below the surface of grain can exceed 2,000 pounds, about the same as lifting a small car.

There are a few different ways suffocation can occur in grain. During submersion, grain will flow into voids and openings, such as the mouth or nostrils. This can block a person's airways. Suffocation also occurs when the victim is no longer able to inhale air. The pressure exerted by the grain mass restricts a person's ability to breathe. When the chest cavity and diaphragm shrink as a person exhales, the grain flows around the body, filling any voids. This constricts the ability of the victim to catch their breath. The lack of breathable atmosphere in the grain can be another factor that leads to suffocation.

There are several ways to prevent grain entrapment. Always lock all access doors to grain storage structures. Never allow children to play or ride on grain wagons, or be in the work area. Lock out power to all types of grain-handling equipment when entering storage bins. Notify a second person of where you are at all times when loading or unloading grain. Never enter a bin when grain is caked or spoiled.

If someone is caught in flowing grain the action that should be taken depends on whether the person is in a wagon, grain bin or other type of storage structure. For more information, use publications such as "Safe Farm: Handle your grain harvest with care" and "Tug of War with Grain: A Grain Safety Curriculum" at your local Iowa State University Extension office.