



# Extension FactSheet

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## Barnyard Drowning

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Farms are great places to visit. Think about a typical farm with animals, a pond and fun things to explore. Have you ever thought about places you could drown on a farm? Drowning is the third leading cause of death to children 0-14 years of age.

There are two main ways you can drown on farms, either in **liquids** or **solids**. Ponds, water troughs, water buckets and creeks are some places where **liquid drowning** can happen. You should not play in a water trough. The sides of the trough are slippery. You could slip, hit your head and fall unconscious under the water.

Never go near a **farm pond** by yourself. The floor of the pond is usually made of sand, mud or rocks. This can make it difficult to keep your footing. Even if you can see the bottom of the pond, shallow water may be deeper than you think. Sometimes the rocks and mud shift under the water to create big pockets that you could fall into without notice. When you go swimming, an adult should be with you or know you are going. You should never swim alone. Use the "buddy system." Never enter a fenced-in pond unless you have permission from an adult. Fences are there for your protection and should be respected.

Another area on farms you can drown is in **liquid manure**. Manure, unlike water, is heavy and will drag your body to the bottom. Farmers usually store liquid manure in pits, slurry storage tanks or lagoons. A **pit storage** unit is located under the barn and can only be entered through a manhole. You should not play in or around these manholes. If you were to fall in, nobody would hear you except the animals.

**Slurry storage tanks** are above ground structures. They look like short, fat silos. The

sides are very steep and slippery, making it impossible for you to climb out of the tank. Slurry storage tanks have a ladder on the outside which leads to the top of the structure. You should never play or climb up on the ladder.

Liquid manure can also be stored in **lagoons**. Many people mistake a lagoon for a pond because they look very similar. The danger with a lagoon is the manure creates a crust on the top that may appear safe. If you were to walk across the top, the weight of your body will cause the crust to break. There is not much of a chance you could survive in the heavy manure.

**Grain drowning** is a common type of **solid drowning** which can occur on farms. Small grains like corn, soybeans and wheat are stored in grain bins and gravity wagons. It may be fun to jump in the grain or even bury yourself, but this kind of play is very dangerous. Flowing grain acts like quicksand. Once you start to sink it is impossible for you to dig your way to the top. As you dig, the grain keeps shifting under your feet, pushing you deeper towards the bottom. It only takes 3 to 4 seconds for an adult to become helpless in grain and only 20 seconds for an adult to become totally covered. You are smaller in size so it takes less time for you to become covered in the grain. Just riding in gravity wagons from the fields to the bins can be deadly. As the gravity wagon hits bumps, the grain will shift around your body. You could be buried alive before arriving at the bin.

Drowning is a serious farm hazard. Knowing where and how drowning accidents happen is important. Protect your friends and younger brothers or sisters from these areas. Tell them to never play near ponds, liquid manure, grain bins or gravity wagons. Play safe and be responsible.



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**Words can go any way. Across, up and down, diagonal and backwards.**

bins	engulfed	manure	slurry tanks	wagons
bottom	farms	ponds	solid	water
buddy system	grain	quicksand	steep	water tanks
creeks	helpless	safety	swimming	weight
dangerous	lagoons	sinking	three seconds	
drowning	liquid	slippery	twenty seconds	



One of the top three causes of death with rural children is drowning. You as a parent are responsible for making sure your child is aware of drowning hazards. Parents should take the time to teach their children to swim and should make sure that life saving equipment is located at the pond. Never leave a child alone around any type of water. A young child can drown in a bucket of water or anything with slippery sides in which they cannot climb out. Lagoons and manure pits should be fenced in and children should be taught to stay away from them. Teach your children that grain bins and gravity wagons pose special drowning hazards and are no place to play. An adult can become engulfed in grain in 20 seconds. Just think of how fast a child can become covered and suffocate.

**Sources**

- 1) Bean, T. *Farm Pond Safety*. AEX-390. Agricultural Engineering Department Fact Sheet, The Ohio State University, Columbus, OH.
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- 3) Jennings, B. and Benz, R. *Beware of Flowing Grain Dangers*. Arkansas Cooperative Extension Service, United States Department of Agriculture.
- 4) Murphy, D. and Steel, S. *Farm Pond Safety*. E-27. Agricultural and Biological Engineering Fact Sheet, Penn State University, University Park, PA.
- 5) Murphy, D. and Steel, S. *Manure Storage Hazards*. E-28. Agricultural and Biological Engineering Fact Sheet, Penn State University, University Park, PA.