

Safety First!

- Do not use any chemically treated grain in your display/demonstrations.
- Ensure interactive activities are supervised at all times.

Break the Ice

- Tell participants about yourself and your experiences working with grain.
- Ask questions to encourage children to be more involved!
- For example:
 - Does anyone help during grain harvest? What do you do? What are the safety rules on your farm?
 - Do you know anyone who has been injured during harvest or while handling grain? What happened to them?

Take-Home Messages

- You can ‘drown’ in grain.
- Different types of grain have various characteristics. Generally the smaller the grain, the more quickly you can get trapped.
- When adults are loading or unloading grain they should always use a buddy system and let the other person know where they are.
- Always know where all family members are at all times when loading and unloading grain or moving grain (especially children).

Wagon/trucks

- Unloading grain from a wagon creates a “pull” similar to quick sand. When grain is emptied from the bottom, the flow forms a cone directly over the outlet and pulls a person caught in the grain with the flow. After getting caught in grain up to the mid-thighs, you are beyond the point of being able to pull yourself out. As you go deeper into the grain, two forces work against you: the weight of the grain on top of you and the increased friction of the grain.
- It only takes two to three seconds to become trapped in flowing grain and 10 seconds to become completely submerged and eventually die from suffocation.
- Within seconds, people are helpless in flowing grain.
- Children should never ride/play in grain trucks/wagons, or enter in grain storage areas.

Grain Piles

- Never climb on piles of stored grain. A thin layer of crusted, spoiled grain can hide empty cavities beneath the surface. A person that breaks through this crust is quickly covered as an avalanche of grain collapses into the cavity. Your movement alone can cause you to sink in the grain.

Bins

- Never enter a bin filled with grain.
- When grain spoils it tends to clump together. This grain then freezes and appears to have a solid surface, however it may collapse if walked upon. You can suffocate just as you can when unloading grain in a wagon, truck or bin.

Interactive Activities

Breathing in Grain

- It can be difficult for participants to understand why they cannot breathe while in grain. This activity will demonstrate what it is like to try and breathe under grain. You will need cardboard tubes (toilet paper, paper towel or wrapping paper tubes), grain to fill the tubes (you can use popcorn seeds, rice or dried beans), two pieces of screen (such as window screen) to cover both ends of each tube, tape, candles (in holders) and fire control measures (fire extinguisher).
- Cut the tubes to various lengths, tape the screen over one end of the tube and fill with grain; tape the screen over the other end. Light the candle. Have participants try to blow out the candle through the tube filled with grain. Discuss the differences found between the long and short pieces of tube. Why were they different? Ensure you have sufficient supervision for the candles and that only adults are lighting the candles.

Gravity Flow Wagon

- Gravity flow wagons (scale model) are available from Alberta Agriculture and Food's Farm Safety Program. Call Cindy (780) 427-4309 or visit www.agric.gov.ab.ca/farmsafety. Fill the wagon with grain and place the toy person (Play Mobile toys work great) in the front centre above the sliding door. Place a container under the wagon to catch the grain. Open the sliding door to allow the grain to flow from the bottom. This will pull the toy figurine under the grain surface.
- Remind participants that it only takes a few seconds to become completely submerged in grain. Participants can experiment by placing the toy figurine in various positions around the wagon.

Build your own grain safety demo!

- This is an interactive activity that allows participants to learn about the dangers of flowing grain by creating their own gravity flow wagon.
- See page 40 for complete instructions with pictures.

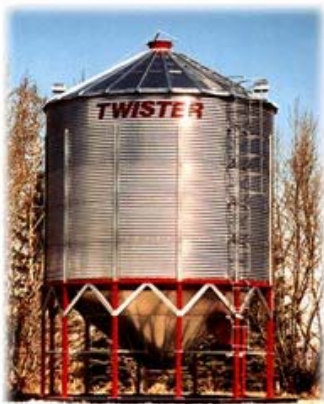
Collapsing Grain Pile Demonstration

- This demonstration will show what happens when a grain bridge or crust breaks or collapses.
- This activity will also reinforce the message to stay off of grain piles. You will need a five-gallon pail, balloons, a long wire to pop the balloon, grain to fill the pail and a toy figurine.
- Blow up the balloon and place in the bottom of the five-gallon pail.
- Pour the grain over the top of the balloon until the pail is three-quarters full.
- Place the toy figurine on top of the grain. Ask participants what they think will happen when the balloon breaks (grain bridge collapses).
- Use the long wire to pop the balloon and watch as the toy figurine instantly becomes buried beneath the grain.
- Participants can experiment by placing the toy figurine in different locations around the pail.

Grain Entrapment Activity

- This demonstration will show participants the powerful force grain is when someone is trapped.
- You will need a five gallon pail or a larger container if available, grain to fill container, a disc (plywood or heavy plastic lid) that is slightly smaller than the diameter of your container and with a hole in the centre, and a rope.
- Place the rope through the hole in the disc and tie a secure knot. Place the disc on the bottom of the container, fill with grain (at least 30 inches). Instruct participants, (using proper lifting techniques) to try and pull the disc out from under the grain. The participants should not be able to pull the disc out – this demonstrates how hard it would be to pull a person buried in grain.

Notes



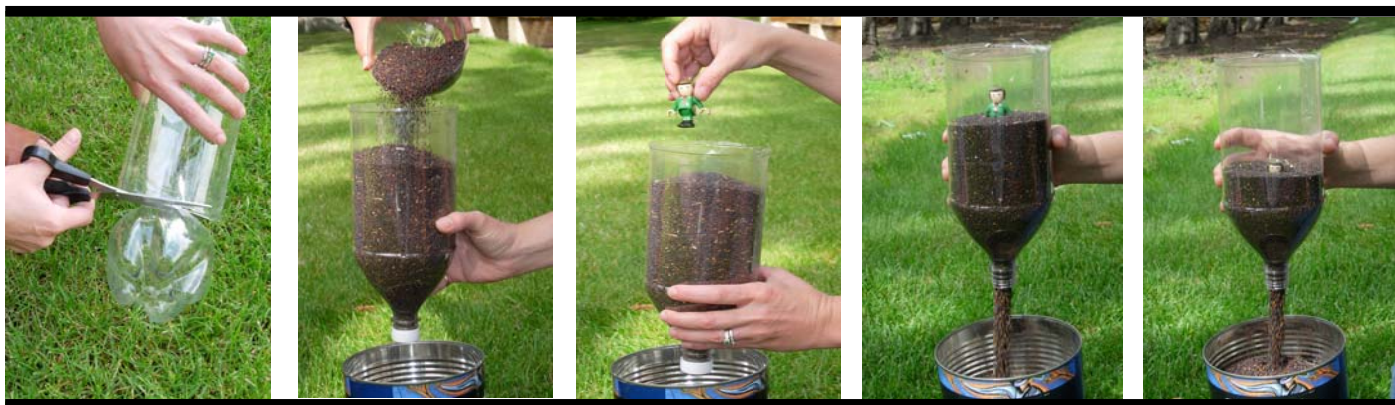
Build your own grain safety demo!

Materials needed: two litre pop bottle; scissors; parent to help with cutting; clean grain such as canola, oats, barley wheat or popcorn; small toy figurine; empty container to catch the grain

DIRECTIONS:

1. Cut the bottom off of a two litre pop bottle.
2. Turn the bottle upside down with the cap on.
3. Fill the pop bottle with cleaned grain (canola, oats, barley, popcorn, etc)
4. Stand a small toy figure on top of the grain and remove the cap of the bottle, letting the grain flow into another container.
5. The grain will flow rapidly out of the jug, pulling the toy figure to the bottom.
6. Count the seconds it takes for the figure to be buried. In real life it only takes three to four seconds to become completely buried.
7. Show your family and friends the danger of flowing grain.

Show your friends and family the dangers of playing in grain!



Remember...

- Grain bins and gravity wagons are not safe places to play
- Don't play in piles of grain or in grain bins
- Never play or ride in grain wagons, grain trucks, bottom semi trailers or any type of grain or feed storage!

