

Grain Engulfment

INSTRUCTIONS

Engulfment Demo

Grain may pose significant hazards to workers and family members in the agriculture industry.

The table top displays are meant to demonstrate how dangerous grain can be.

Target Age: Grade 2 to Adult

For more information or to borrow the matching pull-up display, please contact the Canadian Agricultural Safety Association at (204) 452-2272 or email: info@casa-acsa.ca.

Funding provided by:

Canada 

Growing Forward 2 | Cultivons l'avenir 2

A federal-provincial-territorial initiative
Une initiative fédérale-provinciale-territoriale



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CANADIAN AGRICULTURAL SAFETY ASSOCIATION
ASSOCIATION CANADIENNE DE SÉCURITÉ AGRICOLE

www.casa-acsa.ca

Engulfment Demo

Setup

Invite a group of up to 8 to get close to the display.

Ensure the grain is all in one side and the figure is on top of the grain.

Procedure

Pull figurine to the top of the empty side of the cylinder and turn the cylinder to fill around figurine.

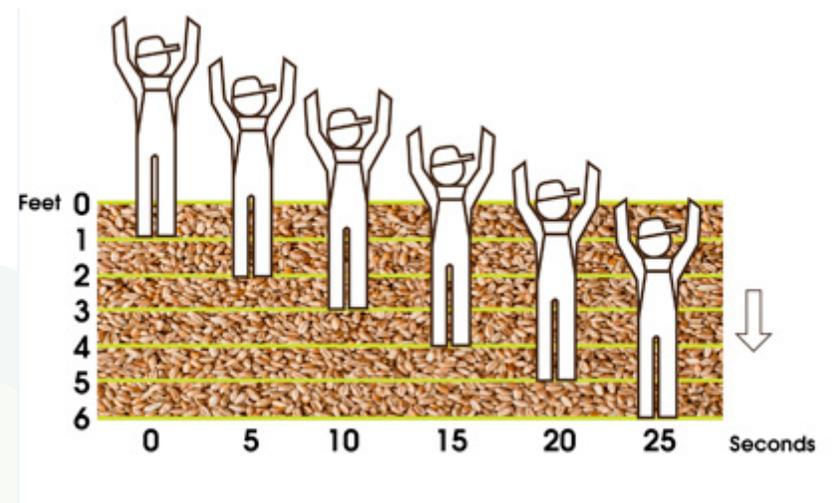
When it is about $\frac{3}{4}$ filled ask the audience to begin counting when you turn the filled side of the cylinder upright (don't forget to keep the line for getting tangled as the figurine moves down).

Reverse the process for the next demonstration.

Do not try to pull the figurine out from the bottom of the grain as the line may break.

3 THINGS

1. **For Children:** Stay Away - NOT Play Area
2. **For Adults:** No Working Alone
3. **For Adults:** Shut off ALL equipment before going into grain.



Rate of Engulfment

Outcome

Explain that the weight and friction of the grain will prevent the person from escaping and that there is a potential for death and suffocation.

Ask the audience if they are surprised how quickly a person can disappear in grain. Ask what they will do to stay safe around grain. Stress that grain is not safe to play around.

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Suffocation Display

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Suffocation Display

Setup

Invite a group of participants to the display, preferably right after they have participated in the grain engulfment display.

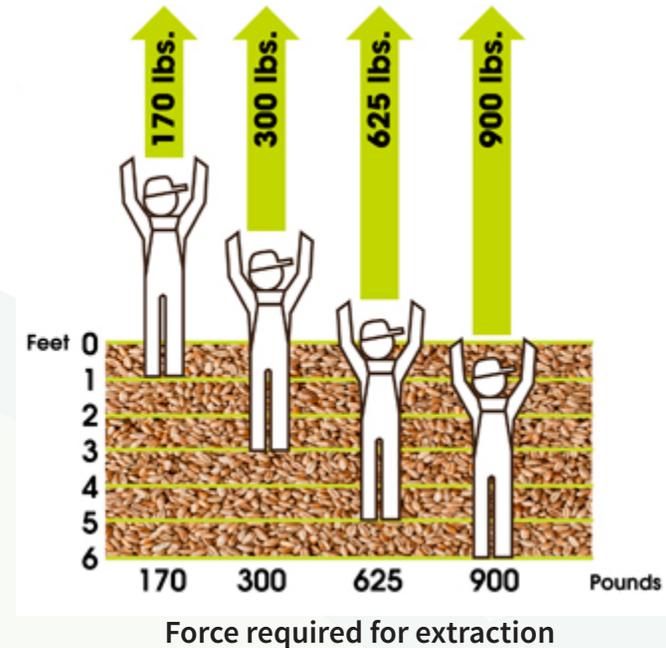
Procedure

Describe the components of the display and what they represent:

Balloons: One balloon represents unrestricted breathing and the other, breathing restricted by grain pressure.
(Do not overinflate)

Dials: Displays the amount of force needed for the lungs to inflate to take a breath.

1. Cylinder without grain. Have a participant inflate the balloon and note the dial reading aloud for all to hear.
2. Cylinder with the grain. Have a participant inflate the balloon and note the dial reading aloud for all participants to hear.



Outcome

Explain that the weight of the grain restricts your ability to take a breath of air which may result in health problems or suffocation if the person is not saved quickly.