



Health and safety

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Stay safe around farm machinery

This article looks at health and safety in relation to machinery and crops on the farm

Tractors and machinery are the main cause of farm fatalities in Ireland. Elderly farmers and children are at particular risk.

Keys to preventions are training, good maintenance and safe work practices.

The Health Service Executive (HSE) has a number of tips for ensuring you stay safe around tractors.

These include ensuring:

- ☛ The tractor is maintained in good working condition.
- ☛ A cab or safety frame is fitted.
- ☛ All controls are in good working order and clearly marked.
- ☛ Brakes are checked regularly and are always in sound working condition.
- ☛ All relevant guards are in place and PTO and hydraulics are functioning correctly.
- ☛ Mirrors, lights and wipers are in working order at all times.
- ☛ The tractor is always parked safely.
- ☛ The guidance in the operator's manual is followed and operate the tractor in a

safe manner.

The power take-off (PTO) shaft on the tractor is one of most dangerous pieces of machinery on the farm if not used carefully. The PTO shafts provide the power source for many machines that are attached to and powered by tractors. PTOs can rotate at speeds up to 1,000rpm. Unguarded PTOs may cause serious injury. Correct guarding is essential, and it could save your life.

- ☛ Ensure the PTO and PTO shaft are fully shielded.
- ☛ Never attempt to operate the controls in the tractor cabin from the rear of the tractor
- ☛ Never wear loose, baggy clothing around PTO drivelines.
- ☛ Stay well clear of a rotating PTO drivelines.

Chemicals

Chemicals such as fertilisers, detergents, oils, disinfectants and plant protection products can play an important role in everyday life on the farm. However, if these chemicals are not used safely, then they pose a risk.

Chemicals need to be stored correctly and ensure that the hazards associated with each chemical are taken into account. Protective equipment – welling-

Activity

1. Name and explain each of the various methods used to spread slurry (pictured):



2. Name the four gases present in slurry

3. What is meant by the nitrates directive?

4. Why is it essential not to smoke near slurry gas?

tons, coverall, safety gloves, a face shield and, where necessary, a respirator must be worn and in proper working order.

Soil

Farmers must take precautions when working with soils. When digging drains, there is always a danger of a deep drain or a foundation of a building collapsing and trapping a person. Farmers are advised to use safety shuttering.

Heavy rain after a dry spell of weather can lead to treacherous conditions on sloping fields. If spreading slurry or cutting silage there is always a danger that the trailer of the tractor or the slurry tanker on the tractor may give way on breaking

and jack-knifing

When spreading chemical fertilisers, pesticides or herbicides always wear protective clothing and face masks. Be mindful not to spray these noxious substances close to waterways as it can lead to water pollution and eutrophication.

Eutrophication is the enrichment of water with nutrients such as nitrates and phosphates which lead to the excessive growth of algae. The correct amount and type of fertiliser should be applied to prevent any run off or excessive leaching to occur.

The distance from streams, waterways and rivers for spreading of slurry and spraying is 5m.

“Gloves and helmets play an important role in safety on the farm”

Dos when using chemicals

- ☑ Do study the label and the safety data sheet.
- ☑ Do read and follow instructions before use.
- ☑ Do use any protective clothing recommended.
- ☑ Do keep chemicals locked away and out of the reach of children.
- ☑ Do dispose of empty containers safely.
- ☑ Wash your hands regularly and always before eating and drinking.

Don'ts when using chemicals

- ☒ Don't transfer chemicals into unmarked containers.
- ☒ Don't use flammable chemicals near sources of ignition.
- ☒ Don't mix chemicals, unless you are sure they don't react.
- ☒ Don't enter an area where slurry is being agitated.

PTO sensor

Paul Donegan (pictured) of IT Tralee has designed a detection system to disengage PTO shafts from operation in times of danger. With an orange and a red sensor, once the operator enters the perimeters set by the sensors, the PTO will disengage and have to be started from the cab of the tractor again. Six deaths out of the 64 machinery-related fatalities were due to entanglement in PTO shafts.

