

Mechanical and Hot Work

Explosive fire in crop storage building

Umatilla County, 2016. A 62-year-old farm maintenance worker was performing renovation work inside an empty onion storage building. He reportedly was in the process of removing two large doors and support beams, using portable cutting and grinding tools. A flashover fire occurred that burned hot and fast, causing extensive burn injuries. Specific cause could not be determined; possibly sparks ignited flammable materials present in the building, such as accumulations of dust, debris, oil, or spray foam wall insulation.

Torch cutting drum lid

Marion County, 2017. A 45-year-old farm shop mechanic was using a plasma torch to remove the lid from an old drum for possible repurposing into a trash can. The drum had been in the shop and had not been cleaned; so it likely still contained vapors and residual brake wash fluid, a flammable liquid. The first torch cut caused an explosion that blew the bottom off the drum, knocking the mechanic unconscious. He never regained consciousness, and died 3 months later.

Safety recommendations

- Be aware that sparks produced during welding, grinding or cutting can ignite combustible dusts and materials, with catastrophic results.
- Clean areas before beginning renovations. Protect fire-risk areas with suitable fire extinguishers, and have someone serve as fire watch.
- Do not perform hot work (welding or cutting) on containers that hold or have held flammable materials, liquids, or gases, until they have been cleaned and determined to be completely empty and safe. Refer to manufacturer's recommendations.

Can You Identify Fatal Hazards on Your Farm or Ranch?



Real stories and
prevention tips

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Tractors

Fall from trailer

Tillamook County, 2013. A 41-year-old vineyard worker sustained a fatal head injury when he fell from a chemical tank trailer pulled by a tractor and struck his head on the pavement. The worker was standing on a make-shift wooden platform attached to the trailer that was added for employees to ride to and from the field.

Tractor over embankment

Deschutes County, 2013. A 53-year-old fruit orchard worker died when the tractor he was operating left the roadway, rolled down a steep ravine, and crushed him. The rollover protection structure (ROPS) was not in position.

Safety recommendations

- Do not carry riders on vehicles or equipment unless they are designed for additional riders. Do not allow children, or non-qualified operators on tractors or equipment at any time.
- When the tractor is equipped with a foldable ROPS, it should be secured in the upright position, and your seatbelt securely fastened when operating the tractor. Fold down the ROPS only when necessary for areas with height constraints.
- Reduce tractor speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
- Any modification of equipment should be approved by the manufacturer or by a professional engineer. Other modifications may render the equipment unsafe and void the manufacturer's warranty.

All-Terrain Vehicles

Pinned beneath ATV quad

Klamath County, 2013. A 53-year-old rancher was killed when his ATV went over backwards and pinned him beneath it. The rancher was repairing fences and was driving up a rough, steep, narrow trail. The ATV was carrying about 90 pounds of fence repair tools and supplies.

Safety recommendations

- Use best practices for securing and distributing loads. Follow the ATV's weight limits for towing and hauling cargo.
- For heavier loads, use a pick-up truck or utility vehicle equipped with cargo area and a ROPS.
- Be aware of site-specific ATV hazards, like road crossings, fences, steep slopes, drainage ditches, and uneven ground.

Cattle

Trampled by cow

Deschutes County, 2014. A 56-year-old rancher suffered multiple blunt traumas when one of the cattle he was loading got loose and trampled him. The rancher died approximately 12 months later of delayed complications from his injuries.

Hay Stack

Hay stack collapse

Jefferson County, 2015. A 76-year-old rancher was killed in his hay shed when a stack of about 15-20 hay bales collapsed and overturned, pinning him against the front of his tractor. He died from traumatic asphyxiation.

Safety recommendations

- Make sure fences and gates are secure, and always give yourself an escape route when loading or handling livestock.
- If possible, stay in cattle's line of sight; avoid working in their blind spot.
- Cattle react and move more predictably when they are calm; minimize distractions such as unexpected movements or sounds when moving them.

Safety recommendations

- Set hay stacks on level ground; maintain stacked bales with a solid wide base.
- Before moving, or working around stored hay, inspect stacks for signs of instability.
- Remember that hay bales degrade over time; they can slump or sag and make the stack unstable.

Entanglement

Caught in harvesting machine auger

Polk County, 2015. A 51-year-old farm worker was killed while operating a tractor pulling a hazelnut harvesting machine. When he stopped, got off the tractor, and reached into the harvester — presumably in an attempt to clear the feed path — his loose clothing got caught in the auger, which pulled him into the hopper.

Safety recommendations

- Turn the engine or the power take off (PTO) off before leaving the operator's seat.
- Do not reach into or over moving equipment. Wait for all parts to stop moving before attempting to clear debris or to do maintenance on any equipment.