



Florida Cooperative Extension Service

ROPs, Riders, and Safety Belts¹

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Tractor accidents continue to be the number one cause of fatal farm accidents: four to five hundred tractor operators or riders are killed each year across the United States, and each year ten or more are killed in tractor accidents in Florida. Nearly half of these are killed in tractor overturns, another quarter are run over. Others are killed in highway accidents, becoming entangled in the power takeoff, crushed by hydraulic components, and in a variety of other accidents.

ROLLOVER PROTECTIVE STRUCTURES (ROPS)

Seventy-five percent of all fatal tractor accidents could be prevented if the tractors were equipped with rollover protective structures (ROPS), if the operators wore their safety belts, and if riders were not permitted. Actually, most new tractors are equipped with ROPS and safety belts, and most tractors manufactured in the past 20 years can, and should, be equipped with them.

Operators who wear their safety belts on ROPS-equipped tractors have nearly 100 percent protection from death or serious injury in a tractor overturn. In fact, the author of this fact sheet has *never* heard of a fatality to a tractor operator in an overturn accident when the tractor was ROPS-equipped and the safety belt was worn.

TRACTOR OVERTURNS

Tractor overturns are of two types: the side overturn and the rear overturn. Side overturns occur most frequently when a wheel (or wheels) on one side drops over an embankment (such as a canal or a ditch) or drops into a hole or a gully, or when a wheel goes over a stump or other obstacle. Other side overturns occur when turning at high speeds, particularly on slopes. Watching for embankments, holes, gullies, stumps, etc., making slower turns, and a wide-wheel base will reduce the risks. Side overturns can also be caused by carrying a load high on a front-end loader; carry the load low and slow.

There are two primary causes of rear overturns. The first is when a tractor becomes stuck. Rocking the tractor back and forth or tying a post or timber to the spinning wheel can cause the wheel to stop turning. When this happens, the front end of the tractor can come up and flip the tractor over backward. The only safe solution when you are stuck is to be towed out.

The other major cause of rear overturns is attempting to pull out stumps or some other difficult-to-move objects. Hitching above the lowest drawbar height will increase the possibility of a rear overturn. The safe way is to hitch the load low and pull it slowly.

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RIDERS

There is only one solution to tractor fatalities involving riders: **PERMIT NO RIDERS**. Never! Not on your lap, not on the fender, not on the drawbar and not on the equipment. In the opinion of this writer, a tractor operator who allows riders should be found guilty of negligent homicide, should the rider fall off and be killed.

SAFETY PRACTICES

Some other safety practices to prevent fatal or serious tractor accidents are:

- Never attempt to start a tractor while standing on the ground.
- Always check that other persons, especially children, are clear of the tractor and attached equipment before moving the tractor or starting the machine.
- Always make certain that the power takeoff shields and all other guards are in place.
- Always display a clean slow-moving vehicle (SMV) emblem and have the hazard lights flashing when driving on public roads.
- Always lock the brakes together when traveling at high speeds.
- Never operate a tractor when you are too tired, too hungry, or too sick to operate it safely. Be alert.

OSHA'S TRACTOR OPERATION RULES

The Occupational Safety and Health Administration (OSHA) has nine tractor operation rules. Failure to follow and/or enforce these rules can result in a citation.

- Securely fasten your seat belt if the tractor has a ROPS.
- Where possible, avoid operating the tractor near ditches, embankments, and holes.
- Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
- Stay off slopes too steep for safe operation.
- Watch where you are going, especially at row ends, on roads, and around trees.
- Do not permit other riders.
- Operate the tractor smoothly—no jerky turns, starts or stops.
- Hitch only to the drawbar and hitch points recommended by tractor manufacturers.
- When the tractor is stopped, set brakes securely and use park lock if available.