



# MAFES Dawg Tracks

October 31, 2011



## Prevent Tractor Overturns



Farm tractor accidents are the major cause of farm work deaths. It is estimated that 800 people are killed each year in tractor accidents, and for each person that is killed, there are at least 40 others injured.

Upsets account for 50 percent of tractor deaths. Accidental falls account for another major type of tractor deaths. Accidental falls involve both tractor operators and extra riders. Another interesting fact is that 85 percent of all tractor accidents involve family members.

### **Be aware of the danger-**

- ✓ Tractor overturns both sideways rollovers and backward “flips” are likely to result in death if the operator is not protected by rollover protective structure (ROPS).
- ✓ A tractor has a high center of gravity, compared to passenger cars or pickup trucks, making them relatively top heavy and more prone to tipping over.
- ✓ In the case of 2-wheel tractors, the back half of the machine accounts for two-thirds of the weight.
- ✓ If a tractor’s rear drive wheels can’t turn, the machine will want to turn on its axle when power is engaged. It only takes one second for a tractor to reach its “point of no return” in a backward flip after the front wheels leave the ground.

### **Prevent sideways overturns-**

#### **Remember the key points below:**

- Short, quick, high speed turns upsets tractors.
- An “attachment” like a raised front loader increases the center of gravity, making it even more “tippy.”
- Lock brakes together before driving at high speeds. Applying uneven brake pressure can literally force a tractor to rollover.
- Keep your tractor under control at all times and under all conditions. Obstructions such as rocks and stumps or depressions such as dead furrows and pot holes can cause a tractor to roll, particularly if the tractor is moving too fast.
- Never let a tractor “bounce.” This causes loss of control.
- Pull heavy loads and equipment at safe speeds. A “fishtailing” wagon can cause the towing tractor to lose control. Try to avoid sudden stops. The load might push the tractor into a skid or worse yet, could cause it to turnover.
- Always slow down before turning quick. Short turns can cause the tractor to roll over.

- Use engine “braking” when going down hills. A runaway tractor, especially with a load, is probably going to turn over. Shift to a lower gear before starting downhill. Make sure that you are not using a speed range that allows the tractor to “freewheel.”
- Avoid steep slopes when possible. Always turn downhill if your stability becomes uncertain on a slope.
- Stay as far away from ditches, streams and creeks as possible. You never know the condition of the banks, and the weight of the tractor could cause a cave in.
- Take extra care with loader tractors. A raised, loaded bucket increases the center of gravity, thereby making the tractor more subject to rollover. Always keep the bucket as low as possible when making turns or transporting. Be on the “lookout” for depressions and other obstacles. Avoid quick stops, starts and turns.

### **Prevent rear rollovers-**

- Avoid hitching a towed load higher than the tractor’s drawbar. Hitching too high is a major cause of rear tractor flip overs.
- Front chassis weights can be used to counterbalance rear-mounted implements and heavy drawbar loads.
- Always start forward motion slowly. Gunning the engine and jerking your foot off the clutch is one sure way to flip a tractor.
- Backing down a grade is risky. If you apply the brakes, the tractor could rotate around the rear axle and tip over backward. The faster the speed and the steeper the slope, the greater the potential for flipping. If it is necessary to back down a steep grade, do so very slowly and in low gear. When possible, back tractors up steep slopes and come down forward.
- Always drive around ditches. Never try to cross them. It is only safe to back a tractor out if the drive wheels get lodged in a ditch.
- Back your tractor out if it gets stuck in the mud. Never, ever put boards or logs in front of the drive wheels. This practice has been responsible for a number of backward flips.

### **ROPS saves lives-**

- ❖ Most tractors are fitted with rollover protective structures (ROPS). If not, they can be purchased and fitted for them.
- ❖ It is critical for the operator to fasten his seatbelt with the ROPS-equipped tractor. The seatbelt holds you within the protective area. It has been proven that seat belts are 99.9 percent effective saving lives when using the ROPS and the seat belt.
- ❖ If the tractor has a seatbelt, but no ROPS, do not use the belt. On an open tractor, the belt prohibits any chance of being thrown clear in a rollover.

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Excerpts: [www.nasdonline.org](http://www.nasdonline.org)  
4/26/2011