

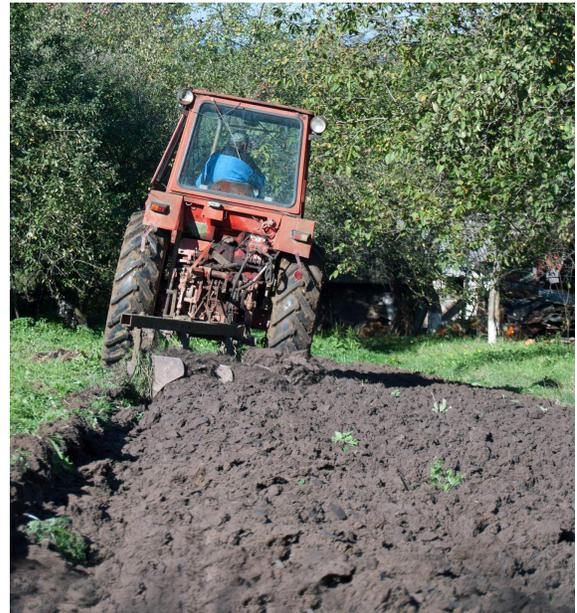
Tractor Safety

Tools and equipment used by fruit and vegetable growers are typically smaller and may be different than those used by grain and livestock farmers, but they can still be hazardous. Many beginning growers buy used equipment and tools and may have little experience using small agricultural machinery. This brief is part of a series on safety for fruit and vegetable growers. Developed by the University of Minnesota On-Farm GAPs Education Team. Reviewed by Dr. Jonathan Chaplin, PE.

Tractor rollovers and runovers are the leading cause of farmer deaths and injury in the US. The majority of tractor fatalities result from rollovers, where the tractor flips backward or rolls sideways and pins or crushes the operator.

Many 30- to 40-year old tractors are still in use. They may be purchased by beginning farmers with small acreages. Older tractors often lack safety features such as a rollover protection structure (ROPS), PTO master shield, warning flashers and reflective markings.

ROPS is a cab or frame that protects the operator if a tractor rolls over. Also called a roll bar or ROPS cab, the metal structure works with a seat belt to reduce the rollover to 90 degrees or to protect the operator in a complete rollover.



A rollover protective structure, or ROPS, can prevent injuries or death in the event of a tractor rollover.

Almost all tractors manufactured after the mid-1980s are equipped with ROPS. Most common makes of tractors built from the 1960s to the 1980s can be retrofitted with ROPS.

**For more information on
Tractor Safety**

- Safe Operation of Agricultural Equipment, Holbar Publications
- HOSTA: National Safe Tractor and Machinery Operation Program
- NIOSH Science Blog: Preventing Death and Injury in Tractor Overturns with Rollover Protective Structures

Tractor Safety

ROPS Retrofitting

- Most tractors can be retrofitted with ROPS.
- Tractor ROPS must be able to withstand the forces of a rollover.
- They must meet the engineering standards of the American Society of Agricultural and Biological Engineers.
- Only qualified mechanics should retrofit a tractor with ROPS.
- Do not attempt to add your own rollover protection devices to a tractor built without ROPS.

ROPS for Older Tractors

- ROPS for pre-1960s tractors may be hard to find.
- To find a ROPS for your tractor, contact a local equipment dealer selling your brand of tractor, or call your Extension Service office.
- If the tractor is not manufactured any more, the brand may have been taken over by another manufacturer.
- New Holland covers Ford, CASE, CASE-IH and some IH brands.

- AGCO covers White, Allis Chalmers, Massey Ferguson and some other older brands.

Tractor Safety

- If your tractor is equipped with ROPS you must wear a safety belt.
- Without a belt, you will not be secured in the ROPS protective zone.
- Do not travel over uneven ground at high speeds.
- Avoid operating the tractor near ditches, embankments and holes.
- When the tractor is stopped, set the brakes securely and secure the park lock, if available.
- Hitch loads only to the drawbar and hitch points recommended by the manufacturer.

Worker Safety

- Never let passengers ride on the tractor.
- Never let children operate or ride on the tractor.
- Teens who operate a tractor should have safety training.



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