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**THE RISKS OF INJURY DURING AGRICULTURAL WORK  
OF A TRACTOR DRIVER**

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Farm tractors are the most important piece of power equipment used in agriculture and are associated with a major proportion of injuries and deaths in agricultural production and maintenance. Older tractors warrant special attention as they are often not fitted with up-to-date safety equipment, such as rollover protective structures and seat belts. The most serious hazards associated with tractor operations include overturns, run-overs and power-take-off entanglement.

Hazards associated with tractors can be grouped into instability resulting in rollovers, run-overs, power-take-off stub and other miscellaneous risks including, but not limited to, slips and falls when climbing on or off tractors, crushing injuries from unintended rolling, and driving under low-hanging branches.

Noise associated with farm tractors use can result in hearing impairment. Vibration associated with tractors use may result in musculoskeletal injuries. Operator seats on tractors and other control levers and consoles may, due to design and placement issues, result in ergonomic injuries.

The employer should establish an inventory of tractors used in the enterprise and determine whether they are fitted with up-to-date safety features, including rollover protective structures, power-take-off shields, seat belts, etc. In assessing risks from such vehicles, the employer should take account of the protection afforded to the driver from existing safety features, the uses to which the vehicles are put, whether they work on slopes, and the skill levels of the drivers themselves.

Risks from hydraulic hoses and other power sources should also be considered, as should risks from poor maintenance, such as from worn brakes. The employer should also bear in mind any risks to co-workers, such as from being run over or from any malpractices like riding on vehicles without proper seating. Risks of injury to pedestrians close to farm buildings, particularly children who live there, should also be taken into account. On the basis of the risk assessment, the employer should develop a plan to implement improvements.

The elimination of hazards relative to the maintenance and operation of tractors in agricultural environments presents a major challenge. Total elimination may prove difficult given the number and variety of tractors, the wide range of tasks and the level of risk in the outdoor environment. Nonetheless, the employer should have as a goal the elimination of tractor hazards by the use of all safety modalities available, including engineering controls, safe work systems and procedures and the training, induction and supervision of workers.

### **References**

1. Voinalovych O. V., Marchyshyna Ye. I. Occupational safety and health in agriculture. К. Центр учбової літератури, 2019. 424 с.