



UNIVERSITY
OF MINNESOTA

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University Health and Safety

Agricultural Tractor Safety

Effective Date: October 1, 2019

I. PURPOSE

The purpose of this program is to establish guidelines to protect university personnel who are required to operate agricultural tractors in their work activities. This program incorporates recognized safe operation practices and applicable Occupational Safety and Health Administration (OSHA) regulations pertaining to the operation of agricultural tractors.

II. SCOPE

The University of Minnesota Agricultural Tractor Safety Program is applicable to all staff, faculty, and students, who operate and/or are responsible for agricultural tractors.

III. DEFINITIONS

Agricultural Tractor – a two or four-wheel drive type vehicle, or track vehicle, of more than 20 engine horsepower, designed to furnish the power to pull, carry, propel, or drive implements that are designed for agriculture. All self-propelled implements such as combines, sprayers, harvesters, etc. are excluded.

IV. RESPONSIBILITIES

Employee Responsibilities

- Complete annual UHS Agricultural Tractor Safety Training and perform a supervised hands-on evaluation prior to operating an agricultural tractor.
- Perform agricultural tractor pre-use inspections
- Report all vehicle maintenance issues to supervision and, if necessary, removing the equipment from service.
- Operate and maintain equipment in a safe manner at all times.

Departmental/Supervisor Responsibilities

- Identify and designate employees authorized to operate agricultural tractors and prevent unauthorized use of equipment.
Note: No minor under the age of 16 may operate farm type tractors and other self-propelled vehicles, except those trained under 4-H Federal Extension Service or the U.S. Office of Education Vocational Agriculture Training. A certificate of training must be provided.

- Ensure authorized operators have received annual UHS Agricultural Tractor Safety training and certify the operator on the specific tractor(s) they will be operating.
- Ensure all safety and manufacturer regulations and instructions are being followed
- Ensure agricultural tractors are used within their intended design and are maintained in proper working order and receive maintenance when necessary.

University Health and Safety (UHS) Responsibilities

- Maintain and update the Agricultural Tractor Safety Program
- Ensure that agricultural tractor training programs meet applicable requirements
- Provide program oversight

V. PROCEDURES

Agricultural Tractor Requirements

- All tractors must be designed and constructed to meet minimum ASABE standards and OSHA 29 CFR 1928 regulations.
- College departments and units may only operate tractors (purchased, leased, loaned, gifted, etc.) that are equipped with rollover protection structure (ROPS). When agricultural tractors are driven along public roadways all traffic and motor-vehicle laws must be obeyed. Agricultural tractors and connected implements designed for operation at a speed of 30 mph or less must display a rear mounted retro-reflective slow moving vehicle sign.

Transporting Agricultural Tractors

When agricultural tractors are transported on a trailer, it must be secured from displacement and the following requirements apply:

- Tow vehicle and trailer must be properly rated for the weight of the tractor and any additional materials.
- Lower and secure to the trailer all accessory equipment (hydraulic shovels, booms, etc.).
- Restrain articulated vehicles to prevent articulation while in transit.
- Set the parking brake on the equipment being transported.
- Attach tie downs at the front and rear of the vehicle or at the mounting points on the vehicle designed for that purpose.
- The sum of the working load limits from all tie downs must be at least 50% of the weight of the cargo.

Safe Operation

Any operation of tractors and agricultural equipment must be done so in a safe manner to prevent injury to the operator or individuals in the area; and to prevent damage to property. Particular attention should be paid to power take offs, backing precautions, and roll over protection.

Training

All university personnel operating an agricultural tractor must receive annual UHS training on the safe operation of agricultural tractors and their associated equipment. Requirements are as follows:

- Employee must receive annual in-person training given by UHS staff or suitable 3rd party vendor including a passing score of 70% or greater on the comprehensive test.
- Hands-on operator proficiency evaluation by a supervisor for the specific equipment being used.

Note: In special circumstances at the discretion of UHS staff, an employee may utilize the established online training module in place of in-person training.

Record Keeping

Department supervisors shall maintain documentation of the following:

- Operator completion of the Tractor Driving Performance Checklist located in Appendix A.
- Training certifications for all tractor operators including names and dates of training; and the equipment they are certified to operate. An example of the training certification is available in Appendix B.
- Maintenance records for each agricultural tractor.

VI. APPENDICIES

A – Tractor Driving Performance Checklist

B – Tractor Operator Certification

VII. REFERENCES

29 CFR 1928 Subpart C Roll-Over Protective Structures

MN STATUTE 169.522 Slow-Moving Vehicle Sign Requirements

FMCSA – Cargo Securement

Appendix A: Tractor Driving Performance Checklist

**Tractor Driving
Performance**

Student

Name: _____

Test Date: _____

Skills

Examiner: _____

PRE-START UP	DEMONSTRATED	
	YES	NO
THE OPERATOR:		
Has read and is familiar with Manufacturer's Operation Manual / Owner's Manual		
Is dressed in suitable work clothing and footwear for operation		
Can describe the purpose and correct use of machine controls and features		
Knows how to do a pre-operational checks: <ul style="list-style-type: none"> • Tire condition and inflation level • Fuel, oil, and hydraulic fluid levels • Condition of fuel and hydraulic lines – no leaks • Shields in place • Platform and steps clean, free of debris, chains, and tools • Clear visibility from within cab, mirrors clean • Brakes operational • Steering operating correctly • Air cleaner and coolant • All lights working • Slow moving vehicle (SMV) emblem in place and clean • Neutral start safety switches operating correctly 		
Checks Tractor controls prior to start up		
OPERATION		
THE OPERATOR:		
Knows how to start and shut down engine		
Knows how to correctly operate gear and range settings		
Drives in a forward direction around a defined course – figure 8 around soft obstacles		
Drives at an appropriate speed		
Is able to operate rear hydraulic system		
Is able to connect and disconnect hydraulic lines at rear		
Can fit and disconnect front end loader and attachments		
Can effectively operate loader controls		
Demonstrates how to reverse		
Is aware of where a tractor should not be taken		
Is aware of what to do in a rollover or emergency situation		
Operates the tractor demonstrating control over more difficult terrain such as slope or uneven terrain		
Knows about farm safety rules, including speed limits, Emergency Plans, and Tractor 'no-go' zones		
Appears confident in the operation of the machine		

Appendix B: Tractor Operator Certification

CERTIFICATION	EQUIPMENT
<p align="center">_____</p> <p align="center">is certified to operate the following tractors and equipment</p> <p>_____</p> <p>SUPERVISOR</p> <p>DATE</p>	1.
	2.
	3.
	4.
	5.
	6.
	7.

CERTIFICATION
<p>_____ has received instruction on the safety practices and procedures for the maintenance and operation of the named tractor(s).</p> <p align="right">_____ (Signature of Supervisor)</p> <p>I have received instruction in the safety practices and procedures for the maintenance and operation of the named tractor(s). I will maintain and operate this tractor in a safe and proper manner.</p> <p>_____ (Signature of Tractor Operator)</p> <p align="right">_____ (Date)</p>

Note: Maintain completed checklist and certification as a record of instruction.