

## GUIDE FOR WEST VIRGINIA STATE FFA LAWN TRACTOR OPERATORS' CONTEST

### OBJECTIVES

Encourage youth to:

1. Develop leadership character and good citizen ship
2. Develop skills and attitudes necessary to safely operate a lawn tractor (less than 20 hp.)
3. Practice basic and routine lawn tractor care and maintenance.
4. Demonstrate their knowledge and skill in the areas of lawn care, business management, and lawn and tractor operation.

### ELIGIBILITY

Any student which is enrolled in agricultural education and is an FFA member is eligible to participate. This includes 9-12 grade students. Three students from each region may participate in the state event. State winners who have competed in the tractor operations' contest in previous years are not eligible to compete.

### EVENTS

The state FFA contest winner will be the individual with the lowest number of total penalty points from all the events. The state FFA tractor contest will consist of the following events:

#### **Event Number 1- Written Examination**

The written examination is composed of twenty-five multiple choice questions. The questions are taken from FFA lawn tractor project literature. Questions primarily pertain to the Learn to Earn project and the operation care, and maintenance of lawn tractors and their safe use. Business management, lawn care and turf management questions are also included. The examination has a time limit of 20 minutes. There are 4 penalty points for each missed question.

#### **Event Number 2- Item Identification**

The item identification requires the contestant to identify 25 numbered items. Items will be tagged for identification. This event has a time limit of 15 minutes. Items used for identification will come from the Lawn Tractor Parts Identification sheet in this packet. There are 4 penalty points for each missed item. The scoring sheet is shown on page

#### **Event Number 3- Safety**

Safety practices and behavior of the contest will be judged throughout the contest. The safety scoring sheet is shown on page 14

#### **Event Number 4- Lawn Tractor Driving**

The Lawn Tractor Driving event allows the contestant to maneuver a lawn tractor through an obstacle course around a curb, forward and reverse through an alley, forward to a fixed object and back into a shed. The event will be timed maximum of 8 minutes allowed. The rules and procedures are listed on page 15. The course layout and score sheet is shown on pg. 16.

### TRACTOR SELECTION

New lawn tractors will be used. Contestant's choice of tractor will be used for the Lawn Tractor Safety and the Lawn Tractor Driving Event.

### SCORING

The points-off system will be used with penalty points given for errors. The winner will have the lowest score. Stop watches will be used in the Lawn Tractor driving event. Designated judges will preside over the event and their decisions will be final.

### PRACTICE PERIOD

A practice period will be designated one half hour before the contest starts.

\* Slight changes involving the event may be made prior to the contest. Changes must be uniform among all contestants and be understood and agreed upon by contestants and advisors.

### FFA CONTACT

Jason Hughes, Agricultural Education (304) 558-2347

NAME \_\_\_\_\_

CONTESTANT NUMBER \_\_\_\_\_

COUNTY \_\_\_\_\_

FFA CHAPTER \_\_\_\_\_

PENALTY POINTS: INCORRECT \_\_\_\_\_ X \_\_\_\_\_

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**LAWN TRACTOR PARTS IDENTIFICATION**


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**Instructions:** Write the tag number on the line or the most correct name for the part.**INSECTS**

- Cut Worm  
 Side Worm  
 White Grub

**PARTS and EQUIPMENT**

- Aerifork  
 Air filter element, dry  
 Battery cable  
 Battery, 12 volt  
 Bearing, Ball  
 Bearing Needle  
 Bearing, sleeve  
 Bearing, tapered roller  
 Belt, flat  
 Belt, "V"  
 Blade, reel mower  
 Blade, rotary mower  
 Blade, edge/trimmer  
 Chains, roller  
 Clippers, grass  
 Clipper, hedge  
 Clutch pedal  
 Clutch plate  
 Fuse  
 Gear  
 Heat exchanger  
 Hydraulic hose  
 Hydraulic lift cylinder  
 Lawn sprinkler head  
 Magneto, breaker type  
 Magneto, solid state  
 Mower height adjuster  
 Mower wheel  
 Muffler  
 Nozzle hose  
 Pin, drawbar  
 Pin, implement mounting  
 Pulley, flat belt

- Pulley idler (tightener)  
 Pulley, "V" belt  
 Oil drain plug  
 Rotary blade Adapter  
 Spreader, broadcast  
 Sprocket  
 Starting Safety interlock  
 Tie rod end  
 Tiller drag bar  
 Tire tube  
 Tire, Tractor, front  
 Tire, Tractor, rear  
 Trans-axle  
 transport wheel assembly  
 Valve core  
 Valve stem  
 Wheel lug bolt  
 Wheel lug nut

**PLANTS and SEEDS**

- Grass seed  
 Legume seed  
 Kentucky bluegrass

**OTHER**

- Accounting ledger  
 Business card  
 Granular fertilizer  
 Ground limestone

**TOOLS**

- Gage, spark plug gap  
 Gage, thickness or feeler  
 Spark tester  
 Valve Spring compressor  
 Wrench, socket, 1/2" drive  
 Wrench socket, 3/8" drive  
 Wrench, spark plug

- Wrench, ratchet handle 1/2"  
 Wrench ratchet handle 3/8"  
 Wrench, torque 1/2"  
 Wrench Torque 3/8"

**WEEDS**

- Annual Bluegrass  
 Carpetweed  
 Common chickweed  
 Common purslane  
 Crabgrass  
 Dandelion  
 Goosegrass  
 Ground ivy or creep Charlie  
 Knot weed  
 Plantain  
 Prostate spuge  
 Quackgrass  
 Shepherdspurse  
 White clover  
 Yellow nutsedge

**ADDITIONAL**

- \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

NAME: \_\_\_\_\_

CONTESTANT NUMBER: \_\_\_\_\_

COUNTY: \_\_\_\_\_

FFA CHAPTER: \_\_\_\_\_

**LAWN TRACTOR SAFETY****Procedure**

Each contestant will be scored on safety throughout the contest. Judges must see contestant physically move levers to check for correct position.

**Scoring**Pre-starting check

	<u>Number of times</u>	<u>Penalty</u>	<u>Penalty Points</u>
1. Failure to check fuel level.	_____	x25	_____
2. Failure to check oil level.	_____	x25	_____
3. Failure to observe tire inflation.	_____	x25	_____
4. Failure to observe loose or missing parts.	_____	x25	_____

Obstacle Removal

1. Distance traveled before stopping (inches)	_____	x5	_____
2. Failure to set brakes.	_____	x50	_____
3. Failure to disengage brakes	_____	x50	_____

Starting Safety

1. Failure to check neutral position.	_____	x25	_____
2. Failure to disengage clutch while starting engine	_____	x50	_____

Driving Safety

1. Failure to engage clutch gently.	_____	x25	_____
2. Failure to ride in seat.	_____	x100	_____
3. Skidding or spinning tractor wheels (scuffing of inside wheel while turning does not count as a skid. Skid of the front tractor wheel does not count until the skid equals or is greater than the width of the tire).	_____	x50	_____

Mounting and Dismounting Safely

1. Failure to set both brakes before dismounting (transmission set in park or locked position counts brakes locked).	_____	x50	_____
2. Failure to bring tractor to complete stop before dismounting.	_____	x100	_____

Other Safety Concerns

1. Smoking	_____	x100	_____
2. Extra Riders	_____	x100	_____
3. Other _____	_____	x100	_____

**TOTAL PENALTY POINTS**

\_\_\_\_\_

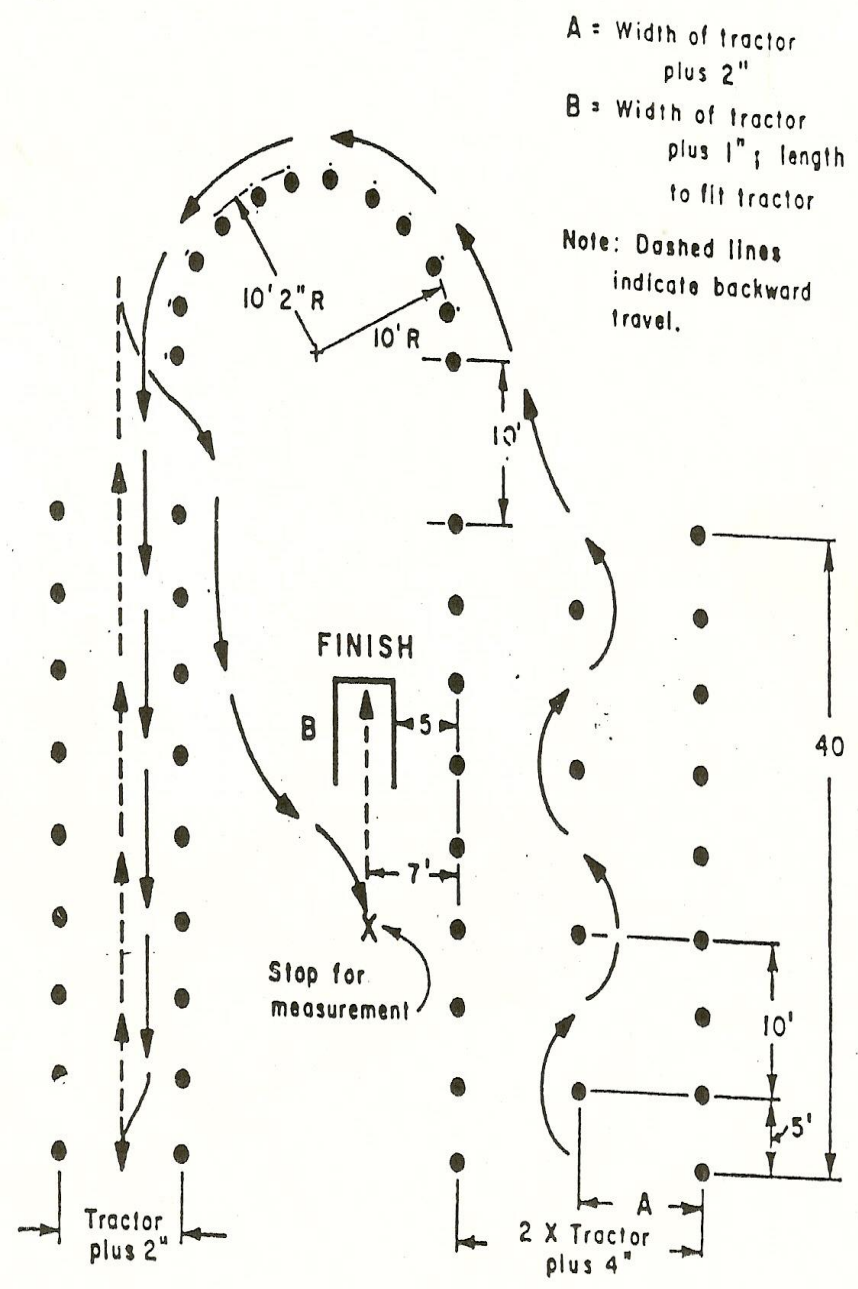
## **Lawn Tractor Driving Event**

### **Procedure**

- Three scores should be available-one for timing and two for measuring and observing operation.
1. The contestant should conduct the pre-operation checks necessary for the operation (see Lawn Safety Score Sheet) and report these items to the safety judge.
  2. The contestant should start and warm up tractor. One signal from the event official contestants are to drive tractor to starting line (rear wheels on line.)
  3. Contestant signals official that they are ready to begin (engine should be running brake set and in neutral or park.) Official gives signal for contestant to begin the event. Time begins upon signal from the event official.
- Contestant should be prepared for an obstacle to appear at any point on the contest course. If an obstacle appears, the contestant is to stop, prepare lawn tractor for dismount, and remove obstacle before proceeding.
    - A. Drive the lawn tractor through the obstacle course.
    - B. Drive along circular curb keeping the mower deck within two inches of the markers.
    - C. Drive forward through the alley.
    - D. Drive in reverse through the alley.
    - E. Drive forward through gate up to the stop stake attempting to stop as close to the stake as possible without hitting the stake.
    - F. Drive in reverse into the shed placing the lawn tractor in the center.
    - G. Shut off engine (time stops when engine fan stops.)

# LAWN TRACTOR DRIVING EVENT

Diagram



COMPACT TRACTOR  
OPERATION COURSE

S  
T  
A  
R  
T