

# TRACTOR TECHNICIAN CONTEST

**Sponsored by: Cat Spring Farm & Ranch Repair  
Greg Schubert, Richard Fry,  
Austin County Farm Bureau, Texas Farm Bureau Insurance**

Chairman: Freddie Engelbrecht - Wallis, TX  
Vice Chairman: Allen Kaminski - Sealy, TX

Saturday, October 16, 2021

Registration - 8:00 am • Contest (I, II & III) - 9:00 am  
Results & Awards – Following Contest

**Entry Fees: \$45.00 per team (non-refundable)  
\$15 individual (non-refundable)  
Deadline to Enter: October 1, 2021  
Late Entry Fee: \$60.00 per team**

**ADDITIONAL INFORMATION AND REGISTRATION MAY BE FOUND AT [judgeingcard.com](http://judgeingcard.com)**

This contest is subject to the Austin County Fair General Rules and Regulations and to the Special Rules of this section. Where Special Rules conflict with other rules, Special Rules prevail.

## Special Rules for Tractor Technician Contest

1. A contest team will consist of three (3) members from one (1) high school whose combined scores will be the team score. Scantrons will be provided. Scantron (105481).
2. Qualifications of a team member:
  - a. Each team member must be a high school student and currently enrolled in an agriscience (semester) or agribusiness (pre-employment, agricultural cooperative) course or member of 4-H club.
  - b. Each team member must be a member of the FFA chapter of the school they represent and on the State roster.
  - c. At least one team member must be physically able to safely drive and operate the tractor
3. The contest will be judged by service technicians from the agricultural, construction, and automotive equipment industries and/or university personnel. Decisions of the judges will be final.
4. Each team member will participate individually in Parts I and II of the contest, and work as a member of the school team in Part III of the contest. Awards will be presented to the top three (3) individuals in Parts I and II.
5. Due to possible damage to computers and other components, test lights will not be permitted. Digital multimeters are recommended and shall have a minimum of 10 or more Mega ohms input impedance.
6. Type ABC fire extinguishers with a minimum of 2.5-pound capacity will be provided by each team for participation in Part III.
7. Drip pans with a minimum 2-gallon capacity and a minimum intake diameter of 16 inches will be provided by each team for participation in Part III.

8. Teams shall not be permitted to test drive until all malfunctions that, in the opinion of the judges, affect safe operation or are detrimental to the operation of the tractor have been found and corrected.
9. Only the judges and the supervising attendants will be permitted in the immediate vicinity while Parts I and II are being conducted and on the arena floor during Part III.
10. Agricultural science teachers will be notified of the make of tractor or tractors to be used in Part III prior to the contest, if possible.
11. Tractors will be numbered and available, if time permits, for inspection by the coaches and team members. Minor corrections and adjustments may be requested at this time.
12. Kubota equipment will be used to trouble shoot.
13. In case of a tie, the winner will be determined in the following sequence:
  - a. the team having the highest score on Part II will be declared winner. If still tied,
  - b. the team having the highest score on Part III will be declared winner. If still tied,
  - c. the team having the highest score on Part I will be declared the winner. If still tied,
  - d. the team having the highest individual score on Parts I and II will be declared the winner. If still tied,
  - e. the coaches will match for the high award.
14. Individual awards will be based on the highest score on Parts I and II. In case of a tie, the winner will be determined in the following sequence:
  - a. the contestant having the highest score on Part II (components) will be declared winner. If still tied,
  - b. the high team score will be used to determine the winner. If still tied,
  - c. the coaches will match for the award.
15. For additional information, contact:

**Freddie Engelbrecht**  
**Allen Kaminski**

**C (832) 671-0116 / H (979) 478-6528**  
**C (281) 639-8947**

### **Part I – Written Examination**

Contestants will complete one hundred objective questions, true or false and multiple choice. Multiple choice questions may have one or more correct answers. State curriculum materials and references available from the IMS will be used for references.

### **Part II – Appraisal of Tractor/Implement Components**

Contestants will appraise 20 components or parts from agricultural tractors/machines. They will recommend service, needed or not needed, for each component. Service data from manufacturer's service manuals or IT service manuals will be provided where specifications are needed in order to make the evaluations. Equipment needed to make evaluations will be provided. Five conditions will be listed for each component. The contestant will check each statement true or false. Contestants are required to wear quality eye protection as they compete in this phase of the contest

### **Part III – Locating and Correcting Malfunctions in Agricultural Tractors**

A school team of three (3) contestants, working as a group, will compete with the teams from the other schools in locating and correcting five (5) deliberately placed malfunctions in diesel fuel tractors. All tractors have the same malfunctions installed and service work orders listing owner/operator comments on service needed will be provided. All tractors used may or may not be the same make and model, so procedure and difficulty for correcting similar malfunctions may vary. All systems of the tractor may be considered during the selection of malfunctions such as:

- a. Electrical system
- b. Engine and power train systems
- c. Hydraulic system
- d. Chassis, safety, and handling problems

The malfunctions may or may not have an immediate detriment to the starting or performance of the tractor.

Each team will furnish their own box of tools, test equipment, drip pan, and a fire extinguisher. The time limit for this phase of the contest is 30 minutes. Contestants are required to wear industrial quality eye protection during this phase of the contest. When the team has located and corrected the malfunctions, designated drivers will operate the tractor in a safe manner around the driving course in the arena. Time will terminate after the driver has parked the tractor and turned the key in the timer/scorekeeper.