

# JUNIOR AGRICULTURAL MECHANICS

DEPARTMENT JAM

**Superintendent**  
Dr. Lon Shell

ENTRY DEADLINE  
DECEMBER 1, 2007



## **FRIDAY, FEBRUARY 15**

**All Projects must First Check-In at the Gemblor Road Staging Area Prior to Arrival on Show Grounds**

6 am – 12 pm	Arrive --- Agriculture Mechanics Projects <i>Agricultural Machinery &amp; Equipment, Electrical Equipment, Livestock Equipment, Trailer</i>	MAC & SB
6 am – 9 am	Arrive --- Tractor Restoration Projects	MAC & SB
8 am – 4 pm	Judge --- Tractor Restoration (Mechanical) Upon Offloading	MAC & SB

*AST/CEA must be present when tractors are offloaded. Tractors will be prejudged on mechanical (25-C) at this time. Exhibitors will be asked to drive tractors prior to them entering the barn. If time permits, Documentation (25-E) and Knowledge (25-F) will be conducted Friday afternoon. The remaining restoration criteria will be evaluated Saturday, Feb. 18.*

## **SATURDAY, FEBRUARY 16**

8 am	Judge – Projects	MAC & SB
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## **SUNDAY, FEBRUARY 17**

10 am	Results & Awards	MAC
	Release after Awards	

### **Placings and Premium Money**

1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
\$55	\$45	\$35	\$30

### **SPECIAL RULES**

**This show is subject to the San Antonio Stock Show & Rodeo General Rules, the Junior Livestock Show Special Rules, and Special Rules listed in this section.**

**1. Entry Fee:** The entry fee for each project entered is \$30.00. Entries must be included on the official group summary sheet along with any other junior entries. Exhibitor names and social security numbers are required on the entry form. Because exhibitor cards are computer generated from these data it is imperative that Exhibitor Names and Project Descriptions be correct. Example of naming projects are shown on Shell WEB page.

\* Exhibitor's Names: For example, not only is spelling important, but use proper capitalization- First letter of exhibitor name upper case, followed by lower case. Do not use all upper or lower case.

\* Project Description: Please describe projects succinctly and correctly.

\* Make sure project is entered in proper class. (Show officials reserve the4 right to reclassify projects)

\* When describing the project on the Entry Form, be as concise and consistent as possible. For example, when entering a John Deere 630 tractor, identify its make, model, and year- John Deere 630 -1958, SN 6302356. To save any confusion listing its SN (serial number) is also required in the description. Because it is in the Tractor class, there is no need to use the name *tractor* in its description. Same would go for trailers.

\* Project Description-Capitalization-use upper case for first letter in each word in description.

\* When using size in feet in the project description-for example Trailers or Gates, abbreviate feet with ft. For Example: Gooseneck Stock- 18 ft.

\* If more than one item is being entered as a single project, identify the number by spelling it out-For example, with gates Two, 4 by 15 ft gates (notice that the term gates was included to differentiate them from panels.)

**2. Eligible Entries:** Entries are limited to Texas FFA and 4-H members.

**3. Projects:** Projects must have been constructed by FFA & 4-H'ers either as a part of their agricultural mechanics instruction in agricultural science or as part of their supervised work experience program. **Projects must be designed and constructed under the direct supervision and guidance of the CEA/AST.**

**4. Group Entries:** Group entries must be made in the name of the FFA Chapter or 4H Club. Group entries must include only the names of the exhibitors and social security numbers of those who participated in planning and construction of the project. Group entries are considered to be those that are constructed by a minimum of two (2) and a maximum of six (6) students.

**5. Individual/Group:** Projects may have been individually or group constructed and may be individually or chapter/club owned.

**6. Number of Entries:** No exhibitor may be involved with more than 3 projects, whether group or individually constructed. This does not limit the number of projects a chapter or club may enter.

**7. Exhibit Space:** Projects will be displayed in the Morris Activity Center & Swine Barn by classes. Placement of the projects will be at the discretion of stock show officials. Display space under shelter is not guaranteed. Projects may be displayed at an alternate site if sufficient space is not available in the MAC and SB.

**8. Construction Date:** A project may be exhibited only one time at the San Antonio Stock Show & Rodeo and must have been constructed within one calendar year of the exhibition date.

**9. Project Substitutions:** Substitutions are done only in the Main Livestock Office, unless otherwise announced. Substitutions NOT officially recorded in this manner are invalid. Substitution forms must be filled out completely including the certification by the CEA or AST on all Junior Entries. Substitution Forms are located at [www.sarodeo.com](http://www.sarodeo.com).

Project substitutions mailed to the Livestock Office and postmarked by January 15, 2008= No Charge.

Substitutions made after January 15, 2008 = Additional Entry Fee

***SUBSTITUTIONS MUST BE MADE WITHIN THE SAME DEPARTMENT ONLY***

**10. Exhibitor Substitutions:** Must be made in the Livestock Office. Substitutions will be allowed for only those reasons identified in the Premium Book. (See Junior Livestock Show Special Rules in Premium Book)

\* Other school activity

\* Sickness

\* More than one entry showing at the same time

\* No project substitution will be made on the exhibitor cards that have not been made first through the Livestock Office. Leaders may request that exhibitor be deleted from a group project.

**11. Types of Projects:** Only those projects that fit into the stated classes will be accepted. Final project classification will be at the discretion of show officials. Barbecue and other recreational and/or convenience-type projects or accessories are not allowed.

**12. Vehicles:** Trucks, non-entered tractors, or other vehicles (including non-entered trailers) are allowed in the exhibit area as part of the display with the permission of show superintendent only.

**13. Project Completeness:** All projects should be complete including finish. Any item, necessary for use of the project, must be a part of it (example: hinges and latches on gates and panels), including documentation in Rule 16.

**14. Project Presentation:** Items to be considered are:

- a) **Neatness of project** - Clean and free of dust and debris.
- b) **Neatness of surroundings** - Includes floor under and around the project.
- c) **Documentation** - Presented in a manner that judges and the public can view it.
- d) **Signs** - Must be appropriate, easy to read, and not too large as to take unusual space.
- e) **Exhibitor Card** - Attached to the front center of the project. It is recommended to attach the card with Carton Sealing Clear Plastic Film Tape (duct, electrician, masking or scotch tape are not appropriate). Exhibitor card should be displayed neatly and in a location that is highly visible.
- f) **Safety** - All safety procedures must be adhered to when displaying projects.
- g) **Clutter** - Exhibitors should confine paraphernalia, chairs, show boxes, cleaning supplies, brooms, and wiping rags to their assigned display area.
- h) **Painting/Scratches** - No enamel paint is allowed in the barn. Judges will be instructed to make allowances for scratches or damage due to transportation.

**15. Exhibitors Presentation:** Items to be considered are:

- a) **Attire** - Exhibitors should be dressed appropriately and be with their project when it is judged.
- b) **Sportsmanship** - Exhibitors should be courteous and helpful to those viewing their project, including those exhibiting next to them. Exhibitors should not interfere with or shield those who are exhibiting next to them.
- c) **Knowledge** - Exhibitors should be available to answer questions when their project is being judged. Knowledge of the project will be evaluated at this time. Exhibitors should be well informed of the project they are representing, but should not be boisterous or argumentative.
- d) **Exhibit Aids** - Exhibitors should provide any equipment that may be necessary to judge their project (flashlights, mat or creeper for judging projects that the judge would need to get underneath such as trailers). Exhibitors may be requested to hold measuring tape and assist the judge in making measurements on project.

**Note:** *An approximate judging schedule for each class will be posted, but it is the exhibitor's responsibility to be present if the schedule should be changed. Changes will be announced or posted in advance when possible. At least one chapter/club exhibitor should be available to answer questions from the public or show officials including showmanship judges at all times.*

**16. Documentation:** (excludes Tractor Restoration) An original working plan or drawing, photographs showing stages of construction, and a bill of materials are required with each project. Pictures must be of good quality and be labeled with text explaining what the picture is depicting. Additional documentation may be required for plans of vehicles that are used on public highways (rule 17) ASAE standards must be met on three point hitch and PTO Operated equipment (rule 17). The following web page: <http://home.centurytel.net/lonshell/> contains links to Documentation check sheet, ASABE Standards and DOT Standards and Codes. The web page may also be accessed from the IMS web page.

- a) **Working Drawing:** Must include an original (exhibitor-drawn) multiview orthographic projection drawn to a given scale with proper lettering and dimensioning. Dimensioning shown on drawing should be specific and complete enough for it to be apparent that drawing was used to plan and construct project. Judges will spot check dimensions on projects to see if they comply with drawings. Drawing may be a CAD (Computer Aided Design). Pictorials, isometric oblique, or perspective may be included.
- b) **Bill of Materials:** Must include a list or a description of material, including quantity, size, and cost. Other Information such as date of purchase, vendors name and/or Purchase Order Number, etc. may be included.
- c) **Photographs:** Showing work in progress should depict proper safety procedures including clothing, eye and face shields, etc. Photographs should be sequenced in the order of constructing the project. CEA/AST should be in some of the pictures.

Any project not having documentation will be disqualified. Any project not having all three documents will be placed down a ribbon.

**17. Safety:**

**Display:** Appropriate and safe display stands are to be provided for gates, panels, and other projects that need support. Sharp edges and points; such as found on self-feeder roofs, bale movers, etc.; are to be padded and/or covered as necessary to prevent possible injury.

**Transportation:** All trailers and other equipment that will be operated and/or transported on public roads must be equipped with safety equipment specified in Title 7, Vehicles and Traffic Transportation Code of the Texas Statutes. See web page <http://home.centurytel.net/lonshell/> for links to codes and statutes.

\* Trailer wiring, lights and brakes will be tested. Colors of conductors in the wiring harness must meet industry standards. See Trailer Check Sheet on WEB page. Trailer must be grounded to vehicle with grounding wire in harness. (Trailer grounding only through hitch is not allowed.)

\* All trailers that are pulled to the show must have a license plate.

Agriculture Exceptions – No Agriculture Exemptions allowed for the following:

- \* All tongue trailers must have approved brakes, safety chains and break- always when required by DOT.
- \* All tongue equipment that is pulled on a public highway- for example: squeeze chutes, hydraulic log splitters, mowers, tillage tools, sprayers, etc. must have approved safety chains.
- \* All gooseneck trailers must have approved brakes, safety chains and brake-away equipment.
- \* Any trailer that is over wide (102 inches) must have a signed permit. Trailers widths will be measured from metal to metal, including for example, fenders, wheels, dust caps, and license plate hangers. (Transportation Code CFR 658 15-16)

Any trailer that does not meet these requirements will be disqualified.

**18. ASABE:** All three-point hitch and/or PTO operated equipment must meet the latest ASABE (The society for engineering in agricultural, food, and biological systems) standards. Power take-off equipment must meet ASABE standard S203, *Rear Power Take-Off for Agricultural Equipment*. All semi-mounted or mounted equipment must meet ASABE standard S217, *Three-Point Free Link Attachment for Hitching Implements to Agricultural Wheel Tractors*. Copies of ASABE standards must be included in documentation for those projects that apply.

**19. Signs:** All projects are to be identified with exhibitor cards provided by SALE. Additional signs, banners, etc. are encouraged, but are subject to approval. No "For Sale" signs are permitted.

**20. Loss or Damage:** Every precaution will be taken to protect the projects, however, neither the San Antonio Stock Show & Rodeo nor the officials of this division will be responsible for any loss or damage to projects.

**21. Projects with Engines:** No more than two gallons of fuel in any fuel tank is allowed. The fuel tank cap is to be in place. Equipment, equipped with a battery-battery must be disconnected. Tractors in the restoration division may have up to five gallons of fuel in the fuel tank.

**22. Projects Needing Offloading Assistance:** Projects that must be hoisted from the top-side are to be fitted with lifting eyes at balance points that will accommodate one inch shackles. Projects that, in the opinion of Show officials, cannot be safely off-loaded with equipment available will be shown at an alternate site.

**23. Judging Criteria for projects, excluding Tractor Restoration projects:**

<u>Criteria</u>	<u>Points</u>	
Workmanship (including Finish)	30	
Design and Materials Used (including Practicability)	20	Blue 90-100 pts
Documentation	20	Red 80-89 pts
Knowledge of Project (Response to Questions)	20	White 70-79 pts
Degree of Difficulty	10	
	<b>Total</b>	<b>100</b>

**24. Tractor Restoration**

- A) No yard tractors or riding lawnmowers.
- B) Tractors with steel lugs -- Exhibitors must provide mats or lumber/plywood to bring the tractor in the building.
- C) Tractor Serial Number must be included with Description on Entry Form.

**25. Judging criteria for Tractor Restoration projects:**

**A) Aesthetics: 15 points.** Overall appearance of tractor, including workmanship and finish. Items that will be considered include, but are not limited to the following:

- \* Metal preparation prior to painting
- \* Completeness of all sheet metal
- \* Painting and finish
- \* Detail and completeness of components - steering wheels, seats, decals, instrument panels, wiring harness, etc.

**B) Authentic: 10 points.** Must be as original as possible. To include:

- \* Paint color, fasteners, and other components such as magnetos, carburetors, exhaust systems
- \* Mechanical systems, fuel, electrical, engine, transmission, final drive, cooling, etc.
- \* Serial plates in place with unaltered serial numbers.

**C) Mechanical: 40 points.** To include the mechanical restoration of all systems including; (some tractors may not have all systems)

- \* Engine, transmission, final drive
- \* Fuel, cooling, ignition, lighting, exhaust, charging, starting, hydraulic and steering systems

Exhibitors will be asked to start the tractor and drive it, demonstrating all gears along with systems (hydraulics, lights, brakes, etc.). Driving and mechanical evaluation will be done outside when offloading on Friday. Exhibitors may be asked to move tractors back outside for additional driving and mechanical evaluation on Saturday.

A Mechanical Check Sheet, which tractor judges use in their evaluations is posted on the website :

<http://home.centurytel.net/lonshell/> These score sheets will include (a) Checks on Systems- engine- transmission- final drive- brakes/steering- lights/safety equipment- cranking/charging and PTO/lift/hydraulics; (b) example questions that could be used in interviewing exhibitors to ascertain their knowledge; and (c) observations made when tractors are driven.

**D) Safety Equipment: 5 points.** All equipment that was original to the tractor should be in place (includes all shields and decals). Tractor must be in safe operating condition. To exhibit a tractor, the following safety considerations must be followed:

- \* No more than 5 gallons of fuel in the fuel tank
- \* Neat and functional drip pans containing floor absorbent material (cat litter) to collect any coolant, oil, or hydraulics that may drip from the tractor
- \* Fuel shut off valves, under all fuel tanks, must be functional and all tractors must be exhibited with these valves off
- \* An approved ABC fire extinguisher with a minimum 5 lb. capacity must be provided and placed near the tractor
- \* Tractors may be started only at the request of show officials

**E) Documentation: 15 points.** Documentation must be typed (recommend word processor or spreadsheet) and include the following: (The National FFA Tractor Restoration Competition documentation format may be used.)

- \* One page description of the overall restoration project
- \* Expense report identifying all costs involved in the restoration
- \* Photos (before, during, after) -- Safe working environments should be depicted in all photos
- \* Mechanic's report detailing all mechanical work performed

All documentation is to be arranged in a three-ring notebook, divided and sequenced with a table of contents and page numbers. See web page for link to the National Tractor Restoration Contest.

**F) Knowledge: 10 Points.** Judges will ask questions to determine the exhibitor/exhibitors knowledge of and involvement in the restoration.

**G) Presentation: 5 points.** Showmanship-includes meeting public-eye contact-introduction. Enthusiasm for describing tractor articulate and assuring.

**Classes**

See web page <http://home.centurytel.net/lonshell/> for examples of classifying, naming, and describing projects

**Agricultural Machinery & Equipment**

1. Hay handling equipment
2. Spraying equipment
3. Mounted and pull type tractor equipment
4. Hydraulic equipment
5. Shop (Lab) equipment (non electrical)
6. Truck, tractor, and agriculture equipment accessories
7. Division Champion
8. Reserve Division Champion

**Electrical Equipment**

9. Show and livestock equipment (electrical only)
10. Electrical tools and equipment
11. Division Champion
12. Reserve Division Champion

**Livestock Equipment**

13. Gates and livestock panels
14. Squeeze chutes and restraining equipment
15. Trim chutes, blocking stands, livestock crates and head gates
16. Feeders- includes self and creep feeders
17. Other livestock equipment
18. Wildlife and exotic game

Class to include any equipment used in raising and caring for animals such as deer, llama, turkeys, quail, fish, etc.  
(Does not include hunting equipment).

19. Division Champion
20. Reserve Division Champion

**Trailer**

21. Bumper Pull Utility – 10 ft and under
22. Bumper Pull Utility – Over 10 to 16 ft
23. Bumper Pull Utility – Over 16 ft
24. Bumper Pull Stock – all lengths
25. Gooseneck Pull Lowboy – (bed between wheels)
26. Gooseneck Pull Flatbed/Float – (bed over wheels)
27. Gooseneck Stock Trailer – all lengths
28. Multibale
29. Other trailers - To include: welder trailers, dumpbed (including hydraulic dump), cargo, and over wide trailers (more than 102 inches). All flatbed (bed over wheels) bumper pull trailers regardless of size.
30. Division Champion
31. Reserve Division Champion
32. Grand Champion Project
33. Reserve Grand Champion Project

**Tractor Restoration (Not eligible for Grand or Reserve Grand Champion Project)**

51. Tractors 1950 and older
52. Tractors 1951 --1960
53. Tractors 1961 -- 1990
54. Division Champion
55. Reserve Division Champion