

## 2018 MD STATE AG-TECH MECH SYSTEMS UP-DATE

### PROCESSING – ANIMAL HANDLING OPERATIONS

**MACHINERY & EQUIPMENT** - Hydraulic operation, identification and calculations along with general knowledge.

**ELECTRICAL** - 110/220 volt AC circuit wired to spec. (panel box to end device) Determine proper wire size for the application. Component identification along with knowledge and use of Multi-meter. Possible calculations for amp, watts, or volts.

**STRUCTURES** – Lincoln Ideal Arc 250 welder to complete welding exercise to represent fabrication or repair of animal handling equipment. Will assemble and weld to supplied specs with given materials. Proper selection of electrode and amperage to complete exercise along with knowledge of SMAW, GMAW, and Oxyacetylene for welding questions.

**SMALL GAS ENGINES** – Routine engine component adjustment or repair on Briggs & Stratton OHV engines. Engine & tool identification/parts and Specs knowledge. Use of measuring tools, torque wrench, multi-meter, feeler or thickness gauge.

**ENVIRO-NATURAL RESOURCES** – Identification and layout of contour lines to reduce animal waste runoff. Possible determination of structures and costs to aid in reducing animal waste runoff.

**WRITTEN EXAM** - 25 questions from the 5 skills areas

**TEAM ACTIVITY** – Worksheet and presentation on skill area of animal ration preparation using loader and mix wagon ( possible TMR)

Rules of contest: Will following National FFA rules as close as possible

Team consists of 4 members – all scores count

Safety glasses required for all areas except examination

Welding helmet, gloves needed for all team members

Sturdy shoes and proper clothing required

Questions can be directed to Joe Linthicum at [linthicumj@hotmail.com](mailto:linthicumj@hotmail.com) 410-868-2567