GIN SCHOOL

COURSE DESCRIPTION AND OUTLINE

LEVEL II

PURPOSE AND OPERATING PRINCIPLES OF INDIVIDUAL GIN MACHINES AND GINNING DEMONSTRATIONS - Includes influence of gin processing on fiber quality and quantity. Review of ginning sequence, purpose and operation of each machine, effect of processing rates and speeds, tips for efficient operation, moisture management and pollution equipment. Includes all machinery as well as new moisture and trash measurement equipment and computerized gin control.
GIN SAFETY – This course will cover OSHA Gin Requirements, Responding to Accidents, Developing a Written Safety Program, OSHA Guarding Requirements, Common Gin Hazards, Safety Inspections, and the use and maintenance of Personal Protective Equipment.
HYDRAULIC SYSTEMS – This course will provide an improved understanding of the basic principles of hydraulic operation, a review of hydraulic uses in the gin, system components and function, basic repair and maintenance procedures, a thorough review of safety rules, a description of press operation.
PNEUMATICS AND COLLECTION AND DISPOSAL OF GIN BY-PRODUCTS - This describes methods of Trash Utilization and Disposal, Fan Curves, Sizing pipe, fans, motors, Fan Maintenance & Troubleshooting, Air Requirements & Measuring Procedures and Sizing Cyclones
ELECTRICAL SYSTEMS - Students will gain an improved understanding of reading circuit diagrams, power requirements, energy conservation methods, electric motors, switches, relays, overload protection, solenoid valves, DC and solid state controllers, trouble-shooting electrical problems, single and three-phase power, reversing direction of three-phase motors, replacing circuit breakers, starter relays, bearings, fuses, brushes, heater coils, basic review of PLC controllers, etc.

EFFICIENT OPERATION, ADJUSTMENT, AND MAINTENANCE OF GIN EQUIPMENT Course includes Unloading thru Cylinder Cleaners, Drying Systems, Burner Maintenance, Maintenance Program, Power Transmission Equipment, Adjustment and Maintenance of Lint cleaners, Bale Presses/Misshapen Bales, A Good Maintenance Program, Stick Machines and Extractor-Feeders, Gin Stands, Cylinder Cleaning, Drying - Traditional and Non-traditional, Lint Cleaning, Bale Presses and Handling Systems, and Contamination Prevention
CLASSING COTTON – an overview of the AMS cotton classing locations and requirements and procedures are discussed along with terms and methods for measuring length, strength, color, micronaire, leaf and other parameters. These parameters are related to harvesting, storage and ginning conditions to help ginners improve fiber quality.
INCREASING GINNING SYSTEM CAPACITY - Includes equipment capacities and logical approach to phased upgrades. Considerations to be taken in planning capacity increases, machinery capacities, “one-of” systems considerations, logical approaches to gin plant upgrades and capacity improvements.
MOISTURE MEASUREMENTS - Includes approaches to dryer control, moisture meter readings, use of moisture sensors and temperature sensors, and moisture in modules and bales
ROLLER GINNING Overview of the roller ginning process, instruction on critical adjustments of roller gin stands, influence of gins and lint cleaning on ELS fiber quality, and safety precautions to be taken during equipment operation. (Western Gin School Only)