

**PANEL DISCUSSION – COTTONSEED SIZE FOR BETTER OR WORSE – GIN EQUIPMENT
MANUFACTURER PERSPECTIVE**

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Abstract

For the past 30 years (and arguably the past 60 years) the physical size of cotton seeds has shrunk while breeder emphasis has focused on increasing cultivar yields, improving quality characteristics of the fiber and mitigating or eliminating susceptibility to pests and disease. Ignored in the fray has been post-harvest processing. One such process includes the mechanics behind the operation of the saw gin, specifically the relationship between seed cotton, the various components of the gin stand seed roll box and roll box geometry. Regardless of manufacturer, all saw type gin stands include saws on a journal, a series of ribs in singular picket presentation on either side of each saw and a roll box compartment of semi-oval geometry. All three in unison function in such a manner to provide for a continuously rotating self-purging roll of seed cotton, semi-ginned seed cotton and ginned cottonseed. The self-purging feature is the mechanism by which ginned cottonseed is removed from the roll in a continuous manner. To assure the ginned cottonseed properly discharges from the seed roll it is imperative the seed be robust, of optimum size and the fiber-to-seed attachment force be such that lint is readily removed by the saw.