



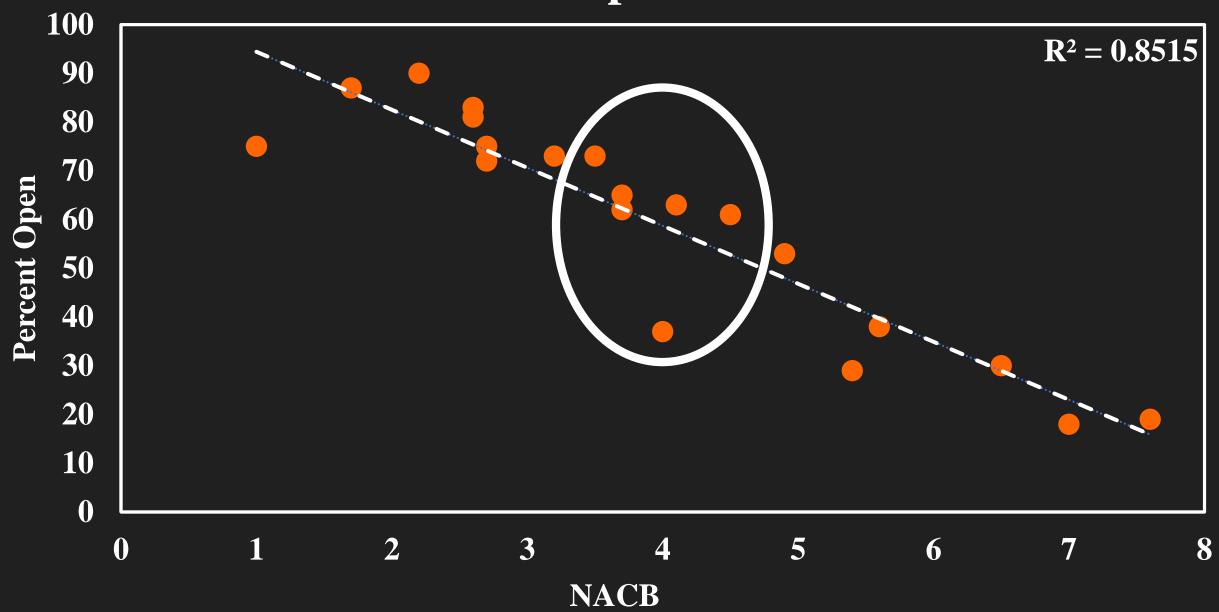
Cotton Defoliation Timing

- 3 Methods:
 - Open Boll Percentage (60 75%)
 - Nodes Above Cracked Boll (3-4)
 - Cutting/Slicing Bolls

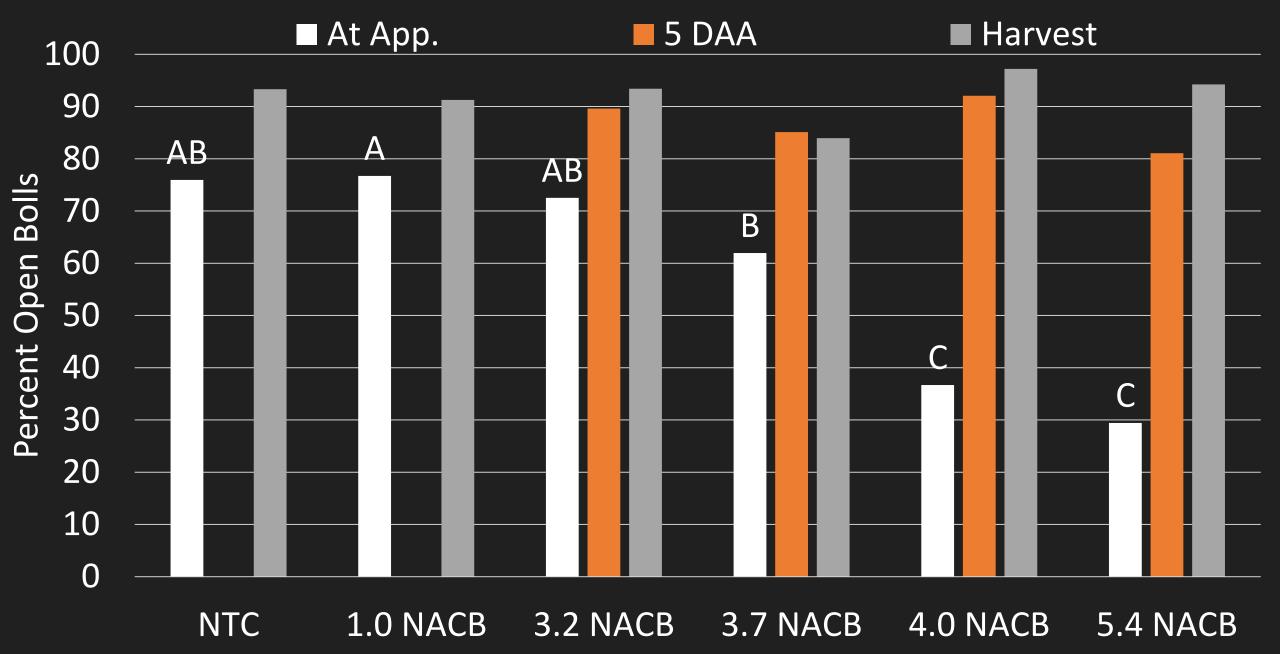
• These are all based off the proportion of harvestable bolls



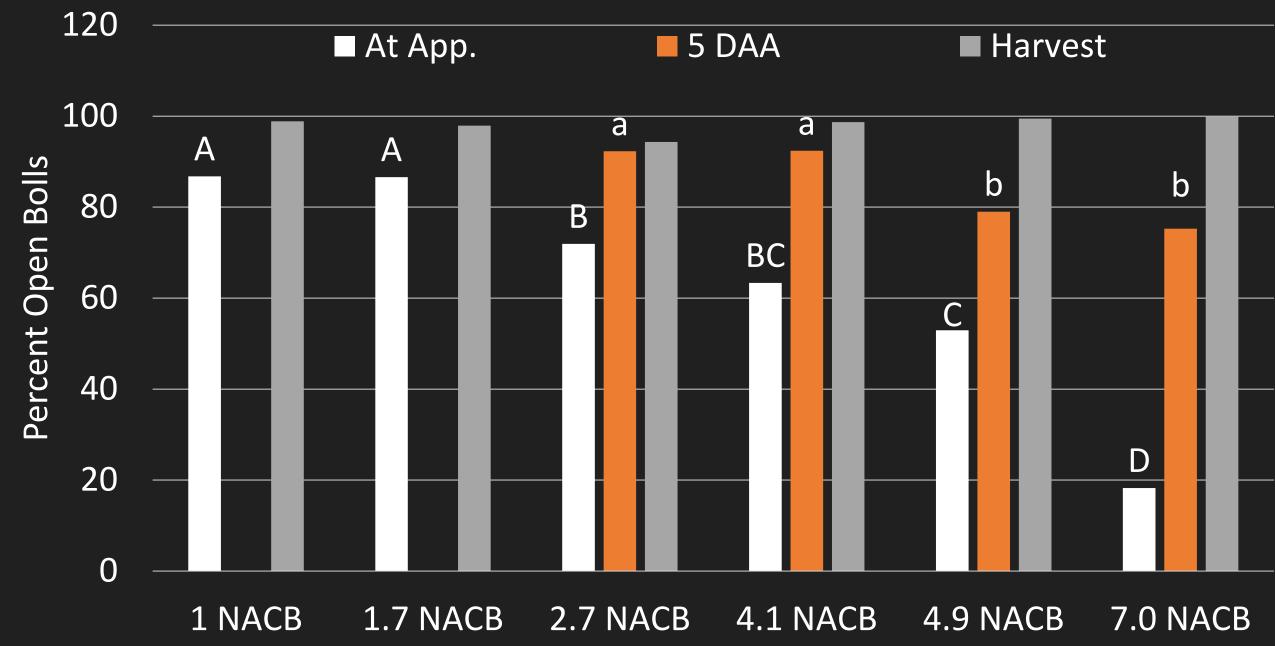
NACB & Percent Open Oklahoma 2019-2020



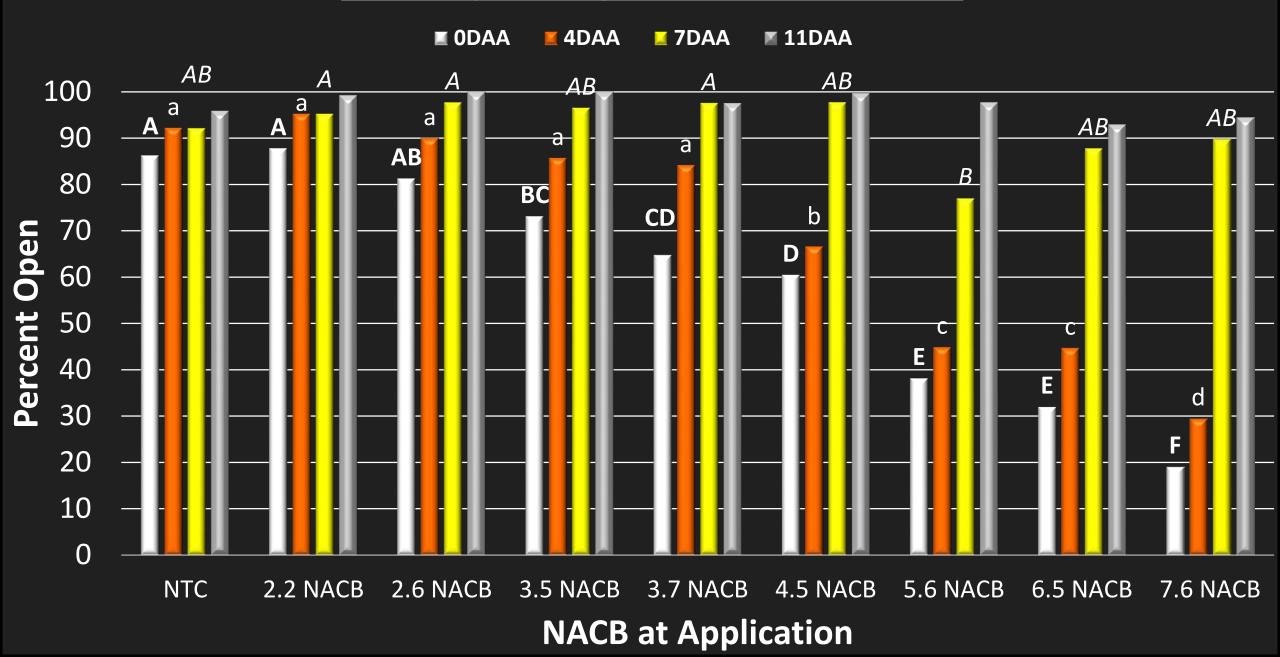
Boll Opening Perkins 2019



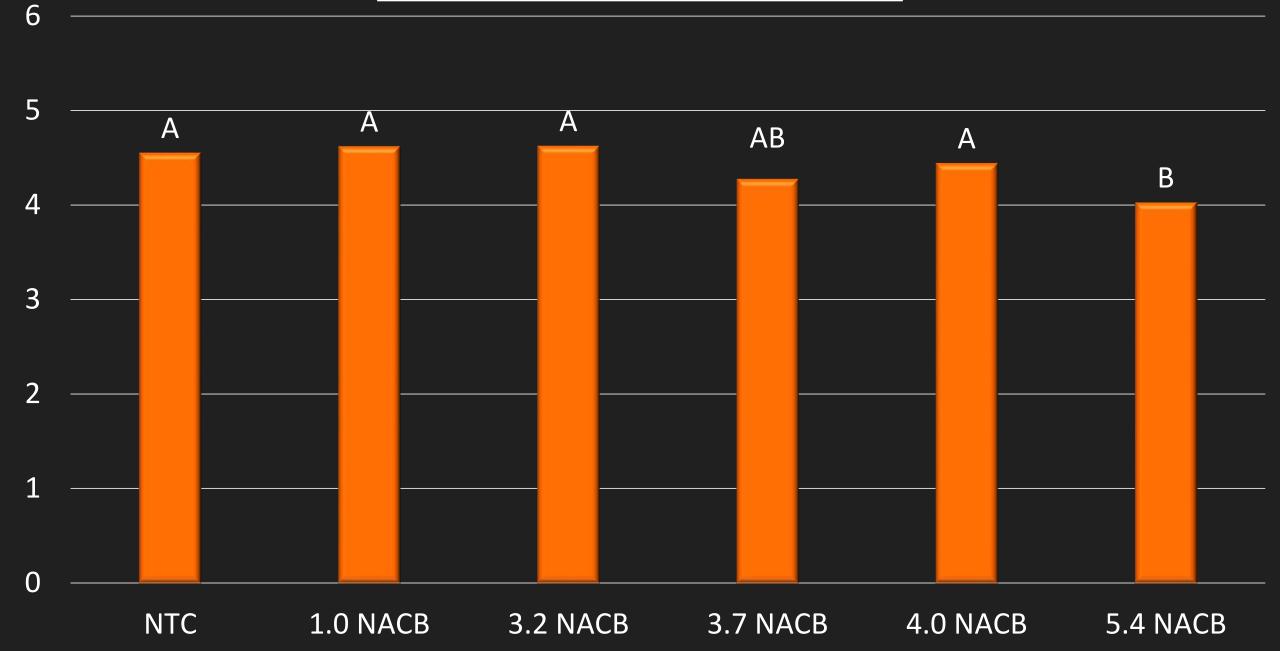
Boll Opening Fort Cobb 2019



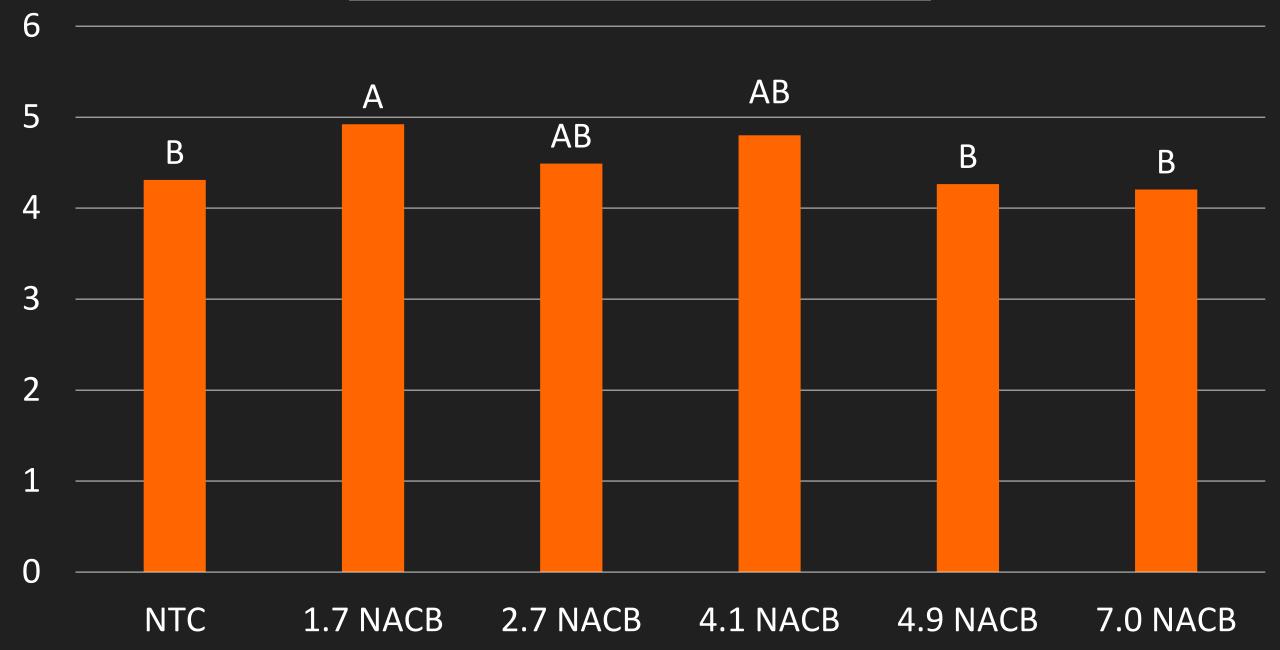
Boll Opening Fort Cobb 2020



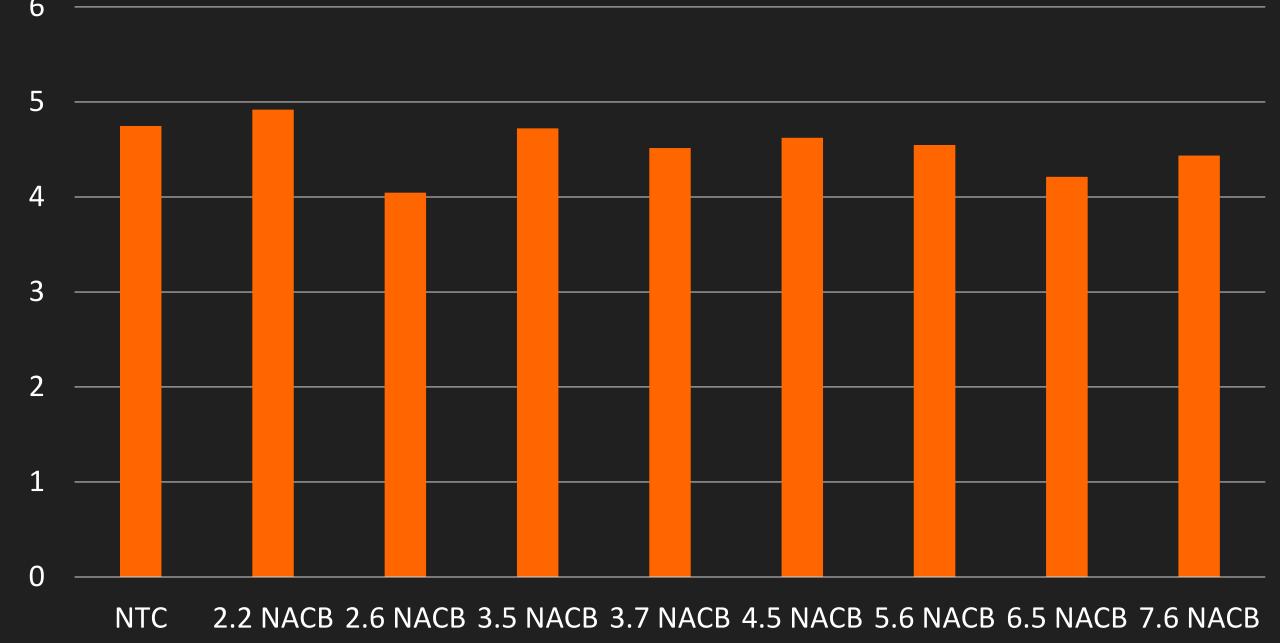
Perkins Micronaire 2019



Fort Cobb Micronaire 2019



Fort Cobb Micronaire 2020



Undersized Bolls and Fiber Quality



 Perkins, 2019: 55.6% undersized bolls - boll opening efficacy for the nickel sized "harvestable bolls", while the penny and dime sized bolls did not.

• Fort Cobb, 2019: 2.4%

• Fort Cobb, 2020: 0.85%

 Micronaire did not appear to be impacted proportion of undersized bolls

<u>Summary</u>



- Strong correlation between NACB and 60% open, although at ~4 NACB percent open ranged from 37 – 73%, similar to previous studies.
- Boll opening success from early applications (> 5 NACB) likely due to favorable temperatures.
- By 7 DAA approximately 80% of harvestable sized bolls were open regardless of application timing.
- Early applications successful for boll opening, although traditional timings allow for plants to naturally senesce and may increase activity short-term.



Notes From 2020



- Applications made early were achieved raped success in boll opening and leaf drop
- Basal regrowth
- Applications in late September early October saw a decline in activity
 - Proportion of unopened bolls impacted by early September cold snap
- Discoloration of cotton in September impact of cold weather?





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