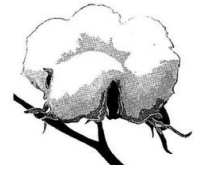


Jarette's Farm Journal

Jarette Hurry
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For more information regarding any of your farming needs, please feel free to contact the Bertie County Cooperative Extension Office at (252) 794-5317. Your questions and comments are important to us.

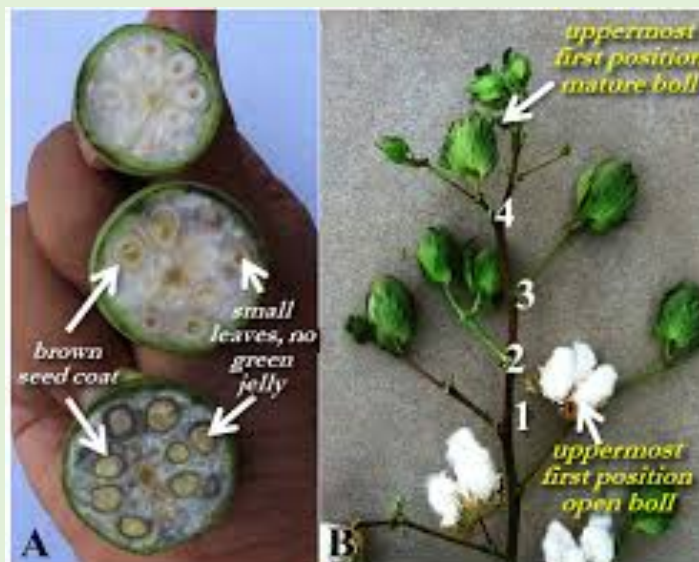


Cotton Management Consideration

Submitted by Dr. Guy Collins, Extension Cotton Specialist, NC State University

Last Effective Bloom Dates: The last effective bloom date (latest date in which a white bloom has a reasonable chance of developing into a harvestable boll) is highly dependent on fall weather. The last effective bloom date could be as early as August 15th or as late as September 1st. Northern counties such as Bertie County last effective bloom date generally falls somewhere between August 20th -25th. Growers are encouraged to closely evaluate the bottom and top crop, to determine how much each could contribute to yield. If a large portion of total bolls are represented by the bottom crop, growers may **not** want to wait too long on just a few smaller upper bolls to develop. If yield potential of the bottom crop is poor AND the less mature top crop (that blooms prior to the last effective bloom date) could contribute significantly to yield, growers may want to chase the top crop by delaying defoliation and allowing more time for boll development.

Defoliation Timing: As you know, cotton can generally be considered safe for defoliation when 60 percent of the bolls are open and/or when the plant reaches 4 nodes above cracked boll. However, there are deviations to these rules depending on the situation. Focusing on the unopened bolls can often help improve precision of defoliation timing decisions. If a compact fruiting crop or a noticeable fruiting gap occurs for example, simply focusing on the opened bolls can be misleading, therefore relying more on nodes above cracked boll and/or slicing open a few unopened bolls to determine maturity can lead to more accurate decisions. Bolls are generally mature enough for defoliation when they are difficult to slice, when the lint is beginning to dry out and strings out when sliced, and when there is a distinguishable brownish seed coat with little or no jelly inside them.



Growers need to be prepared to address regrowth in cotton that will be defoliated in early September under warm conditions with adequate soil moisture. TDZ (Dropp, Freefall, and others) in tank mixes can effectively address regrowth. TDZ+Diuron (Ginstar, Adios, Cutout, and others) are preferred when cooler weather begins with regrowth remaining on the plant.

Bolls that develop under cooler temperatures will require more time to fully mature. Growers need to be prepared to utilize a high rate of ethephon, ethephon+cyclanilide, or ethephon+urea sulfate to open bolls if defoliation occurs under cool temperatures.

Table 12-4. Harvest Aid Performance

Material	Estimated minimum temperature	Expected activity			
		Mature leaves	Juvenile growth	Regrowth prevention	Boll opening
Def/Folex	60°F	Excellent	Fair	Poor	None
Thidiazuron	65°F	Excellent	Excellent	Excellent	None
Harvade	55°F	Excellent	Fair	Poor	None
Ginstar	60°F	Excellent	Excellent	Excellent	None
Aim	55°F	Excellent	Excellent	Poor	None
ET	55°F	Excellent	Excellent	Poor	None
Resource	55°F	Excellent	Excellent	Poor	None
Blizzard	55°F	Excellent	Excellent	Poor	None
Prep/SuperBoll, others	60°F	Fair	Poor	Poor	Excellent
Finish	60°F	Excellent	Poor	Fair	Excellent
CottonQuik/FirstPick	60°F	Excellent	Poor	Poor to Fair	Excellent
Glyphosate	55°F	Fair	Fair	Excellent	None
Sodium Chlorate	55°F	Fair	Fair	Poor	None
Paraquat	55°F	Desiccation	Excellent	Poor	Fair

Please see chapter 12 (P.168) in the 2019 Cotton Production Guide for a more detailed discussion of harvest aid products and recommended rates.

Application Volume: You could potentially save yourself a lot of money and minimize the need for multiple applications by taking the time to apply appropriate application volumes, which are no less than 15 GPA and up to 20 GPA. Nozzle selection is also important. The smaller the droplet size, the better the coverage and thus defoliation in most cases. Defoliants applied using high pressure through hollow cones are very effective at covering the entire canopy, especially when the plants are tall and the canopy is dense. However, hollow cone tips are prone to drift problems, and may be less effective when applied at high ground speeds. The very large spray droplets are observed from air induction or TTI tips do run the risk of only contacting the top leaves and could cause desiccation of the upper canopy and poor defoliation of the lower canopy, especially in taller cotton with dense foliage. A feasible tradeoff to achieving decent coverage while minimizing drift is the use of regular flat fan tips (or nozzles that produce a similar droplet size), but again, ground speed and application volume should be appropriate. As always, there are exceptions. Lower application volumes may be effective in short cotton with a sparse or open canopy, however higher application volumes are generally needed for taller cotton with denser foliage. The use of appropriate application volumes (15 to 20 GPA) will minimize the need for a second application in many cases.

Management Considerations for Tropical Systems/Hurricanes

If cotton is nearly all open prior to a storm, try to harvest it if you can with the understanding that there may be a penalty for leaf/trash or less than perfect yields (**talk to your gin prior to making a decision**). If a high number of closed bolls are present when a storm approaches, **LEAVE IT ALONE**. Cotton remains protected when bolls remain closed and can open more readily after a storm passes and usually under better conditions.



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A handwritten signature in blue ink that reads 'Jarette Hurry'.

Bertie County Cooperative Extension

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