NC STATE UNIVERSITY

October 2015

Northampton County Center
North Carolina Cooperative Extension
9495 NC Hwy 305
PO Box 636
Jackson, NC 27845
Phone: (252) 534-2711
Fax: (252) 534-1827
http://northampton.ces.ncsu.edu
E-Mail: craig_ellison@ncsu.edu

Ag News

URGENT INFORMATION FOR COTTON PRODUCERS. PLEASE READ!

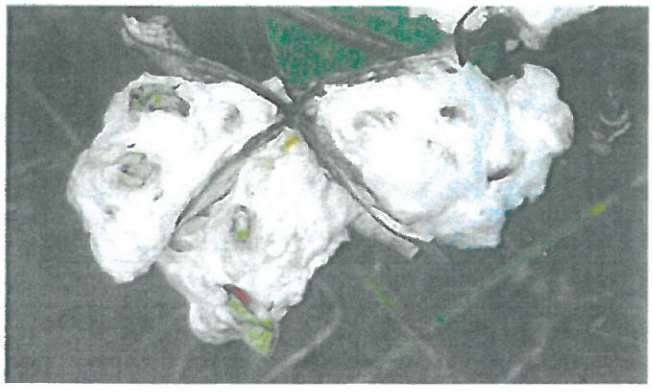
Craig Ellison, County Director
Extension Agent, Agriculture
craig_ellison@ncsu.edu

Content from: https://cotton.ces.ncsu.edu/2015/10/seed-sprouting-observed-collins-edmisten-stewart

Seed Sprouting Observed (Collins, Edmisten, & Stewart)

— Written By Guy Collins

The prolonged rainy spell that has plagued most of NC for over a week has started to cause seed sprouting in several growers' fields (see photo below). This is something that unfortunately is not surprising, given the unrelenting prolonged and excessively wet conditions that have occurred for approximately 10 days now. The warmer temperatures earlier this week likely contributed to this as well (in addition to the continuously wet conditions), and we are hoping that the development of this will slow down with cooler weather, however once it starts, it may not subside until sunny dry weather arrives. Seed sprouting can occur in any opened bolls under these conditions, but may be a little more severe in fields that have been defoliated where most or all bolls are opened, versus fields that have yet to be defoliated which likely have a few unopened bolls.



So what does this mean for growers?? The more seed that sprout in a given field....the worse the effects will be. Hopefully this will only occur in a small proportion of the crop in affected fields, but the percentage of the crop that will be affected is difficult to know at this point.

Seed sprouting can result in higher trash content, seed coat fragments, and lint discoloration due to staining. Additionally, if fields are harvested before sprouted seed dry down, this could lead to undesirable moisture in lint as well as additional discoloration. If an exceptionally high proportion of bolls are affected, ginning will be a challenge because of the difficulty in getting a seed roll at the gin stand. Lastly, this could result in significantly less seed and decreased seed quality once ginned.

So what can we do about it?? Unfortunately, not much. Wet conditions and heavy rains will likely continue through Monday, but we hope that dry weather will prevail beyond that. The only thing that could cease this phenomenon is warm, sunny, dry weather. In order to minimize problems, growers should watch fields closely and document the proportion of the crop that is affected. It is absolutely critical to wait until these germinated seed completely dry out before harvesting these fields. If you experience difficulty harvesting fields that are affected, it will be important to call your crop insurance agent and document this on the front end (before harvest is complete in these fields).

Additionally, it is reasonable to expect that once these fields are harvested the moisture content of the harvested seedcotton will be higher than normal. It is important to monitor modules for increases in temperature which will lead to further quality concerns and ginning difficulties.

Lastly, if fields have already been defoliated, growers could apply a desiccant (such as paraquat or one of the PPO-inhibitor herbicidal defoliants) shortly before harvest to accelerate the drying process. Results could be inconsistent, but if this is the case, it is important to observe label restrictions regarding pre-harvest intervals. Application of desiccants can only buy you a little time through slightly accelerating the drying process. A desiccant can dry down the sprouted seedlings quicker; however the integrity of the sprouted seed has already been lost which will complicate the ginning process. Limited experience with these situations suggests that a desiccant might allow for a quicker harvest, but does not help in ginning this cotton. If warm, dry conditions prevail, waiting a couple of days more before harvesting could provide the same result or outcome.

WRITTEN BY

Dr. Guy Collins, Extension Cotton Specialist, Crop Science - NC State University

CONTRIBUTING SPECIALIST

Dr. Keith Edmisten, Professor of Crop Science & Extension Cotton SpecialistCrop Science - NC State University

POSTED ON OCT 3, 2015

MORE INFORMATION. . .

Prepared by W. Stanley Anthony, Supervisory Agricultural Engineer/Research Leader, U.S. Cotton Ginning Lab, Stoneville, MS.

The following recommendations should be strongly considered for the 2001 harvest season for open cotton bolls exposed to excessive moisture.

1 Cotton should only be harvested after at least **7 to 10 additional days** of sun exposure than normally used to allow the germinated cottonseed to die and dry out some as well as allow the other cottonseed to dry. These days should have low to moderate relative humidity, moderate to high heat, and high sunlight. In most instances, if at least 50% of the cottonseed are firm, the cotton can be ginned, The sunshine will possibly move the color of the cotton from the current Light Spot or Spotted to White.

2. If harvested too quickly, seed cotton moisture will be excessive (over 12%) and the seed cotton cannot be stored either in trailers or modules for more than 24 hours. The germinated cottonseed will likely remain at a higher moisture than normal cottonseed. **Again, this high- moisture cotton cannot be stored more than 24 hours either in modules or trailers if the moisture is excessive.** Module temperatures must be monitored in at least 6 locations immediately after module formation and every 12 hours afterward for at least 6 days. If temperatures rise more than 20 degrees or reach 120 degreés, gin immediately.

3. At the gin, substantial drying will be required to ensure that the gin stand remains operational. Substantial seed coats will be in the lint after the gin stand due to the germinated cottonseed, and two stages of lint cleaning will likely be required. If air-type lint cleaners are used, care must be exercised to ensure that substantial quantities of fiber which is attached to the seed coat is not removed; it may be necessary to close the opening in the air jet cleaner to reduce or prevent excessive fiber loss.

4. Seed cotton harvested early (September 4, 2001) produced about 85% as much cottonseed as expected because of the germinated cottonseed component and those cottonseed graded 75 instead of the usual 100. Thus, cottonseed value may be about 65% of normal. However, if the recommendations herein are followed, cottonseed value will be much higher. In addition, cotton that was not opened during the rain will be near normal.

5. Fiber quality will be near normal except for the poor color caused by the weather, and possible length degradation caused by extra drying needed at the gin- Cotton ginned on September 5 graded color 42 but all other quality factors, (length 36, uniformity 82, micronaire 4.6, strength 29, leaf 3, Rd 69.3, Plus B 9.0) were normal. For this cotton, additional drying and cleaning at the gin would not improve the color to 41.

6. The potential for high-moisture lint after ginning necessitates careful use of moisture restoration systems at the gin.

7. Relatively impermeable polyethylene bagging for bale covers may be a potential problem since excess moisture may be in the cotton.

8. The first grid bar on the first lint cleaner will encounter abnormally high wear during the season. It likely will require cleaning on a regular basis and may need to be replaced during the season. The increased wear will greatly increase the fiber loss.

362 copies of this public document were printed at a cost of $30.05 or $.083/copy.