

Mississippi Cotton Early Season Management Considerations 2021



A few areas in north Mississippi have cotton planted, with most locations soon to be in full swing across the state. This article discusses an outlook for 2021 and a few early season management considerations for a strong start to the season.

Cotton acreage is forecasted to be slightly lower than originally predicted in March of this year. USDA estimates 500,000 cotton acres in Mississippi for 2021, down 5% from 2020. Despite stronger market demand and higher prices, cotton acreage will slip due to higher prices for both corn and soybean. December cotton futures have been trading just north of \$0.84 for a week or more, with soybean and corn trading for approximately \$13.40 and \$6.50 per bushel, respectively. Positive net return for cotton looks much better than recent years with the current cotton prices. Farmers ready to plant cotton should be in luck with warm temperatures and ample soil moisture as we enter the optimal planting window of May 1st through May 10th.

There will likely be an increase in 3-gene Bt cotton varieties planted in 2021. Several of these varieties performed well in small plot and large plot variety testing during 2020. At this point, most variety selection decisions have been made for 2021. Variety selection is crucial to profitability, and placement decisions should be based on a case by case basis. The primary considerations for proper variety placement include irrigation, region, and soil texture. Therefore, matching your production environment to a particular trial location is crucial.

Cotton has a tremendous ability to adapt to low population densities as long as the plant population is uniformly spaced. Poor emergence across multiple rows will ultimately result in a replant or partial replant situation. In Mississippi, we typically plant 30K to 45K seeds per acre, with recent trends to reduce seed costs by planting skip row/wide row patterns. Lower planting densities are better for non-irrigated cotton environments due to reduced competition for water and nutrients. High planting densities may reduce yield by shortening the boll loading period, increase fruit shed, and produce smaller bolls.

Suggested Cotton Seeding Rates

Row Spacing	Population			
	45000	40000	35000	30000
30"	2.5	2.3	2	1.7
38"	3.2	2.9	2.5	2.2
40"	3.4	3	2.6	2.3
Seed Per Foot				

Thrips pressure was unusually high in 2020, which triggered multiple foliar applications to avoid delays in maturity through the month of June. As we move forward in 2021, insecticidal seed treatments or in-furrow applications will help mitigate this pest. Cotton is most vulnerable at the 3-4 leaf stage, which often times requires an additional foliar application. Acephate and imidicloprid are good seed treatment and in-furrow options. Aldicarb in-furrow provides excellent control; however, it is more expensive and more justifiable if you have a nematode problem.

Nitrogen applications are critical to overall management of a cotton crop. Regardless of the application method, it is important to have all of the nitrogen applied just prior to first bloom. Nitrogen use intensifies tremendously at this point, reemphasizing the need to have a full supply available as nitrogen demand increases. Depending on irrigation availability or impending weather, it is recommended to have a fully charged soil moisture profile going into bloom. This will mitigate plant stress and help avoid excessive fruit abortion, which will hopefully translate into greater boll retention later in the season. Also, late season nitrogen deficiency is not a bad thing. If properly applied, late season nitrogen deficiency symptoms low in the canopy means all nitrogen is relocating to yield components. Ultimately, proper nitrogen use efficiency could reduce late season diseases like boll rot and make the crop less attractive to late season insect pests.