

Louisiana Cotton Bulletin

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Crop Report Donald J. Boquet, Ph.D

As of May 20, there was a small amount of cotton acreage to be planted or replanted, which will be completed this week. There is only a small chance of rain for the next several days, although the system developing in the Gulf of Mexico bears watching. The condition of the crop ranges from excellent to poor with about 75 percent good to excellent. The brief cool spell that we had from Sunday through Tuesday will not have large detrimental effects because plentiful sunshine has kept the crop growing. Despite the cool nights, DD60s were still positive each day. During the 3-day cool spell we accumulated a total of 12 to 14 DD60s, not many, but better than having negative DDs. The forecast is for DD60s to average 13 to 14 per day for the next 10 days, which will keep the crop development rate at an average pace for this time of year. It cannot be overemphasized that weed control is paramount at this time to prevent weeds that emerged during the rainy spell from becoming too large for herbicides to control. A lot of fields also have volunteer corn that is especially a problem where harvesting efficiency was low after the winds of Hurricane Gustav. Dr. Bill Williams, AgCenter Extension Weed Specialist, is recommending use of Staple to control volunteer corn rather than selective grass herbicides like Select or Poast, because Staple will also control other weed species that are a present. Additional information on all the weed control options can be obtained from the AgCenter Field Agents and Weed Scientists listed on page 5 at the end of this Bulletin.

Louisiana Cotton Bulletin

Double-crop cotton following wheat Donald J. Boquet and Robert Ferguson



Wheat harvest has begun, although delayed a few days by recent rains. Once harvested, more that 200,000 acres will be available for additional plantings of summer crops, probably cotton or soybean. Producers should be aware of several critical factors that affect the success of doublecropping. First is the importance of planting as quickly as possible. Even with the best conditions, doublecrop cotton will usually yield less than monocrop cotton that was planted during the optimal planting window in late April or early May. The later planting of doublecrop cotton will usually result in yield reductions of 100 to 150 lb of lint per acre, if the cotton is planted as soon as wheat is harvested (Figure 1). (*The trade off for this loss of cotton yield is the yield of the wheat, which, in AgCenter studies, has averaged 61 bushels per acre over six years.*) To ensure the highest possible yield, cotton should be planted as soon as possible after wheat harvest and preferably before May 25. Yield losses for cotton planted between May 20 and June 5 are in the range of 15 to 27 lb of lint per day for each day planting is delayed, with an average loss of 21 lb per day. Delay in planting from May 20 to June 5 will, therefore, result in additional yield reductions of about 300 lb of lint per acre above the usual and expected 150 lb per acre reduction for doublecrop cotton, which would then make doublecrop cotton unprofitable.

The second critical factor in doublecroppng is establishing an adequate and rapidly growing stand in the wheat residue. The opportunity for stand establishment this year is better than usual because soil moisture is sufficient in most fields due to the recent rainfall over most of the state during wheat maturation. This rainfall has not been good for the wheat but has replaced the soil water used by the wheat crop in April and May. The usual situation is to have dry soil after wheat harvest, which delays emergence and lowers yield potential of the summer crop. If the soil is dry after wheat harvest, irrigation is essential for seed germination and early rapid early growth. If the field is too dry for seed germination, and irrigation is not available, it is best not plant doublecrop cotton

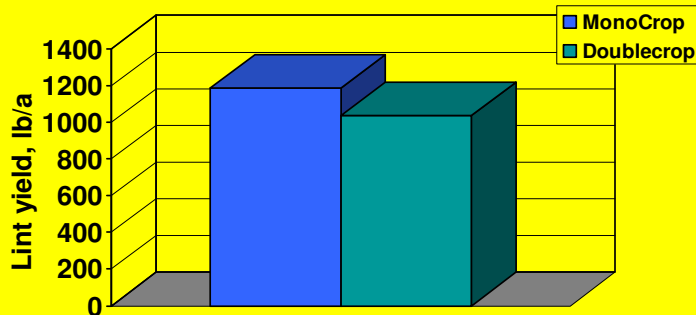


Figure 1. Irrigated monocrop and doublecrop cotton yields on no till Gigger silt loam, 6-year average.

The best overall results with doublecropping is usually from no-till planting directly into standing wheat stubble. As we described in a previous Cotton Bulletin (Issue 4), burning wheat residue results in the loss of valuable soil and environmental benefits and the plant nutrients contained in the residue. Especially important for doublecrop cotton yield is the conservation of soil water. In AgCenter research, doublecrop cotton has yielded as much, or more, when planted into wheat residue than into seedbeds that have been burned or tilled (Figures 2 and 3). The planters used in this research were not extensively modified, having only coulters or straw managers that cut through or displaced the residue, which allowed the double disk openers on the planter to place the seed through the stubble with good soil contact. Stands obtained with this system were slightly lower than in burned fields but were more than adequate (Figure 4). Use of relatively high cutting height during wheat harvest is one way to manage residue for doublecropping. A cutting height of 10 to 12 inches will leave more standing stubble and less of the combine residue. Standing stubble is not a problem for a planter, but residue spread by the combine can affect planter efficiency and has to be dealt with using coulters or straw managers. For lodged wheat, of course, this is not an option and more of the residue is run through the combine. An option then is to use a rotary cutter to shred the combine residue and this practice will work quite well to reduce residue interference with planting.

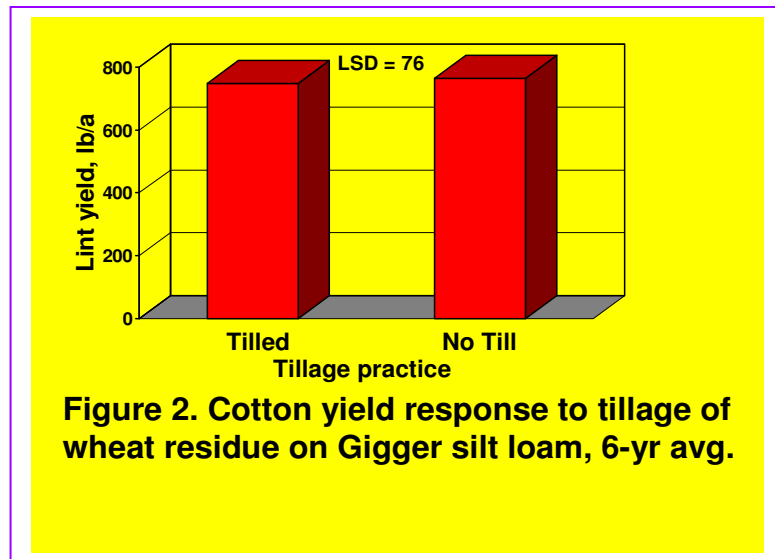


Figure 2. Cotton yield response to tillage of wheat residue on Gigger silt loam, 6-yr avg.

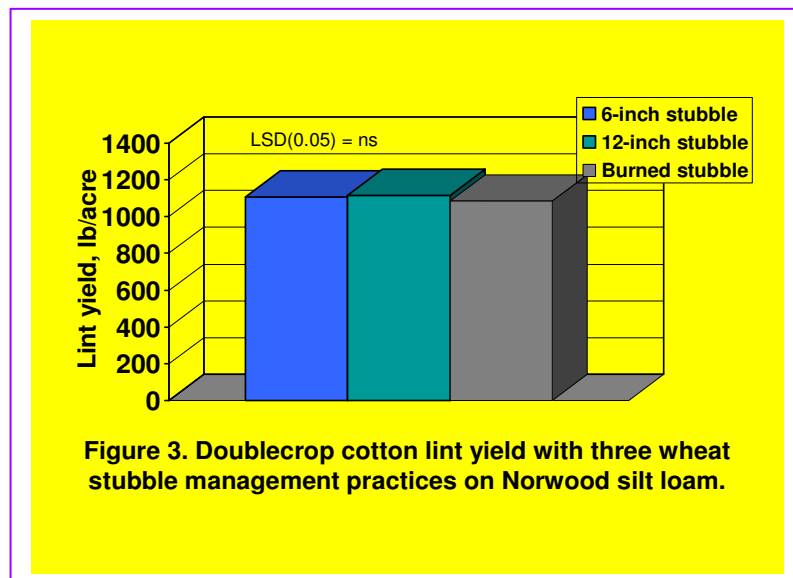


Figure 3. Doublecrop cotton lint yield with three wheat stubble management practices on Norwood silt loam.



Figure 4. No-till cotton stands in wheat stubble may be slightly lower and less consistent than in a prepared seedbed but yields are not affected.

Finally, it is a common misconception that burning wheat residue helps to improve the efficacy of preemerge herbicides. This is usually not true, however, because the ash that remains on the soil surface from burning may actually result in reduced activity of the herbicides. The carbon in the ash will absorb and deactivate herbicides. Herbicides applied to wheat residue or to burned fields will both require rainfall or sprinkler irrigation for activation, so there is no advantage to burning residue in an attempt to increase herbicide effectiveness.

Upcoming Events

Northeast Research Station Field Day – June 17, 2009

Contact Donnie Miller for information – 318-766-3769

Dean Lee Research and Extension Field Day – August 20, 2009

Contact Danny Coombs for information – 318-473-6528

Below is a list of contacts, parish and area field agents and state extension specialists. They are prepared to assist you with any questions or problems you have.

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