

TIMELY INFORMATION

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Some Cotton Defoliants and Clover Don't Mix

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The Old Rotation experiment (circa 1896) on the campus of Auburn University has been demonstrating the benefits of using a winter annual legume (e.g., crimson clover and/or vetch) as a source of N for cotton and corn for over 110 years. Although we have been successful at getting crimson clover to reseed itself in some years, we generally replant every fall after defoliation or after harvest. We've been concerned for several years that the crimson clover just hasn't grown well. We seem to get a stand, but it just will not perform as well as clover planted behind corn or even wild clover on the edge of the plots. Last year, all the clover seemed to just die during the winter. We blamed it on the weather but this seemed strange since the winter weather has not been notably severe in several years. The same thing happened this year (see photo).



Photo taken April 11, 2008, on Old Rotation showing plot 1 (no clover) on right and plot 2 (with clover) on left. Note that plot 2 is mostly winter annual weeds while the crimson clover is growing well in the alley between the two plots.

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Dr. Dennis Delaney suggested that residual herbicide effect from the cotton defoliant was the cause of the problem. Dr. Mike Patterson confirmed this. He noted that the only soil-residual problem will be with products containing thidiazuron, e.g., Dropp® and Ginstar® (thidiazuron + diuron). The Dropp® label says to wait

two weeks after application until planting a small grain and two months before planting legumes. We have used Dropp® for several years, and winter legumes must be planted as early as possible in the fall. Delaney thinks that the rate may also be a factor in that the clover stand was worse in the irrigated cotton plots where we had to apply a higher rate of defoliant. There was no problem following corn. Other products like Aim®, ET®, Blizzard®, Resource®, ethephon (Prep®, etc.), Finish® (activated ethephon), FirstPick® (activated ethephon), Def®, and sodium chlorate probably do not have enough soil residual activity to adversely affect clover. However, to be on the safe side, clover should not be planted for a week after application of these products. Of course, application of any of these products after clover has emerged will probably result in severe damage or death to clover.

Cotton producers who may be taking advantage of annual legumes this fall need to be aware of this potential problem.