

**THE WEB-BASED CROP-WEATHER PROGRAM FOR SOUTH TEXAS: MONITORING
DD60 ACCUMULATION AFTER 5NAWF AND PREDICTING DEFOLIATION DATE**

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Abstract

Defoliation/Desiccation is one of the tools available to users registered with The Crop-Weather Program for South Texas (<http://cwp.tamu.edu>). Defoliation/Desiccation is available only for fields cultivated with cotton and allows users to quantify the progression of a cotton crop towards maturation in terms of heat unit accumulation after the stage of 5NAWF. The Defoliation/Desiccation tool provides crop managers valuable information for deciding when to apply defoliant to a cotton crop. Traditionally, the percentage of open boll has been used as an index for defoliation time. More recently, the degree-day accumulation after 5NAWF has been recommended to improve defoliation timing, although there is still considerable research underway to determine the best level of DD60 accumulation at which apply defoliant. This tool calculates the accumulation of DD60 after the date of 5NAWF, provided the user entered this date or the number of nodes above white flower data into his field observations database using the My Cotton Growth tool. In addition to displaying the current cumulative DD60 value after 5NAWF, Defoliation/Desiccation also calculates projected dates when the cumulative DD60 value reaches 850, 950, and 1050 units based on historical average thermic conditions. This range of values covers the empirical base of available information regarding defoliation time and DD60 accumulation, and provides crop managers with a broad set of options on which to base their decision involving defoliation time.