

**CHEMICAL STALK DESTRUCTION OF SHREDDED AND STANDING COTTON STALKS IN
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In South and Central Texas, stalk destruction following cotton harvest is critical to continuing the success of the Boll Weevil Eradication Program in these areas. Chemical stalk destruction allows for a quick and efficient method of managing regrowth following cotton harvest. As 2,4-D and dicamba resistant cotton varieties are in the pipeline, new alternatives to these two herbicides need to be identified and tested at various application timings. The objectives were to evaluate the efficacy of various herbicides for post-harvest chemical stalk destruction and evaluate herbicide application timings on post-harvest cotton stalk destruction. A 12 treatment research trial was initiated in Medina and Hill counties on producers fields with the CG 2570B2F and DP 161B2F cotton varieties, respectively. At both locations, the cotton received a defoliant and desiccant application about 14 and 7 days prior to harvest, respectively, the cotton was stripper harvested, and cotton stalks were mowed with a flail mower. At the Medina county site, the chemical stalk destruction treatments were applied about 2 hours after picker harvest to standing stalks and about one hour after mowing the stalks with a flail-type mower. In Hill County, the chemical application timings were about 1 day and 14 days after flail mowing. The application timings at each location were initiated as two separate studies but adjacent to one another. The 2,4-D ester treatment (1 lb ai/A) provided over 95% control of cotton regrowth by 40 days after treatments (DAT), regardless of the application timing. The 2,4-D amine treatment (1 lb ai/A) provide similar control at 40 DAT, but demonstrated slightly slower activity than the ester formulation. The 2,4-D alone or treatments containing 2,4-D were the most consistent and efficacious treatments. The dicamba treatments were less effective and less consistent than the 2,4-D treatments at all application timings. Dicamba was the less efficacious on the standing stalk treatments. Harmony Extra did not provide sufficient control of cotton regrowth (60-82%); however, the most efficacious application timing reached 82% control on freshly mowed stalks in Medina county. Milestone and GrazonNext were the most effective treatments at the Hill County, regardless of the application timing. However, in Medina county, these chemicals were less effective than 2,4-D. In conclusion, the most effective and economical herbicide currently labeled for chemical stalk destruction is 2,4-D, regardless of the application timing. Further evaluation of Milestone is necessary to determine the optimum timing and rate.