

## **2011 Cauliflower Weed Control Trial**

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**Methods:** The trial was established in a commercial cauliflower production field near Gonzales, CA. The field had shaped 40-inch beds and the cauliflower variety 'Symphony' was transplanted on April 21. Five week old seedlings were planted at approximately 12 inch spacing in one seedline per bed. The trial was transplanted approximately at 11:00 a.m. in the morning and the herbicide treatments were applied over the top of the transplants at 12:00 noon. The irrigation water was started at 3:00 p.m. the same day. Each plot was one 40-inch bed wide by 15 feet long and arranged in a randomized complete block design with four replications. The treatments were applied with a CO<sub>2</sub> backpack sprayer using a one tip wand with an 8008E nozzle; two passes of the wand were made over each plot applying the equivalent of 55 gallons of water per acre. The soil at the site was Pacheco clay loam. One weed control evaluation was made before the standard first cultivation was carried out by the grower on May 15. The cultivation swept the bed top with knives and threw dirt to the base of the plant which precluded further weed control evaluations. Impact of the herbicides was measured by counting all weeds on the bedtops of the beds in each plot. Phytotoxicity was evaluated by rating the condition of plants according to the following scale: 0 = no crop damage to 10 = crop dead. Yield was evaluated on two dates by counting and weighing marketable heads in each plot. See table for treatments, rates and evaluation dates.

**Results:** There were no differences in the number of crop plants per plot on the first evaluation date on April 29 (Table 1). In addition, there was no difference in the phytotoxicity ratings among the treatments on either evaluation date; there was poor growth by some plants, even in the untreated control, which was not due to the chemical treatments and accounted for the high phytotoxicity rating even in the untreated control. There was low weed pressure in the trial site. There was no statistical difference in the number of weeds in each treatment on May 11. There were no differences in the yield on the two evaluation dates and in total yield (Table 2).

**Summary:** This trial did not indicate any significant damage to the cauliflower from any of the treatments. The trial had some confounding phytotoxicity that necessitates that the trial be repeated to confirm the observations made in this trial.

