

ETHEPHON DEFOLIATION OF *PLUMERIA RUBRA* FOR WINTER FLOWERING

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A popular lei flower, the plumeria is dormant during the peak tourist season in Hawaii and is unavailable for its use as a greeting to visitors. Foliar sprays of ethephon cause defoliation and result in the inability of the plant to perceive short photoperiods. Plumeria trees were treated at different times in the fall 2003 and fall 2004 with 800 ppm a.i. ethephon, and 50 shoot tips were tagged to follow inflorescence development. Results from the 2004-2005 period are reported. Trees treated 10/23/04 averaged 78.4 days to flower with a range of 44 to 126 days. The average fell upon 1/9/05 with 50% of the tagged shoots producing their first flower by 1/5/05. Trees treated 11/30/04 averaged 81 days to flower with a range of 48 to 113 days. The average bloom date for this treatment was 2/18/05, with 50% of the tagged shoots producing their first flowers by 2/14/05. Tagged shoots on untreated plants were timed from the 11/23/04 date of first treatment and averaged 123.7 days to flower with a range of 53 to 167 days. This average date was 2/23/05, but the 50% flowering date was 3/3/05. Fall ethephon treatments can cause earlier flowering of plumeria. These results are useful for commercial growers of plumeria and the winter tourist trade in Hawaii.