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Control Effect of Flowering Chrysanthemum, the Trap Plant to the Western Flower Thrips, Frankliniella occidentalis (Thysanoptera: Thripidae) in Greenhouse

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Abstract : Frankliniella. occidentalis is major pest in chrysanthemum in worldwide. The density of F. occidentalis increased continuously in spite of the periodical chemical control after planting in this study. F. occidentalis began to increase mid-May. The numbers of F. occidentalis collected on a tray with wet paper by heating the flowers of pink, white, and yellow Chrysanthemum standard mums were 18.4, 56.6, and 52.6 in the flowering season. Also, the numbers were 15.2, 45.8, and 41.6 in bud season, but in the case of the leaves, the numbers were 2, 8.8 and 3.4. In the Y-tube olfactometer test, the frequency of F. occidentalis' visits to one side arm of the Y-tube olfactometer was higher in the odor cue of the white flower than of the yellow, red, and violet flowers, but the frequency was higher in the odor cue of the violet and red flowers than of the yellow without white. In the case of the four-choice olfactometer test, in the same visual cues as the odor cues of the pot mum flowers, the frequency of F. occidentalis was higher in the yellow flower than in the other flowers (white, red, and violet) in all the observation times (10, 15, and 20 minutes).

Keywords: Frankliniella occidentalis, Chrysanthemum, trap plant, control effect

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