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## LEGUMINOSAE, etc.

### *MEDICAGO SATIVA* AND *CITRUS DEPRESSA* FLOWER VOLATILES

G. M. LOPER

Bee Laboratory, Plant Science Research Division, Agricultural Research Service and Department of Agriculture and the Arizona Agricultural Experiment Station, Tucson, AZ 85719, U.S.A.

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Combined GC-MS and co-chromatography identified myrcene, limonene, and linalool as components of *Medicago sativa* L. and *Citrus depressa* Hayata flower volatiles. In the temperature programmed GC-MS analysis myrcene, limonene, ocimene, and linalool eluted at 98.7, 106.0, 108.5 and 122.0 min respectively. Each peak was sufficiently resolved from other peaks so that two or more identical mass spectra were obtained from each GC peak. The MS compared favorably with those obtained from known samples of myrcene, limonene, and linalool and the corresponding peaks from the wild orange, *C. depressa* flower volatiles.

*Co-chromatography.* Gas chromatographic retention times of myrcene, limonene, and linalool were compared to that of ocimene in flower volatile samples from Chromosorb<sup>1</sup> storage tubes and volatiles from freshly collected flowers. Relative retention times of these three compounds agreed with the elution times of compounds identified by MS.

## EXPERIMENTAL

Cut flower volatiles were collected on Chromosorb 102 columns.<sup>1</sup> The concentrated and stored samples were transferred to the GC-MS using He to elute the hydrocarbons at 150°. The gas chromatographic column was a 275 m × 0.08 cm i.d. stainless steel tubing coated with SF 96(50) + 5% IGEPAL and was temperature programmed from 36 to 162° at 1 C/min. The GC-MS interface was a membrane type molecular separator (130–140°).<sup>2</sup> Co-chromatography of tentatively identified compounds with volatiles from freshly collected alfalfa flowers was performed by GC on a 183 m × 0.08 cm stainless steel column coated with SF 96(50) + 5% IGEPAL.<sup>2</sup>

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<sup>1</sup> G. M. LOPER, R. A. FLATH and J. L. WEBSTER, *Crop Sci.* 11, 61 (1971).

<sup>2</sup> G. M. LOPER and J. L. WEBSTER, *J. Chrom. Sci.* 9, 466 (1971).

*Key Word Index*—*Medicago sativa*; Leguminosae; *Citrus depressa*; Rutaceae; terpenes; myrcene; limonene; linalool.