

Supplementary material for

Soil effects on the bioactivity of hydroxycoumarins as plant allelochemicals

Gracia Facenda, Miguel Real, Jose A. Galán-Pérez, Beatriz Gámiz* and Rafael Celis

Instituto de Recursos Naturales y Agrobiología de Sevilla (IRNAS), CSIC, Avenida Reina Mercedes 10, 41012 Sevilla, Spain

***Corresponding Author:** B. Gámiz

Address: Instituto de Recursos Naturales y Agrobiología de Sevilla (IRNAS), CSIC

Avenida Reina Mercedes 10, 41012 Seville, Spain

E-mail: bgamiz@irnase.csic.es

Table S1. Log-logistic 3-parameter constants for the effect of umbelliferone on the aerial biomass of *Lactuca sativa*, *Eruca sativa*, and *Hordeum vulgare* in bioassays conducted in the presence of two soils.

	y_0 (%)	b	IC_{50} (mg/l)	R^2
<i>Lactuca sativa</i>				
Soil 1	102 ± 7^a	1.639 ± 0.349	76 ± 12	0.984
Soil 2	101 ± 3	4.026 ± 0.939	393 ± 17	0.971
<i>Eruca sativa</i>				
Soil 1	102 ± 6	1.489 ± 0.258	154 ± 20	0.978
Soil 2	98 ± 1	3.925 ± 0.376	412 ± 8	0.995
<i>Hordeum vulgare</i>				
Soil 1	100 ± 5	0.897 ± 0.161	169 ± 26	0.980
Soil 2	96 ± 4	6.821 ± 2.250	380 ± 16	0.943

^a Value \pm standard error of the calculated parameter.

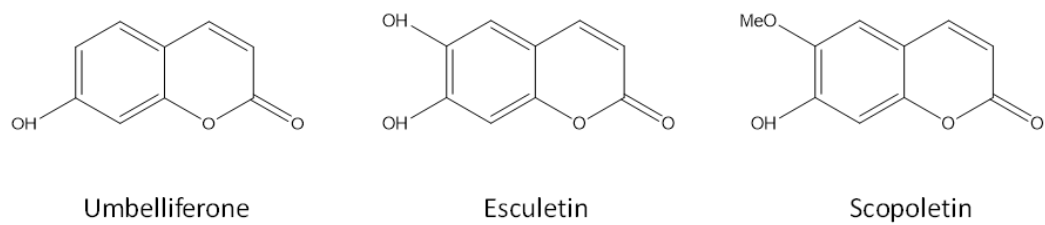


Figure S1. Chemical structures of umbelliferone, esculetin, and scopoletin.

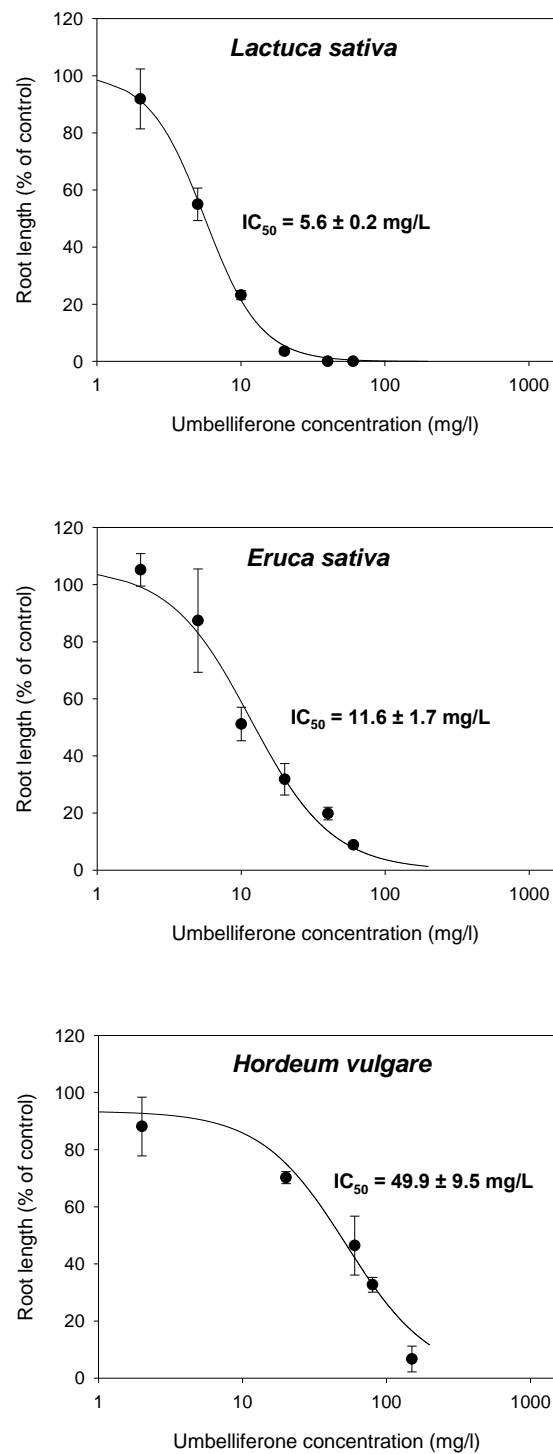


Figure S2. Dose-response curves for the inhibitory effect of umbelliferone on root growth of *Lactuca sativa*, *Eruca sativa*, and *Hordeum vulgare* under Petri-dish conditions (t = 6 days).

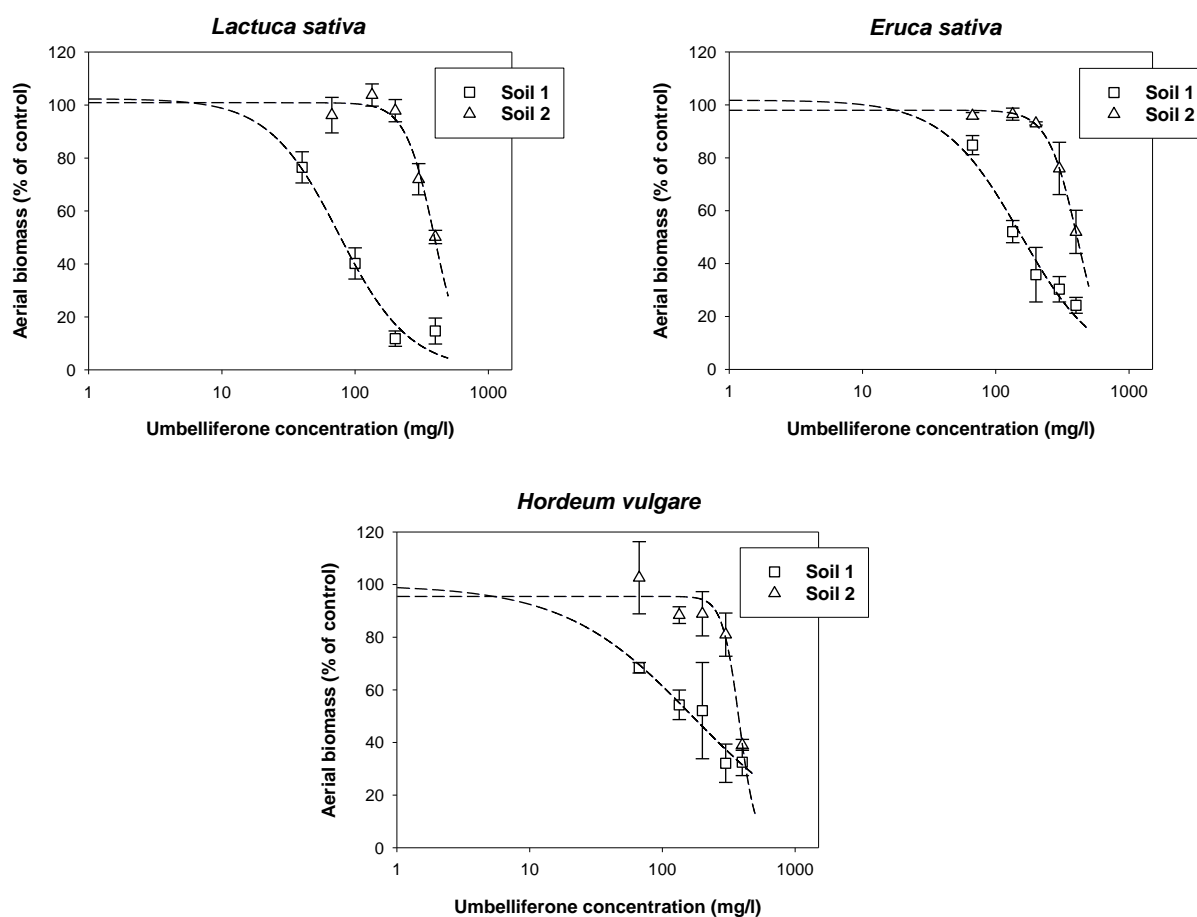


Figure S3. Dose-response curves for the inhibitory effect of umbelliferone on the aerial biomass of *Lactuca sativa*, *Eruca sativa*, and *Hordeum vulgare* in the presence of two soils (t= 6 days).