

## Phytochemical profile and *in vitro* bioactivities of plant-based by-products in view of a potential reuse and valorization

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### Supplementary material

**Table S1.** Total flavonoid content, total polyphenol content, *in vitro* antioxidant activity, anti-tyrosinase activity, and antibacterial activity (expressed as Minimum Inhibitory Concentration, MIC) of all samples.

Scientific name	Sample tag	Total flavonoid content expressed in mg RE/g (DW)	Total polyphenol content expressed as mg GAE/g (DW)	Antioxidant activity expressed as mg Tr. Eq/mL of extract	Percentage of tyrosinase inhibition at 100 µg/mL	MIC <i>Clavibacter michiganensis</i> subsp. <i>nebraskense</i> (ATCC 27822) (mg/ml)	MIC <i>Pseudomonas syringae</i> pv <i>syringae</i> van Hall (ATCC 19310) (mg/ml)
<i>Abutilon theophrasti</i> Medik.	Ath	13.73 ± 0.46	18.06 ± 0.57	0.95 ± 0.17	26	>1.0	>1.0
<i>Achillea millefolium</i> L.	Acm	14.54 ± 0.48	25.81 ± 0	0.85 ± 0.07	25	>1.0	>1.0
<i>Allium cepa</i> L.	Ace	1.36 ± 0.05	2.94 ± 0	-	0	>1.0	>1.0

<i>Artemisia absinthium</i> L.	Ara	16.18 ± 0.54	29.26 ± 3.16	0.89 ± 0.02	25	>1.0	>1.0
<i>Beta vulgaris</i> L.	Bvu	3.99 ± 0.13	6.32 ± 0.4	-	0	>1.0	>1.0
<i>Camelina sativa</i> (L.) Crantz	Csa	0.55 ± 0.02	2.48 ± 0.16	-	0	>1.0	>1.0
<i>Castanea sativa</i> Mill.	Csp	4.78 ± 0.16	43.97 ± 1.7	4.76 ± 0.16	84	>1.0	>1.0
	Csr	6.23 ± 0.21	30.73 ± 0.76	1.65 ± 0.11	20	>1.0	>1.0
<i>Cicer arietinum</i> L.	Car	7.92 ± 0.26	10.04 ± 0.56	-	20	>1.0	>1.0
<i>Cichorium intybus</i> L.	Cia	0.35 ± 0.01	4.67 ± 0.02	-	13	>1.0	>1.0
	Cib	18.86 ± 0.63	25.26 ± 1.39	1.22 ± 0.07	16	>1.0	>1.0
<i>Cucurbita pepo</i> L.	Cpe	13.21 ± 0.44	16.45 ± 0.23	-	0	>1.0	>1.0
	Cpi	19.88 ± 0.66	17.35 ± 1.1	0.71 ± 0.08	3	>1.0	>1.0
<i>Cupressus sempervirens</i> L.	Css	8.25 ± 0.27	36.39 ± 0.12	2.14 ± 0.11	41	1.0	>1.0
<i>Echinochloa crus-galli</i> (L.) P.Beauv.	Ecg	16.4 ± 0.55	15.95 ± 1.2	-	2	>1.0	>1.0

<i>Erigeron canadensis</i> L.	Eca	36.12 ± 1.2	31.68 ± 0.16	1.75 ± 0.14	20	>1.0	>1.0
<i>Helianthus annuus</i> L.	Han	5.12 ± 0.17	13.66 ± 0.62	-	0	>1.0	>1.0
<i>Helichrysum italicum</i> (Roth) G. Don	Hei	41.19 ± 1.37	37.55 ± 0.55	2.58 ± 0.36	51	0.125	>1.0
<i>Laurus nobilis</i> L.	Lan	12.79 ± 0.43	29.87 ± 1.01	-	10	>1.0	>1.0
<i>Lavandula angustifolia</i> Mill.	Laa	15.26 ± 0.51	37.52 ± 0.29	1.92 ± 0.07	22	>1.0	>1.0
<i>Melissa officinalis</i> L.	Meo	10.53 ± 0.35	36.49 ± 0.75	2.38 ± 0.46	25	>1.0	>1.0
<i>Origanum vulgare</i> L.	Orv	4.82 ± 0.16	18.01 ± 0.94	0.56 ± 0	20	>1.0	>1.0
<i>Phaseolus vulgaris</i> L.	Pvb	4.34 ± 0.14	6.11 ± 0.18	-	20	>1.0	>1.0
	Pvu	20.35 ± 0.68	19.04 ± 0.17	0.51 ± 0	13	>1.0	>1.0
<i>Prunus amygdalus</i> Batsch	Pam	3.66 ± 0.12	42.38 ± 0.31	5.1 ± 0.07	23	>1.0	>1.0
<i>Rosa damascena</i>	Rod	35.34 ± 1.18	43.96 ± 1.5	4.77 ± 0.12	22	>1.0	>1.0
<i>Salvia officinalis</i> L.	Sco	26.6 ± 0.89	38.53 ± 0.95	1.85 ± 0.11	46	0.5	>1.0

<i>Salvia rosmarinus</i> Schleid.	Sar	22.9 ± 0.76	39.83 ± 0.43	2.03 ± 0.26	26	0.5	>1.0
<i>Salvia sclarea</i> L.	Sas	17.03 ± 0.57	19.9 ± 0.37	0.48 ± 0.01	12	1.0	>1.0
<i>Solanum lycopersicum</i> L.	Sly	19.35 ± 0.65	25.88 ± 0.4	1.06 ± 0.01	19	>1.0	>1.0
<i>Solanum tuberosum</i> L.	Stu	2.02 ± 0.07	5.98 ± 0.96	-	0	>1.0	>1.0
<i>Sorghum bicolor</i> (L.) Moench	Sbl	8.97 ± 0.3	16.12 ± 2.75	0.34 ± 0.01	0	>1.0	>1.0
	Sbr	2.78 ± 0.09	10.96 ± 0.01	-	10	>1.0	>1.0
	Sbf	1.41 ± 0.05	5.85 ± 0.08	-	3	>1.0	>1.0
<i>Thymus vulgaris</i> L.	Tvu	42.91 ± 1.43	42.05 ± 1.91	1.91 ± 0.03	20	>1.0	>1.0
<i>Triticum aestivum</i> L.	Tae	4.13 ± 0.14	5.95 ± 0.35	-	8	>1.0	>1.0
<i>Vitis vinifera</i> L.	Vvi	6.24 ± 0.21	29.36 ± 1.74	1.23 ± 0.02	10	>1.0	>1.0
Thymol						0.0625 mg/ml	0.0625 mg/ml
Heliocuvivre						0.65625 µl/ml	2.625 µl/ml

**Table S2.** Semi-quantitative analysis of the identified metabolites by  $^1\text{H}$  NMR. Sar= *Salvia rosmarinus*; Sas= *Salvia sclarea*, Sco= *Salvia officinalis*, Css= *Cupressus sempervirens*

Metabolite	Diagnostic $^1\text{H}$ NMR Signal ( $\delta$ ) Used for the Quantification and Multiplicity	Number of Underlying Proton/s	Metabolite quantity in the dried plant material ( $\mu\text{g}/\text{mg}$ )			
			Sar	Sas	Sco	Css
Rosmarinic acid	6.31, d	1	19.72	2.96	23.35	-
Sclareol	0.86, s	3	-	57.39	-	-
Shikimic acid	7.32, d	1	-	-	-	2.67