

Table S1. HPLC-DAD and LC-ESI(-)-HRMS/MS characterization of the main yellow chromophores present in plant (Pl) and dyed wool (Tx) extracts.

	Textile t_R (min)		λ_{max} (nm)	MF	[M-H] ⁻		Δ ppm	MS/MS [m/z (Δ ppm)(attribution)]	Proposed compound	Pl	Tx
	HPLC	UHPLC			Meas. m/z	Cal. m/z					
<i>Delphinium semibarbatum</i>	17.55	5.85	256, 356	C ₂₇ H ₃₀ O ₁₆	609.1467	609.1461	-1.0	300.0277 (-0.4) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₇] ⁺	Que-3-O-dexoxy-hex	1	1
	18.75	6.42	255, 355	C ₂₁ H ₂₀ O ₁₂	463.0876	463.0882	1.2	301.0347 (2.1) [Y ₀] ⁻ [C ₁₅ H ₉ O ₇] ⁻ 300.0277 (-0.4) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₇] ⁺ 271.0250 (-0.7)[Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Que-3-O-glu*	2	2
	19.55	6.79	264, 348	C ₂₁ H ₂₀ O ₁₁	447.0929	447.0933	0.8	284.0328 (-0.5) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₆] ⁺ 255.0303 (-1.3)[Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Kae-hex	3	3
	19.90	7.04	264, 347	C ₂₁ H ₂₀ O ₁₁	447.0931	447.0933	0.5	285.0402 (0.8) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0328 (-0.5) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₆] ⁺ 255.0291 (3.3) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Kae-3-O-glu*	4	4
	20.19	7.11	254, 354	C ₂₂ H ₂₂ O ₁₂	477.1040	477.1038	-0.3	315.0505 (1.6) [Y ₀] ⁻ [C ₁₆ H ₁₁ O ₇] ⁻ 314.0433 (-0.2) [Y ₀ -H ⁺] ⁺ [C ₁₆ H ₁₀ O ₇] ⁺ 285.0409 (-1.6)[Y ₀ -2H-CO] ⁻ [C ₁₅ H ₉ O ₆] ⁻	Irh-3-O-glu	5	5
	21.35	9.27	254, 371	C ₁₅ H ₁₀ O ₇	301.0359	301.0354	-1.7	178.9980 (-0.4) [^{1,2} A] ⁻ [C ₈ H ₃ O ₅] ⁻ 151.0037 (-0.7) [^{1,2} A-CO] ⁻ [C ₇ H ₃ O ₄] ⁻ 121.0280 (10.0) [^{1,2} B] ⁻ [C ₇ H ₅ O ₂] ⁻	Que*	n.a.	6
	22.87	10.63	264, 366	C ₁₅ H ₁₀ O ₆	285.0413	285.0405	-2.9	151.0036 (0.7) [^{1,3} A] ⁻ [C ₇ H ₃ O ₄] ⁻	Kae*	n.a.	7
	23.40	10.91	254, 370	C ₁₆ H ₁₂ O ₇	315.0519	315.0510	-2.7	300.0282 (-2.0) [C ₁₅ H ₈ O ₇] ⁻ 151.0037 (-0.7) [^{1,2} A-CO] ⁻ [C ₇ H ₃ O ₄] ⁻	Irh*	n.a.	8

	Textile t_R (min)		λ_{max} (nm)	MF	[M-H] ⁻		Δ ppm	MS/MS [m/z (Δ ppm)(attribution)]	Proposed compound	PI	Tx
	HPLC	UHPLC			Meas. m/z	Cal. m/z					
<i>Eremostachys laevigata</i>	18.37	6.18	254, 349	C ₂₆ H ₂₈ O ₁₅	579.1362	579.1355	-0.7	285.0404 (-0.2) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻	7-O-[β -D-arabinopyranosyl-(1 \rightarrow 6)- β -D-glucosyl]luteolin	1	1
	-	6.37	n.a.	C ₂₇ H ₃₀ O ₁₅	593.1519	593.1512	-0.7	447.0936 (-0.3) [C ₂₁ H ₁₉ O ₁₁] ⁻ 285.0404 (-1.3) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0328 (-0.5) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₆] ⁻	Luteolin-7-O-rutinoside	n.a.	n.a.
	19.38	6.49	256, 345	C ₂₁ H ₂₀ O ₁₁	447.0938	447.0933	-0.5	285.0406 (-0.3) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0331 (-1.6) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₆] ⁻	Lut-7-O-glu*	2	2
	20.28	7.18	254, 350	C ₂₃ H ₂₂ O ₁₂	489.1040	489.1038	-0.1	447.0932 (0.1) [C ₂₁ H ₁₉ O ₁₁] ⁻ 285.0407 (-0.8) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0328 (-0.7) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₆] ⁻	Lut-acetyl-hex	3	3
	21.55	8.08	254, 350	C ₂₄ H ₂₂ O ₁₄	533.0939	533.0937	-0.3	489.10438 (0.1) [C ₂₃ H ₂₂ O ₁₂] ⁻ 285.0408 (-1.0) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻	Lut-manoyl-hex	n.a.	4
	21.98	9.15	254, 350	C ₁₅ H ₁₀ O ₆	285.0408	285.0405	-0.4	151.0034 (-0.7) [^{1,3} A] ⁻ [C ₇ H ₃ O ₄] ⁻ 133.0283 (9.0) [^{1,3} B] ⁻ [C ₈ H ₅ O ₂] ⁻	Lut*	n.a.	5
<i>Morus Alba</i>	18.63	6.08	256, 356	C ₂₇ H ₃₀ O ₁₆	609.14670	609.1461	-1.5	301.0346 (2.6) [Y ₀] ⁻ [C ₁₅ H ₉ O ₇] ⁻ 300.0278 (-0.4) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₇] ⁻ 271.0250(-0.5) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₆] ⁻	Que-3-O-rutinoside*	1	1

	Textile t_R (min)		λ_{max} (nm)	MF	[M-H] ⁻		Δ ppm	MS/MS [m/z (Δ ppm)(attribution)]	Proposed compound	PI	Tx
	HPLC	UHPLC			Meas. m/z	Cal. m/z					
	19.03	6.41	255, 355	C ₂₁ H ₂₀ O ₁₂	463.0883	463.0882	-0.3	300.0276 (-0.1) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₇] ⁺ 271.0250 (-1.9) [Y ₀ -2H- CO][C ₁₄ H ₇ O ₅] ⁻	Que-3-O-glu*	2	2
	19.77	6.66	264, 348	C ₂₇ H ₃₀ O ₁₅	593.1513	593.1512	-0.2	447.0935 (-0.6) [C ₂₁ H ₁₉ O ₁₁] ⁻ 285.0403 (-0.5) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0329(-0.8) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₆] ⁺ 255.0302(-1.1) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Kae-3-O-rutinoside	3	3
	19.87	7.03	264, 347	C ₂₁ H ₂₀ O ₁₁	447.0935	447.0933	-0.4	285.0397 (0.8) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0331 (-1.6) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₆] ⁺ 255.0303(-1.6) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Kae-3-O-glu*	4	4
	20.33	7.49	264, 348	C ₂₃ H ₂₂ O ₁₂	489.1044	489.1 ^o 38	-1.1	285.0397 (2.7) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0329 (-0.9) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₆] ⁺ 255.0305(-2.6) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Kae-O-acetyl-hex	5	5
<i>Pistacia vera</i>	17.25	5.71	264, 358	C ₂₁ H ₁₈ O ₁₄	493.0628	493.0624	-0.8	317.0307 (-1.3)[Y ₀] ⁻ [C ₁₅ H ₉ O ₈] ⁻ 299.0204 (-2.1) [C ₁₅ H ₇ O ₇] ⁻	Myr-3-O-glr	1	1
				C ₂₁ H ₂₀ O ₁₃	479.0834	479.0831	-0.6	316.0227(-0.6) [Y ₀ -H ⁺] ⁺ [C ₁₅ H ₈ O ₈] ⁺ 287.0206(-3.0) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₇] ⁻	Myr-3-O-glu		

Textile t_R (min)		λ_{max} (nm)	MF	[M-H] ⁻		Δ ppm	MS/MS m/z (Δ ppm)(attribution)]	Proposed compound	PI	Tx
HPLC	UHPLC			Meas. m/z	Cal. m/z					
17.88	5.91	278, 354	C ₂₈ H ₂₄ O ₁₆	615.0992	615.0992	-0.1	463.0887 (-1.0) [Y ₁] ⁻ [C ₂₁ H ₁₉ O ₁₂] ⁻ 301.0349 (1.7) [Y ₀] ⁻ [C ₁₅ H ₉ O ₇] ⁻ 300.0281 (-1.7) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₇] ⁻ 271.0260 (-1.8) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₆] ⁻	Que-3-galloyl-glu	2	2
18.62	6.45	258, 355	C ₂₁ H ₁₈ O ₁₃	477.0675	477.0675	-0.1	301.0356 (-0.7) [Y ₀] ⁻ [C ₁₅ H ₉ O ₇] ⁻ 273.0407 (-0.9) [Y ₀ -CO] ⁻ [C ₁₄ H ₉ O ₆] ⁻	Que-3-O-glr	3	3
			C ₂₁ H ₂₀ O ₁₂	463.0883	463.0882	-0.3	300.0220 (-4.8) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₇] ⁻ 271.0251 (-1.2) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Que-3-O-glu		
19.10	6.82	265; 358	C ₂₀ H ₁₈ O ₁₁	433.0777	433.0776	-0.2	300.0285 (-4.4) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₇] ⁻ 271.0265 (-4.8) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₆] ⁻	Que-3-O-pen	4	4
-	6.98	n.a.	C ₂₁ H ₂₀ O ₁₁	447.0940	447.0933	-1.6	285.0406 (-0.3) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0331 (-1.6) [Y ₀ -H ⁺] ⁻ [C ₁₅ H ₈ O ₆] ⁻	Lut-7-O-glu*	n.a.	n.a.
19.82	7.69	266, 352	C ₂₈ H ₂₂ O ₁₇	629.07837	629.0784	-0.4	477.0674 (0.1) [Y ₁] ⁻ [C ₂₁ H ₁₇ O ₁₃] ⁻ 301.0357 (-1.1) [Y ₀] ⁻ [C ₁₅ H ₉ O ₇] ⁻	Que-galloyl-glr	5	5
22.00	9.16	254, 350	C ₁₅ H ₁₀ O ₆	285.0411	285.0405	-2.4	151.0035 (-1.0) [^{1,3} A] ⁻ [C ₇ H ₃ O ₄] ⁻ 133.0284 (8.7) [^{1,3} B] ⁻ [C ₈ H ₅ O ₂] ⁻	Lut*	6	6

	Textile t_R (min)		λ_{max} (nm)	MF	[M-H] ⁻		Δ ppm	MS/MS [m/z (Δ ppm)(attribution)]	Proposed compound	PI	Tx
	HPLC	UHPLC			Meas. m/z	Cal. m/z					
<i>Prangos ferulacea</i>	18.60	6.43	256, 354	C ₂₁ H ₁₈ O ₁₃	477.0681	477.0675	-1.3	301.0358 (-1.8) [Y ₀] ⁻ [C ₁₅ H ₉ O ₇] ⁻	Que-3-O-gl ^r *	1	1
	20.33	7.24	254, 352	C ₂₂ H ₂₀ O ₁₃	491.0832	491.0831	-0.1	315.0515 (-1.4) [Y ₀] ⁻ [C ₁₆ H ₁₁ O ₇] ⁻	Irh-3-O-gl ^r	2	2
								271.0252 (-1.4) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₆] ⁻			
<i>Punica granatum</i>	3.73	2.24	257, 376	C ₃₄ H ₂₂ O ₂₂	781.0521	781.0530	0.9	600.9899 (-0.5) [C ₂₈ H ₇ O ₁₆] ⁻	Punicalin	1	1
								300.9993 (-1.1)[Y ₀] ⁻ [C ₁₄ H ₅ O ₈] ⁻			
	6.05	3.02	257, 377	C ₄₈ H ₂₈ O ₃₀	541.0266 [#]	541.0260	-0.6	[782.0564 (4.2) + 300.9995 (-1.6) [C ₃₄ H ₂₂ O ₂₂] ⁻ + [C ₁₄ H ₅ O ₈] ⁻	Punicalagin A	2	2
	8.89	3.69	257, 378	C ₄₈ H ₂₈ O ₃₀	541.0268 [#]	541.0260	-0.7	[782.0564 (4.2) + 300.9995 (-1.6) [C ₃₄ H ₂₂ O ₂₂] ⁻ + [C ₁₄ H ₅ O ₈] ⁻	Punicalagin B	3	3
	15.51	5.46	256, 362	C ₂₇ H ₂₂ O ₁₈	633.0629	633.0733	-0.8	463.0523 (-1.1) [C ₂₀ H ₁₅ O ₁₃] ⁻ 300.9989 (0.4) [Y ₀] ⁻ [C ₁₄ H ₅ O ₈] ⁻	Galloy-HHDP-hex	4	4
	16.45	5.70	254, 377	C ₁₉ H ₁₄ O ₁₂	433.0403	433.0412	0.9	300.9987 (1.0) [Y ₀] ⁻ [C ₁₄ H ₅ O ₈] ⁻ 299.9911 (0.2) [Y ₀ -H ⁺] [•] [C ₁₄ H ₄ O ₈] [•]	Ellagic acid- xylopyranoside	5	5
	17.01	5.88	252, 359	C ₂₀ H ₁₆ O ₁₂	447.0565	447.0569	0.4	300.9978 (4.1) [Y ₀] ⁻ [C ₁₄ H ₅ O ₈] ⁻ 299.9913 (-0.4) [Y ₀ -H ⁺] [•] [C ₁₄ H ₄ O ₈] [•]	Ellagic acid-rhamnoside	6	6
	19.38	6.24	250, 368	C ₁₄ H ₆ O ₈	300.9996	300.9990	-0.6	273.0047 (-0.7) [C ₁₃ H ₅ O ₇] ⁻ 257.0096 (-1.8) [C ₁₃ H ₅ O ₆] ⁻ 229.0145 (-1.0) [C ₁₂ H ₅ O ₅] ⁻	Ellagic acid*	7	7

	Textile t_R (min)		λ_{max} (nm)	MF	[M-H] ⁻		Δ ppm	MS/MS [m/z (Δ ppm)(attribution)]	Proposed compound	PI	Tx
	HPLC	UHPLC			Meas. m/z	Cal. m/z					
<i>Vitis vinifera</i>	18.60	6.46	256, 354	C ₂₁ H ₁₈ O ₁₃	477.0675	477.0675	-0.1	301.0356 (0.6) [Y ₀] ⁻ [C ₁₅ H ₉ O ₇] ⁻	Que-O- <i>glr</i> *	1	1
	-	6.81	n.a.	C ₂₁ H ₂₀ O ₁₁	447.0931	447.0933	0.3	284.0331 (-1.6) [Y ₀ -H ⁺] ^{•-} [C ₁₅ H ₈ O ₆] ^{•-} 255.0300(-0.2)[Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Kae- <i>glu</i> isomer	n.a.	n.a.
	19.80	7.02	264, 348	C ₂₁ H ₂₀ O ₁₁	447.0933	447.0933	0.0	285.0404 (0.1) [Y ₀] ⁻ [C ₁₅ H ₉ O ₆] ⁻ 284.0331 (-1.6) [Y ₀ -H ⁺] ^{•-} [C ₁₅ H ₈ O ₆] ^{•-} 255.0306(-2.6) [Y ₀ -2H-CO] ⁻ [C ₁₄ H ₇ O ₅] ⁻	Kae-3-O- <i>glu</i> *	2	2
	21.23	9.27	254, 370	C ₁₅ H ₁₀ O ₇	301.0357	301.0354	-1.0	151.0030 (4.4) [^{1,3} A] ⁻ [C ₇ H ₃ O ₄] ⁻ 121.0280 (10.0) [^{1,2} B] ⁻ [C ₇ H ₃ O ₂] ⁻	Que*	n.a.	3

Abbreviations: Que, quercetin; Kae, kaempferol; Lut, luteolin; Irlh, isorhamnetin; rha, rhamnose; glc, glucoside; glr, glucuronide; gly, glycoside; deoxyhex, deoxyhexoside; hex, hexoside; pen, pentoside; rut, rutinoside.

[#] Double charged deprotonated molecules [M-2H]²⁻

* Identified with an analytical standard