

1 Supporting information for

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3 **Polyphenol characterisation and diverse bioactivities of native**  
4 **Australian lilly pilly (*Syzygium paniculatum*) extract**

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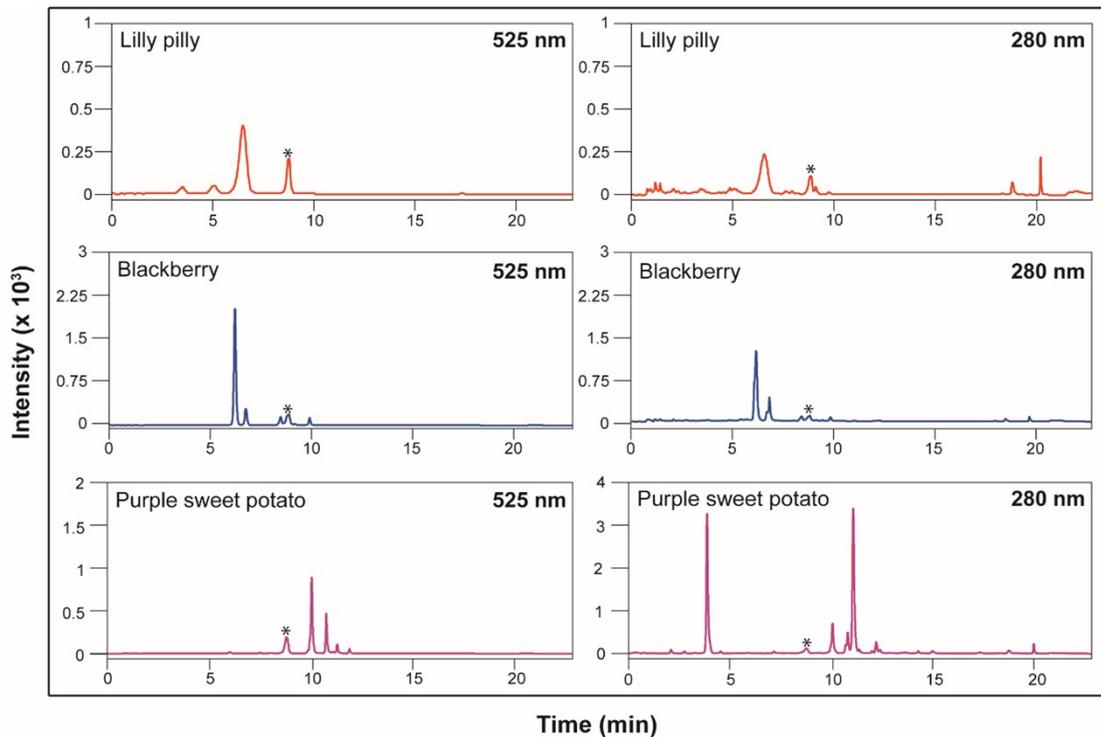
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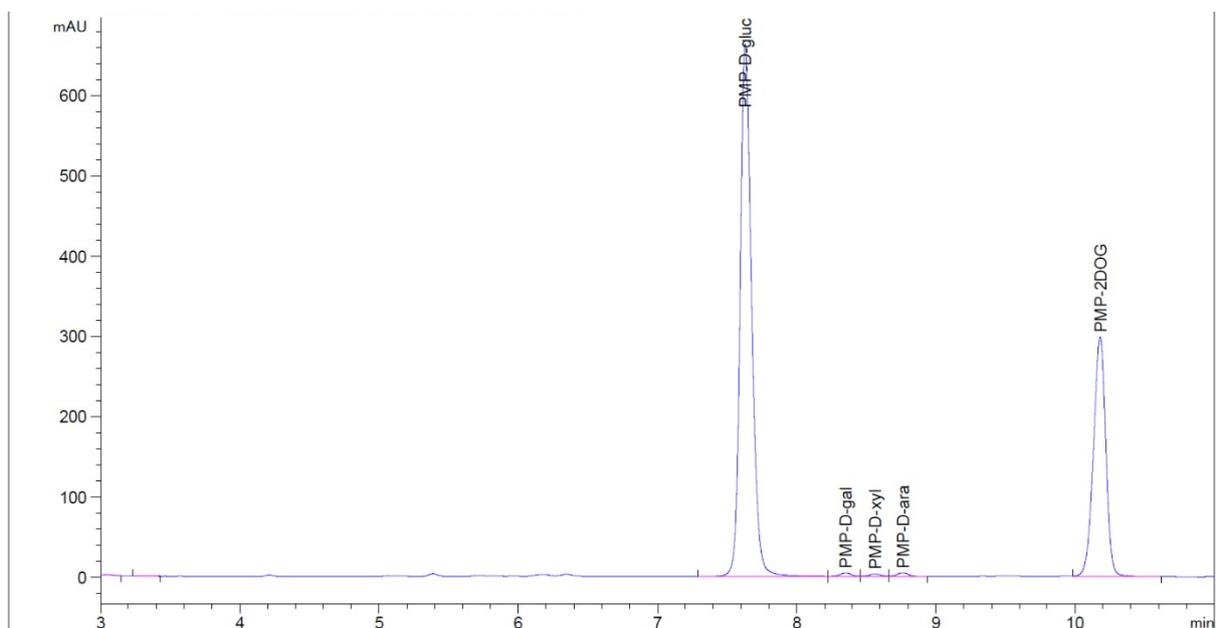
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31 **Figure S1. HPLC profiles of plant extracts.** Chromatograms of plant extracts from lilly pillly (orange), purple  
 32 sweet potato (pink) and blackberry (blue) measured at 525 nm and 280 nm. Malvidin-3-glucoside internal standard  
 33 (10 ppm) is labelled in each chromatogram (\*). The percentage anthocyanin component of the lilly pillly extract  
 34 at 280 nm was calculated using the ratio between the sum of the integrated peak areas of the identified  
 35 anthocyanins and the sum of the integrated peak areas for all peaks in the extract (not including the internal  
 36 standard). This percentage anthocyanin component was calculated to be 68%.



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38 **Figure S2. Lilly pillly monosaccharide analysis.** Liquid chromatography analysis of monosaccharides from lilly  
 39 pillly extract hydrolysates.

40 **Table S1. Quantification of anthocyanin isoforms in lilly pilly biomass.** Anthocyanins below the limit of  
 41 detection denoted by \*.

<b>Biomass</b>	<b>Anthocyanin Isoform</b>	<b><i>m/z</i></b>	<b>Amount (mg Cy3Glc/100 g DW) (SEM)</b>
<b>Lilly Pilly</b>	delphinidin-diglucoside	627.2	24.96 (1.33)
	petunidin-diglucoside	641.2	34.70 (0.49)
	malvidin-diglucoside	655.2	379.20 (11.02)
	<b>Total</b>		<b>438.86 (12.84)</b>
<b>Purple Sweet Potato</b>	cyanidin-3-p-hydroxybenzoylsophoroside-5-glucoside	893.2	0.92 (0.24)
	peonidin-3-p-hydroxybenzoylsophoroside-5-glucoside	907.3	*
	cyanidin-3-feruloylsophoroside-5-glucoside	949.3	*
	Unknown (cyanidin-based)	1085.3	*
	cyanidin-3-caffeoylcaffeoylsophoroside-5-glucoside	1097.2	*
	cyanidin-3-caffeoyl-p-hydroxybenzoylsophoroside-5-glucoside	1055.3	200.31 (11.50)
	cyanidin-3-caffeoylferuloylsophoroside-5-glucoside	1111.3	85.88 (4.54)
	peonidin-3-caffeoyl-p-hydroxybenzoylsophoroside-5-glucoside	1069.3	16.89 (1.03)
	peonidin-3-caffeoylferuloylsophoroside-5-glucoside	1125.3	6.12 (0.46)
	<b>Total</b>		<b>310.12 (17.77)</b>
<b>Blackberry</b>	cyanidin-3-glucoside	449.1	565.68 (22.50)
	cyanidin-3-rutinoside	595.2	84.68 (3.48)
	cyanidin-3-xyloside	419.1	39.80 (1.47)
	cyanidin-3-malonylglucoside	535.1	2.57 (0.21)
	cyanidin-3-dioxalylglucoside	593.1	29.70 (1.31)
	<b>Total</b>		<b>722.42 (28.96)</b>

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44 **Table S2. Thermal stability of anthocyanin-enriched extracts.** Rate constants (*k*) for the thermal degradation  
 45 of anthocyanins from each source at 80 °C, the R<sup>2</sup> of 1<sup>st</sup> order regressions fitted to each plot and the corresponding  
 46 half-lives of anthocyanin thermal degradation are given.

<b>Biomass</b>	<b><i>k</i> x 10<sup>-5</sup></b>	<b>T<sub>1/2</sub> (h)</b>	<b>R<sup>2</sup></b>
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	(s <sup>-1</sup> )		
<b>Lilly Pilly</b>	4.003	4.8	0.995
<b>Purple Sweet Potato</b>	0.7466	25.8	0.999
<b>Blackberry</b>	2.027	9.5	0.999

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