

## **APPENDIX**

## ANTIOXIDANT ACTIVITY AND TOTAL PHENOLIC CONTENT OF MANGO SEED KERNEL EXTRACT AND GRAPE SEED EXTRACT

**Table A.1** Antioxidant activity and total phenolic content of mango seed kernel extracts in Kaew variety

	TPC <sup>(2)</sup> (mg GAE/g extract)	RP <sup>(3)</sup> (mg AAE/g extract)	DPPH <sup>(4)</sup> (%inhibition)	DPPH <sup>(5)</sup> (mg AAE/g extract)
<b>Kaew variety</b>				
Ethanol 95%	408.96	307.73	53.37	13.17
	419.93	312.79	54.42	13.45
	411.65	305.45	53.97	13.33
Mean	413.51 <sup>(1)</sup>	308.66	53.92	13.32
SD	4.67	3.07	0.43	0.11
Rice whisky	411.05	256.57	61.16	15.20
	410.86	271.40	64.41	16.05
	411.12	288.66	53.97	16.14
Mean	411.01	272.21	59.85	15.80
SD	0.11	13.12	4.36	0.42
Water	196.11	170.89	35.23	8.45
	178.88	170.58	35.85	8.61
	169.11	169.61	35.34	8.47
Mean	181.37	170.36	35.47	8.51
SD	11.16	0.54	0.27	0.07
Hot water	180.95	158.98	33.60	8.02
	180.23	141.20	33.70	8.05
	179.39	147.92	35.73	8.58
Mean	180.19	149.37	34.34	8.22
SD	0.64	7.33	0.98	0.26

<sup>(1)</sup> Mean, SD obtained from analysis of three independent samples, in five replicated

<sup>(2)</sup> Total phenolic contents, expressed as milligrams of gallic acid equivalents per gram of extract weight.

<sup>(3)</sup> Reducing power, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.

<sup>(4)</sup> %inhibition of DPPH

<sup>(5)</sup> DPPH, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.

**Table A.2** Antioxidant activity and total phenolic content of mango seed kernel extracts in Mahachanok variety

	TPC <sup>(2)</sup> (mg GAE/g extract)	RP <sup>(3)</sup> (mg AAE/g extract)	DPPH <sup>(4)</sup> (%inhibition)	DPPH <sup>(5)</sup> (mg AAE/g extract)
<b>Mahachanok variety</b>				
Ethanol 95%	219.51	112.01	29.60	6.98
	220.07	114.04	29.97	7.08
	209.82	110.69	29.47	6.95
Mean	216.47	112.25	29.68	7.00
SD	4.71	1.38	0.21	0.05
Rice whisky	250.82	191.94	32.41	7.71
	228.15	182.45	33.20	7.92
	241.50	185.09	33.73	8.06
Mean	240.16	186.49	33.11	7.90
SD	9.30	4.00	0.54	0.14
Water	117.90	89.57	16.21	3.49
	109.44	80.22	16.30	3.51
	110.84	82.43	16.13	3.47
Mean	112.73	84.07	16.21	3.49
SD	3.70	3.99	0.07	0.02
Hot water	111.29	85.73	13.31	2.74
	121.10	87.89	13.49	2.78
	118.96	87.53	13.24	2.72
Mean	117.12	87.05	13.35	2.75
SD	4.21	0.95	0.11	0.03

<sup>(1)</sup> Mean, SD obtained from analysis of three independent samples, in five replicated

<sup>(2)</sup> Total phenolic contents, expressed as milligrams of gallic acid equivalents per gram of extract weight.

<sup>(3)</sup> Reducing power, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.

<sup>(4)</sup> %inhibition of DPPH

<sup>(5)</sup> DPPH, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.

**Table A.3** Antioxidant activity and total phenolic content of mango seed kernel extracts in Keaw morakot variety

	TPC <sup>(2)</sup> (mg GAE/g extract)	RP <sup>(3)</sup> (mg AAE/g extract)	DPPH <sup>(4)</sup> (%inhibition)	DPPH <sup>(5)</sup> (mg AAE/g extract)
<b>Keaw morakot variety</b>				
Ethanol 95%	320.76	94.25	36.20	8.70
	316.73	93.89	35.79	8.59
	317.30	102.35	35.89	8.62
Mean	318.26	96.83	35.96	8.64
SD	1.78	3.90	0.18	0.05
Rice whisky	374.99	191.98	39.83	9.64
	334.09	200.53	42.69	10.39
	342.49	208.05	43.63	10.63
Mean	350.52	200.19	42.05	10.22
SD	17.63	6.57	1.62	0.42
Water	80.03	72.85	12.41	2.50
	81.04	73.01	13.54	2.79
	80.29	75.38	13.48	2.78
Mean	80.45	73.75	13.14	2.69
SD	0.43	1.16	0.52	0.14
Hot water	90.50	74.05	11.31	2.21
	79.07	67.53	11.48	2.26
	88.82	67.48	11.43	2.25
Mean	86.13	69.69	11.41	2.24
SD	5.04	3.08	0.07	0.02

<sup>(1)</sup> Mean, SD obtained from analysis of three independent samples, in five replicated

<sup>(2)</sup> Total phenolic contents, expressed as milligrams of gallic acid equivalents per gram of extract weight.

<sup>(3)</sup> Reducing power, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.

<sup>(4)</sup> %inhibition of DPPH

<sup>(5)</sup> DPPH, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.

**Table A.4** Antioxidant activity and total phenolic content of grape seed extracts in Black queen variety

	TPC <sup>(2)</sup> (mg GAE/g extract)	RP <sup>(3)</sup> (mg AAE/g extract)	DPPH <sup>(4)</sup> (%inhibition)	DPPH <sup>(5)</sup> (mg AAE/g extract)
<b>Black queen variety</b>				
Ethanol 95%	646.82	370.09	43.13	10.51
	685.46	368.00	43.71	10.66
	665.53	364.93	42.66	10.38
Mean	665.94	367.67	43.17	10.51
SD	15.77	2.12	0.43	0.11
Rice whisky	693.45	407.91	48.55	11.92
	673.84	378.89	50.61	12.46
	665.53	392.07	50.25	12.36
Mean	677.61	392.95	49.80	12.24
SD	11.71	11.86	0.90	0.23
Water	318.23	163.60	16.78	3.64
	333.90	178.25	16.97	3.69
	335.67	177.98	16.61	3.60
Mean	329.27	173.28	16.79	3.64
SD	7.84	6.84	0.14	0.04
Hot water	317.88	156.36	13.49	2.78
	306.87	157.82	13.27	2.72
	309.05	150.30	13.66	2.83
Mean	311.26	154.82	13.47	2.78
SD	4.76	3.26	0.16	0.04

<sup>(1)</sup> Mean, SD obtained from analysis of three independent samples, in five replicated

<sup>(2)</sup> Total phenolic contents, expressed as milligrams of gallic acid equivalents per gram of extract weight.

<sup>(3)</sup> Reducing power, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.

<sup>(4)</sup> %inhibition of DPPH

<sup>(5)</sup> DPPH, expressed as milligrams of ascorbic acid equivalents per gram of extract weight.