

Table S1 Coefficients of variation of scale characteristics and nutritional indices for 20 varieties

Variety	Area/mm ²					Perimeter/mm					Weight/g				
	Min	Max	Mean	SD	CV (%)	Min	Max	Mean	SD	CV (%)	Min	Max	Mean	SD	CV (%)
‘Apricot Fudge’	288.75	509.84	384.65	39.98	10.39	67.7	90.65	76.58	4.95	6.46	0.99	2.73	1.65	0.51	30.84
‘Easy Dream’	285.20	659.87	488.68	75.17	15.38	71.48	108.12	89.60	6.38	7.12	0.85	2.41	1.50	0.29	18.97
‘Easy Sun’	288.22	553.13	400.68	70.28	17.54	69.39	91.29	79.44	6.01	7.56	0.58	2.10	1.34	0.32	24.15
‘Easy Whisper’	255.85	490.05	345.57	32.99	9.55	63.81	92.35	73.71	4.77	6.47	0.59	1.69	1.16	0.21	18.04
‘Pearl Frances’	311.38	603.38	443.53	57.16	12.89	70.73	99.51	82.93	5.55	6.69	1.30	3.04	1.92	0.34	17.75
‘Pearl Melanie’	400.66	675.16	506.81	47.08	9.29	77.66	102.32	88.40	4.32	4.89	1.10	2.77	2.00	0.24	12.19
‘Pearl White’	250.10	647.62	411.26	57.20	13.91	62.28	103.23	79.56	6.02	7.57	0.61	2.55	1.53	0.41	26.89
‘Pink Flight’	318.34	728.56	467.54	66.02	14.12	69.04	109.02	84.67	6.05	7.14	1.08	2.89	1.79	0.32	17.76
‘Purple Marble’	292.50	706.77	435.95	75.83	17.39	65.86	106.12	81.24	7.61	9.37	0.93	2.69	1.72	0.32	18.62
‘Red Twin’	352.34	569.87	461.15	52.92	11.48	72.96	94.99	84.21	5.02	5.97	1.36	3.19	2.08	0.40	19.37
‘Red Velvet’	372.31	726.09	516.45	35.96	6.96	75.65	104.21	88.7	3.39	3.83	1.33	3.34	2.03	0.44	21.87
‘Strawberry Event’	318.34	668.89	446.68	61.07	13.67	67.99	99.60	81.79	5.50	6.72	1.15	2.90	1.58	0.31	19.43
‘Tresor’	267.60	476.25	379.33	41.52	10.95	66.79	87.86	79.29	4.33	5.46	1.02	2.12	1.69	0.25	14.74
‘Tribal Dance’	229.20	462.35	349.53	57.10	16.34	60.86	86.66	74.54	6.27	8.41	0.51	1.41	0.88	0.22	24.53
‘Yellow Cocotte’	202.68	375.06	274.87	35.81	13.03	57.50	76.23	66.67	4.72	7.08	0.49	1.84	0.79	0.28	34.94
‘Hotel California’	288.22	553.13	400.68	70.28	17.54	69.39	91.29	79.44	6.01	7.56	1.30	3.19	2.03	0.44	21.59
‘November Rain’	344.07	664.00	482.95	63.83	13.22	74.10	100.20	87.25	6.38	7.31	1.25	2.32	1.75	0.27	15.38
‘Eyeliner’	366.51	715.54	510.67	87.95	17.22	75.74	102.36	88.99	6.80	7.65	0.24	3.16	1.86	0.55	29.45
‘Royal Sunset’	308.61	785.50	486.47	93.76	19.27	75.04	117.01	93.19	8.42	9.03	0.95	2.84	1.75	0.37	21.01
‘Yellow Diamond’	277.88	543.16	380.82	64.20	16.86	67.80	97.48	80.47	6.16	7.65	1.07	2.32	1.67	0.30	18.06

Table S1 Coefficients of variation of scale characteristics and nutritional indices for 20 varieties (Continued)

Variety	Width/mm					Height/mm					Thickness/mm				
	Min	Max	Mean	SD	CV (%)	Min	Max	Mean	SD	CV (%)	Min	Max	Mean	SD	CV (%)
‘Apricot Fudge’	16.97	31.79	22.18	2.81	12.65	17.94	28.57	23.72	2.04	8.61	3.87	8.66	6.28	1.35	21.48
‘Easy Dream’	15.42	28.46	21.44	2.38	11.11	25.45	39.89	31.22	2.10	6.73	1.66	6.77	4.43	0.69	15.58
‘Easy Sun’	16.56	31.48	21.14	3.37	15.93	21.72	29.94	26.33	1.82	6.91	2.22	6.24	4.57	0.64	14.10
‘Easy Whisper’	15.74	25.67	19.70	2.05	10.39	19.50	29.51	24.09	1.98	8.23	2.74	5.83	4.43	0.73	16.38
‘Pearl Frances’	16.00	31.79	22.25	3.06	13.76	22.32	31.89	26.8	1.55	5.77	3.27	6.71	5.34	0.82	15.37
‘Pearl Melanie’	19.66	29.00	24.29	1.88	7.72	23.84	33.28	28.39	1.96	6.89	3.01	7.18	5.37	0.79	14.77
‘Pearl White’	14.99	29.65	21.89	2.35	10.73	20.41	31.14	25.41	1.98	7.79	2.91	6.52	4.83	0.86	17.90
‘Pink Flight’	19.62	33.61	24.57	2.41	9.82	19.95	31.01	25.74	1.99	7.74	2.62	6.75	4.76	0.90	18.92
‘Purple Marble’	17.10	33.23	24.52	3.55	14.49	17.53	29.78	23.62	2.28	9.66	4.66	7.72	6.07	0.66	10.90
‘Red Twin’	21.10	29.00	25.01	2.34	9.34	21.21	29.32	24.98	1.51	6.03	4.26	7.83	6.38	0.73	11.44
‘Red Velvet’	18.38	30.37	24.85	1.99	8.01	21.46	33.23	27.83	2.25	8.09	3.47	6.90	5.00	0.87	17.46
‘Strawberry Event’	18.13	31.64	24.53	2.74	11.17	18.90	29.23	24.55	1.59	6.48	3.42	7.11	5.25	0.95	18.15
‘Tresor’	18.11	26.68	22.59	1.87	8.28	19.46	27.53	23.74	1.84	7.75	3.39	6.45	5.29	0.69	13.00
‘Tribal Dance’	14.90	26.29	19.17	2.34	12.18	20.26	29.02	24.58	2.28	9.29	1.86	5.33	3.39	0.59	17.44
‘Yellow Cocotte’	13.22	22.83	18.08	1.86	10.26	16.60	26.98	21.9	2.57	11.74	2.29	5.15	3.73	0.64	17.27
‘Hotel California’	17.38	33.26	25.05	3.82	15.24	25.21	35.94	32.03	2.95	9.22	2.63	15.54	5.10	2.40	47.03
‘November Rain’	16.71	30.47	23.98	3.18	13.25	23.70	34.07	28.45	2.12	7.47	3.25	25.87	5.33	4.33	81.20
‘Eyeliner’	17.10	29.07	22.96	2.95	12.85	25.78	36.70	29.76	2.21	7.43	3.13	5.96	4.65	0.68	14.53
‘Royal Sunset’	15.99	29.32	21.69	2.87	13.24	25.59	37.98	30.92	2.88	9.30	2.65	6.16	4.84	0.70	14.45
‘Yellow Diamond’	13.88	22.00	17.91	1.77	9.87	23.44	35.10	28.98	2.34	8.08	3.62	6.72	5.29	0.64	12.19

Table S1 Coefficients of variation of scale characteristics and nutritional indices for 20 varieties (Continued)

Variety	Circularity					Sucrose content (mg/g)					Glucose content (mg/g)				
	Min	Max	Mean	SD	CV (%)	Min	Max	Mean	SD	CV (%)	Min	Max	Mean	SD	CV (%)
‘Apricot Fudge’	0.62	0.88	0.82	0.06	6.68	37.13	41.20	39.49	2.11	5.34	2.24	3.14	2.70	0.45	16.67
‘Easy Dream’	0.64	0.86	0.76	0.05	6.58	39.37	41.86	40.58	1.24	3.07	4.63	5.53	5.02	0.47	9.30
‘Easy Sun’	0.72	0.86	0.79	0.03	4.14	34.69	36.24	35.65	0.84	2.36	4.00	5.03	4.51	0.52	11.51
‘Easy Whisper’	0.63	0.86	0.80	0.05	6.16	19.29	20.74	19.77	0.84	4.22	3.38	3.73	3.61	0.20	5.59
‘Pearl Frances’	0.68	0.87	0.81	0.03	3.70	38.79	44.69	41.87	2.96	7.06	2.11	2.66	2.42	0.28	11.75
‘Pearl Melanie’	0.65	0.87	0.81	0.03	3.88	25.96	32.54	29.93	3.49	11.66	18.44	24.24	20.94	2.99	14.26
‘Pearl White’	0.66	0.88	0.81	0.04	5.14	22.43	29.81	26.63	3.79	14.25	3.98	4.73	4.45	0.41	9.20
‘Pink Flight’	0.73	0.87	0.82	0.03	3.75	20.79	23.36	22.00	1.29	5.85	2.75	3.22	3.05	0.26	8.41
‘Purple Marble’	0.70	0.87	0.83	0.03	3.22	12.45	15.11	13.41	1.47	10.98	2.82	3.62	3.30	0.43	12.90
‘Red Twin’	0.69	0.87	0.81	0.04	5.41	21.25	23.53	22.28	1.16	5.19	2.88	3.55	3.31	0.38	11.39
‘Red Velvet’	0.73	0.88	0.82	0.03	3.12	19.51	24.15	21.34	2.48	11.60	2.77	3.71	3.23	0.47	14.45
‘Strawberry Event’	0.71	0.89	0.83	0.02	2.91	20.81	24.92	23.48	2.31	9.84	2.99	3.46	3.26	0.24	7.32
‘Tresor’	0.65	0.82	0.76	0.03	4.53	10.71	11.14	10.85	0.25	2.26	2.4	2.82	2.67	0.23	8.79
‘Tribal Dance’	0.66	0.85	0.79	0.05	5.82	21.37	21.78	21.58	0.20	0.95	2.83	3.33	3.1	0.25	8.07
‘Yellow Cocotte’	0.60	0.87	0.78	0.06	8.12	32.48	33.56	33.06	0.55	1.66	16.05	18.67	17.09	1.40	8.18
‘Hotel California’	0.69	0.86	0.78	0.04	4.91	30.92	32.63	31.71	0.87	2.73	10.58	12.37	11.68	0.97	8.26
‘November Rain’	0.72	0.85	0.80	0.04	4.71	35.17	39.51	37.58	2.21	5.88	3.33	3.55	3.48	0.12	3.58
‘Eyeliner’	0.63	0.88	0.80	0.04	5.06	30.37	30.82	30.59	0.22	0.73	4.67	6.48	5.44	0.93	17.12
‘Royal Sunset’	0.57	0.81	0.70	0.06	8.03	36.75	39.51	38.13	1.38	3.63	14.83	16.81	16.09	1.10	6.82
‘Yellow Diamond’	0.59	0.83	0.74	0.05	7.05	44.26	44.91	44.55	0.33	0.75	10.05	11.58	10.97	0.81	7.37

Table S1 Coefficients of variation of scale morphological and nutritional indices for 20 varieties (Continued)

Variety	Starch content (mg/g)					Soluble protein content (mg/g)				
	Min	Max	Mean	SD	CV (%)	Min	Max	Mean	SD	CV (%)
‘Apricot Fudge’	107.79	114.37	111.3	3.31	2.98	0.68	0.69	0.69	0.01	0.93
‘Easy Dream’	77.61	82.55	80.08	2.47	3.08	0.81	0.83	0.81	0.01	1.23
‘Easy Sun’	45.41	56.04	48.95	6.14	12.54	0.92	0.92	0.92	0.00	0.34
‘Easy Whisper’	74.43	83.21	79.80	4.70	5.89	0.70	0.75	0.73	0.03	4.07
‘Pearl Frances’	101.98	107.42	104.70	2.72	2.60	0.77	0.80	0.79	0.02	2.11
‘Pearl Melanie’	183.60	189.67	186.64	3.04	1.63	0.78	0.81	0.80	0.02	2.08
‘Pearl White’	185.57	192.89	188.50	3.87	2.05	0.75	0.75	0.75	0.00	0.33
‘Pink Flight’	72.02	74.75	73.84	1.57	2.13	0.79	0.84	0.81	0.03	3.32
‘Purple Marble’	76.53	80.010	78.46	1.77	2.26	0.81	0.81	0.81	0.00	0.13
‘Red Twin’	157.78	166.90	162.85	4.64	2.85	0.79	0.79	0.79	0.00	0.20
‘Red Velvet’	124.37	141.08	132.47	8.36	6.31	0.83	0.86	0.85	0.02	1.97
‘Strawberry Event’	157.80	167.02	161.75	4.75	2.93	0.75	0.76	0.76	0.00	0.21
‘Tresor’	6.05	13.45	9.34	3.77	40.37	0.78	0.81	0.80	0.01	1.71
‘Tribal Dance’	103.84	117.00	109.55	6.75	6.17	0.75	0.76	0.75	0.00	0.39
‘Yellow Cocotte’	71.67	82.44	75.66	5.90	7.80	0.78	0.79	0.79	0.00	0.49
‘Hotel California’	63.56	72.47	68.65	4.59	6.69	0.88	0.89	0.88	0.00	0.24
‘November Rain’	111.51	127.85	121.04	8.50	7.02	0.70	0.70	0.70	0.00	0.39
‘Eyeliner’	73.75	76.29	75.44	1.47	1.95	0.58	0.71	0.66	0.07	10.32
‘Royal Sunset’	91.63	98.59	93.95	4.02	4.28	0.35	0.39	0.37	0.02	5.63
‘Yellow Diamond’	110.15	115.59	112.42	2.83	2.52	0.71	0.74	0.73	0.01	1.70