

Table S2. Total starch content and thermal properties of starch in storage roots of some selected sweetpotato cultivars

Cultivar / Clones	Starch content (%)	Amylose/ Amylopectin	Gelatinization				Retrogradation			
			To (°C)	Tp (°C)	Tc (°C)	ΔH (J/g)	To (°C)	Tp (°C)	Tc (°C)	ΔH (J/g)
Excel	15.10 ± 1.06	0.28	70.0	82.3	74.8	13.4	52.9	71.7	62.5	4.0
Resisto	11.94 ± 0.83	0.25	74.3	87.5	78.1	11.2	52.1	74.3	63.3	4.6
Centennial	15.82 ± 0.78	0.24	72.2	87.2	76.1	14.1	52.0	67.9	60.3	2.4
Hannah	19.17 ± 0.13	0.22	60.3	80.3	68.5	12.3	52.3	67.4	60.2	1.7
Hernandez	8.23 ± 0.11	0.25	55.3	64.5	61.7	2.9	52.7	66.5	59.6	0.8
Covington	6.94 ± 0.35	0.27	60.6	81.5	66.3	10.1	51.2	63.9	59.9	0.9
Murasaki-29	14.38 ± 0.99	0.26	71.7	87.5	79.7	10.6	54.7	64.8	60.2	1.6
Diane	9.36 ± 0.59	0.25	64.6	85.8	69.8	15.2	54.0	70.7	60.1	3.9
Hidry	27.31 ± 1.68	0.27	69.7	89.5	74.2	12.6	52.2	66.6	59.7	2.5
Suwon-122	30.18 ± 1.01	0.42	73.0	87.1	80.1	12.2	51.6	67.6	60.0	3.8
Picadito	12.50 ± 0.52	0.25	66.4	86.2	74.5	11.7	54.3	65.9	59.0	2.5
Tis-70683	11.27 ± 1.75	0.23	67.4	85.8	72.7	12.6	53.4	67.4	60.0	3.4
W369	17.60 ± 2.04	0.25	72.7	86.3	79.2	11.7	51.9	68.2	60.1	3.4
Koto-puki	17.00 ± 1.43	0.26	72.0	84.2	77.8	11.9	52.3	67.8	60.4	2.9
Beauregard	7.67 ± 0.62	0.25	64.4	81.3	71.5	13.3	51.8	65.2	59.6	2.9
O'Henry	13.96 ± 0.52	0.24	70.2	86.8	75.7	14.0	52.1	67.2	60.0	3.5
Hayman	10.27 ± 0.76	0.25	67.5	88.7	76.0	12.2	51.6	67.0	60.6	3.9
L258	7.20 ± 0.62	0.25	68.1	87.0	77.7	12.1	51.2	68.8	60.1	3.1
SC1149-19	15.62 ± 0.95	0.27	68.5	82.6	75.1	13.6	51.3	70.2	61.1	3.8
GA90-16	22.93 ± 0.65	0.26	76.2	92.3	84.0	14.0	54.8	67.8	61.4	4.5
Jewel	6.42 ± 0.33	0.22	60.2	74.2	68.4	7.2	51.4	70.6	61.0	3.8
NC-Japanese	15.10 ± 1.06	0.26	72.9	84.8	77.9	9.4	51.3	69.0	59.7	4.8

For measurements of the total starch contents, fresh sweetpotato slices of 50 g randomly taken out of 1 kg slices of several whole sweetpotatoes of representative US No. 1 sizes were freeze-dried, and ground using a coffee grinder to dry powders (< 0.5 mm). For each cultivar/clone, the total starch contents of three dry sweetpotato powder samples of 100 mg each were measured using a total starch assay kit (Megazyme International Ireland Ltd, Ireland), normalized on a fresh-weight basis and averaged. The total starch content was represented as the mean ± SD. The ratio of amylose to amylopectin is calculated from the amylose content reported in the main text, using the following formula: Amylose%/(100%-Amylose%), assuming the measured total carbohydrate consisting of only amylose and amylopectin. All the gelatinization and retrogradation data were the average of three independent measurements.