Accessory Publication

Table S1.   List of the 24 *Actinidia deliciosa* genotypes used for the comparative study

Dry matter (DM) class, size class and selection year (SY) are reported. Selection was carried out in two consecutive years, 2003 and 2004, as not all seedlings of the 15 considered breeding families had flowered in 2003. The sampling area of the table indicates, for each harvest year (HY), which type of vine was used (seedling – S or clonal trial – CT) and which measurements were taken (fruit development – FD; cell counting – CC; seed counting – SC). ID number, identification number

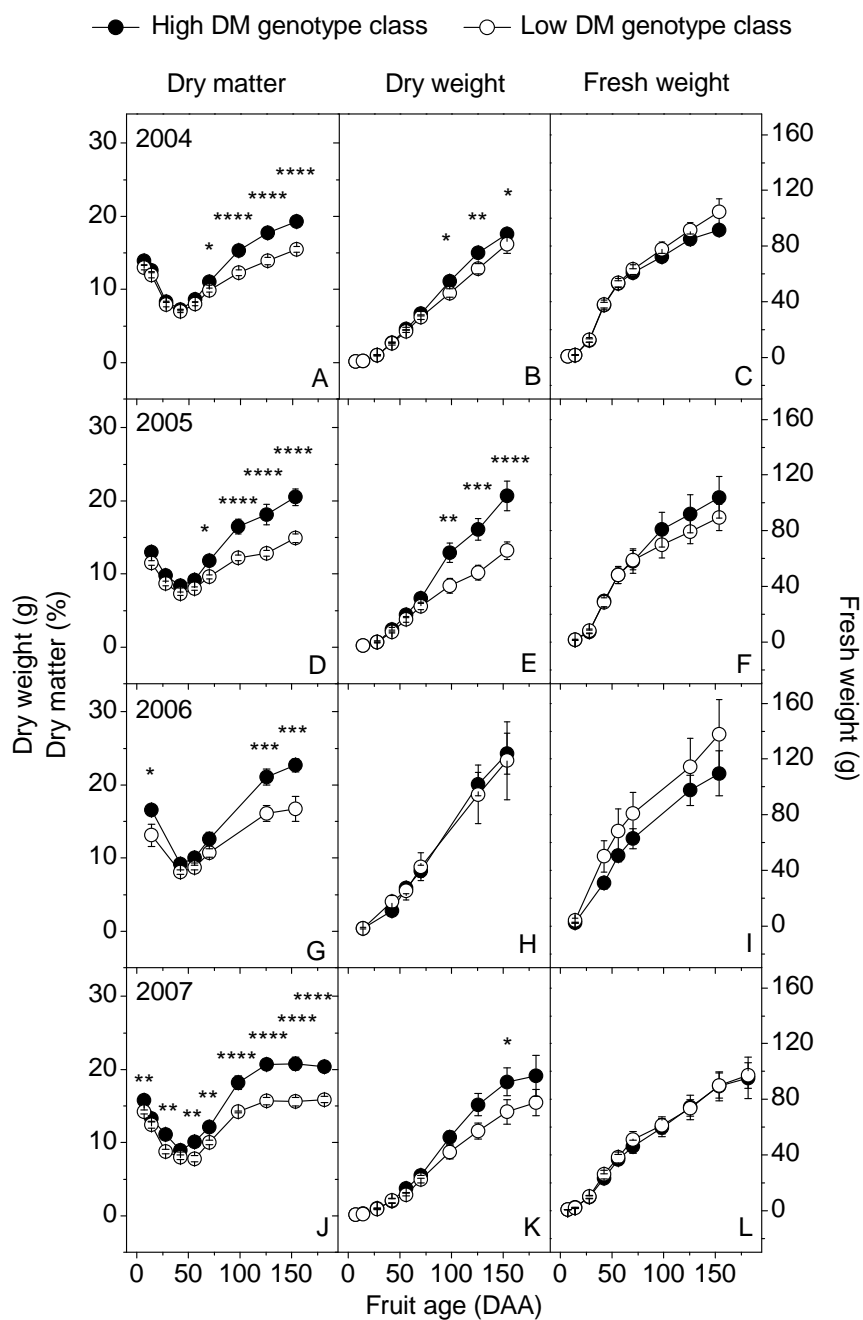| Genotype ID number	DM class	Size class	SY	Sampling						
				2004 HY	2005 HY		2006 HY	2007 HY	2008 HY	
				S	S		S	CT	CT	
				FD	FD	CC	FD	FD	SC	
1	Low	Large	2003	✓	✓	✓	✓	✓	✓	
3	High	Large	2003	✓	✓	✓	✓	✓	✓	
4	High	Small	2003	✓		✓				
5	High	Large	2003	✓	✓	✓	✓	✓	✓	
8	High	Small	2003	✓		✓				
11	Low	Small	2003	✓		✓				
12	Low	Large	2003	✓		✓				
13	High	Large	2003	✓		✓				
14	High	Small	2003	✓		✓				
15	Low	Large	2003	✓		✓				
17	Low	Small	2003	✓	✓	✓	✓	✓	✓	
18	High	Large	2003	✓		✓				
19	Low	Large	2003	✓		✓				
20	Low	Large	2003	✓		✓				
21	High	Large	2003	✓		✓				
22	Low	Large	2003	✓		✓				
23	Low	Small	2003	✓		✓				
24	High	Small	2003	✓		✓				
25	Low	Large	2004		✓	✓	✓	✓	✓	
26	Low	Large	2004		✓	✓		✓	✓	
27	Low	Small	2004		✓	✓	✓	✓	✓	
28	High	Large	2004		✓	✓	✓	✓	✓	
29	High	Small	2004		✓	✓	✓	✓	✓	
30	High	Small	2004		✓	✓	✓	✓	✓	

Fig. S1. Average growth curves for *Actinidia deliciosa* genotypes over four seasons. Genotypes were divided according to final dry matter into high dry matter (DM) (closed circles) and low DM (open circles) classes. Dry matter (A), fruit dry weight (B) and fruit fresh weight (C) in the 2004 harvest year (HY) (n = 9 genotypes per class, 5–10 fruit each genotype per time point). Dry matter (D), fruit dry weight (E) and fruit fresh weight (F) in the 2005 HY (n = 5 genotypes per class, 5–10 fruit each genotype per time point). Dry matter (G), fruit dry weight (H) and fruit fresh weight (I) in the 2006 HY (n = 4–5 genotype per class, 5–10 fruit each genotype per time point). Dry matter (J), fruit dry weight (K) and fruit fresh weight (L) in the 2007 HY (n = 5 genotypes per class, 15–20 fruit each genotype per time point). Values are average ± s.e. of the mean. LSMeans, Tests of Effect Slices: *$P < 0.05$; **$P < 0.01$; ***$P < 0.001$; ****$P < 0.0001$; blank, not significant. DAA, days after anthesis.
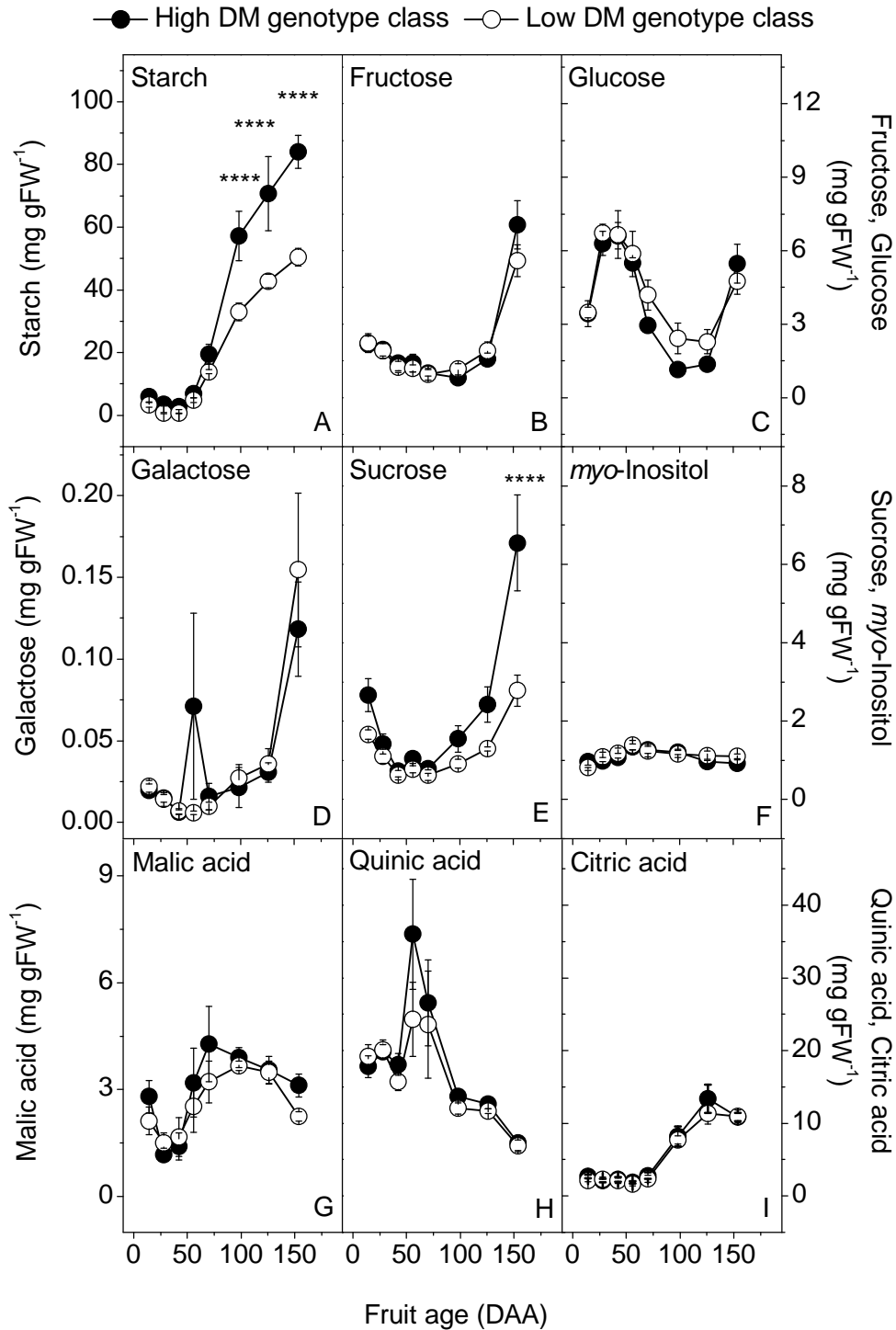
Fig. S2. Changes in non-structural carbohydrate and organic acid concentrations during the 2005 harvest year (HY) fruit growth for *Actinidia deliciosa* genotypes. Genotypes were subdivided according to dry matter into high dry matter (DM) (closed circles) and low DM (open circles) classes. Starch (A), fructose (B), glucose (C), galactose (D), sucrose (E), *myo*-inositol (F), malic acid (G), quinic acid (H) and citric acid (I). (n = 5 genotypes per class, 4 biological replicates each genotype per time point from 5–10 fruit). Values are average ± s.e. of the mean. LSMeans, Tests of Effect Slices: $*P < 0.05$; $**P < 0.01$; $***P < 0.001$; $****P < 0.0001$; blank, not significant. DAA, days after anthesis.