

Supplementary Materials

Figures.

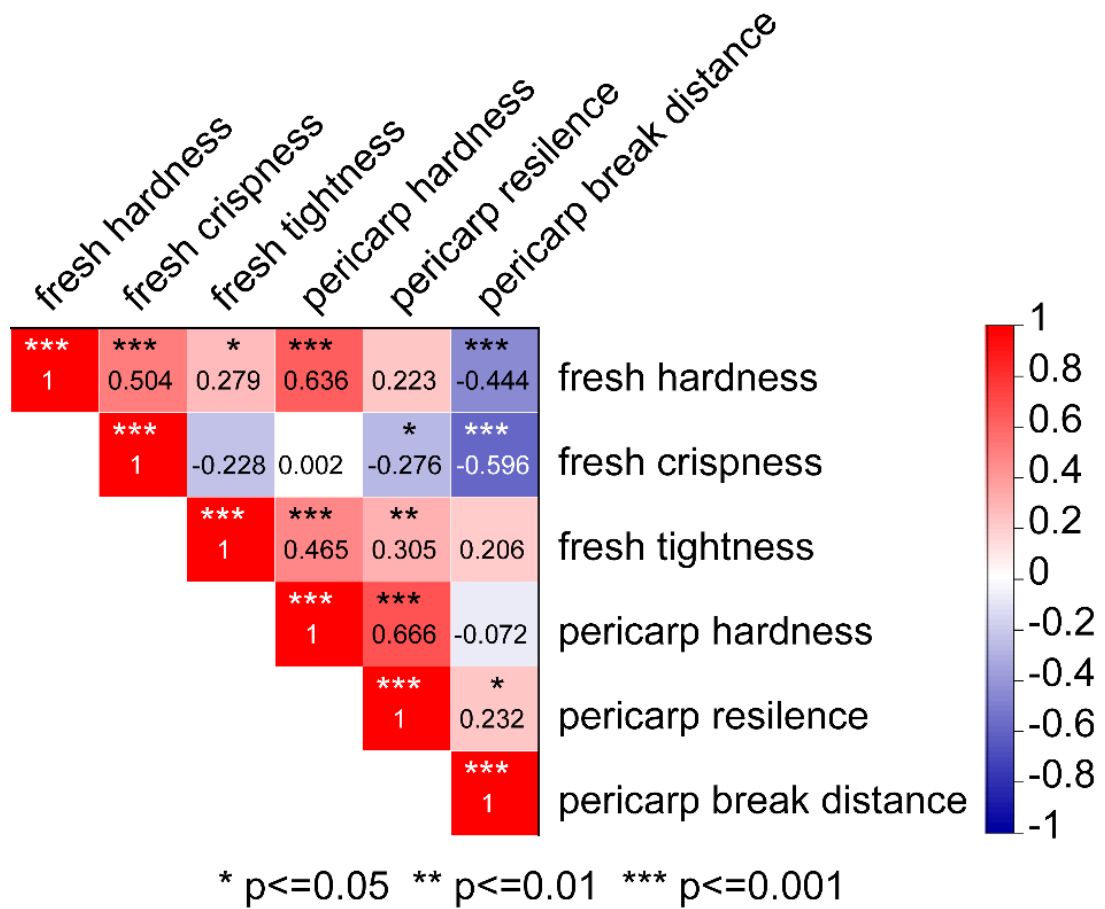


Figure S1 Correlation analysis for six texture properties of ‘Jiguan’, ‘Yindu’, ‘Qinguan’, ‘Fuji’, ‘Huaguan’, and ‘Cripps pink’ apple fruits during postharvest. The number in each square represents the r value for Pearson analysis.

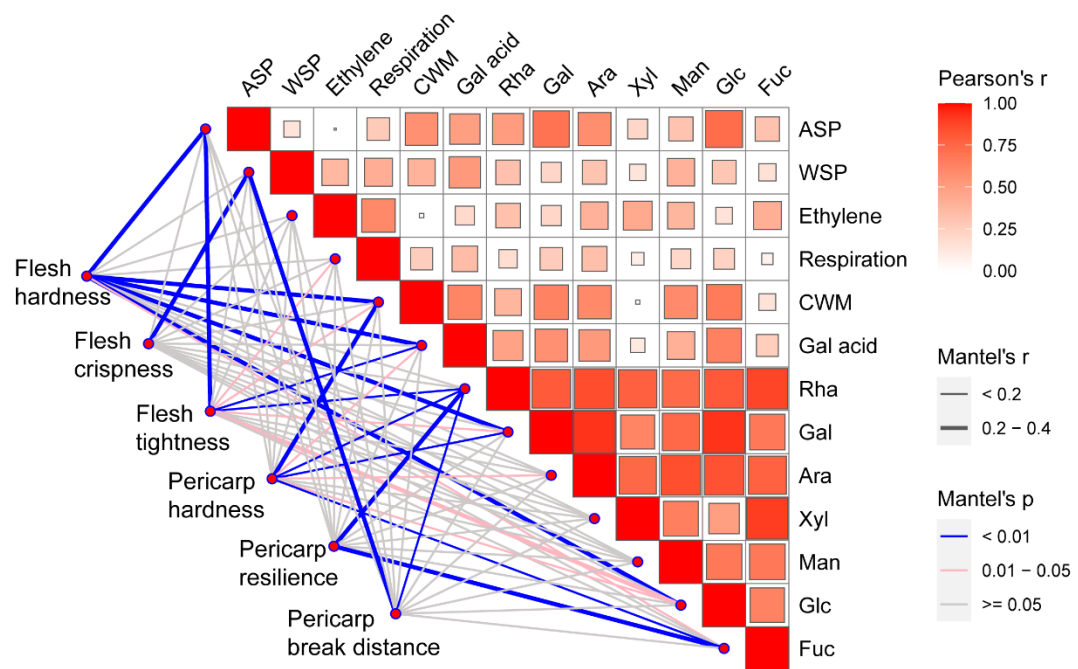


Figure S2 Correlation analysis for texture properties, physiological indicators of 'Jiguan', 'Yindu', 'Qinguan', 'Fuji', 'Huaguan', and 'Cripps pink' apple fruits during postharvest. A Mantel test was used for the six texture properties and thirteen physiological indicators and Pearson for the thirteen physiological indicators. The size and color of the square represent the correlation coefficient of indicators for Pearson. The coarseness and color of the line represent the correlation coefficient of indicators for the Mantel test.

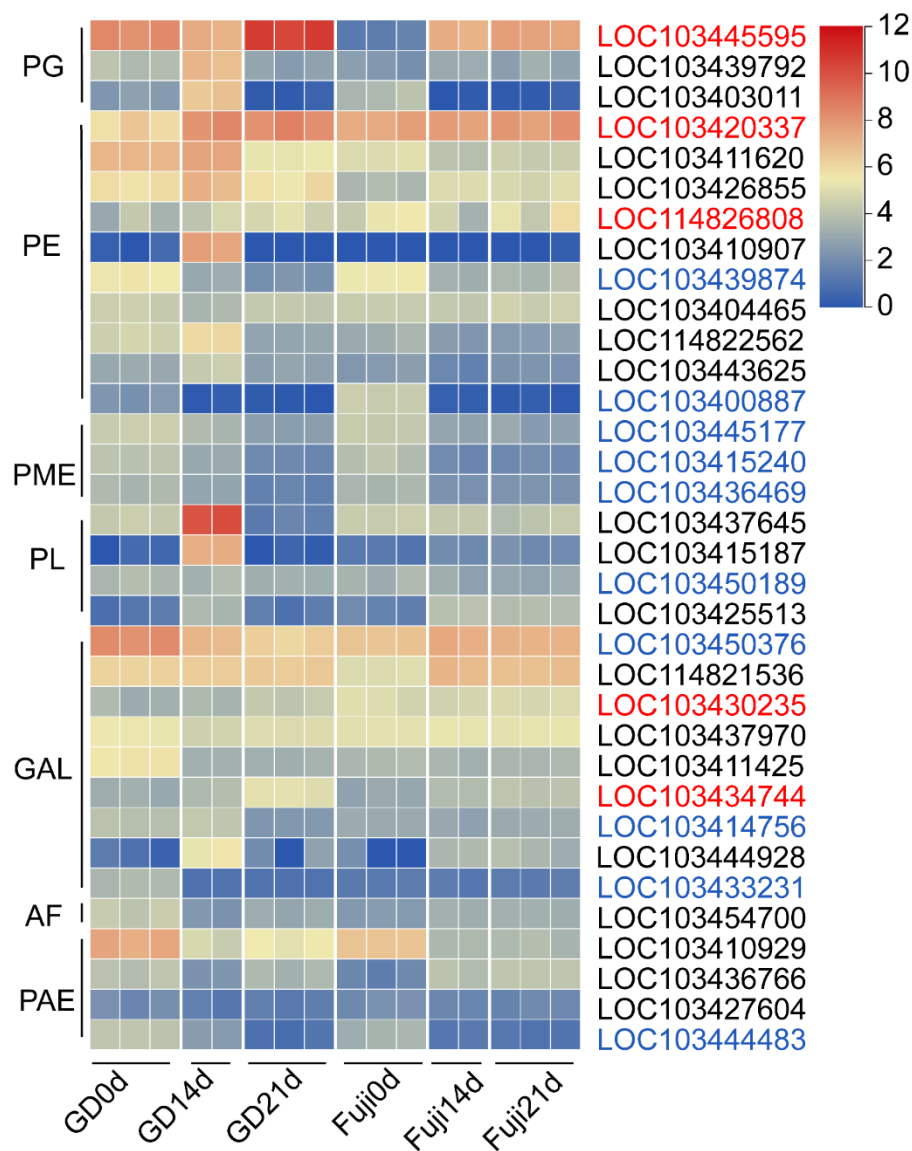


Figure S3 Expression profiles of cell wall-related gene from 'Golden Delicious' and 'Fuji' in RNA-Seq data. fruits stored were at room temperature (20 °C) for 14 and 21 days. Data represented the mean RPKM value of three biological replicates. The names in red represent genes, which were consistently up-regulated in 'Golden Delicious' apples from 0 to 14 to 21 days, those in blue were consistently down-regulated genes. PG, polygalacturonase; PE, pectinesterase; PME: pectin methylesterase; PL, pectatelyase; GAL: galactosidase; AF: arabinofuranosidase; PAE: pectin acetylerase.

Tables

Table S1 Program for apple texture using TA-XT Plus (Stable Micro Systems Ltd., Godalming, UK)

Step No.	Method
1	Clear Graph Results
2	Redraw
3	Search Forwards
4	Go to Min. Time
5	Drop Anchor
6	Go to Absolute +ve Value Force Current Units
7	Mark Value [Force (Current Units)] As “F1, pericarp firmness”
8	Drop Anchor
9	Area (Active vs Active) As “W1, pericarp resilience”
10	Mark Value [Distance (Current Units)] As “D1, pericarp break distance”
11	Go to Time 4 sec
12	Drop Anchor
13	Go to Time 8 sec
14	Drop Anchor
15	Mean (Active) As “F2, fresh fruit hardness”
16	Average Drop Off (Active) As “F3, flesh crispness”
17	Go to Force 0 kg
18	Drop Anchor
19	Go to Force 0 kg
20	Drop Anchor
21	Area (Active vs Active) As “W3, fruit tightness”

Table S2 Primer sequences used for Real-Time PCR Quantification

Gene	NCBI NO.	Forward primer (5'→3')	Reverse primer (5'→3')
<i>MdActin</i>	103453508	GGCTGGATTTGCTGGTGATG	TGCTCACTATGCCGTGCTCA
<i>MdPG1</i>	103445595	GGCTTATCCTTCATACACG	ATCAGCACCATTCCTTTA
<i>MdPE1</i>	103420337	CGACTCGTGCTTCAGATCCA	AGAAACGCAGTCCTGAGTCG
<i>MdPE2</i>	114826808	ACCCTGTTTTCTTGAATTGTTGC	CTAGCCCATGTCACCCGTTT
<i>MdPE3</i>	103439874	CACCCACGCTTCTTCTCTCTTAT	CTCCGACGGTTTGAGTCTGC
<i>MdPE4</i>	103400887	GATCACACGGGCCTAATGG	AGCGGGTCATCCTTTCATCC
<i>MdPME1</i>	103445177	ACTTGCAGTGTGTAGGTCCC	ACCGCACCCACAAATGGTAT
<i>MdPME2</i>	103415240	TCCCACTTACTTGCTCAACTCT	AAGGCTCCGGAACCGGAAA
<i>MdPME3</i>	103436469	AGCTCCTCCTCCTACAAGTCT	TTGCACTGCACCCACAAATG
<i>MdPL1</i>	103450189	GGACAAGGAGACGCCAATGA	ATCCTGCGCAATGTTGGAGA
<i>MdGAL1</i>	103450376	ACTTATTGCGGCAAGCCTTC	TGCAGACAGCTTCAACCGAG
<i>MdGAL2</i>	103430235	GCACAATCAGTGACCGAAGC	TCAGTGATGGGTTTGCCACT
<i>MdGAL3</i>	103434744	TCACTGGGCTGACTGCAAAT	CCATAGAAGCAATCCCATCTCA
<i>MdGAL4</i>	103414756	GAATGCGCAGACTGATGCTG	ATAGGAAGTGAGGTCGGGCT
<i>MdGAL5</i>	103433231	TCGCAAAAAGCAAGGAAGGC	ACAGTTGAGACAATGAGACCCA
<i>MdPAE1</i>	103444483	GCGGGAATGCTAGGGGTATC	CCCAGCTTGAGAAGGAGGTG