Supplementary material

Name	Forward primer sequence	Reverse primer sequence
NCED	TTYGAYGGNGAYGGNATGGTNCA	TCCCANGCRTTCCANARRTGRAA
CYP707A	YTRGGWTGTCCWTGTGTRATG	RAANGGNCCATAYTGWATNCC
NCED2-3'	ACCAGCAGGTGGTGTTCAAGC	GGCCACGCGTCGACTAGTAC
NCED3-3'	CCATTACCGAACGGTTCGTC	GGCCACGCGTCGACTAGTAC
NCED2	TACGGGGACAGGAAGTTCGGTG	TCAAACTCACGGCGTTCACAATCT
NCED3	GGTCGTGATAGGGTCGTGTATGACTC	CACCATCCCCGCTTCCAAAT
CYP707A1	CTGTGACCTCGGAGTCGTGGG	TCCTCAGTTCTTCTTTGTAGCGGGT
Actin	GCCAGAAAGATGCTTATGTCGGTG	CTGGGGCAACACGAAGCTCAT

Table S1. Nucleotide sequences $(5' \rightarrow 3')$ of the primers used in this study



Fig. S1. Different development and ripening stage strawberry fruit, from small green stage to red ripening stage. a, small green stage (SG); b, large green stage (LG); c, bright green stage (BG); d, white stage (W); e, turning stage (T); f, pink ripening stage (PR); g, red ripening stage (R).



Fig. 2. Effect of removing achenes and applying auxin NAA treatments on strawberry fruit at the large green stage. After achene removal, fruit was treated with synthetic auxin NAA (a lanolin paste containing 1 mM 1-naphthaleneacetic acid in 1% (v/v) DMSO). a, fruit at 5 days after removing achenes; b, fruit at 5 days after applying auxin: fruit could not develop to the normal size after removing the achenes. However with auxin the fruit could regain its development in part.



Fig. S3. Vertical section of white and red ripening stage deachene strawberry fruits. a, white stage; b, red ripening stage. Arrows show the locations of cortex, pith and center pole.