

Table S1 Summary of data cleaning and length distribution of tags

Type	10 DPA		1 DAG		5 DAG	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
total_reads	17351184		17978337		20576026	
high_quality	17259618	100%	17878430	100%	20477866	100%
'adapter_null	9105	0.05%	4970	0.03%	7761	0.04%
insert_null	2073	0.01%	3740	0.02%	7874	0.04%
5'adapter_contaminants	24644	0.14%	29884	0.17%	91874	0.45%
smaller_than_18 t	6484	0.04%	110624	0.62%	39233	0.19%
polyA	979	0.01%	143	0.00%	998	0.00%
clean_reads	17216333	99.75%	17729069	99.16%	20330126	99.28%

Table S4 Highly expressed miRNAs and their target genes associated with phytohormone signaling pathways

miRNA	RPM			Predicted function for targets	Target ID	Verified target by RACE
	10 DPA	1 DAG	5 DAG			
miR156	7195.8	29590.2	90814	Squamosa promoter-binding-like protein	MLOC_11199	CL11193.Contig1_all [1]
				SBP family protein	MLOC_52321	U21_18637 [2]
				Uncharacterized protein	MLOC_61297	
				Uncharacterized protein	MLOC_62426	
miR167	4318.2	6581.1	10059.9	Auxin response factor 8	MLOC_51932.2	[3]
				Auxin response factor 8	MLOC_63938	[3]
				Auxin response factor 18	MLOC_58330.2	
				NEK5-like kinase	MLOC_5326	[3]
miR164	1570.7	83.5	1240.8	Uncharacterized protein	MLOC_53744	U21_9757 [2]
				NAC family protein	MLOC_64240	CL1686.Contig1_all [4]
				Uncharacterized protein	MLOC_65286	
				MYB family protein	MLOC_65555	
				Uncharacterized protein	MLOC_68221	
				Oxygen-evolving enhancer protein1, chloroplastic	MLOC_78630.1	[5]
miR393	48.9	14.3	587.4	Uncharacterized protein	MLOC_56088	MLOC_56088 [6]
				Uncharacterized protein	MLOC_9864	U21_7409 [6]
miR396	128.0	47.1	428.3	GRF family protein	MLOC_64055	AK376404
				GRF family protein	MLOC_67201	
				Uncharacterized protein	MLOC_80060	
miR172	48.8	24.6	413.0	AP2 family protein	MLOC_43041	HvAP2 (Cly1) [1, 7]
				AP2 family protein	MLOC_43575	
				AP2 family protein	MLOC_43830	Zeo1.b [8]
				AP2 family protein	MLOC_77763	
miR159	42.6	105.8	186.9	GAMYB	MLOC_6041	U21_3667 [2]
				Uncharacterized protein	MLOC_71332	CL32877.Contig1_all [1]

miRNA	RPM			Predicted function for targets	Target ID	Verified target by RACE
	10 DPA	1 DAG	5 DAG			
miR159				Uncharacterized protein	MLOC_74051	
miR160	8.9	23.2	36.3	Uncharacterized protein	MLOC_56664	
				Uncharacterized protein	MLOC_61554	
				Auxin response factor17	MLOC_64795	[3]
				Auxin response factor13	MLOC_67174	[3]
				Uncharacterized protein	MLOC_69988	
				Uncharacterized protein	MLOC_77438	
				Probable mitochondrial-processing peptidase subunit beta	MLOC_81236.1	[5]
				Probable plastid-lipid-associated protein 11,chloroplastic	MLOC_80837.2	[5]
miR390	6.4	21.4	21.7	Uncharacterized protein	MLOC_4946	
				Predicted protein	MLOC_61478	
				Predicted protein	MLOC_65593	
				Uncharacterized protein	MLOC_80454	

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Table S5 List of primers and probes used in this study

Primers for qRT-PCR (5'-3')	Forward	Reverse
Hvu-miR156a	TGACAGAAGAGAGTGAGCAC	
Hvu-miR156b	TGACAGAAGAGAGAGAGCAC	
Hvu-miR156c	TGACAGAAGAGAGCGAGCAC	
Hvu-miR159a	TTTGGATTGAAGGGAGCTCTG	
Hvu-miR159b	ACTGGATGACGCGGGAGCTAA	
Hvu-miR159c	TTGGACTGAAGGGTGCTCCCT	
Hvu-miR160a	GCGTGCAAGGAGCCAAGCATG	
Hvu-miR160b	TGCCTGGCTCCCTGTATGCCA	
Hvu-miR164a	TGGAGAAGCAGGGCACGTGCA	
Hvu-miR164b	TGGAGAAGCAGGGCACGTGCT	
Hvu-miR167a	TGAAGCTGCCAGCATGATCTA	
Hvu-miR167b	TGAAGCTGCCAGCATGATCTGA	
Hvu-miR167c	TGAAGCTGCCAGCATGATCTGC	
Hvu-miR172a	AGAATCTTGATGATGCTGCAT	
Hvu-miR172b	GGAATCTTGATGATGCTGCAT	
Hvu-miR390	AAGCTCAGGAGGGATAGCGCC	
Hvu-miR396	TCCACAGGCTTTCTTGAAGT	
Hvu-miR393a	TTCCAAAGGGATCGCATTGAT	
Hvu-miR393b	TCCAAAGGGATCGCATTGATC	
<i>U6</i>	TTGGACCATTCTCGATTTGTGC	CCTTAGGGGACATCCGATAAAATTG
<i>ACTIN</i>	GCTGAGCGGAAATTGTAAG	GATCATGGATGGCTGGAAGA
<i>UBQ</i>	GTAACCAGGCTCAGGAAG	TCTGGTTGTAGACATAGGTGA
MLOC_64795	GGCTGGGCACTGCAAGGTA	CACGGGTAAACAAACGCTAATAAAA
MLOC_71332	CTATCTCCACGAAGCCAACCTA	GTTCTCGGCGAAGCACA
<i>HvSAUR</i> (MLOC_62887)	TCTCCCTCCCTCCATTGTGCG	GTTCTCGGCCATCTCACTTCG
<i>HvAUX/IAA</i> (MLOC_14320)	GGTCAAAACCAACTGTGGC	CAAGAGGGTGGGATAGGGA
<i>HvARF</i> (MLOC_51932)	TTTGGTGGCTCAGGTTTGC	TTCTGCTTGTGGGTCACTCTC
<i>HvARF</i> (MLOC_64795)	GGCTGGGCACTGCAAGGTA	CACGGGTAAACAAACGCTAATAAAA
<i>HvARF</i> (MLOC_73144)	ACAACCCACAAACATATCGTCT	ATTCTCGGTCTCGCACA
<i>HvARF</i> (MLOC_77438)	CACCCATCGCATCAAGAATCAGCA	CAGTATTGTCCGTCCGAAGAGCACC
<i>HvABA8'OH1</i> (MLOC_4786)	AGCACGGACCGTCAAAGTC	TGAGAATGCCTACGTAGTG
<i>HvNCED1</i> (MLOC_43893)	CCAGCACTAATCGATTCC	GAGAGTGGTGATGAGTAA
<i>HvNCED2</i> (MLOC_18300)	CATGGAAAGAGGAAGTTGC	GAAGCAAGTGTGAGCTAAC
<i>HvNCED3</i> (MLOC_61512)	TGACCTATTTCTCCTATG	CATCAGATTCAGATACAC
<i>HvGA20ox2</i> (MLOC_56462)	AGCCAATAAGAGCAGAGAA	CCTCTACATCTACTACATCATCT
<i>HvGA20ox4</i> (MLOC_34543)	TAGCAAGGTGAAGTCGTA	TGGTATGATGTCTACAGGAA
<i>HvGA20ox4</i> (MLOC_13981)	CAACAGGTGTGGTTACTAATG	GGACAAGGACAAGGACAA
Primers for RACE		
Adapter	GCUGAUGGCGAUGAAUGAACACUGCGUUUGCUGGCUUUGAUGAAA	
Outer Primer F	GCTGATGGCGATGAATGAACACTG	

Inner Primer F	CGCGGATCCGAACACTGCGTTTGCTGGCTTTGATG
AK376404 outer R	GGGACAGCGAGGCGATGGTTA
AK376404 inner R	CTCCTGCGACGGCTCAAAGTG
Probe for Northern Blot (lower-case letters for LNA)	
Hvu-miR393	AtCAaTGcGAtCCcTTtGGA
Hvu-miR396	AgTTcAAgAAaGcTgTgGAA
Hvu-miR156	GtGcTcAcTcTtCTgTCA
Hvu-miR167h	TcAGaTCaTGcTGgCAgCTtCA
Hvu-miR164	TgCacGTgCCcTgCtTcTcCA