

Appendix A

Table S1 The gene-specific primers of quantitative Real-time PCR

Probe ID	Forward primer (5'–3')	Reverse primer (5'–3')
<i>Zm.217.1.S1_at</i>	5'-AGCAGCTGATATTCAACGAGGCCA-3'	5'-GCGCGAACGTCAACGAACAAACAA-3'
<i>Zm.82.1.S1_at</i>	5'-AGAACCACGTCATGTCAGAGCGAA-3'	5'-TGTCCACCTTGTGAATGGAGGGAA-3'
<i>Zm.10147.1.A1_at</i>	5'-AAGAAGGCTCTTGTCTTCTACGCC-3'	5'-ACAGCACCCAGTCATCCAACCTAA-3'
<i>Zm.7548.1.A1_at</i>	5'-ACGTGGCTACTTTCGCAGTTCCTA-3'	5'-CCAGCTTCAATCGCATTTTCGAGCA-3'
<i>Zm.275.1.S1_a_at</i>	5'-TCCTTCCAGCTGGTGGTTCTTGAT-3'	5'-TCCCGGATGTTGTCGTCGATTCTT-3'
<i>Zm.11809.1.A1_at</i>	5'-TCCCGGTGTCCATCATCT-3'	5'-GCGCCTTGGAGAGGTACA-3'
<i>Zm.17569.1.S1_at</i>	5'-ACTGAAACTGATGGAGCACCGCTA-3'	5'-TATGTGCCTGCGGATAGCAGACTT-3'
<i>Zm.390.1.S1_at</i>	5'-TCGACGTGCTCGTCATGT-3'	5'-CATGTCCGGGTTCCTCCTG-3'
<i>Zm.2147.1.A1_s_at</i>	5'-GGTACGTATGCCCCGATG-3'	5'-CAAAGCGTGCAACCTCCT-3'
<i>Zm.16643.1.S1_at</i>	5'-GAAGAGGTGCGCCTTTGTCAACTA-3'	5'-GAGCTCAGCCCAAACGTTTCACAA-3'
<i>Zm.326.1.S1_at</i>	5'-TCATCCTCAAGCCACTCAAGACCA-3'	5'-GAGGCATGCAGCACCATGGTTAAT-3'
<i>Zm.171.1.A2_at</i>	5'-TATAGAAGGTCCGCCACCTG-3'	5'-TATAGCACCGCCACAAATGA-3'
<i>Zm.12687.1.S1_a_at</i>	5'-GGAAACGAAAGATAGCTCCGACGA-3'	5'-CGCAGGTCAGCATGTTTGACAGAT-3'
<i>Zm.16475.1.S1_at</i>	5'-GAGGAGGAAGGAGGAGGAGA-3'	5'-TACACAGCGCGGTTGTAGAG-3'
<i>Zm.325.1.A1_at</i>	5'-AGTAACAGCCCGTTGGACATAGCA-3'	5'-TGCACCAAGTTACTGCCCTACTGA-3'
<i>Zm.283.1.S1_at</i>	5'-GGAGATCACCAAGGCTTCAG-3'	5'-ACAGCAACGGGCTTGTTAGT-3'

Table S2 Internodes length responses to ethephon treatment (Eth⁺) and control (CK)

Internodes length/cm	CK	Eth ⁺
Eleventh	13.14 ± 0.19	11.52 ± 0.61**
Twelfth	12.90 ± 0.46	7.24 ± 0.48**
Thirteenth	10.40 ± 0.57	5.74 ± 0.26**

Note: For the internodes length, at least 30 plants were analyzed. Values indicate mean ± SD ($n = 20$). **, Significant difference between CK and Eth⁺ at 0.01 level.

Table S3 Cell morphological characterization responses to ethephon treatment (Eth⁺) and control (CK)

	CK	Eth ⁺
Cell Width/ μm	92.55 $\pm$ 0.49	102.78 $\pm$ 0.58**
Cell Length/ μm	68.49 $\pm$ 0.83	32.63 $\pm$ 0.74**

Note: Three slides of each sample were observed, and more than 100 cells were measured for each slide.

Asterisks indicate significant differences between control (CK) and ethephon treatment induced (Eth⁺).

Values are means $\pm$ SD ($n = 300$). Student's *t*-test was used to calculate the P value (**, $P < 0.01$).

Table S4 Percent of chip probes in each treatment

Treatment	Total probes	Detection number	Percent/%
0 CKI	17555	13082	74.52
0 CKII	17555	12897	73.47
0 CKIII	17555	13364	76.13
24 EthI	17555	12795	72.89
24 EthII	17555	12777	72.78
24 EthIII	17555	12960	73.83
24 CKI	17555	13187	75.12
24 CKII	17555	13059	74.39
24 CKIII	17555	12832	73.10
48 EthI	17555	13035	74.25
48 EthII	17555	13163	74.98
48 EthIII	17555	13110	74.68
48 CKI	17555	13289	75.70
48 CKII	17555	13011	74.12
48 CKIII	17555	13118	74.73