Accepted Manuscript

Long-term exposure to slightly elevated air temperature alleviates the negative impacts of short term waterlogging stress by altering nitrogen metabolism in cotton leaves

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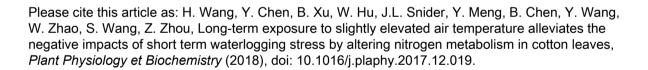
PII: S0981-9428(17)30420-5

DOI: 10.1016/j.plaphy.2017.12.019

Reference: PLAPHY 5083

To appear in: Plant Physiology and Biochemistry

Received Date: 8 September 2017
Revised Date: 30 November 2017
Accepted Date: 11 December 2017



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ACCEPTED MANUSCRIPT

1	Title : Long-term exposure to slightly elevated air temperature alleviates the negative impacts of short
2	term waterlogging stress by altering nitrogen metabolism in cotton leaves
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22	Abstract
23	Short-term waterlogging and chronic elevated temperature occur frequently in the Yangtze River
24	Valley, yet the effects of these co-occurring environments on nitrogen metabolism of the subtending
25	leaf (a major source leaf for boll development) have received little attention. In this study, plants were
26	exposed to two temperature regimes (31.6/26.5 °C and 34.1/29.0 °C) and waterlogging events (0 d, 3 d,
27	6 d) during flowering and boll development. The results showed that the effects of waterlogging stress
28	and elevated temperature in isolation on nitrogen metabolism were quite different. Waterlogging stress
29	not only limited NR (EC 1.6.6.1) and GS (EC 6.3.1.2) activities through the down-regulation of GhNR
30	and GhGS expression for amino acid synthesis, but also promoted protein degradation by enhanced

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