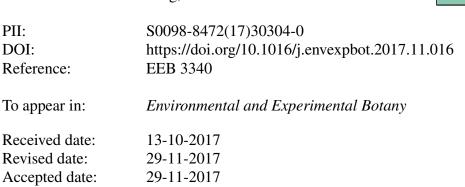
Accepted Manuscript

Title: Nightly business: links between daytime canopy conductance, nocturnal transpiration and its circadian control illuminate physiological trade-offs in maize

Authors: Bishal G. Tamang, Walid Sadok



Please cite this article as: Tamang, Bishal G., Sadok, Walid, Nightly business: links between daytime canopy conductance, nocturnal transpiration and its circadian control illuminate physiological trade-offs in maize.Environmental and Experimental Botany https://doi.org/10.1016/j.envexpbot.2017.11.016

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Nightly business: links between daytime canopy conductance, nocturnal transpiration and its circadian control illuminate physiological trade-offs in maize

Bishal G. Tamang, Walid Sadok

Department of Agronomy and Plant Genetics, University of Minnesota, Saint Paul, MN 55108-6026 USA

*Corresponding author:

Walid Sadok, Department of Agronomy and Plant Genetics, University of Minnesota, 411 Borlaug Hall, 1991 Upper Buford Circle, St. Paul, MN 55108-6026. Email: msadok@umn.edu; Tel: +1 612 625 8291

Number of figures: 6

Number of tables: 5

Highlights

- A gravimetric phenotyping approach is deployed on a maize diversity panel
- Natural variation in nocturnal transpiration (TR_N) found
- TR_N correlated with daytime canopy conductance and lower leaf construction costs
- Correlation is mediated in part by a pre-dawn, circadian increase in TR_N
- Study suggests involvement of TR_N in plant fitness and productivity

Download English Version:

https://daneshyari.com/en/article/8887069

Download Persian Version:

https://daneshyari.com/article/8887069

Daneshyari.com