Plant Physiology®

November 2012 • Vol. 160 • No. 3

The electronic form of this issue, available as of November 12, 2012, at www.plantphysiol.org, is considered the journal of record.

On the Cover: The cover shows a montage of different *tie-dyed2* (*tdy2*) mutant maize (*Zea mays*) leaves. *tdy2* mutant leaves display variegated green and yellow regions, with starch and soluble sugars hyperaccumulating in the latter regions. In this issue, Slewinski et al. (pp. 1540–1550) physiologically characterize defects in *tdy2* leaves and molecularly identify the *Tdy2* gene. *Tdy2* encodes a callose synthase and is highly expressed in the veins of developing leaves. *tdy2* yellow leaf regions exhibit incomplete vascular maturation and defective solute transport between the phloem companion cells and sieve elements. Hence, *Tdy2* functions during vein development, which ultimately affects symplastic trafficking into the phloem translocation stream. Photo credit: Tom Slewinski.

Continued on next page

Continued from preceding page

Continued on next page

Continued from preceding page

[C] Some figures in this article are displayed in color online but in black and white in the print edition.
[W] Indicates Web-only data.
[OA] Open Access articles can be viewed online without a subscription.