

Functional Plant Biology Editorial Report

Welcome to the start of a new volume of FPB. It's great to be going strong into our 33rd year.

The FPB Best Paper Award for 2005:

We are very excited to announce the winner of the 2005 **Best Paper Award**. The winner is Dr Nick Gould, for his paper '**Phloem hydrostatic pressure relates to solute loading rate: a direct test of the Münch hypothesis**', with co-authors Michael Thorpe, Olga Koroleva and Peter Minchin (*FPB* 32, 1019–1026). The paper is now available as a free download from the FPB website.

This paper is a continuation of an excellent series of papers by Gould *et al.* on the regulation of phloem transport using elegant technologies and experimental designs that allow insights into the phenomenon that has been rarely examined experimentally. Their study examines the effect of reduced sucrose loading rates on sieve sap hydrostatic pressure in two plant species, barley and sow thistle. The authors use transient measurements of sieve element hydrostatic pressure, and sieve element sap osmotic pressure and sucrose concentration, to directly test the role of solute uptake in creating the hydrostatic pressure associated with phloem flow. Phloem hydrostatic and osmotic pressures are shown to be dependant upon loading of solute into the phloem.

Nick wins a personal one-year print+online subscription to **FPB**, and a \$250 book voucher from **CSIRO PUBLISHING**. Congratulations, Nick!

Archives and Citation Classics:

We are very proud to announce that all back-issues of *AjPP* (the predecessor to *FPB*) back to Volume 1, Issue 1, 1974 have been scanned and posted online. The web usage of some of the most perennial and timeless papers has been extremely high! I thought it timely to present a list of our top ten Citation Classics. These data were derived from the ISI Web of Science 'Cited Ref Search' (as of November 2005). All papers can now be read in full in our online archive.

1. On the relationship between carbon isotope discrimination and the intercellular carbon dioxide concentration in leaves
GD Farquhar, MH O'Leary and JA Berry
Vol. 9: 121–137 (1982) **(897 citations to date)**
2. Isotopic composition of plant carbon correlates with water-use efficiency of wheat genotypes
GD Farquhar and RA Richards
Vol. 11: 539–332 (1984) **(593 citations)**
3. Whole-plant responses to salinity
R Munns and A Termaat
Vol. 13: 143–160 (1986) **(365 citations)**

4. N₂-fixation in field settings: estimations based on natural ¹⁵N abundance
G Shearer and DH Kohl
Vol. 13: 699–756 (1986) **(312 citations)**
5. Factors influencing the rate and duration of grain filling in wheat
I Sofield, LT Evans, MG Cook and IF Wardlaw
Vol. 4: 785–797 (1977) **(256 citations)**
6. Sixty-three years since Kautsky: chlorophyll *a* fluorescence
Govindjee
Vol. 22: 131–160 (1995) **(249 citations)**
7. Soil water status affects the stomatal conductance of fully turgid wheat and sunflower leaves
T Gollan, JB Passioura and R Munns
Vol. 13: 459–464 (1986) **(234 citations)**
8. Subdivision of C₄-pathway species based on differing C₄ acid decarboxylating systems and ultrastructural features
MD Hatch, T Kagawa and S Craig
Vol. 2: 111–128 (1975) **(217 citations)**
9. Carbon isotope discrimination measured concurrently with gas exchange to investigate CO₂ diffusion in leaves of higher plants
JR Evans, TD Sharkey, JA Berry and GD Farquhar
Vol. 13: 281–292 (1986) **(215 citations)**
10. Correlation between water-use efficiency and carbon isotope discrimination in diverse peanut (*Arachis*) germplasm
KT Hubick, GD Farquhar and R Shorter
Vol. 13: 803–816 (1986) **(203 citations)**

The OSPREY has landed:

Many of you may have already experienced our new Online Submission and Peer-Review system (OSPREY). Like other online journal submission systems, this enables you to submit your manuscripts online, track its progress, and review other people's manuscripts online. Your manuscript may be submitted in a wide range of file formats, and OSPREY will automatically generate the full PDF containing all text, tables and figures. Watch the osprey fly while your PDF is created! The whole submission process takes around 10 minutes, and you receive an automatic manuscript number. You may then track the progress of your manuscript with OSPREY. You can also change author order, or add or subtract authors. Good luck!



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