

Functional Plant Biology Editorial Report

This month I wish to publish an updated and comprehensive list of *AjPP* Citation Classics. My previous Editorial Report (published in *FPB* 30-1) listed data obtained from the ISI 'Essential Science' indicators report. I failed to mention that this report covers only the last 10 years, and apologise for this omission. A more comprehensive list of Citation Classics, using the ISI Web of Science 'Cited Ref search' and covering all volumes, has since been constructed, and is presented below (current as of March 2003):

On the relationship between carbon isotope discrimination and the intercellular carbon dioxide concentration in leaves
GD Farquhar, MH O'Leary and JA Berry
AjPP **9**: 121–137 (1982) (722 citations to date)

Isotopic composition of plant carbon correlates with water-use efficiency of wheat genotypes
GD Farquhar and RA Richards
AjPP **11**: 539–552 (1984) (485 citations to date)

Whole-plant responses to salinity
R Munns and A Termaat
AjPP **13**: 143–160 (1986) (295 citations)

N₂-fixation in field settings: estimations based on natural ¹⁵N abundance
G Shearer and DH Kohl
AjPP **13**: 699–756 (1986) (248 citations)

Soil water status affects the stomatal conductance of fully turgid wheat and sunflower leaves
T Gollan, JB Passioura and R Munns
AjPP **13**: 459–464 (1986) (224 citations)

Subdivision of C₄-pathway species based on differing C₄ acid decarboxylating systems and ultrastructural features
MD Hatch, T Kagawa and S Craig
AjPP **2**: 111–128 (1975) (210 citations)

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
AjPP **13**: 281–292 (1986) (191 citations)

Correlation between water-use efficiency and carbon isotope discrimination in diverse peanut (*Arachis*) germplasm
KT Hubick, GD Farquhar and R Shorter
AjPP **13**: 803–816 (1986) (177 citations)

Adaptation to water deficits: a changing perspective
NC Turner
AjPP **13**: 175–190 (1986) (155 citations)

On the nature of carbon isotope discrimination in C₄ species
GD Farquhar
AjPP **10**: 205–226 (1983) (148 citations)

Growth and yield of CO₂-enriched wheat under water-limited conditions
RM Gifford
AjPP **6**: 367–378 (1979) (144 citations)

Determination of the average partial pressure of CO₂ in chloroplasts from leaves of several C₃ plants
S Von Caemmerer and JR Evans
AjPP **18**: 287–305 (1991) (139 citations)

Biochemical characterization of chlorophyll-free mitochondria from pea leaves
DA Day, M Neuburger and R Douce
AjPP **12**: 219–228 (1985) (131 citations)

Plant growth substances and the regulation of growth under drought
WJ Davies, J Metcalfe, TA Lodge and AR da Costa
AjPP **13**: 105–125 (1986) (131 citations)

Relation between salt tolerance and long-distance transport of sodium and chloride in various crop species
H Lessani and H Marschner
AjPP **5**: 27–37 (1978) (125 citations)

Coupled photosynthesis — stomatal conductance model for leaves of C₄ plants
GJ Collatz, M Ribas-Carbo and JA Berry
AjPP **19**: 519–538 (1992) (122 citations)

Solute accumulation in the apex and leaves of wheat during water stress
R Munns, CJ Brady and EWR Barlow
AjPP **6**: 379–389 (1979) (122 citations)

Photosynthesis in salt-stressed grapevines
WJS Downton
AjPP **4**: 183–192 (1977) (120 citations)

Photoinhibition during winter stress — involvement of sustained xanthophyll-dependent energy dissipation
WW Adams, B Demmig-Adams, AS Verhoeven and DH Barker
AjPP **22**: 261–276 (1995) (119 citations)

Root signals control leaf expansion in wheat seedlings growing in dry soil
J Passioura
AjPP **15**: 687–693 (1988) (119 citations)

Effects of CO₂ enrichment and nitrogen stress on growth, and partitioning of dry matter and nitrogen in wheat and maize
PJ Hocking and CP Meyer
AjPP **18**: 339–356 (1991) (119 citations)

The global carbon cycle — a viewpoint on the missing sink
RM Gifford
AjPP **21**: 1–15 (1994) (118 citations)

Temperature dependence of whole-leaf photosynthesis in *Eucalyptus pauciflora* Sieb. ex Spreng.
MUF Kirschbaum and GD Farquhar
AjPP **11**: 519–538 (1984) (118 citations)

Plant growth and water use with limited water supply in high CO₂ concentrations. I. Leaf area, water use and transpiration
JIL Morrison and RM Gifford
AjPP **11**: 361–374 (1984) (118 citations)

Proline, betaine and other organic solutes protect enzymes against heat inactivation
LG Paleg, TJ Douglas, A van Daal and DB Keech
AjPP **8**: 107–114 (1981) (115 citations)

Relationship between steady-state gas exchange, *in vivo* ribulose biphosphate carboxylase activity and some carbon reduction cycle intermediates in *Raphanus sativus*
S Von Caemmerer and DL Edmondson
AjPP **13**: 669–688 (1986) (114 citations)

An empirical model of stomatal conductance
GD Farquhar and SC Wong
AjPP **11**: 191–210 (1984) (114 citations)

Contribution of sugars to osmotic adjustment in elongating and expanded zones of wheat leaves during moderate water deficits at two light levels
R Munns and R Weir
AjPP **8**: 93–105 (1981) (113 citations)

In situ immunofluorescent labelling of ribulose-1, 5-bisphosphate carboxylase in leaves of C₃ and C₄ plants
PW Hattersley, L Watson and CB Osmond
AjPP **4**: 523–539 (1977) (111 citations)

Membrane phase changes in chilling-sensitive *Vigna radiata* and their significance to growth
JK Raison and EA Chapman
AjPP **3**: 291–299 (1976) (109 citations)

Why measure osmotic adjustment?
R Munns
AjPP **15**: 717–726 (1988) (109 citations)

Discrimination in carbon isotopes of leaves correlated with water-use efficiency of field-grown peanut cultivars
GC Wright, KT Hubick and GD Farquhar
AjPP **15**: 815–825 (1988) (108 citations)

Data from an ISI Web of Science ‘Cited Ref search’, current as of March 2003

You are invited to join these esteemed ranks! We have no page charges. Turnaround time is at an all-time low due to production efficiencies and our online reviewing system. The average time from submission to an acceptance decision is currently 5 weeks, and the average time from acceptance to publication is 6 weeks. Original, high-quality contributions are welcome in all areas of plant physiology including biochemistry, biophysics, developmental biology, cell and molecular biology, and plant–environment and plant–microbe interactions, and the integration of all of these areas. Increasing understanding of plant function and dealing with plants as integrated systems is emphasised. We publish full papers on experimental or theoretical work, review articles, Viewpoints, Research Notes, Methodological papers and Comments. Please see our website at <http://www.publish.csiro.au/journals/fpb/nta.cfm> for the current ‘Notice to Authors’, and I look forward to your submission.



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