



ICT International Pty Ltd

Instrumentation for Soil, Crop & Environmental Monitoring

Heat Balance References

<http://ictinternational.com.au/dynagage.htm>

Baker, J.M. and Nieber, J.L. 1989, '**An Analysis of the Steady State Heat Balance Method for Measuring Sap Flow in Plants**', *Agricultural and Forest Meteorology*, vol. 48, pp. 93-109.

Baker, J.M. and van Bavel, C.H.M. 1987, '**Measurement of Mass Flow of Water in the Stems of Herbaceous Plants**', *Plant, Cell and Environment*, vol. 10, pp. 777-782.

Dugas, W.A. 1990, '**Comparative Measurement of Stem Flow and Transpiration in Cotton**', *Theoretical and Applied Climatology*, vol. 42, pp. 215-221.

Granier, A. 1985, '**Une Nouvelle Méthode pour la Mesure du Flux de Sève Brute dans le Tronc des Arbres (A new Method of Sap Flow Measurement in Tree Stems)**', *Annals of Forest Science*, vol. 42, no. 2, pp. 193-200.

Granier, A., Biron, P., Köstner, B., Gay, L.W. and Najjar, G. 1996, '**Comparisons of Xylem Sap Flow and Water Vapour Flux at the Stand Level and Derivation of Canopy Conductance for Scots Pine**', *Theoretical and Applied Climatology*, vol. 53, pp. 115-122.

Granier, A., Huc, R. and Barigah, S.T. 1996, '**Transpiration of Natural Rain Forest and its Dependence on Climatic Factors**', *Agricultural and Forest Meteorology*, vol. 78, pp. 19-29.

Grime, V.L., Morison, J.I.L. and Simmonds, L.P. 1995, '**Including the Heat Storages Term in Sap Flow Measurements with Stem Heat Balance Method**', *Agricultural and Forest Meteorology*, vol. 74, pp. 1-25.

Ham, J.M., Heilman, J.L. and Lascano, R.J. 1990, '**Determination of Soil Water Evaporation and Transpiration from Energy Balance and Stem Flow Measurements**', *Agricultural and Forest Meteorology*, vol. 52, pp. 287-301.

Heilman, J.L., Brittin, C.L. and Zajicek, J.M. 1989, '**Water use by Shrubs as Affected by Energy Exchange with Building Walls**', *Agricultural and Forest Meteorology*, vol. 48, pp. 345-357.

Heilman, J.L. and Ham, J.M. 1990, '**Measurement of Mass Flow Rate of Sap in *Ligustrum japonicum***', *HortScience*, vol. 25, no. 4, pp. 465-467.

Köstner, B., Biron, P., Siegwolf, R. and Granier, A. 1996, '**Estimates of Water Vapor Flux and Canopy Conductance of Scots Pine at the Tree Level utilizing Different Xylem Sap Flow Methods**', *Theoretical and Applied Climatology*, vol. 53, pp. 105-113.

Lascano, R.J., Baumhardt, R.L. and Lipe, W.N. 1992, '**Measurement of Water Flow in Young Grapevines using the Stem Heat Balance Method**', *American Journal of Enology and Viticulture*, vol. 43, no. 2, pp. 159-165.

ICT International Pty Ltd

PO Box 503 Armidale NSW 2350 Australia ABN: 75002372554

Phone: 61 2 6772 6770 Fax: 61 2 6772 7616

E-mail: sales@ictinternational.com.au

- Lu, P., Biron, P., Bréda, N. and Granier, A. 1995, '**Water Relations of Adult Norway Spruce (*Picea abies* (L.) Karst) under Soil Drought in the Vosges Mountains: Water Potential, Stomatal Conductance and Transpiration.**' *Annals of Forest Science*, vol. 52, pp. 117-129.
- Ringersma, J., Mecherghi, M. and Pijnenburg, S. 1996, '**Transpiration Measurements in Date Palms using the Granier Method,**' *American Society of Agricultural Engineers, Proceedings of the International Conference*. 3-6 Nov. 1996 pp. 141-145.
- Simpson, D.G. 2000, '**Water use of Interior Douglas-fir**', *Canadian Journal of Forest Research*, vol. 30, pp. 534-547.
- Smith, D.M. and Allen, S.J. 1996, '**Measurement of Sap Flow in Plant Stems**', *Journal of Experimental Botany*, vol. 47, no. 305, pp. 1833-1844.
- Steinberg, S. 1988, '**Dynamax Trunk-Flow Gauge Test - Technical Application Report 2. Insulation and Time of Attachment Test.**' Houston, Texas, Dynamax Inc.
- Steinberg, S., van Bavel, C.H.M. and McFarland, M.J. 1989, '**A Gauge to Measure Mass Flow Rate of Sap in Stems and Trunks of Woody Plants**', *Journal of the American Society for Horticultural Science*, vol. 114, no. 3, pp. 466-472.
- Steinberg, S.L., van Bavel, C.H.M. and McFarland, M.J. 1990, '**Improved Sap Flow Gauge for Woody and Herbaceous Plants**', *Agronomy Journal*, vol. 82, pp. 851-854.
- Tan, C.S. and Buttery, B.R. 1995, '**Determination of the Water Use of two pairs of Soybean Isolines Differing in Stomatal Frequency using a Heat Balance Stem Flow Gauge**', *Canadian Journal of Plant Science*, vol. 75, pp. 99-103.
- van Bavel, M.G. 1992, '**Stem-flow Gauges for Measurement of Crop Water Use**', *National Irrigation Convention Proceedings*. pp. 59-72.
- van Bavel, M.G. 1995, '**Advances in Microirrigation Control by Sap Flow Monitoring Systems.**' *Proceedings of the Fifth International Microirrigation Congress, ASAE, Orlando, Florida*. 2-6 April 1995 pp. 234-238.
- Wiebel, J. and Chacko, E.K. 1992, '**Sap Flow, Weight Loss and Transpiration in Mangosteen (*Garcinia mangostana* L.) Seedlings: a Preliminary Study**', *Sap Flow Workshop*, Loxton Research Centre, Loxton S.A. 6 May 1992.