

## SCIENTIFIC PUBLICATIONS

### Theme 2:

Whitelaw-Weckert, M.A; Curtin, S; Huang, R; Steel, C.C; Blanchard, C.L and Roffey, P. (2007). Phylogenetic relationships and pathogenicity of grape Colletotrichum acutatum isolates in sub-tropical Australia. *Plant Pathology* 56, 448 – 463.

Savocchia, S, Greer, L A and Steel C C (2007). First report of Phomopsis viticola causing bunch rot of grapes in Australia. *Plant Pathology* 56, 725.

Savocchia, S., Steel C. C., Stodart, B. J. and Somers, A. (2007). Pathogenicity of Botryosphaeria species isolated from declining grapevines in sub-tropical regions of eastern Australia. *Vitis* 46, 27 – 32.

Steel, C. C., Greer, L. A. and Savocchia, S. (2007). Studies on Colletotrichum acutatum and Greeneria uvicola: two fungi associated with bunch rot of grapes in sub-tropical Australia. *Australian Journal of Grape and Wine Research* 13, 23 – 2912.

Whitelaw-Weckert M.A., Coombes N; Rahman L; Hutton R (2007). Permanent swards increase soil microbial counts in two Australian vineyards. *Applied Soil Ecology* (Accepted March 2007).

Whitelaw-Weckert MA.; Rahman L; Hutton R; Coombes N (2007). Permanent swards increase soil microbial counts in two Australian vineyards. *Applied Soil Ecology* 36, 224-232.

Whitelaw-Weckert MA; Nair NG; Lamont R; Alonso M; Priest MJ and Huang R (2007) Root infection of Vitis vinifera by Cythodrocarpon lirioidendri in Australia. *Australasian Plant Pathology* 36, 403-406.

### Theme 3:

Holzappel, B. and TREEBY, M. (2007): The effect of nitrogen application on the nitrogen status and juice composition of Shiraz grafted on three rootstocks. *Aust. J. Grape & Wine Res.* 13, 14-22

Holzappel, B. and SMITH, J. (2007): Vine carbohydrate reserves at harvest and leaf fall and its importance on productivity in the next season. *Le Bulletin de L'OIV* 80, 17-29

### Theme 4:

K Barlow, W Bond, B Holzappel, J Smith, E Blackney and R Hutton . (2007). Nitrogen export through sub-surface and surface pathways on irrigated vineyards in south-eastern Australia. (Submitted May 2007) *Journal of Plant Nutrition and Soil Science*.

Barlow K, Hutchinson P, Bond W, Hutton R, Smith J. 2007. Understanding nitrogen and phosphorus export from vineyards. *Australian Journal of Experimental Agriculture*. (Submitted).

### Theme 5:

Blackman, J., Saliba, A., & Scollary, G. (2007). Sensory characterisation and consumer preference of Hunter Valley Semillon - preliminary sensory characterisation findings. *Australian & New Zealand Grapegrower & Winemaker*, October, 28-30.

### Other Projects:

One article has been published in the *Australian and New Zealand Grapegrower and Winemaker* in December 2006: S.Y. Rogiers, D. Greer, R. Hutton, T. Somers, P Hutchinson. 2006. Managing Semillon's susceptibility to heat and drought. *Australian and New Zealand GrapeGrower and Winemaker* 515: 24-26.

Célia Barril, Andrew C Clark and Geoffrey R Scollary

Understanding the contribution of ascorbic acid to the pigment development in model white wine systems using liquid chromatography with diode array and mass spectrometry detection techniques *Analytica Chimica Acta*, ACCEPTED OCTOBER 2007

## RESEARCH CONFERENCE – PAPERS AND/OR ADDRESSES

### Theme 2:

C.C. Steel, L. A. Greer and S. Savocchia. (2007) Bunch Rot of grapes in sub-tropical vineyards of Australia are caused by a complex of fruit rotting organisms. Proceedings of the 16<sup>th</sup> Australasian Plant Pathology Conference, Adelaide 24 - 27 September 2007, abstract page 49.

### Theme 3:

Field, S., Smith, J., Emery, N., Greer, D. and Holzapfel, B. (2007) Soil temperature effects on reproductive development, starch reserves, partitioning and xylem cytokinin concentrations in Shiraz (*Vitis Vinifera* L.). XVth International Symposium GESCO, Poreč, Croatia, 20 - 23 June 2007 (submitted).

Holzapfel, B., Field, S. and Muller, M. (2007): Nitrogen and water management implications on grape production in the Riverina wine grape regions in South Eastern Australia. XXX World Vine and Wine Congress, Budapest, Hungary, 10 - 16 June 2007.

N Dimos, D Greer, S Rogiers, J Gray and R White. (2007) Xylem continuity in Ripening Shiraz berries. Plant Vascular Biology Conference, Taiwan, 7-11 May, 2007.

S Rogiers and D Greer. (2007) Phloem flow diminished during late ripening shrivel of cv. Shiraz grape berries. Plant Vascular Biology Conference, Taiwan, 7-11 May, 2007.

### Theme 4:

Holzapfel, B., Field, S., Wade, J. and Müller, M. (2007): Nitrogen and water management implications on grape production in the Riverina wine grape regions in South Eastern Australia. Proceedings of XXX OIV World Vine and Wine Congress, Budapest, Hungary, June 10-16. *In press*.

### Theme 5:

Schmidtke, L., Saliba, A., & Blackman, J. (2007) Effect of Micro-Oxygenation on Sensory Perception of Shiraz Oaked with Oak-Chips (poster), In *Vino Analytica Scientia*, Melbourne, 22-25 July 2007.

Charan, N.B., Agostoni, P., Carvalho, P. & Saliba, A. (2007). Comparison of Oxygenation Methods After Opening Wine Bottles – How Best to Help Wine ‘Breathe’. In *Vino Analytica Scientia*, Melbourne, 22-25 July

Saliba, A., Blackman, J., & Scollary, G. (2007). Consumer preferences for Hunter Valley Semillon. Thirteenth Australian Wine Industry Technical Conference, Adelaide, 28 July – 2 August.

Blackman, J., Saliba, A., & Scollary, G. (2007). Consumer preferences for Hunter Valley Semillon. In *Vino Analytica Scientia*, Melbourne, 22-25 July

Gabard, M., Blanchard, C., Williams, P., & Saliba, A. (2007). A comparison of instrumental and sensory evaluation of rice (poster), Fifty-seventh Cereal Chemistry Conference, Melbourne, 5-10 August.

### Theme 6:

Quirk, L., Bright, J., Somers, A., Andrew, J. "Winegrowing Futures - A baseline that has an Orange Flavour". Agriculture and Fisheries Extension Conference Orange 25-28 June 2007. 'Excellence in Agricultural Extension – Balancing the Demands'. 49-51

A.L. Deegenars. "National Wine and Grape Industry Centre's holistic approach to merging training, education, extension and research in Catchment Communities across NSW". Australian National Committee on Irrigation and Drainage Conference Bundaberg 19 -22 August 2007 'Sharing the water; food fibre, people and environment –working together there is a way'. Proceedings CD

### Other Projects:

Célia Barril, Andrew C Clark and Geoffrey R Scollary: The contribution of ascorbic acid to the formation of coloured pigments from (+)-catechin in model wine systems, In *Vino Analytica Scientia* Abstract Booklet, Melbourne, July 22 – 25, 2007

Célia Barril, A C Clark and G R Scollary: Ascorbic acid and white wine browning, Thirteen Australian Wine Industry Technical Conference Abstract Booklet, Adelaide July 28 – August 2, 2007.

Andrew C Clark and G R Scollary: Modelling the oxidative colouration of white wine, Thirteen Australian Wine Industry Technical Conference Abstract Booklet, Adelaide July 28 – August 2, 2007.

Holzappel, B. And Smith, J. (2006): Vine carbohydrate reserves at harvest and leaf fall and its importance on productivity in the next season. Proc. XXIX World Vine and Wine Congress, Logroño, Spain, June 25-30

Smith, J., Field, S. And Holzappel, B. (2006): Carbohydrate reserves and vine productivity. In R.R. Walker (Ed.). GWRDC workshop 'Vine Carbohydrate Dynamics and Source-Sink Relationships'. Merbein, Victoria, Australia, January 31, 12-31

Smith, J., Quirk L. And Holzappel, B. (2007): Predicting yield potential for the next season with starch reserves in the perennial structure and bud fruitfulness before winter pruning. Proc. XVth International Symposium GESCO, Poreč, Croatia, June 20-23, pp. 510-518

Pitt, W.M., Qiu, Y., Savocchia, S., Steel, C.C. and Sosnowski, M.R. (2007). Presence of *Eutypa lata* in grapevines from the Riverina region, NSW. 16<sup>th</sup> Biennial Australasian Plant Pathology Society Conference, Adelaide, 24 - 27 September.

Qiu, Y., Savocchia, S., Steel, C.C. and Ash, G. (2007). Identification, pathogenicity and genetic diversity of *Botryosphaeria* species isolated from declining grapevines in eastern Australia. 16<sup>th</sup> Biennial Australasian Plant Pathology Society Conference, Adelaide, 24 - 27 September.

Somers, A., Thompson, R., Qiu, Y., Savocchia, S. and Lamb, D. (2006). Spatial variability of soil salinity and grapevine dieback in Chardonnay and Shiraz. Conference abstracts, 13<sup>th</sup> Australian Wine Industry Technical Conference. 28 July - 2 August, 2007. Adelaide, Australia.

Qiu, Y., Savocchia, S., Steel, C.C. and Ash, G. (2007). Evaluating the pathogenicity of *Botryosphaeria* species isolated from declining grapevines in eastern Australia. Conference abstracts, 13<sup>th</sup> Australian Wine Industry Technical Conference. 28 July - 2 August, 2007. Adelaide, Australia.

Pitt, W.M., Qiu, Y., Savocchia, S. and Steel, C.C. (2007). *In vitro* evaluation of fungicides for the management of *Botryosphaeria* canker. Conference abstracts, 13<sup>th</sup> Australian Wine Industry Technical Conference. 28 July - 2 August, 2007. Adelaide, Australia.

Somers, A., Thompson, R., Qiu, Y., Savocchia, S. and Lamb, D. (2006). Spatial variability of soil salinity and grapevine dieback in Chardonnay and Shiraz. 5<sup>th</sup> International Workshop on Grapevine Trunk Diseases, 11-15 September, Davis-California, USA.

Qiu, Y., Savocchia, S., Steel, C. and Ash, G. (2006). Fungi associated with grapevine decline in the Hunter Valley and Mudgee. National Wine and Grape Industry Centre Industry Symposium, Wagga Wagga, NSW. 22 June.

Valentine, G.D.S., Savocchia, S., Steel, C.C. and Stodart, B. and Greer, L.A. (2007). Pathogenicity of *Greeneria uvicola*, the cause of bitter rot in grapevines. Conference abstracts, 13<sup>th</sup> Australian Wine Industry Technical Conference. 28 July - 2 August, 2007. Adelaide, Australia.

## RESEARCH CONFERENCE POSTERS

### Theme 2:

Weckert MA, Rahman L, Hutton RJ. (2007) Permanent swards increase soil microbial counts in two Australian vineyards. 13<sup>th</sup> Australian Wine Industry Technical Conference, Adelaide. 28 July - 2 August 2007.

Rahman L, Weckert M, Hutton R. (2007) Floor vegetation increases beneficial-and reduces pest-nematodes in vineyards. 13th Australian Wine Industry Technical Conference, Adelaide. 28 July - 2 August 2007.

Weckert MA, Rahman L. (2007) Young Vine Decline: Results from a preliminary survey in the Riverina region of New South Wales. Proceedings 16th Biennial Australasian Plant Pathology Society Conference. Back to Basics: Managing Plant Disease. Adelaide 24-27 September 2007. Blackwell Publishing: Adelaide.

Weckert MA, Nair NG, Lamont R, Alonso M, Priest MJ, Huang R. (2007) Grapevine root infection by *Cylindrocarpon liriodendri* in Australia. Proceedings 16th Biennial Australasian Plant Pathology Society Conference. Back to Basics: Managing Plant Disease. Adelaide 24-27 September 2007. Blackwell Publishing: Adelaide.

Whitelaw-Weckert MA, Rahman L, Hutton RJ. (2007) Permanent swards increase soil fungal counts in two Australian vineyards. Proceedings 16th Biennial Australasian Plant Pathology Society Conference. Back to Basics: Managing Plant Disease. Adelaide 24-27 September 2007. Blackwell Publishing: Adelaide.

Pitt, W.M., Qiu, Y., Savocchia, S., Steel, C.C. (2007) In vitro evaluation of fungicides for the management of *Botryosphaeria* canker. 13th Australian Wine Industry Technical Conference, July 28 - August 2 2007, Adelaide, South Australia.

Pitt, W.M., Qiu, Y., Savocchia, S., C.C. Steel, Sosnowski, M.R. (2007) Presence of *Eutypa lata* in grapevines ifrom the Riverina region, NSW. 16th Biennial Australasian Plant Pathology Society Conference, 24 - 28 September 2007, Adelaide, South Australia

L.A. Greer, C.C. Steel, S. Savocchia. (2007) Prevalence of non-*Botrytis* bunch rots in vineyards from two sub-tropical regions in Australia. 13<sup>th</sup> AWITC, Adelaide 28 July - 2 August 2007

R. Huang, M. A. Weckert<sup>1</sup>, C. C. Steel and C. L. Blanchard. (2007) Molecular identification of *Colletotrichum acutatum* from grapes in sub-tropical Australia. 13<sup>th</sup> AWITC, Adelaide 28 July - 2 August 2007

G D S Valentine, S Savocchia, C C Steel, B Stodart and L A Greer. (2007) Pathogenicity of *Greeneria uvicola*, the cause of bitter rot in grapevines. 13<sup>th</sup> AWITC, Adelaide 28 July - 2 August 2007

Y Qui, S Savocchia, C C Steel and G Ash. (2007) Evaluating the pathogenicity of *Botryosphaeria* species isolated from declining grapevines in eastern Australia. 13<sup>th</sup> AWITC, Adelaide 28 July - 2 August 2007.

### **Theme 3:**

Rogiers SY, Greer DH. (2007). Phloem flow diminishes during late ripening shrivel of cv. Shiraz grape berries. Proceedings of the International Conference on Plant Vascular Biology 2007. 7 - 11 May 2007, Taipei, Taiwan.

Greer DH, Clarke S, Sicard S. (2007) Heat stress - does it affect sugar accumulation in Semillon grapes? 13<sup>th</sup> Australian Wine Industry Technical Conference, Adelaide. 28 July - 2 August 2007.

Greer DH, Rogiers SY, Hutton R. (2007) Gas exchange in relation to water stress in Semillon grapevines. Combio2007, Sydney. 22 - 26 September 2007.

Holzappel, B., Field, S. And Müller, M. (2007): Nitrogen and water management implications on grape production in the Riverina wine grape regions in South Eastern Australia. Proc. XXX World Vine and Wine Congress, Budapest, Hungary, June 10-16 2007, CD

Field, S., Smith, J. And Holzappel, B. (2007) Soil temperature effects on reproductive development, starch reserves, partitioning and xylem cytokinin concentrations in Shiraz (*Vitis Vinifera* L.). Proc. XVth International Symposium GESCO, Poreč, Croatia, June 20-23 2007, pp. 301-309

Smith, J., Quirk L., And Holzapfel, B. (2007): Predicting yield potential for the next season with starch reserves in the perennial structure and bud fruitfulness before winter pruning. Proc. XVth International Symposium GESCO, Poreč, Croatia, June 20-23 2007, pp. 510-518

**Theme 4:**

Hall, A. (2007) Vineclipper: A proximal search algorithm to tie GPS field locations to high resolution vineyard imagery. 13<sup>th</sup> Australian Wine Industry Technical Conference, Adelaide. 28 July – 2 August 2007.

Field, S., Smith, J. And Holzapfel, B. (2007) Soil temperature effects on reproductive development, starch reserves, partitioning and xylem cytokinin concentrations in Shiraz (*vitis Vinifera* L.). XVth International Symposium GESCO, Poreč, Croatia, 20 – 23 June 2007.

Smith, J; Holzapfel, B; Barlow, K, Bond, W, Blackney, E, Hutchinson, P and Hutton, R. (2007) Nitrogen management in irrigated vineyards: balancing vine nutritional requirements with environmental impact. X111 Australian Wine Industry Technical Conference. Adelaide. 28 July - 2 August 2007.

Smith, J., Quirk L., and Holzapfel, B.. (2007) Predicting yield potential for the next season with starch reserves in the perennial structure and bud fruitfulness before winter pruning. XVth International Symposium GESCO, Poreč, Croatia, 20 – 23 June 2007.

Smith, J; Holzapfel, B; Barlow, K, Bond, W, Blackney, E, Hutchinson, P and Hutton, R. (2007) Nitrogen management in irrigated vineyards: balancing vine nutritional requirements with environmental impact. XIII AWITC Conference. Adelaide. 28 July – 2 August, 2007.

**Theme 5:**

Charan, N.B., Agostoni, P., Carvalho, P. & Saliba, A.. (2007) Comparison of Oxygenation Methods After Opening Wine Bottles – How Best to Help Wine ‘Breathe’ (poster). In *Vino Analytica Scientia*, Melbourne, 22-25 July 2007.

Saliba, A., Blackman, J., & Scollary, G. (2007) Consumer preferences for Hunter Valley Semillon (poster). Thirteenth Australian Wine Industry Technical Conference, Adelaide, 28 July – 2 August 2007.

Blackman, J., Saliba, A., & Scollary, G. (2007) Consumer preferences for Hunter Valley Semillon (poster). In *Vino Analytica Scientia*, Melbourne, 22-25 July 2007.

Mueller, M. (2007) Grape and wine composition in *Vitis vinifera* L. cv. Semillon influenced by vine resources under different environmental conditions (poster). Thirteenth Australian Wine Industry Technical Conference, Adelaide, 28 July – 2 August 2007.

Charan, N.B., Agostoni, P., Carvalho, P. & Saliba, A. (2007). Comparison of Oxygenation Methods After Opening Wine Bottles – How Best to Help Wine ‘Breathe’ (poster). In *Vino Analytica Scientia*, Melbourne, 22-25 July 2007.

Saliba, A., Blackman, J., & Scollary, G. (2007). Consumer preferences for Hunter Valley Semillon (poster). Thirteenth Australian Wine Industry Technical Conference, Adelaide, 28 July – 2 August 2007.

Blackman, J., Saliba, A., & Scollary, G. (2007). Consumer preferences for Hunter Valley Semillon (poster). In *Vino Analytica Scientia*, Melbourne, 22-25 July 2007.

Gabard, M., Blanchard, C., Williams, P., & Saliba, A. (2007). A comparison of instrumental and sensory evaluation of rice (poster), Fifty-seventh Cereal Chemistry Conference, Melbourne, 5-10 August 2007.

**Theme 6:**

Quirk, L., Bright, J., Somers, A., Moulds, G., Hackett, S., Beckingham, C., Dart, J., Connellan, J. (2007) .A survey that has an Orange flavour. 13<sup>th</sup> Australian Wine Industry Technical Conference, Adelaide 28 July - 2 August 2007.

A.L. Deegenaaars, T. Somers, G.M. Leavitt. (2007) "National Wine and Grape Industry Centre's Holistic approach to merging training, education, extension and research". 13<sup>th</sup> Australian Wine Industry Technical Conference Adelaide, 28 July – 2 August 2007

**Other Projects:**

C. Barril, A. C. Clark, G. S. Scollary (29 July-1 August 2007) Ascorbic acid and white wine browning. 13<sup>th</sup> Australian Wine Industry Technical Conference, Adelaide. Poster - Selected to be published in the technical journal Wynboer Tegnies

C. Barril, A. C. Clark, G. S. Scollary (22-25 July 2007) The contribution of ascorbic acid to the formation of coloured pigments from (+)-catechin in model wine systems. In *Vino Analytica Scientia* 2007, Melbourne. Oral communication

**WORKSHOP – PRESENTATIONS****Theme 2:**

5 June 2007 Bunch rot workshop in Margaret River, WA - C Steel

6 June 2007 Bunch rot workshop in Swan Valley, WA - C Steel

21 June 2007 Management of trunk diseases workshop, NWGIC Symposium, NSW - A Somers

17 July 2007 Survey and management of Botryosphaeria canker; progress and early results, NWGIC, Pitt, W.M.

Survey and management of Botryosphaeria canker, Trunk Disease Workshop, Hunter Valley Workshop, Rosemount Estate, Hunter Valley, NSW, Pitt, W.M.

24 September 2007, Botryosphaeria symptoms and identification, Trunk Disease Workshop, Australasian Plant Pathology Society Conference, Adelaide, South Australia, Pitt, W.M., Qiu, Y., Wunderlich, N., Steel, C.C., Savocchia, S

**Theme 3:**

D Greer, S Rogiers and R Hutton (2006) "Water stress in Semillon grapevines" Wine Grapes Marketing Board Field Day Seminar Griffith Show Grounds, 7 September 2006.

Holzapfel, B., MÜLLER, M.C., SMITH, J., GOURIEROUX, A. and FIELD, S. (2007): Effect of N on amino acid profiles. Workshop presentation 'Managing vine nutritional requirements'. 13<sup>th</sup> AWITC, Adelaide, July 29 – August 1

**Theme 4:**

Hutchinson, P and Hutton, R. (2007). 'Irrigation scheduling to improve the efficiency of on-farm water use – a collaboration between DPI NSW and HUSSAT'. NSW Water Audit. 27 March 2007. Griffith Winegrapes Marketing Board. Griffith. NSW.

Hutton, R and P Hutchinson. Tools for improved irrigation scheduling. 2007 NWGIC Industry Symposium. Wagga Wagga. 22 June 2007.

**Theme 5:**

"Semillon Seminar" to the Hunter Valley Vineyard Association by A Saliba, J Blackman and G Scollary. 26 March 2007.

Cool Climate Viticulture Centre, Brock University, Canada by Dr. A. Saliba

Compusense 2-day training workshop, Minneapolis MI by Dr. A. Saliba

Multivariate Statistics, Workshop at 13<sup>th</sup> Aust Wine Tech Conference, Adelaide by Dr. A. Saliba

Held public food and wine matching workshop, showing off mostly HV and Riverina wines by Dr. A. Saliba

Took a sensory psychology lecture in the CSU Psych Department by Dr. A. Saliba

### **Other Projects:**

Workshop 13: White wine colour: how to measure and what the data mean at the 13<sup>th</sup> Australian Wine Industry Technical Conference, Adelaide July 28 – August 2, 2007.

Geoffrey R Scollary: An overview of the chemistry of white wine oxidation

Célia Barril: Modelling the white wine oxidation process.

Suzy Rogiers, (September 2007) Hunter Valley Vignerons Association, Hunter Valley – presentation on 'The Water Relations of Semillion Vines' project activities and outcomes.

Julian Connellan, (October 2007) Wine Grapes Marketing Board – presentation on gauging water quality, new agrichemicals, pest and disease issues for coming season. Meetings in Yenda, Hillston, Hanwood, Whitton.

Allison Deegenars, (18 October 2007) Certified Irrigation Managers workshop 1, Griffith.

Andrew Hall, (29 October 2007) Space: The final frontier for grape yield forecasting? Winegrowing Futures Program, Steering Committee Meeting – Hunter Valley, Cessnock.

Duncan Farquhar, (29-30 October 2007) Opportunities for Nationally Coordinated Viticulture Extension, Hunter Region.

Leo Quirk and Alison Deegenars, (7 November 2007) Soils and Irrigation workshop, Young.

Andrew Hall, (12 November 2007) Space: The final frontier for grape yield forecasting? NSW WIA & NWGIC Industry Advisory Board Meeting, Wagga Wagga.

Duncan Farquhar, (12 November 2007) Opportunities for Nationally Coordinated Viticulture Extension, NWGIC, Wagga Wagga.

Suzy Rogiers, (November 2007) NSW Wine Industry Association, Wagga Wagga – presentation on 'The Water Relations of Semillion Vines' project activities and outcomes, November 2007.

Allison Deegenars, (October/November 2007) Delivered "Certified Irrigation Managers" workshop series to Seven participants in Griffith area on the 18/10/07, 6/11/07 & 29/11/07 - This project was funded by NSW Department of Education and Training's Strategic Skills Program

Allison Deegenars, (November/December 2007) Delivered training in Young for Wine grape growers on Soils, Water,(7/11/07) and environmental management systems (5/12/07) .

Allison Deegenars, (December 2007) Delivered training in Orange for Wine grape growers on Soils, Water (14/12/07) and environmental management systems (4/12/07).

## **WORKSHOP – POSTERS**

### **Theme 3:**

Rogiers. SY, Hutton R, Greer DH, Sommers T, Hutchinson P. 2006. Xylem sap flow through Semillon grape vines grown under heat stress. 6<sup>th</sup> International Workshop on Measuring Xylem Sap Flow and its Application to Plant Science. University of Western Australia, Perth, 27-30 November 2006.

### **Other Projects:**

An international sap flow workshop was attended by one of the investigators in Perth during November 2006. A poster was presented: S.Y. Rogiers, R Hutton, D.H. Greer, T. Somers, P. Hutchinson. Xylem sap flow through Semillon grape vines grown under heat and water stress.

Smith, J., Quirk, L., Field, S. Lamont, R. And Holzapfel, B. (2007): Understanding the impact of environment and management practise on carbohydrate reserve accumulation and possible consequences for vine productivity. 13th AWITC, Adelaide, July 29 – August 1

### **TECHNICAL REPORTS AND INDUSTRY JOURNALS**

#### **Theme 2:**

Steel, C C (2007). Impressions of grapegrowing in India. Australian and New Zealand Grapegrower and Winemaker February Issue 2007, pp 26 - 27.

Weckert M. Tackling young vine decline complex. Agriculture Today, September 2007.

Whitelaw-Weckert, M.A; Curtin, S; Huang, R; Steel, C.C; Blanchard, C.L and Roffey, P. 2007. Phylogenetic relationships and pathogenicity of grape Colletotrichum acutatum isolates in sub-tropical Australasian Plant Pathology 56, 448 – 463.

Savocchia, S, Steel C C, Stodart, B J and Somers, A 2007. Pathogenicity of Botryosphaeria species isolated from declining grapevines in sub-tropical regions of eastern Australia. Vitis 46, 27 – 32.

Savocchia, S, Greer, L A and Steel C C 2007. First report of Phomopsis viticola causing bunch rot of grapes in Australia. Plant Pathology 56, 725.

Steel, C C, Greer, L A and Savocchia, S 2007. Studies on Colletotrichum acutatum and Greeneria uvicola: two fungi associated with bunch rot of grapes in sub-tropical Australia. Australian Journal of Grape and Wine Research 13, 23 – 29.

Steel, C C (2007). Impressions of grapegrowing in India. Australian and New Zealand Grapegrower and Winemaker February Issue 2007, 26 - 27.

#### **Theme 3:**

Holzapfel, B. (2007): Presentation and participation at the XXX World Vine and Wine Congress in Hungary and XV International Symposium GESCO in Croatia, visits to the Forschungsanstalt Geisenheim and the Universities of Palermo and Reims. Travel Report to the Wolf Blass Foundation, August 2007 (10 pages)

Holzapfel, B. (2007): Investigating the relationship between irrigation and nitrogen management on grape vine vigour and the role of root derived cytokinins. Final report to CRCV, June 2007 (44 pages)

Holzapfel, B. (2007): Bunchstem and berry development in Merlot and Cabernet Sauvignon and their effects on berry ripening and composition. Final report to GWRDC, September 2007 (36 pages)

Gourieroux A., Rogiers S., Gray J. And Holzapfel B. (2007): The bunchstem: how is it relevant? A PhD summary. The Australian and NZ Grapegrower and Winemaker (submitted)

Smith, J., Quirk L. And Holzapfel, B. (2007): Relationship between carbohydrate reserves and grapevine productivity, and the use of wood starch concentrations as yield forecasting tool. Grapevine Management Guide 2006-07, pp 68-72

#### **Theme 4:**

Hutton, R and Gray, J. (2007). Sustainable Resource Use – Wine Futures Advisory Committee Meeting. 22 March 2007. Griffith Winegrapes Marketing Board. Griffith. NSW.

Hutton, R and Gray, J. (2007). Sustainable Resource Use – Wine Futures Advisory Committee Meeting. 29 March 2007. Tuscany Wine Estate, Pokolbin. NSW.

#### **Theme 5:**

Ryan, D., Prenzler, P.D., Saliba, A.J., Scollary, G.R. The significance of low impact odorants in global odour perception, Trends in Food Science & Technology (2008), doi:10.1016/j.tifs.2008.01.007

Blackman, J., Saliba, A., & Scollary, G. (2007). Sensory characterisation and consumer preference of Hunter Valley Semillon - preliminary sensory characterisation findings. *Australian & New Zealand Grapegrower & Winemaker*, October, 28-30.

McDonald, S.; Pringle, J.M.; Prenzler, P.D.; Bishop, A.G.; Robards, K. Bioavailability of dissolved organic carbon and fulvic acid from an Australian Floodplain River and Billabong. *Marine and Freshwater Research*, 2007, 58, 222–231.

Kalua, C.M.; Allen, M.S.; Bedgood, Jr., D.R.; Bishop, A.G.; Prenzler, P.D.; Robards, K. Olive oil volatile compounds, flavour development and quality: a critical review. *Food Chemistry*, 2007, 100, 273-286.  
Haiyan, Z.; Bedgood Jr., D.R.; Bishop, A.G.; Prenzler, P.D.; Robards, K. Endogenous biophenol, fatty acid and volatile profiles of selected oils. *Food Chemistry*, 2007, 100, 1544-1551.

Clark, A.C.; Prenzler, P.D.; Scollary, G.R. Impact of the condition of storage of tartaric acid solutions on the production and stability of glyoxylic acid. *Food Chemistry*, 2007, 102, 905-916.

Obied, H.K.; Karuso, P.; Prenzler, P.D.; Robards, K. Novel Secoiridoids with Antioxidant Activity from Australian Olive Mill Waste. *Journal of Agricultural and Food Chemistry*, 2007, 55, 2848-2853.

Obied, H.K.; Bedgood Jr., D.R.; Prenzler, P.D.; Robards, K. Bioscreening of Australian olive mill waste extracts: Biophenol content, antioxidant, antimicrobial and molluscicidal activities. *Food and Chemical Toxicology*, 2007, 45, 1238-1248.

McDonald, S.; Pringle, J.M.; Bishop, A.G.; Prenzler, P.D.; Robards, K. Isolation and seasonal effects on characteristics of fulvic acid isolated from an Australian floodplain river and billabong. *Journal of Chromatography A*, 2007, 1153, 203–213.

Lutter, M.; Clark, A.C.; Prenzler, P.D.; Scollary, G.R. Oxidation of caffeic acid in a wine-like medium: Production of dihydroxybenzaldehyde and its subsequent reactions with (+)-catechin. *Food Chemistry*, 2007, 105, 968–975.

Obied, H.K.; Bedgood Jr., D.R.; Prenzler, P.D.; Robards, K. Chemical Screening of Olive Biophenol Extracts by Hyphenated Liquid Chromatography. *Analytica Chimica Acta*, 2007, 603, 176–189.

Zander, A.; Bishop, A.G.; Prenzler, P.D.; Ryder, D.S. Allochthonous DOC in floodplain rivers: identifying sources using solid phase microextraction with gas chromatography. *Aquatic Sciences*, 2007, 69, 472–483.

#### **Theme 6:**

Quirk, L., Bright, J., Andrews, J., Somers, A. (2007) Survey aims for strategic direction that has an Orange flavour. *The Australian & New Zealand Grapegrower and Winemaker* pp 19-20

#### **Other Projects:**

Qiu, Y., Savocchia, S., Steel, C.C. and Ash, G.J. (2007). *Botryosphaeria dothidea* associated with grapevine trunk disease in south-eastern Australia. *Australasian Plant Disease Notes* (submitted).

Somers A., R. Thompson, Y. Qiu, S. Savocchia and D. Lamb, 2007. Spatial variability of soil salinity and grapevine dieback in Chardonnay and Shiraz. *Phytopathologia Mediterranea* 46: 121.

C. Barril, A. C. Clark, G. S. Scollary (submitted in August 2007– accepted in October 2007 – in press) Understanding the contribution of ascorbic acid to the pigment development in model white wine systems using liquid chromatography with diode array and mass spectrometry detection techniques. *Analytica Chimica Acta*

F. Pedretti, C. Barril, A. C. Clark, G. S. Scollary. (2007) The colourful world of ascorbic acid. Australian and New Zealand Grapegrower and Winemaker. 519. 51-54.

#### **LEAFLETS/BROCHURES/TECHNICAL GUIDES/BOOKS**

##### **Theme 1:**

Brochure: "Winegrowing Futures - the way forward for the Australian wine and grape industry", prepared for industry event on 13 - 14 November 2006.

##### **Theme 5:**

I have been asked to submit a Chapter for the book: E-Learning and Advanced Assessment Technologies: Evidence-Based Approaches (Advances in Information Communication Technology Education Book Series. The book will be published in 2008 (is this for next year??).

##### **Theme 6:**

Grapevine Management Guide 2006-07

## PUBLIC PRESENTATIONS

### Theme 1:

Event	Date	Number of Attendees
Winegrowing Futures - Update to Riverina region	23 April 2007	15
10 <sup>th</sup> Anniversary of the NWGIC - presentations and dinner	20 June 2007	88
Annual NWGIC Industry Symposium	21 June 2007	78
Austrian Wine Delegation - visit to CSU	22 February 2007	26

### Theme 2:

Event	Date	Number of Attendees
APPS Workshop, Adelaide	24 September 2007	30
Hunter Valley Workshop	17 July 2007	30
NWGIC Symposium	21 June 2007	50
Winegrowing Futures - Update to Riverina region	23 April 2007	15
Bunchrot Workshop: Queensland - T Somers	1 February 2007	
Austrian Wine Delegation - visit to CSU	22 February 2007	26

### Theme 3:

Event	Date	Number of Attendees
Plant Phenomics workshop at the ANU/CSIRO,	December 10-13, 2007.	3
Winegrowing Futures - Update to Riverina region	23 April 2007	15

### Theme 4:

Event	Date	Number of Attendees
Theme 4 Progress Report - NSW WIA & NWGIC Industry Advisory Board Meetings	12-13 <sup>th</sup> November	47
NWGIC Advisory Board		12
Theme 4 Progress Report - NSW WIA R&D Sub-Committee	13 <sup>th</sup> November	
Research Presentation - Vine Water Use, at NWAUFU, Yangling, China	6 <sup>th</sup> November 2007	200
Collaborating Grower Brief on 2006-07 season	2 October 2007	7
NWGIC Annual Industry Symposium	22 June 2007	98
Winegrowing Futures Program - Update to Riverina region - Griffith	22 April 2007	15
Presentation to Riverina Advisory Panel	22 March 2007	15
Presentation to Hunter Valley Advisory Panel	29 March 2007	11
Austrian Wine Delegation - visit to CSU	22 February 2007	26

### Theme 5:

Event	Date	Number of Attendees
Winegrowing Futures - Update to Riverina region	23 April 2007	15
"How to choose a wine that you like" - Temora	21 March 2007	
Austrian Wine Delegation - visit to CSU	22 February 2007	26
Wine Sensory to Psychology and Food Science, Departments at Sheffield University, UK		
Talk on Sensory Work being conducted at NWGIC to the cool Climate Oenology and viticulture		

**Theme 6:**

Event	Date	Number of Attendees
Riverina WGMB/DPI – Grower group meeting	9 -10 October 2007	
ASVO/ DPI/ WGMB – Drought Response Workshop	11 May 2007	
Hunter Valley Vineyard Association Technical Committee Meeting	3 April 2007	
Industry meeting on Winegrowing Futures Yield Forecasting Project	29 March 2007	
Drought Response Workshops	20 February 2007	
Bunch Rot Workshop		
Phylloxera Biosecurity Workshops		
Quality Management Workshop - Mudgee		20
Hunter Valley Vineyard Association Technical Committee Meeting	20 February 2007	
Bunch rots identification and control workshops. Queensland.	6 February 2007	
Meet with Ludgar Treibus fungicide specialist from Bayer Germany	5 February 2007	
Vine health program phone meeting	2 February 2007	
Phylloxera meeting Orange	21 January 2007	

**Other Projects:**

Patrick Iland and Luke Rolley, Remote sensing – does it remotely work? Studies on vineyard variability, Foster’s group Winemakers’ technical meeting, Saltram Winery, Barossa Valley, 15 May 2007.

**MEDIA REPORTS****Theme 1:**

Expansion of Experimental Winery, Wagga Wagga Leader, 31 January 2007.

Signing MOU with Instituto Nacional de Vitiviniculture (INV), Wagga Wagga Leader, 14 February 2007.

**Theme 3:**

"Moisture study aims to stem grape escape" interview with D Greer. The Australian 3 April 2007  
Star FM / 2UE interviewed D Greer 5 April 2007.

**Theme 5:**

D. Tesic interviewed by Tony Clancy (GWRDC), to be published in Australian Viticulture

"How to choose a wine that you like" - ABC radio interview with Anthony Saliba and Ann Delaney.  
28 March 2007 9.30am

Dr Saliba was interviewed by Wagga’s Daily Advertiser and a double-page spread created covering a public wine and food matching course held in collaboration with 3Chefs.

Dr Saliba was interviewed by Prime news during a data collection exercise looking at consumer preference of an Australian white wine. Prime news thought that use of everyday consumers to determine what people prefer wine to taste like was novel and of general public interest.

## OTHER COMMUNICATIONS

### Theme 2:

Sandra Savocchia and Wayne Pitt met with Eutypa dieback researchers (Assoc Prof E Scott, Dr M Sosnowski, A Loschivo, Dr T Wicks) in Adelaide (27 October 2007) to discuss collaborative links on the establishment of pruning wound and water stress field trials.

### Theme 4:

M.Poppins. (2007). Irrigation and Drainage project - Research Grower Information Sheet (7 Property Summary Data Sheets).

### Theme 6:

Phylloxera workshops

Location	Month	Advisor	Senior Inspector
Sydney	May 2007	L Ullio	
Orange	May 2007	J Bright	P Anderson
Bowral / Camden / Berry	May 2007	L Ullio	R Bowman
Tumbarumba	May 2007	J Dart	P Anderson
Tenterfield / Armid	May 2007	T Somers	T Grant
Hunter / Port Macquarie	May 2007	T Somers	R Bowman
Wagga / Gundagai	April 2007	L Quirk	T Rafferty
Canberra	April 2007	S Hackett	P Anderson
Cowra / Young	April 2007	L Quirk	P Anderson
Griffith / Moama	April 2007	J Connellan	T Rafferty
Mudgee / Dubbo	April 2007	C Beckingham	P Anderson
Sunraysia/Menindee	March 2007	G Moulds	T Rafferty

## CONFERENCES

### XXXOIV World Congress of Vine and Wine, Budapest

10-16 June, 2007

Attended by Dejan Tesic

### Plant Vascular Biology Conference, Taiwan

7-11 May, 2007

Attended by Suzy Rogiers

### Pangborn 2007

11-25 August, 2007

Attended by Anthony Saliba

### Workshop, Compusense Five

9-10 August, 2007

Attended by Anthony Saliba

### OIV Coference

10-14 June, 2007

Attended by Bruno Holzapfel

### XV International Symposium GESCO

20-23 June, 2007

Attended by Bruno Holzapfel

### XV International Symposium GESCO

25-28 June, 2007

Attended by Jason Smith

## **VISITORS**

Theme 2: Dr George Leavitt, Farm Advisor, University of UC Davis, California. 25 July 2006

Theme 3: Dr Michael Thorpe, University of Julich, Germany. June 2007