CURRICULUM VITAE

Dr Carlo Andreotti

Free University of Bozen - Bolzano
Universitätsplatz 5
I-39100 Bozen/Bolzano
Italy

Phone: +39 0471 017122
Fax: +39 0471 017009

carlo.andreotti@unibz.it

www.unibz.it/sciencetechnology

Affiliations

Free University of Bozen – Bolzano

Current position

Assistant Professor

Education

- 2002, Ph.D. in 'Fruit Tree, Forestry and Ornamental Agro-Ecosystems' University of Bologna. Thesis title: 'Phenolic compounds of Pyrus communis: cultivar characterization and evaluation of their role in plant response to abiotic and biotic stresses'.
- 1997, Laurea diploma (equiv. to M.Sc.) in Agricultural Sciences, University of Bologna

Language skills

- Italian (mother language)
- English (good level both written and spoken)
- German (actual level: A2-B1)
- French (scholastic)

Professional experience

- 2008 –2009, Tenured Researcher for the Italian Council for Agricultural Research (CRA), Fruit culture Research Unit in Forlí (Italy).
- 2002 – 2008, Post-Doctoral Fellow, Department of Fruit Tree and Woody Plant Sciences of the University of Bologna, University of Bologna.

Teaching appointments

- "Fruit production B", course in pomology of fruit tree species, Bachelor in Agricultural Science and Agricultural Economics, Free University of Bozen, from 2009 to present;
- "Cytology, Anatomy and Plant Physiology", Bachelor in Viticulture and Enology, Agricultural Faculty of the University of Teramo,; from 2007 to 2008;
- "Morphology and Physiology of Grape", Bachelor in Viticulture and Enology, Agricultural Faculty of the University of Teramo, from 2004 to 2007.

Research activity

1. Area of scientific interest

- Phenolic compounds biosynthesis and accumulation in plant organs;
- Role of phenolics in plant defense;
- Effects of mountain environment on fruits quality;
- Cultural techniques and final fruit quality.

2. Research projects

- 2009 – ongoing: Coordinator of the national project BIO.GENE (Biochemical and molecular analysis of graft incompatibility in pear), founded by CRA-Rome;
- 2009 – ongoing: Effects of the mountain cultural and environmental conditions on strawberry quality; founded by the Free University of Bozen;
- 2010 – ongoing: "Ecosystem service of chestnut woodland with regard to its potential for fruit production and fruit quality". Project: Ecosystem services and restoration of traditional land-use systems in the Southern Alps (EcoRAlps), founded by the Stemmler Foundation and Immerschitt Foundation in the Stifterverband für die Deutsche Wissenschaft;
- 2010 – ongoing: "Acquisition of data on biomass productivity from agricultural lands (orchards and vineyards)". Project: Sustainable chain for the use of biomass in South-Tyrol and waste products, founded by the Free University of Bozen
- 2010 – ongoing: "Development of a novel method for the study of the plant root defense mechanisms: arthropod-apple interaction as a case study"

Visiting researcher

- 1999 - 2002: several months as visiting researcher in the Institute of Fruit Science – Fruit Tree Physiology, Centre of Life and Food Science Weihenstephan, TUM (Germany), Director Prof. Dieter Treutter. Main research goals: HPLC analytical determination of phenolic compounds in different plant tissues. Studies of their role as important metabolites for human diet and of their activities in plant metabolism as bioactive molecules for stress reactions.

Publications

In referred journals

1. **Andreotti, C.**, Ravaglia, D. and Costa, G., 2010. Effects of fruit load and reflective mulch on phenolic compounds accumulation in nectarine fruit. Europ. J. Hort. Sci. 75 (2), 53-59

2. **Andreotti C.**, Ravaglia D. and Costa, G., 2009. Innovative light management to improve production sustainability, overall quality, and the phenolics composition of nectarine (*Prunus persica* cv. Stark Red Gold). Journal of Horticultural Science & Biotechnology (2009) ISAFRUIT Special Issue, 145–149
3. Botton, A., **Andreotti, C.**, Costa, G. and Ramina, A., 2009. Peach (*Prunus persica L. Batsch*) Allergen-Encoding Genes Are Developmentally Regulated and Affected by Fruit Load and Light Radiation. Journal of Agricultural and Food Chemistry 57 (2), 724-734
4. **Andreotti, C.**, Ravaglia, D., Ragaini, A. and Costa, G., 2008. Phenolic compounds in peach (Prunus persica) cultivars at harvest and during fruit maturation. Annals of Applied Biology 153, 11-23
5. **Andreotti, C.**, Costa, G. and Treutter, D., 2006. Composition of phenolic compounds in pear leaves as affected by genetics, ontogenesis and the environment. Scientia Horticulturae 109, 130-137
6. Fischer, T., Halbwirth, H., Roemmelt, S., Sabatini, E., Schlangen, K., **Andreotti, C.**, Spinelli, F., Costa, G., Forkmann, G., Treutter, T. and Stich, K. 2006. Induction of polyphenol gene expression in apple (Malus x domestica) after the application of a dioxygenase inhibitor. Physiologia Plantarum 128: 604–617
7. **Andreotti, C.**, Bregoli, A.M. and Costa, G., 2004. Pre and Post-Harvest Aminoethoxyvynylglycine (AVG) Applications Affects Maturity and Storage of Pear Fruit. Europ. J. Hort. Sci. 69 (4), 147-152
8. Rademacher, W., Van Saarloos, K., Garuz Porte J. A., Riera Forcades F., Senechal Y., **Andreotti C.**, Spinelli, F., Sabatini E. and Costa G., 2004. Impact of prohexadione-Ca on the vegetative and reproductive performance of apple and pear trees. Europ. J. Hort. Sci. 69 (6), 221-228
9. Halbwirth H, Fischer TC, Roemmelt S, Spinelli F., Schlangen K., Peterek S., Sabatini E., Messina Ch., Speakman J.-B., **Andreotti C.**, Rademacher W., Bazzi C., Costa G., Treutter D., Forkmann G. and Stich K., 2003. Induction of antimicrobial 3-deoxyflavonoids in pome fruit trees controls fire blight. Z. Naturforsch. C 58 (11-12): 765-770
10. Bazzi, C., Messina, C., Tortoreto, L., Stefani, E., Bini, F., Brunelli, A., **Andreotti, C.**, Sabatini, E., Spinelli, F., Costa, G., Hauptmann, S., Stammler, G., Doerr, S., Marr, J. And Rademacher, W., 2003. Control of pathogen incidence in pome fruits and other horticultural crop plants with prohexadione-Ca. Europ. J. Hort. Sci., 68 (3), 108-114
11. Gosch, G., Puhul, I., Halbwirth, H., Schlangen, K., Roemmelt, S., **Andreotti, C.**, G. Costa, Fischer, T., Treutter, D., Stich, K. and Forkmann, G., 2003. Effect of prohexadione-Ca on various fruit crops: flavonoid composition and substrate specificity of their dihydroflavonol 4-reductases. Europ. J. Hort. Sci., 68 (3), 144-151
12. *Costa*, G., **Andreotti, C.**, Bucchi, F., Sabatini, E., Bazzi, C. e Malaguti S., 2001. Prohexadione-Ca (Apogee®): growth regulation and reduced fire blight incidence in pear. HortScience 36(5):931-933

Book chapters

1. Tagliavini M. e Andreotti C., 2011. La concimazione della fragola. In “La Fragola”, collana “Coltura e Cultura”.

Contributed and other publications

1. **Andreotti C.**, Castagnoli M., Faedi W., Maltoni M. L., Ranieri M., Magnani S., 2010. Characterization of Soilless Grown Blueberries: Production, Quality Traits and Phenolic Profile Determination of Six Cultivars. 28th International Horticultural Congress, Lisboa (P), August 22-27, 2010 (S01.290, p.46).

2. Ranieri M., **Andreotti C.**, D'Antuono F. L., Magnani S., Faedi W., 2010. Variation of Health Compounds Content in Strawberry After Storage. 28th International Horticultural Congress, Lisboa (P), August 22-27, 2010 (S01.303, p. 49).
3. G. Costa, **C. Andreotti**, E. Bonora, D. Ravaglia, 2010. Reflecting Mulch to Affect Fruit Quality and Nutraceutical Properties in Nectarine 28th International Horticultural Congress, Lisboa (P), August 22-27, 2010 (S11.260, p. 510).
4. Magnani S., Gargaro A., Maltoni M.L., Palombi M.A., **Andreotti C.**, 2010. Progetto BIO.GENE: impiego del modello di innesto in vitro per l'analisi degli eventi biochimici e molecolari caratterizzanti il rapporto tra i bionti di pero. IX Giornate Scientifiche SOI, Firenze, 10-12 Marzo, 2010 (p.102).
5. Zanotelli D., Montagnani L., Ceccon C., Melo W., Mimmo T., **Andreotti C.**, Scandellari F., Tagliavini M., 2010. Flussi di carbonio nel meleto. IX Giornate Scientifiche SOI, Firenze, 10-12 Marzo, 2010 (p.103).
6. Tagliavini, M., **Andreotti, C.**, Baruzzi, G. 2009. Esigenze nutrizionali e tecniche sostenibili di concimazione della fragola. Atti VII Convegno Nazionale, La fragola, presente e futuro, Marsala, 25-27 marzo 2009, 199-205.
7. **C. Andreotti**, G. Baruzzi, M. Tagliavini, 2009. Come effettuare correttamente la concimazione della fragola. L'Informatore Agrario, 25/2009, pp. 69-72.
8. **C. Andreotti**, M. Castagnoli, M. L. Maltoni, S. Magnani, M. Baudino, M. Fontanari, A. Carlini, A. Marchesini, A. Pititto, W. Faedi, 2009. Mirtillo, un frutto ricco di composti fenolici antiossidanti ad alto valore dietetico. Frutticoltura, 6/2009, pp. 82-88
9. M. Ranieri, **C. Andreotti**, L. F. D'Antuono, S. Magnani, W. Faedi, 2009. Cultivar and storage effects on strawberry bioactive components. COST 863 Euroberry, Harrogate International Centre, UK, 7th-8th December 2009
10. **Andreotti, C.**, Ravaglia, D. and Costa, G. 2007. Preliminary study of different fruit loads and reflective mulch effects on the phenolic composition in nectarines cv. 'Stark Red Gold'. Acta Hort. (ISHS) 761:249-254
11. **Andreotti, C.**, Ragaini, A. and Costa, G., 2006. Phenolic compounds characterisation of peaches and nectarines. Acta Hort. (ISHS) 713: 449-452.
12. Canistro, D., Pozzetti,L., Broccoli, M., Affatato, A., Stradiotti, A., Sapone, **C. Andreotti**, C., Costa, G., Biagi, G.L, Paolini, M., 2006. Phytochemicals e strategie chemiopreventive: effetti della pesca ed estratti fenolici sugli enzimi del drug metabolism nel modello animale, in: , Atti del XIV Congresso Nazionale della Societa' Italiana Tossicologia. Riassunti, ROMA, ISTITUTO SUPERIORE DI SANITÀ, pp. 223
13. Bregoli, A.M., Nardozza, S., **Andreotti, C.**, Magnani, R., Corelli-Grappadelli, L., Masia, A. and Costa, G. 2006. Relationship between biometric and physiological parameters, application time and flower bud abscission induced by a dormancy breaking agent in peach. Acta Hort. (ISHS) 713:191-196
14. **Andreotti, C.**, Ragaini, A. e Costa, G., 2006. Caratterizzazione del profilo fenolico di alcune pesche e nettarine. Rivista di Frutticoltura 7/8, 56-59
15. Costa, G., **Andreotti, C.**, Spinelli, F. and Rademacher, W. 2006. Prohexadione-Ca: more than a growth regulator for pome fruit trees. Acta Hort. (ISHS) 727:107-116
16. Spinelli, F., **Andreotti, C.**, Sabatini, E., Costa, G., Spada, G., Ponti, L. and Geider, K. 2006. Chemical control of fire blight in pear: application of Prohexadione-calcium, Acibenzolar-s-methyl, and copper preparations in vitro and under field conditions. Acta Hort. (ISHS) 704:233-238
17. **Andreotti, C.**, Ragaini, A., Costa, G., 2004. Composizione fenolica di alcune varietà di pesca e nettarina. . Atti delle VII Giornate Scientifiche SOI, Napoli 4-6 Maggio 2004
18. **Andreotti, C.**, Noferini, M., Fiori, G., 2004. Impiego della metodologia NIRS (Near InfraRed Spectroscopy) per la valutazione quantitativa di alcuni composti fenolici di pesche e nettarine. Atti delle VII Giornate Scientifiche SOI, Napoli 4-6 Maggio 2004
19. Costa G., Sabatini E., Spinelli F., **Andreotti C.**, Bomben C., Vizzotto G., 2004. Two years of application of prohexadione-Ca on apple: effect on vegetative and cropping

performance, fruit quality, return bloom and residual effect. Acta Horticulturae (ISHS) 653, 35-40

20. Costa G., Sabatini E., Spinelli F., **Andreotti C.**, Spada G., Mazzini F, 2004. Prohexadione-Ca controlled vegetative growth and cropping performance in pear. Acta Horticulturae (ISHS) 653, 127-132
21. **Andreotti, C.**, 2003. Moderne tecniche di determinazione non distruttiva della maturazione e della qualità dei frutti. Estratto da: Quaderni del dottorato di ricerca in colture arboree, a cura di S. Sansavini e M. Tagliavini. Volume 2:6-18
22. **Andreotti, C.**, Noferini, M., Costa, G., 2003. La qualità della frutta: cos'è cambiato nell'offerta, nella domanda e nella tecnologia di valutazione. Italus Hortus – Vol. 10, n. 5, 48-52
23. **Andreotti, C.**, Sabatini, E., Spinelli, F., Costa, G., 2003. Controllo del colpo di fuoco batterico del pero mediante l'impiego del prohexadione-Ca: alcune indicazioni sperimentali. Notiziario Tecnico N. 66, 119-130
24. Costa, G., Noferini, M. and **Andreotti, C.**, 2002. Non-destructive determination of internal quality in intact pears by near infrared spectroscopy. Acta Horticulturae (ISHS) 596, 821-825
25. **Andreotti, C.**, Treutter, D. and Costa G., 2002. Caratterizzazione delle principali classi di composti fenolici in alcune cultivar di pero. Giornate Scientifiche SOI 2002, 113:114
26. **Andreotti, C.** and Treutter, D., 2002. Ruolo dei composti fenolici nella reazione a stress biotici ed abiotici in pero. Giornate Scientifiche SOI 2002, 121-122
27. Sabatini, E., Spinelli, F. and **Andreotti, C.**, 2002. Il ruolo degli inibitori delle diossigenasi (prohexadione-Ca e trinexapac-ethyl) sull'induzione di resistenza ad Erwinia amylovora in pero. Giornate Scientifiche SOI 2002, 111-112
28. Dondini, L., Bregoli, A.M., **Andreotti, C.**, Tonon, G., Grassi, G., Rombolà, A.D. and Musacchi, S., 2002. Comportamento delle cultivar di pero "Abate Fetel" e "William" a differenti livelli di salinità. Giornate Scientifiche SOI 2002, 183-184
29. S. Roemmelt, S. Peterek, W. Rademacher, **C. Andreotti**, J.B. Speakman, G. Sponza, L. Tortoreto, H. Halbwirth, N. Zimmermann, G. Costa, C. Bazzi, K. Stich, G. Forkmann, D. Treutter, 2002. Alteration of Phenylpropanoid, Biosynthesis of Fruit Trees as a Tool for Enhancement of Fire Blight Resistance, Acta Horticulturae (ISHS) 590, 477-484
30. G. Costa, **C. Andreotti**, E. Sabatini, AM Bregoli, F. Bucchi, GL. Spada and F. Mazzini . 2002. The effect of prohexadione-Ca on vegetative and cropping performance and fire blight control of pear trees. Acta Horticulturae (ISHS) 596, 531-534
31. Stich K., H. Halbwirth, W. Kampan, D. Treutter, S. Roemmelt, S. Peterek, G. Forkmann, G., T. Fisher, S. Martens, B. Meisel, G. Costa, **C. Andreotti**, E. Sabatini, C.Bazzi and W. Rademacher. 2002. Induction of pathogen resistance in pear by transiently altering the flavonoid metabolism with specific enzyme inhibitors. Acta Horticulturae (ISHS) 596, 513-521
32. **Andreotti C.**, M. Noferini, G. Costa, 2001. Monitoraggio in condizioni di 'pieno campo' di alcuni parametri della maturazione dei frutti attraverso la tecnica NIRS (Near Infrared Spectroscopy). Atti XXIV Convegno peschicolo, Cesena, 24-25 Febbraio 2000: 193-197
33. Costa G., M Noferini. e **C. Andreotti** , 2000. La determinazione dell'epoca di raccolta dei frutti attraverso sistemi di lettura Nirs (near infrared spectroscopy) Atti V Giornate Scientifiche SOI, Sirmione (BS), 28-30 Marzo:495-496
34. Noferini M. e **C. Andreotti**, 2000. Il sistema Nirs (near infrared spectroscopy) per la determinazione non-distruttiva della qualità della frutta. Atti V Giornate Scientifiche SOI, Sirmione (BS), 28-30 Marzo:517-518
35. **Andreotti C.**, G. Costa, F. Bucchi, C. Bazzi e S. Malaguti, 2000. Meccanismi di controllo dello sviluppo vegetativo e del colpo di fuoco batterico nel pero indotti dal Prohexadione-Ca. Giornate Scientifiche SOI., Sirmione (BS) 28-30 marzo: 477-478

36. Bazzi C. A.Brunelli, S. Malaguti and **C. Andreotti**. 2000. Effects of prohexadione-Ca applications on fire blight (Erwinia amylovora) and scab (Venturia spp.) infections in pear and apple trees GP-PSE2000 Meeting, Munich 10-14 September
37. G. Costa, **C. Andreotti**, E. Sabatini, AM. Bregoli, C. Bomben and G.Vizzotto, 2000. The effect of prohexadione-ca on tree growth and fireblight suppression in apple and pear. In Proceedings of the 27 th. Annual Meeting of PGRSA, Hawaii, 30 July-3 August. pp253-258
38. Costa G., **C. Andreotti**, E. Sabatini, A.M. Bregoli and F. Bucchi. 2000. The effect of a dioxygenase inhibitor on agronomic behavior and induction of Erwinia amylovora resistance in pear trees. . GP-PSE2000 Meeting, Munich 10-14 September
39. Costa G., **Andreotti, C.**, O. Miserocchi, M. Noferini, , G. Smith, 1999. Near-infrared (NIR) methods to determine kiwifruit field harvest date and maturity parameters in cool store.. 4th Int. Symposium on kiwifruit. Santiago de Chile, 11-14 January. Acta Horticulturae (ISHS) 498:231-237
40. Costa G., M. Noferini, **C. Andreotti** and F. Mazzotti, 2000. Non-destructive determination of soluble solids and flesh firmness in nectarine by NIR (near infrared) spectroscopy. Near Infrared Spectroscopy, Proceedings of the 9th International Conference, 14-19 June 1999, Verona (Italy). pp 863-871
41. Costa G., **C. Andreotti**, O. Miserocchi, M. Noferini e, G. Smith, 1999. Impiego della spettroscopia NIR per la determinazione dell'epoca di raccolta in campo e dei parametri di maturazione in conservazione dei frutti di actinidia. Frutticoltura 12:53-58

Bozen, 10.02.2011 Dr. Carlo Andreotti