

Curriculum vitae

Massimo Tagliavini

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Professional experience

Full professor at the Faculty of Agricultural, Environmental and Food Sciences of the Free University of Bozen- Bolzano (2007-now). He has teaching responsibilities on the following courses at bachelor: Agricultural ecology and principles of crop production; Principles of tree management. At master level he teaches: Crop ecosystems and Scientific methods in horticultural research. At PhD level he teaches part of the course Experimental methods in agricultural and environmental research.

Dean of the Faculty of Science and Technology of the Free University of Bozen-Bolzano (October 2008-September 2014).

Previous University positions: Associate professor: 1998-2007. University of Bologna, Faculty of Agricultural Sciences.

Research areas

I do research into ecophysiological processes that modify resource use efficiency and allow for the development of more sustainable production systems. To achieve the goals, my research integrates several techniques including micrometeorology, eco physiological methods, use of stable isotopes, remote sensing, tree biometry and modelling. The research spans from monitoring water and carbon fluxes under field conditions to manipulative experiments in orchards or vineyards or under controlled conditions using potted plants in greenhouses or growth chambers. Part of my research focuses on adaptation measures that can be put into place in tree ecosystems to cope with multiples summer stressors, like extreme summer heat, drought and high solar radiation, and aims at predicting the ability of tree ecosystems to act as sink or source of atmospheric carbon in a climate change scenario. Below are the main research areas I'm currently involved in:

1. Water needs and irrigation management
2. Carbon fluxes and carbon farming
3. Climate change-induced multiple stressors
4. Orchard & vineyard agroecological management
5. Sustainable mineral nutrition

Main recent research projects with scientific responsibility

Atmospheric boundary-layer modeling over complex terrain. Euregio call. 2019-22. UNIBZ unit coordinator

Water losses and carbon assimilation in the vineyard as affected. Unibz call. 2019-22. PI.

Effect of climate extremes on grapevine production in South Tyrol: early detection of abiotic stress and consequences for wine quality (CLEVAS). Bolzano Province call. 2020-23. UNIBZ unit coordinator

AGRITECH 2022-25. spoke 4 Task leader (4.2.2.)

Unravelling seasonal to decadal CLImate influence on the Carbon cycle in FORest. A multidisciplinary analysis across contrasting climates (CliCFor). Prin. 2023.25. UNIBZ unit coordinator

A monitoring system for carbon fluxes in South Tyrolean ecosystems (CarboST). Bolzano Province call. 2024-27. UNIBZ unit coordinator

Editorial activity

Editor of "Italus Hortus", the official Journal of the Italian Society for Horticultural Sciences (2005-2013).

Member of the Editorial Board of "European Journal of Agronomy" (since 1997) and member of the review board of "Tree Physiology" (since 2004).

Guest Editor of the Journal of Plant Nutrition (together with R. Pinton, Z. Varanini and G. Zocchi) special issue Vol.26 (n.10 & 11), 2003.

Editor of the following volumes of the Series Acta Horticulturae (international Society for Horticultural Sciences):

324 ISBN n. 90 6605 3658

383 ISBN n. 90 6605 7572

594 ISBN n. 90 6605 8269

596 ISBN n. 90 6605 8668

Referee for many International Scientific Journals

Activities for the national and international scientific community

- Chairman of the working group on "Mineral Nutrition of Fruit Crops" of the International Society for Horticultural Sciences (2000-2005; 2012-now)
- President of the Italian Association of Agricultural Scientific Societies (2020-23).
- President of the Italian Society for Horticultural Sciences (2016-22).
- Representative member for Italy in the Council of the International Society

for Horticultural Sciences (2023-2025).

- Board member of the Italian Society for Horticultural Sciences (2023-).
- Member of the "Comitato consultivo multidisciplinare" Accademia dei Georgofili (Firenze) from 2025.
- Vice-President of Eurac Research (2016-).

Organization of Scientific events

Scientific Secretary of the "International Symposium on Soil Sickness and Replant Disease in Fruit Trees, ISHS " (Bologna, Italy) 1990.

Scientific Secretary of the "Second International Symposium on Diagnosis of Nutritional Status of Deciduous Fruit Orchards, ISHS" S. Michele A.A. (TN, Italy) 1993.

Scientific Secretary of the "VIII ISHS International Pear Symposium" (Ferrara-Bologna, Italy) 2000.

Convener of the "International Symposium on Foliar Nutrition of Deciduous Fruit Plants" (ISHS), (Meran, Italy) 2001

Co-convener of the "IX International Symposium on Iron Nutrition and Interactions in Plants" (Udine, Italy) 2002.

Convener of the National conference on "Mineral Nutrition of fruit trees" (Bologna, Italy) 2005.

Organizer of the Workshop on "Mineral Nutrition of crops for mountain areas" (Bolzano, Italy) 2012.

Organizer of the VIII Giornate Scientifiche della Società di Ortoflorofrutticoltura Italiana (SOI). 2016.

Organizer of the XV Convegno nazionale AISSA " Il contributo della ricerca italiana all'intensificazione sostenibile in agricoltura". Bolzano. 2018.

Co-convener of the XIII International ISHS Symposium on Mineral Nutrition of Fruit Crops. Bolzano, 2017.

President of the Organizing Committee of the 33th International Horticultural Congress. Milan. 2030.

Invited lectures and seminars

1994: Iron chlorosis in fruit trees: developing alternative strategies to iron chelates, Pflanzenernaehrungs Colloquia, Institute of Plant Nutrition, Justus Liebig University, Giessen (Germany).

1997: Alternatives to iron chelates for overcoming fruit tree iron chlorosis in Mediterranean Countries. 9th International Symposium on Iron Nutrition and Interactions in Plants, Hohenheim (Germany).

1998: Partitioning of Mineral Nutrients to Fruits of Deciduous Trees. ISHS Symposium on Mineral Nutrition and Fruit Quality. Brussels (Belgium)

2000: Main nutritional issues of deciduous fruit crops in orchards of northern Italy. Fourth International ISHS Symposium on Mineral Nutrition of Deciduous Fruit Crops. Penticton (Canada).

2002: Understanding nitrogen cycling to optimize fertilization in fruit tree ecosystems, IX Iberic Symposium on Plant Mineral Nutrition, Zaragoza (Spain)

2004: Fluxes of nutrients in tree ecosystems, The second national Symposium on mineral Nutrition of Plants, Warsaw Agricultural University, Warsaw (Poland).

2005: Nutrient cycling in orchard ecosystems, Fifth International ISHS Symposium on Mineral Nutrition of Deciduous Fruit Crops. Talca (Chile).

2006: Nutrient fluxes in kiwifruit orchards, 6th ISHS International Kiwifruit Symposium, Rotorua (New Zealand).

2007: Use efficiency of within-orchard sources of nutrients, Conference "RATIONAL METHODS FOR THE SELECTION AND USE OF AGROCHEMICAL MEASURES: RISK MODELING, MONITORING AND MANAGEMENT", University of Agricultural Sciences and Veterinary Medicine, USAMV, Cluj-Napoca, (Romania).

2008: I fabbisogni nutrizionali del pero per la definizione del piano di fertilizzazione, Convegno Nazionale sulla coltura del Pero. Ferrara (Italy).

2008: Esigenze nutrizionali e tecniche sostenibili di concimazione della fragola, Convegno Nazionale sulla coltura della fragola. Marsala (Italy).

2008: Carbon fluxes in orchard ecosystems. Invited Seminar at University of the State Santa Catarina, Lages (Brasil).

2008 Use of Stable isotopes in mineral nutrition research: principles and applications to fruit trees. Invited seminar for the PhD program in Soil Science. Federal University de Santa Maria (Brasil).

2009: Carbon cycle in the apple orchard, Invited Seminar, Department of Horticulture, Pennsylvania State University (USA).

2009: Nutrient cycling in fruit tree systems. Invited Seminar for the PhD program in Soil Science, Federal University de Santa Maria (Brasil).

2010: Carbon Footprint and Energy Use in Apple Orchards: Introduction and Basic Concepts, Interpoma Conference, Bolzano (Italy)

2011: Sfide della frutticoltura del futuro, tra tradizione e innovazione, Innovation Day, Commerce Chamber, Bolzano (Italy).

2012: Nutrient uptake requirements and partitioning in fruit trees, 7th International ISHS Symposium on Mineral Nutrition of fruit Crops, Chanterboury (Thailand).

2012 Nutrient fluxes in orchard ecosystems. 3rd SLOVENIAN FRUIT GROWING CONGRESS 21–23. 11. 2012 Krško (Slovenia).

2014: Recenti conoscenze sulla nutrizione minerale per concimare il frutteto in modo sostenibile, Interpoma Congress, Bolzano (Italy) 21.11.2014

2014: La sostenibilità ecologica del frutteto, Accademia dei Georgofili: Giornata di Studio su «sistemi arborei da frutto di domani: intensivi, volti alla qualità del prodotto e resilienti» Firenze 18 dicembre 2014

2017: Welche Rolle spielt der biologische Obst- und Pflanzenbau in Südtirols Landwirtschaft der Zukunft?“ Bioland Seminars. Nals (BZ).

2020: Nitrogen fertilization in pome fruit trees” 16^a Reunión RUENA. Madrid.

2020: The carbon footprint of the apple. Interpoma Congress.

2024: Understanding nitrogen cycling in orchards to optimize fertilization. X ISHS Symposium on Plant Nutrition of Fruit crops. Wenatchee (USA)

International Publications

A) PEER REVIEWED INTERNATIONAL JOURNALS

1. **TAGLIAVINI M.** and N. E. LOONEY. 1991. Response of peach seedlings to root-zone temperature and root-applied growth regulators, **HortScience**, 26 (7),870-872.
2. **TAGLIAVINI M.**, G. E. HOGUE and G.H. NEILSEN. 1991.Influence of phosphorus nutrition and root zone temperature on growth and mineral uptake of peach seedlings, **Journal of Plant Nutrition**, 1991, 11, 1267-1276.
3. PONI S., **M. TAGLIAVINI**, D. NERI, D. SCUDELLARI and M. TOSELLI. 1992. Influence of root pruning and localized water stress on growth and physiology of apple, grape, peach and pear. **Scientia Horticulturae**, 52,223-236.
4. **TAGLIAVINI M.**, B. MARANGONI, D. SCUDELLARI, A. BASTIANEL, F. FRANZIN and M. ZAMBORLIN. 1992. Leaf mineral composition of apple trees: sampling date and effects of cultivar and rootstock. **Journal of Plant Nutrition**, 15 (5), 605-619.
5. **TAGLIAVINI M.** and B.MARANGONI.1992. Growth of peach as affected by decomposition of own root residues in soil. **Plant and Soil**, 145, 253-260.

6. **TAGLIAVINI M.**, L. VETO and N.E. LOONEY. 1993. Measuring root surface-area and mean root diameter of peach seedlings by digital image analysis, **HortScience**, 28. 1129-1130.
7. **TAGLIAVINI M.**, D. BASSI and B. MARANGONI. 1993. Growth and mineral nutrition of pear rootstocks in lime soils. **Scientia Horticulturae**, 54, 13-22.
8. **TAGLIAVINI M.**, A. MASIA and M. QUARTIERI. Bulk soil pH and rhizosphere pH of peach trees in calcareous and alkaline soils as affected by the form of nitrogen fertilizers. 1995. **Plant and Soil**, 176(2), 263-271.
9. **TAGLIAVINI M.**, A.D. ROMBOLA' and B. MARANGONI. 1995. Responses to the iron-deficiency stress of pear and quince genotypes. **Journal of Plant Nutrition**, 18(11),2465-2482.
10. **TAGLIAVINI M.**, D. SCUDELLARI, B. MARANGONI and M. TOSELLI. 1996 Nitrogen fertilization management in orchards to reconcile productivity and environmental aspects. **Fertilizer Research**, 43(1-2),93-102.
11. **TAGLIAVINI M.**, M. QUARTIERI and P. MILLARD. 1997. Remobilised nitrogen and root uptake of nitrate for leaf growth, flowers and developing fruits of pear (*P. communis*) trees. **Plant and Soil**, 195,137-142.
12. **TAGLIAVINI M.**, P. MILLARD and M. QUARTIERI. 1998. Storage of foliar absorbed N and remobilisation for spring growth in young nectarine (*P.persica var nectarina*) trees. **Tree Physiology**, 18, 203-207.
13. **TAGLIAVINI M.**, P. MILLARD, M. QUARTIERI and B. MARANGONI. 1999. Timing of N uptake affects storage and remobilisation of nitrogen in nectarine trees. **Plant and Soil**, 211 (2) 149-153.
14. **TAGLIAVINI** , P. INGLESE AND A. D. ROMBOLA'. 2000. Root uptake, storage and remobilisation of autumn applied nitrogen to kiwifruit (*Actinidia deliciosa*) vines. **Agronomie Agriculture and Environment**, 20, 23-30.
15. A.D ROMBOLA', W. BRUEGGEMANN, **M. TAGLIAVINI**, B. MARANGONI and P. MOOG. 2000. Iron source affects Fe reduction and re-greening of kiwifruit (*Actinidia deliciosa*) leaves **Journal of Plant Nutrition**, 23 (11&12),1751-1765
16. J. ABADIA, **M. TAGLIAVINI**, A. ABADIA, M. SANZ, C. TSIPOURIDIS, E. FARIA., and B. MARANGONI. 2000. Using the flower Fe concentration for estimating crop chlorosis in fruit tree orchards. A summary report. **Journal of Plant Nutrition**, 23(11&12), 2023-2033_.
17. **TAGLIAVINI.**, J. ABADIA, A.D. ROMBOLA', A. ABADIA, C. TSIPOURIDIS and B. MARANGONI. 2000. Agronomic means for the control of iron deficiency and chlorosis in deciduous fruit plants. **Journal of Plant Nutrition**, 23((11&12), 2007-2022.
18. TOSELLI M. MARANGONI B. and **TAGLIAVINI M.** 2000. Seasonal variation of Fe content in vegetative and reproductive organs of nectarine trees in calcareous soils during the development of chlorosis. **European Journal of Agronomy**, 13(4) 279-286.
19. MALAGUTI D. MILLARD P., WENDLER R., HEPBURN A. and **TAGLIAVINI M.** 2001. Translocation of amino acids in the xylem of apple (*Malus domestica* Borkh.) tree as a consequence of both N remobilization and root uptake. **Journal of Experimental Botany**, 52 (361) , 1665-1671.

20. **TAGLIAVINI M.** and ROMBOLA' A.D. 2001. Iron deficiency and chlorosis in orchard and vineyard ecosystems – a review. **European Journal of Agronomy**, 15, 71-92.
21. **TAGLIAVINI M.** and B. MARANGONI. 2002. Major nutritional issues in deciduous fruit orchards of Northern Italy **HorTechnology**, 12(1).26-31.
22. M QUARTIERI , P MILLARD and **M TAGLIAVINI**. 2002. Storage and remobilization of nitrogen by pear (*Pyrus communis* L.) trees as affected by timing of N supply. 2002. **European Journal of Agronomy**, 17, 105-110. .
23. M. POLICARPO, L. DI MARCO, T. CARUSO, P. GIOACCHINI and **M. TAGLIAVINI**. 2002 Dynamics of nitrogen uptake and partitioning in early and late fruit ripening peach (*Prunus persica*) tree genotypes under a mediterranean climate. **Plant and Soil**, 239 (2), 207-214.
24. ROMBOLA' A.D., BRÜGGEMANN W., LOPEZ-MILLAN A.F., ABADIA J. **TAGLIAVINI M.**, MARANGONI B., and MOOG P.R., 2002. BIOCHEMICAL MECHANISMS OF TOLERANCE TO FE-deficiency in kiwifruit (*A. deliciosa*) plants. **Tree Physiology**, 22, 869-875.
25. GRASSI G., MILLARD P., WENDLER R., MINOTTA G. and **M. TAGLIAVINI**. 2002 Measurements of xylem sap amino acid concentrations in conjunction with whole tree transpiration estimates spring N remobilization by cherry trees. **Plant Cell & Environment**, 25, 1689-1699.
26. PONI S., QUARTIERI M. and **M. TAGLIAVINI**. 2003. Potassium nutrition of Cabernet Sauvignon grapevines (*Vitis vinifera* L.) as affected by shoot trimming. **Plant and Soil**, 253, 351-351.
27. GRASSI G., P. MILLARD, P. GIOACCHINI, and **M. TAGLIAVINI**. 2003. Recycling of nitrogen in the xylem of *Prunus avium* trees starts when spring remobilization of internal reserves declines. **Tree Physiology**, 23, 1061-1068.
28. TOSELLI M., M. THALHEIMER and **M. TAGLIAVINI**. 2004. Leaf uptake and partitioning of urea-N as affected by the concentration and volume of spray solution and by the shoot leaf position in apple (*Malus domestica*) trees. **J. Hort. Sci Biotech.**, 79 (1),97-100.
29. J. ABADÍA, A ÁLVAREZ-FERNÁNDEZ, A. D. ROMBOLÀ, M. SANZ, and **M. TAGLIAVINI**, A. ABADÍA. 2004. Technologies for the Diagnosis and Remediation of Fe Deficiency. **Soil Sci. Plant Nutr.** 50 (7), 965-971.
30. A.D. ROMBOLÀ, Y. GOGORCENA, A. LARBI, F. MORALES, E. BALDI, B. MARANGONI, **M. TAGLIAVINI** and J. ABADÍA. 2005 Iron deficiency induced changes in carbon fixation and leaf elemental composition of sugar beet (*Beta vulgaris*) plants. **Plant and Soil**, 270, 39-45.
31. R NESTBY, F LIETEN, D PIVOT, C RAYNAL LACROIX, and **M TAGLIAVINI**, 2005. Influence of Mineral Nutrients on Strawberry Fruit Quality and Their Accumulation in Plant Organs A Review. **Int. J. Fruit Science**, 5 (1),141-158.
32. R. NESTBY and **TAGLIAVINI.M.** 2005 Foliar uptake and partitioning of urea-N by strawberry plants as affected by timing of supply and plant N status. **J. Hort Sci Biotech.**, 80(2): 272-275.
33. **M. TAGLIAVINI**, E. BALDI, P. LUCCHI, M. ANTONELLI, G. SORRENTI, G. BARUZZI and W. FAEDI. 2005. Dynamics of nutrients uptake by strawberry plants (*Fragaria x ananassa* Dutch.) grown in soil and soilless culture. **European Journal of Agronomy**. 23, 15-25.

34. MUSACCHI S., M. QUARTIERI and **M. TAGLIAVINI**. 2006. Pear (*Pyrus communis*) but not quince (*Cydonia oblonga*) roots are able prevent excessive uptake of Cl^- and Na^+ in saline soils. **European Journal of Agronomy**, 24, 268-275.
35. MILLARD P., R. WENDLER, G. GRASSI, G.AELLE GRELET and **M. TAGLIAVINI**. 2006 Translocation of nitrogen in the xylem of field-grown cherry and poplar trees during remobilization. **Tree Physiology**, 26, 527-536.
36. CESCO S., A. D. ROMBOLÀ, **M. TAGLIAVINI**, Z. VARANINI and R.PINTON. 2006. Phytosiderophores released by graminaceous species promote 59 Fe uptake in citrus. **Plant and Soil**, 287(1-2), 223-233.
37. TONON G., C. CIAVATTA, D. SOLIMANDO, P. GIOACCHINI and **M. TAGLIAVINI**. 2007 The fate of the ^{15}N deriving from soil decomposition of abscised leaves and pruning wood from apple (*Malus domestica*) trees. **Soil Sci. Plant Nutr.**, 53, 79-86.
38. **TAGLIAVINI M.**, G TONON, F. SCANDELLARI, A.QUINONES, P GIOACCHINI , S. PALMIERI , G. MENARBIN and A MASIA. 2007. Nutrient release during the decomposition of abscised leaves and mowed grasses in an apple (*Malus domestica*) orchard. **Agriculture, Ecosystems & Environment**, 118, 191-200.
39. FRANCESCA SCANDELLARI, G. TONON, M. THALHEIMER, C. CECCON, P. GIOACCHINI, J. D. ABER and **M. TAGLIAVINI**. 2007 Assessing nitrogen fluxes from roots to soil associated to rhizodeposition by apple (*Malus domestica*) trees, **Trees, Structure and Function**, 21, 499-505.
40. VENTURA M., F. SCANDELLARI, VENTURA F. , GUZZON B., ROSSI PISA P. and **M. TAGLIAVINI**. 2008. Nitrogen balance and losses through drainage waters in an agricultural watershed of the Po Valley (Italy) **Europ. J. Agronomy**, 29, 108-115.
41. VENTURA M., F. SCANDELLARI , E. BONORA and **M. TAGLIAVINI**. 2010. Nutrient release during decomposition of leaf litter in a peach (*Prunus persica* L.) orchard. **Nutr. Cycl. Agroecosystems**, 87 (1) , 115-123.
42. SCANDELLARI F, VENTURA M; GIOACCHINI P., VITTORI ANTISARI L. and **M. TAGLIAVINI**. 2010. Seasonal pattern of net nitrogen rhizodeposition from peach (*Prunus persica* (L.) Batsch) trees in soils with different textures. **Agriculture, Ecosystems & Environment**, 136, 162-168.
43. CECCON C., P. PANZACCHI, F. SCANDELLARI, L. PRANDI, M. VENTURA, B. RUSSO, P. MILLARD and **M. TAGLIAVINI**. 2011. Spatial and temporal effects of soil temperature and moisture and the relation to fine root density on root and soil respiration in a mature apple orchard. **Plant and Soil**, 432,195-206.
44. BRUNETTO G., M. VENTURA , F. SCANDELLARI, C.A. CERETTA, J. KAMINSKI, G. WELLINGTON DE MELO and **M. TAGLIAVINI**. 2011 Nutrient release during the decomposition of mowed perennial ryegrass and white clover and its contribution to nitrogen nutrition of grapevine. **Nutr. Cycl. Agroecosystems**, 90, 299-308.
45. PIERI L., F. VENTURA, M. VENTURA, **M. TAGLIAVINI**, M. PONTI, R.PISTOCCHI, S. ALBERTAZZI, M. VIGNUDELLI and P. ROSSI PISA. 2011. Chemical and biological indicators of water quality in three agricultural watersheds of the Po valley, Italy. **Italian J. Agronomy**, 6, 29-38.
46. PANZACCHI P. G.TONON, C. CECCON, F. SCANDELLARI, M. VENTURA, M. and **M. TAGLIAVINI**. 2012 Belowground carbon allocation and net primary and ecosystem

productivities in apple trees (*Malus domestica*) as affected by soil water availability. **Plant and Soil**, 360, 229-241.

47. ROCCUZZO G., D. ZANOTELLI, M. ALLEGRA, A. GIUFFRIDA, B. TORRISI, A. LEONARDI, A. QUIÑONES, F. INTRIGLIOLO and **M. TAGLIAVINI**. 2012. Assessing nutrient uptake by field-grown orange trees. **Europ. J. Agronomy**, 41, 73-80.
48. CURETTI M., E. SANCHEZ, **M. TAGLIAVINI** and P. GIOACCHINI. 2013. Foliar-applied urea at bloom improves early fruit growth and nitrogen status of spur leaves in pear trees, cv. Williams Bon Chretien. **Scientia Horticulturae**, 150, 16-21.
49. D. ZANOTELLI, L. MONTAGNANI, G. MANCA and **M. TAGLIAVINI**. 2013. Net primary productivity, allocation pattern and carbon use efficiency in an apple orchard assessed by integrating eddy-covariance, biometric and continuous soil chamber measurements. **Biogeosciences**, 10, 3089-3108.
50. D. ZANOTELLI, M. RECHENMACHER, W. GUERRA, A. CASSAR and **M. TAGLIAVINI**. 2014 Seasonal uptake rate dynamics and partitioning of mineral nutrients by bourse shoots of field-grown apple trees. **Europ. J. Hort. Sciences**. 4 (79), 203-211
51. D. ZANOTELLI, L. MONTAGNANI, G. MANCA, F. SCANDELLARI and **M. TAGLIAVINI**. 2015 Net ecosystem carbon balance of an apple orchard. **Europ. J. Agronomy**, 63, 97-104.
52. E. TOME', **M. TAGLIAVINI** and F. SCANDELLARI. 2015. Recently fixed carbon allocation in strawberry plants and concurrent inorganic nitrogen uptake through arbuscular mycorrhizal fungi. **Journal of Plant Physiology**. 179, 83-89.
53. F. SCANDELLARI, D. ZANOTELLI, C. CECCON, M. BOLOGNESI, L. MONTAGNANI, P. CASSOL, G. W. MELO, and **M. TAGLIAVINI**. 2015. Enhancing prediction accuracy of soil respiration in an apple orchard by integrating photosynthetic activity into a temperature-related model. **European Journal of Soil Biology**, 70, 77-87.
54. MIMMO T., CAMIN F., BONTEMPO L., CAPICI C., **TAGLIAVINI M.**, CESCO S., SCAMPICCHIO M. 2015. Traceability of different Apple Varieties by Multivariate Analysis of Isotope Ratio Mass Spectrometry Data . **Rapid Communications in Mass Spectrometry**. 29(21), 1984-1990.
55. CIOTTA M.N., C. A. CERETTA, **M. TAGLIAVINI**, D. ZANOTELLI, D. MOSER, G. NAVA, D. PORRO, G. BRUNETTO. 2015. Leaf water potential, nutritional status and must composition in grapes 'Pinot Nero' with and without irrigation. **Ciência Rural**. <http://dx.doi.org/10.1590/0103-8478cr20141225>
56. VAROLO E, D. ZANOTELLI, **M. TAGLIAVINI**, S. ZERBE & L. MONTAGNANI. 2015. Net ecosystem production in a Little Ice Age moraine: the role of plant functional diversity. **Biogeosciences Discuss.**, 12, 10271-10310, 2015 www.biogeosciences-discuss.net/12/10271/2015/doi:10.5194/bgd-12-10271-2015
57. TOMÈ E., M. VENTURA; S. FOLEGOT, D. ZANOTELLI; L. MONTAGNANI, T. MIMMO, G. TONON, **M. TAGLIAVINI**, F. SCANDELLARI. 2016. Mycorrhizal contribution to soil respiration in an apple orchard. **Applied Soil Ecology**. 101, 165-173.
58. REYES F, T. DEJONG, P. FRANCESCHI, **M. TAGLIAVINI**, D. GIANNELLE. 2016. Maximum growth potential and periods of resource limitation in apple tree: **Frontiers in Plant Science**. 7-233. doi: 10.3389/fpls.2016.00233.

59. CECCON C., **M. TAGLIAVINI**, A.O. SCHMITT, D.M. EISSENSTAT. 2016. Untangling the effects of root age and tissue nitrogen on root respiration in *Populus tremuloides* at different nitrogen supply. **Tree Physiology**, accepted.
60. SCANDELLARI F., G. CARUSO, G. LIGUORI, F. MEGGIO, M. PALESE ASSUNTA, D. ZANOTELLI, G. CELANO, R. GUCCI, P. INGLESE, A. PITACCO and **M. TAGLIAVINI**. 2016. A survey of carbon sequestration potential of orchards and vineyards in Italy. **Europ. J. Hort. Sci.** 81(2), 106-114.
61. VAROLO E., D. ZANOTELLI, **M. TAGLIAVINI**, S. ZERBE, MONTAGNANI L., 2016 Colonization of a deglaciated moraine: contrasting patterns of carbon uptake and release from C3 and CAM plants. PLOS one doi:10.1371/journal.pone.0168741s
62. TURRINI A., M. AGNOLUCCI, M. PALLA, E. TOMÉ, **M. TAGLIAVINI**, F. SCANDELLARI and M. GIOVANNETTI. 2017. Species diversity and community composition of native arbuscular mycorrhizal fungi in apple roots are affected by site and orchard management. *Applied Soil Ecology*. vol. 116, ISSN: 0929-1393, doi: 10.1016/j.apsoil.2017.03.016
63. C. DADEA, A. RUSSO, **M. TAGLIAVINI**, T. MIMMO, and S. ZERBE. 2017. Tree species as tools for biomonitoring and phytoremediation in urban environments: a review with special regard to heavy metals. *Arboriculture & Urban Forestry*. 43(4):155–167.
64. ROCCUZZO G., SCANDELLARI F., ALLEGRA M., TORRISI B., STAGNO F. , MIMMO T., ZANOTELLI D., GIOACCHINI P., MILLARD P., **TAGLIAVINI M.** 2017 Seasonal dynamics of root uptake and spring remobilisation of nitrogen in field grown orange trees. *Scientia Horticulturae*. 226, 223-230.
65. MONTAGNANI L, D. ZANOTELLI, **M. TAGLIAVINI**, E. TOMELLERI. 2018. Time scale effects on the environmental control of carbon and water fluxes of an apple orchard. *Ecology and Evolution*. DOI 10.1002/ece3.3633 ECOLOGY AND EVOLUTION. 8 (1): 416-434
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