CURRICULUM VITAE PROF. GIORGIO BORREANI

Giorgio Borreani, Associate Professor in Agronomy and Crop Science (Area: 07 - Scienze Agrarie e Veterinarie; Macrosector: 07/B1; SSD: AGR/02), at the Dept. of Agricultural, Forest and Food Sciences (DISAFA) of the University of Turin (Italy), was graduated from the Faculty of Agriculture of the University of Turin in 1991 110/110 cum laude. In 1992 carried out a program on silage microbiology with dr. S.F Spoelstra and dr. F. Driehuis at the Research Institute for Livestock Feeding and Nutrition (IVVO-DLO) of Lelystad (Netherlands). In 1995 he obtained the PhD in Agronomy and Forage Crops at the University of Florence (Italy). In 1997-98 he obtained a Post-doctoral grant, and in 1998-2001 had a temporary position as researcher at the University of Turin. In 2001-2006 he had a permanent position as researcher in Agronomy and Crop Science at University of Turin (Italy). Since 2006 he is holding a permanent position as Associate Professor in Agronomy and Crop Science at the Agricultural Faculty of the University of Turin (Italy). Most of his research activity was carried out at the Dipartimento di Agricultural, Forestry and Food Sciences (previously Dip. Agronomia, Selvicoltura e Gestione del Territorio) of the University of Turin. He is author or co-author of 280 publications (Orcid http://orcid.org/0000-0002-7726-4173; Author ID: 35760137900; h-index:13; Total Citations: 484), 53 on international ISI journals with impact factor (Applied Environmental Microbiology, Food Chemistry, Agronomy Journal, Journal Dairy Science, Agricultural Systems, Agronomie, Grass and Forage Science, Animal Feed Science and Technology, Journal of Food Science and Agriculture, Field Crops Research, BioEnergy Research, Italian Journal of Animal Science), 5 on the "Italian Journal of Agronomy", 2 chapters of an International books, 76 on the proceedings of Scientific International Conferences, 23 on National Scientific Conferences, and over 110 popular/magazine articles/ extension bulletins. Superior ASABE Paper Award Winners in 2010 for the paper "Borreani G., Tabacco E., 2010. Use of new plastic stretch films with enhanced oxygen impermeability to wrap baled alfalfa silage. Transactions of the ASABE, 53, 635-641."

He is referee for the International Journals: Grass and Forage Science, Agronomy Journal, Animal Feed Science and Technology, Journal of Dairy Science, Journal of Animal Science, and Applied and Environmental Microbiology. Since 2006 he is member of the editorial advisory board of the Italian Journal of Agronomy. The main studied topics are Forage Crops and forage conservation with particular emphasis on silage quality and evaluation of new machineries and technological innovations and new plastic films in silage making. He is in charge of several research projects funded by the European Union, Italian Ministry of Agricultural and Forest Policies (MIPAF), Italian Ministry of University and of the Research (MiUR) and by Regione Piemonte and Regione Lombardia. He has several contact with European and Italian Universities and Research Centres

involved in research and PhD student exchanges. Prof. Borreani and his group actively collaborating since 1994 on projects supported by various private company operating in the field of Agriculture, which allowed the study and resolution of technical problems in forage conservation in the dairy farms. Current Research: Improving utilization of the crude protein in forages and silages; Silage quality and losses as affected by silo management and technology; Influence of stage of growth, environmental and agronomic factors on nutritive value of grass and legume forages; Mycotoxin prevention and control from dairy farm to cheese making; Influence of microbial and chemical forage quality on milk and PDO cheeses in mountain areas. He had an employment relationship with **ISPA-CNR** of Turin (Italy) http://www.cnr.it/ontology/cnr/individuo/unitaDiPersonaleEsterno/ID2707. He is member of the committee of PhD School on "Sciences and Innovative technologies" at the University of Turin. Teaching focus on Forage Crop Production, Forage Conservation, Agronomy, and Crop Science. Regular professor on: "Production and conservation of forage crops" and "Soil, Plant and Climate models II" at the DISAFA of the University of Turin. Professor of the Scuola di Studi Superiori dell'Università degli Studi di Torino (SSST) "Ferdinando Rossi". Contract professor in "Forage Crops" at the Faculty of Agriculture of the Catholic University of Sacro Cuore of Piacenza (Italy) in 2003. Since 2009 he is a coordinator of an international exchange program (Sustainable Farming Systems) of students with VetAgroSup of Clermont Ferrand, France. Since 2011 is professor and deputy director of the Interfaculty Master Degree in: " Quality, Food Safety and Sustainability of Milk Production Chain.".

Prof. Giorgio Borreani

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List of the main scientific ISI peer reviewed papers in the last five years

- 1. Menardo S., Balsari P., Tabacco E., Borreani, G., 2015. Effect of conservation time and addition of lactic acid bacteria on the biogas and methane production of corn stalk silage. *BioEnergy Research*, 8, 1810-1823.
- 2. Borreani G., Tabacco E., 2015. Bio-based biodegradable film to replace the standard polyethylene cover for silage conservation. *Journal of Dairy Science*, 98, 386-394.
- Paracchini M.L., Bulgheroni C., Borreani G., Tabacco E., Banterle A., Bertoni D., Rossi G., Parolo G., Origgi R., De Paola C. 2015. A diagnostic system to assess sustainability at a farm level: the SOSTARE model. *Agricultural Systems*, 133, 35-53.
- Coppa M., Chassaing C., Ferlay A., Agabriel C., Laurent C., Borreani G., Barcarolo R., Baars T., Kusche D., M. Harstad O., Verbič J., Golecký J., Delavaud C., Chilliard Y., Martin B., 2015. Potential of milk fatty acid composition to predict diet composition and authenticate feeding systems and altitude origin of European bulk milk. *Journal of Dairy Science*, 98, 1539–1551.

- Coppa M., Farruggia A., Ravaglia P., Pomiès D., Borreani G., Le Morvan A., Ferlay A., 2015. Frequent moving of grazing dairy cows to new paddocks increases the variability of milk fatty acid composition. *Animal*, 9, 604-613.
- Spadaro D., Bustos-Lopez M. del Pilar, Gullino M.L., Piano S., Tabacco E., Borreani G., 2015. Evolution of fungal populations in corn silage conserved under polyethylene or biodegradable films. *Journal of Applied Microbiology*, 119, 510-520.
- Comino L., Righi F., Coppa M., Quarantelli A., Tabacco E., Borreani G., 2015. Relationships among early lactation milk fat depression, cattle productivity and fatty acid composition on intensive dairy farms in Northern Italy. *Italian Journal of Animal Science*, 14, 350-361.
- 8. Coppa M., Ferlay A., Borreani G., Revello-Chion A., Tabacco E., Tornambé G., Pradel P., Martin B., 2015. Effect of phenological stage and proportion of fresh herbage in cow diets on milk fatty acid composition. *Animal Feed Science and Technology*, 208, 66-78.
- 9. Borreani G., Piano S., Tabacco E., 2014. Aerobic stability of maize silage stored under plastic films with different oxygen permeability. *Journal of the Science of Food and Agriculture*, 94, 2684-2690.
- Comino L., Tabacco E., Righi F., Revello-Chion A., Quarantelli A. Borreani G., 2014. Effects of an inoculant containing a *Lactobacillus buchneri* that produces ferulate-esterase on fermentation products, aerobic stability, and fibre digestibility of maize silage harvested at different stages of maturity. *Animal Feed Science and Technology*, 198, 94–106.
- 11. Borreani G., Tabacco E., 2014. Improving corn silage quality in the top layer of farm bunker silos through the use of a next-generation barrier film with high impermeability to oxygen. Journal of Dairy Science, 97, 2415-2426.
- 12. Gaudino S., Goia I., Borreani G., Tabacco E., Sacco D., 2014. Cropping system intensification grading using an agro-environmental indicator set in northern Italy. *Ecological Indicators*, 40, 76–89.
- Coppa M., Revello-Chion A., Giaccone D., Ferlay A., Tabacco E., Borreani G., 2014. Comparison of near and medium infrared spectroscopy to predict fatty acid composition on fresh and thawed milk. *Food Chemistry*, 150, 49-57.
- 14. Cavallarin L., Antoniazzi S., Giaccone D., Tabacco E., Borreani G., 2014. Transfer of aflatoxin M₁ from milk to ripened cheese in three Italian traditional production methods. *Food Control*, 38, 174-177.
- Borreani G., Coppa M., Revello-Chion A., Comino L., Giaccone D., Ferlay A., Tabacco E., 2013. Effect of different feeding strategies in intensive dairy farming systems on milk fatty acid profiles, and implications on feeding costs in Italy. *Journal of Dairy Science*, 96, 6840-6855.
- 16. Tabacco E., Bisaglia C., Revello-Chion A., Borreani G., 2013. Assessing the effect of securing bales with either polyethylene film or netting on the fermentation profiles, fungal load, and plastic consumption in baled silage of grass-legume mixtures. *Applied Engineering in Agriculture*, 29, 795-804.
- Coppa M., Ferlay A., Chassaing C., Agabriel C., Glasser F., Chilliard Y., Borreani G., Barcarolo R., Baars T., Harstad O.M., Verbič J., Golecký J., Martin B., 2013. Prediction of bulk milk fatty acid composition based on farming practices collected through on-farm surveys. *Journal of Dairy Science*, 96, 4197–4211.
- Borreani G., Dolci P., Tabacco E., Cocolin L., 2013. Aerobic deterioration stimulates outgrowth of spore-forming Paenibacillus in corn silage stored under oxygen-barrier or polyethylene films. *Journal of Dairy Science*, 96, 5206–5216.
- 19. Opsi F., Fortina R., Borreani G., Tabacco E., López S., 2013. Influence of cultivar, sowing date and maturity at harvest on yield, digestibility, rumen fermentation kinetics and estimated feeding value of maize silage. *The Journal of Agricultural Science*, 151, 740-753.
- 20. Dolci P., Tabacco E., Cocolin L., Borreani G., 2011. Microbial dynamics during aerobic exposure of corn silage stored under oxygen barrier or polyethylene films. *Applied and Environmental Microbiology*, 79, 7499-7507.
- Tabacco E., Piano S., Revello Chion A., Borreani G., 2011. Effect of *Lactobacillus buchneri* LN4637 and *Lactobacillus buchneri* LN40177 on the aerobic stability, fermentation products, and microbial populations of corn silage under farm conditions. *Journal of Dairy Science*, 94, 5589-5598.
- 22. Revello Chion, A., Tabacco E., Peiretti P.G., Borreani G., 2011. Variation in the fatty acid composition of Alpine grassland during spring and summer. *Agronomy Journal*, 103, 1072-1080.
- Tabacco E., Righi F., Quarantelli A., Borreani G., 2011. Dry matter and nutritional losses during aerobic deterioration of corn and sorghum silages as influenced by different LAB inocula. *Journal of Dairy Science*, 94, 1409-1419.
- 24. Cavallarin L., Tabacco E., Antoniazzi S., Borreani G., 2011. Aflatoxin accumulation in whole crop maize silage as a result of aerobic exposure. *Journal of the Science of Food and Agriculture*, 91, 2419–2425.
- 25. Bisaglia C., Tabacco E., Borreani G., 2011. The use of plastic film instead of netting when tying round. bales for wrapped baled silage. *Biosystems Engineering*, 108,1-8.

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