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Nationality: Italian
Date of birth: 01/06/1991
Place of birth: San Donà di Piave, Italy

Education:

- Ph.D student in Animal and Food Science (2022-)
- Master student in Viticulture, Enology and Wine Markets (2015-2021)
- Bachelor student in Viticulture and Enology (2011-2015)

Research areas:

- Soil Amendment and Fertility
- Sustainable Viticulture
- Wine Making Technology
- Volatile Profile of Wines

Brief description of Ph.D project:

In recent years, the impoverishment of the soils caused by intensive agriculture has resulted in a decrease in both the productivity and quality of crops. Conventional viticulture is an intensive practice that can impact soil quality and grapevines productivity. Previous long-term field trials have demonstrated that biochar can increase soil chemical and physical fertility thus increasing vine

growth and yield. Biochar is a carbon-enriched biomaterial generated in pyrolysis, a biomass combustion process in absence of oxygen. Besides the benefits of reducing the C footprint, biochar can ameliorate soil fertility, leading to increased water retention and nutrient availability, increased microbial activity, and neutralization of soil pH value. This project will be conducted at a real farm scale at the Poggiobello Farm (Manzano, Udine) in collaboration with Le Tenute del Leone Alato – Genagricola. Commercial biochar will be incorporated in the vineyard soils and effects on main soil properties, grapevine physiology, and chemical and sensorial profile of grape musts will be evaluated for two agronomic years. Additionally, based of the available resources, chemical and sensorial profile of grape musts and wines produced by the experimental plots will be also analyzed.

Supervisors:

Professor Paolo Carletti

Professor Giancarlo Renella