



SOME ASPECTS REGARDING INPUTS USED IN ORGANIC VITICULTURE



Assoc. Prof. Dr. Roxana Maria Madjar

<https://orcid.org/0000-0002-9357-0664>

University of Agronomic Sciences and Veterinary
Medicine, Faculty of Agriculture, Soil Sciences
Department, Bucharest, Romania

Lecturer Dr. Gina VasileScaeteanu

<https://orcid.org/0000-0001-5021-4750>

University of Agronomic Sciences and Veterinary
Medicine, Faculty of Agriculture, Soil Sciences
Department, Bucharest, Romania

ABSTRACT

Organic viticulture is supposed to obey several principles: elimination of external interventions and viticultural practices that require chemical inputs, maintaining soil fertility by seeking organic products, pest control activities made by prophylaxis and use of accepted inputs and avoidance of all techniques that pose negative effects on the environment (Resolution OIV-ECO 460-2012).

Organic viticulture in the European Union is based on the Council Regulation (EC) No 834/2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/291. The accepted inputs used in organic viticulture are represented by animal manures and by-products (fish meal, blood, bone meal), farmyard compost, composted/fermented household waste or mixed vegetable matter, minerals from natural sources (gypsum, lime, clays, rock phosphate, crude potassium salts, potassium sulphate containing magnesium salt), biological preparations, plant by-products (wood chips, composted bark, wood ash, straw), seaweed and algal preparations. Also, to control downy and powdery mildews are used copper and sulphur based inputs.

Lately, wine-growers and consumers showed interest in organic and biodynamic wine production. As organic farming forbids use of chemical fertilizers and synthetic pesticides, the biodynamic practices suppose the use of different for-

mulations from fermented plant materials and manures in order to promote soil and vine health.

According to different studies, wines resulted from organic viticulture appear to present superior attributes: are healthier and contain lower levels of pesticides. Organic wines have been found to contain higher concentrations of phenolic compounds which are associated with perception that organic wine consumption is healthier but also were found undesired biogenic amines associated with headaches, allergenic disorders [1]. Moreover, Mulero et al. (2010) [2] found that phenolic compounds and antioxidant activity were slightly higher in organic wine in comparison with wine conventionally produced.

Some studies that present the discrimination between wines from organic and conventional grapes by profiling the aromatic compounds report that wines from organic grapes present similar aromatic profile but with lower intensities [3].

Acknowledgements

This work is consistent with research directions and guidelines specified by Ministry of Agriculture and Rural Development in the project ADER 1.4.4. "*Identification, evaluation, testing, development and validation of analysis methods of nutrients and contaminants from inputs usable in organic agriculture.*"

Keywords: input, organic, viticulture, wine.